BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 060225-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: FLORIDA POWER & LIGHT COMPANY'S PETITION TO DETERMINE NEED FOR WEST COUNTY ENERGY CENTER UNITS 1 AND 2 ELECTRICAL POWER PLANT

DIRECT TESTIMONY & EXHIBIT OF:

RENE SILVA

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March 13, 2006

Q. Please state your name and business address.

A. My name is Rene Silva, and my business address is 9250 West Flagler Street, Miami, Florida 33174.

Q. By whom are you employed and what position do you hold?

A. I am employed by Florida Power & Light Company (FPL) as Director, Resource Assessment and Planning (RAP).

Q. Please describe your duties and responsibilities in that position.

A. I manage the RAP group, the department that is responsible for developing FPL's integrated resource plan (IRP) and other related activities, such as developing FPL's demand and energy forecasts, developing system production cost projections for various generation capacity alternatives, analyzing demand side management (DSM) programs, and administering wholesale power purchase agreements (PPAs).

Q. Please describe your education and professional experience.

A. I graduated from the University of Michigan with a Bachelor of Science Degree in Engineering Science in 1974. From 1974 until 1978, I was employed by the Nuclear Energy Division of the General Electric Company in the area of nuclear fuel design. While employed by General Electric, I earned a Masters Degree in Mechanical Engineering from San Jose State University in 1978.

I joined the Fuel Resources Department of FPL in 1978, as a fuel engineer, responsible for purchasing nuclear fuel. While employed by FPL, I earned a Masters Degree in Business Administration from the University of Miami in 1986. In 1987 I became Manager of Fossil Fuel, responsible for FPL's purchases of fuel oil, natural gas and coal. In 1990 I assumed the position of Director, Fuel Resources Department, and in 1991 became Manager of Fuel Services, responsible for coordinating the development and implementation of FPL's fossil fuel procurement strategy. In 1998 I was named Manager of Business Services in the Power Generation Division (PGD). In that capacity I managed the group that is responsible for coordinating (a) the development of PGD's long-term plan for the effective and efficient construction, operation and maintenance of FPL's fossil generating plants, (b) the preparation of PGD annual budgets and tracking of expenditures, and (c) the preparation of reports related to fossil generating plant performance. On May 1, 2002, I was appointed to my current position.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to obtain from the Florida Public Service Commission (Commission) an affirmative Determination of Need for the addition of FPL's proposed West County Energy Center Units 1 and 2 (West County 1 and 2), based on a finding by the Commission that the proposed West County 1 and 2 are the best, most cost-effective alternatives to meet the electricity needs of FPL's customers in 2009 through 2011, and to obtain Commission authorization for FPL to build the two generating units, and place them in service in June 2009 and June 2010, respectively.

My testimony consists of 7 sections. Section 1 outlines FPL's request for an affirmative Determination of Need. Section 2 introduces FPL's witnesses and FPL's Need Study and Appendices. Section 3 outlines FPL's steps that led to the selection of West County 1 and 2 as the best, most cost-effective self-build alternative to meet FPL's need for 2009 through 2011. Section 4 discusses alternatives FPL has considered as part of its resource planning process, and the selection of two advanced technology coal generating units for addition in 2012 and 2013. Section 5 briefly presents the results of the evaluation of proposals received in response to Part 1 of the RFP, compared to FPL's West County 1 and 2, which culminated in FPL's selection of West County 1 and 2 as the best, most cost-effective resources to meet our customers' needs in 2009 through 2011. Section 6 outlines key points related to FPL's updated load forecast. Section 7 presents the significant adverse consequences FPL

and its customers face if the determination of need for West County 1 and 2 is not granted.

Q. Are you sponsoring an exhibit in this case?

A. Yes. I am sponsoring an exhibit consisting of 5 documents attached to my direct testimony. Those 5 documents are:

- Document RS-1, Comparison of Projected Gas-Coal Price Differentials
- Document RS-2, FPL's plan for capacity additions for 2009 through 2013;
- Document RS-3, FPL's projected energy mix in 2014;
- Document RS-4, a list of proposals received by FPL in response to Part 1 of its RFP, and the capacity, technology and term of each proposal; and
- Document RS-5, economic ranking of portfolios reflecting each of the proposals received, compared to FPL's Next Planned Generating Unit (NPGU).

Q. Are you sponsoring any sections in the Need Study document?

A. Yes. I am sponsoring Sections I and IX. I also co-sponsor Section VIII.

Section 1. FPL's Request for an Affirmative Determination of Need.

Q. Please explain the relief FPL seeks in this proceeding.

A. FPL seeks from the Florida Public Service Commission (Commission) an affirmative determination of need for West County 1 and 2, each a combined

cycle unit with a summer capacity rating of 1,219 MW and proposed commercial operation dates of June 1, 2009 and June 1, 2010, respectively. The units' primary fuel will be natural gas, but they will have the capability to use light oil as backup fuel.

FPL's request for an affirmative determination of need is the culmination of almost three years of investigation and extensive analyses designed to identify the best, most cost-effective alternatives available to meet FPL's forecasted need for capacity in 2009 through 2011. That work included not only FPL's assessment of its customers' capacity needs and analysis of various self-build options to select the most cost-effective self-build option, but also the preparation and administration of a Request for Proposals (RFP) soliciting alternatives to that self-build option, and the evaluation of proposals submitted in response to the RFP.

Q. Why are West County 1 and 2 needed?

A. West County 1 and 2 are needed by FPL to maintain system reliability for its customers. Specifically, these additions are needed to maintain an adequate level of generation reserve margin in 2009 through 2011.

West County 1 and 2 employ a very clean, highly efficient, advanced combined cycle technology. Because these highly efficient units will operate at very high capacity factors, they will improve the overall fuel efficiency of

FPL's system. As indicated in Mr. Scroggs' testimony, the addition of West County 1 and 2 will reduce FPL's system average heat rate by about 4 percent. Thus, in addition to the reliability benefits, West County 1 and 2 will result in substantial fuel savings to FPL's customers.

Further, West County 1 and 2 will help mitigate the effect of the growing imbalance between the Southeast Florida load and generation capacity in that region, which helps reduce transmission-related costs.

In summary, without the addition of West County 1 and 2 in 2009 and 2010, FPL's customers would be served by a far less reliable, less efficient and more costly system. West County 1 and 2 are needed to provide adequate electricity at a reasonable cost to FPL's customers.

Q. Is the addition of West County 1 and 2 the most cost-effective alternative to meet FPL's customers' needs for new resources in 2009 through 2011?

A. Yes. The addition of West County 1 and 2 in 2009 and 2010, respectively, is the best, most cost-effective option available to meet the needs of FPL's customers. West County 1 and 2 were selected as FPL's NPGU to meet FPL's needs in 2009 through 2011 because it was determined to be the best, most cost-effective alternative from among all the self-build options identified and evaluated by FPL. In addition, the combination of West County 1 and 2 subsequently was evaluated against three alternative portfolios which were

constructed from the proposals received in response to FPL's RFP, combined with either one or both West County Units.

None of the alternative portfolios was as cost-effective as the addition of West County 1 and 2. As Dr. Steven Sim explains in his testimony, the closest alternative portfolio that did not include both West County Units was more than $750 million, Cumulative Present Value of Revenue Requirements (CPVRR), more costly to FPL's customers than the addition of West County 1 and 2. Furthermore, that portfolio did not offer any non-economic advantages over West County 1 and 2. Therefore, FPL has established that the addition of West County 1 and 2 in 2009 and 2010, respectively, is the best, most cost-effective alternative to meet FPL customers' needs for additional resources in 2009 through 2011.

Q. What cost-effective DSM is available for 2009 through 2011, and is it adequate to avoid or significantly mitigate the need for West County 1 and 2?

A. FPL identified and the Commission approved, in FPL's current DSM Goals, 532 MW (summer MW at the meter) of reasonably achievable, cost-effective DSM available to FPL through 2011. This DSM amount was already reflected in FPL's calculation of its projected generation capacity needs in 2009 through 2011. As Dr. Sim discusses in his testimony, FPL has determined that

while there are additional DSM opportunities available in the future, they would not be sufficient to avoid or defer the addition of West County 1 and 2.

Section 2. FPL's Witnesses and Need Study Documents.

Q. How many witnesses are supporting FPL's petition through pre-filed testimony?

A. Eight witnesses are submitting direct testimony. Each witness has prefiled testimony, and most have pre-filed exhibits. In addition, all of FPL's witnesses sponsor or co-sponsor a portion of FPL's Need Study and Appendices.

Q. Please summarize the topics addressed in the testimony of the other witnesses who will appear on FPL's behalf in this proceeding.

A. Dr. Leonardo Green describes FPL's load forecasting process, discusses the methodologies and assumptions used in that process, and presents the resulting load forecast. Dr. Green's load forecast was used in FPL's integrated resource planning analysis to identify FPL's resource need in 2009 through 2011, and in the economic analysis of the various alternatives identified by FPL and proposed by others to meet that need. Dr. Green also describes FPL's updated load forecast.

Mr. Steven Scroggs outlines the integrated resource planning process that led to the identification of FPL's next planned generating units and describes the development and management of FPL's RFP, in accordance with the Commission's Bid Rule.

Dr. Steven Sim describes FPL's integrated resource planning process, identifies FPL's additional resource needs in 2009 through 2011, describes FPL's proposed self-build options to meet that resource need, discusses the proposals received in response to the RFP, explains in detail the process FPL followed to perform the economic evaluation of the proposals, alternative portfolios and FPL's Next Planned Generating Units (NPGU), and presents the results of the economic evaluation. Dr. Sim's testimony demonstrates that the addition of West County 1 and 2 in 2009 and 2010, respectively, results in the lowest cost to FPL's customers. Dr. Sim also presents the results of the non-economic evaluation. In addition, Dr. Sim's testimony discusses FPL's DSM goals and FPL's DSM programs and plan. He demonstrates that there is not sufficient DSM potential to avoid or defer the addition of the proposed generating units. Dr. Sim also discusses the effect of FPL's updated load forecast on FPL's capacity needs and on the results of the RFP evaluation. In addition, Dr. Sim's testimony presents the effects of delaying the addition of the West County 1 and 2.

Mr. Alan Taylor of Sedway Consulting describes his role as an independent evaluator of FPL's proposed West County 1 and 2 and of the generating capacity proposals received by FPL in response to its RFP, describes the process he followed and the tools he used to conduct his economic evaluation, presents the results of that evaluation, and explains his conclusion that the addition of West County 1 and 2 constitutes the most cost-effective alternative to meet FPL's resource need in 2009 through 2011.

Mr. David Hicks presents the engineering details of FPL's proposed West County 1 and 2, which involves the construction of two new state-of-the-art 3x1 combined cycle (CC) units. Included in Mr. Hicks' testimony are the cost and performance specifications of these units, which are reflected in FPL's RFP analysis. Mr. Hicks also presents information regarding FPL's efforts to add coal generation capacity to its system in 2012 and 2013.

Mr. Roger Clayton of Electric Power Resources describes the load flow studies and other transmission assessments and calculations performed to determine transmission integration costs and transmission loss estimates associated with the addition of West County 1 and 2, and with each of the alternative portfolios considered.

Mr. Gerard Yupp describes the transportation plan to deliver natural gas and light oil to West County 1 and 2 and testifies to the ready availability of

natural gas for that plant, as part of FPL's overall system. Mr. Yupp also supports the fuel price forecast used in FPL's economic analysis of West County 1 and 2 and the alternative portfolios.

Q. What is FPL's Need Study and supporting appendices?

A. The Need Study is a comprehensive overview of FPL's planning process and the RFP process used to identify the addition of West County 1 and 2 as the best, most cost-effective alternative to meet FPL's need in 2009 through 2011. The document consists of nine sections:

Section I	Executive Summary
Section II	Introduction
Section III	Description of the Proposed Power Plant
Section IV	FPL's Need for the Proposed Power Plant
Section V	Factors Affecting Selection of the Best Alternative
Section VI	Generating Alternatives Evaluated
Section VII	Non-Generating Alternatives
Section VIII	Adverse Consequences if the Proposed Capacity Additions Are Delayed or Denied
Section IX	Conclusion

Various portions of the Need Study document and appendices are sponsored or co-sponsored by FPL's witnesses, as explained in their testimony.

Section 3. Selection of West County 1 and 2 as Next Planned Generating Units

Q. Please outline how FPL determined its generation capacity needs for 2009 through 2011, as part of its integrated resource planning process.

A. Each year FPL reviews and, if necessary, updates its peak electricity demand forecast. Using the peak demand forecast FPL performs a generation reliability assessment using the two reliability criteria previously approved by the Commission. One criterion consists of maintaining a 20 percent reserve margin; the other criterion consists of demonstrating that the Loss of Load Probability (LOLP) in FPL's system will remain lower than 0.1 days per year during the planning period. Dr. Green explains FPL's peak demand forecasting process. Dr. Sim discusses the reliability criteria.

Q. What was the result of FPL's generation reliability assessment in 2005?

A. FPL's reliability assessment completed in 2005 determined that, after considering all cost-effective Demand Side Management (DSM) contributions, FPL needs to add 950 MW of capacity in 2009, an additional 838 MW in 2010 and another 583 MW in 2011, in order to meet its 20 percent reserve margin criterion during the summer of each of those years. Thus, a total of 2,371 MW is required for the three-year period. FPL also determined that adding the new generating capacity required to meet the 20% reserve margin criterion each year as specified above would enhance and further

ensure FPL's ability to meet the 0.1 days per year LOLP criterion during that period.

Q. When did FPL first consider adding generation capacity at West County 1 and 2?

A. Beginning in early 2003 FPL's analyses considered the addition of generating capacity at the West County site (then referred to as the Corbett site).

Q. How did FPL select the proposed design configuration of West County and 2 as FPL's Next Planned Generating Unit to meet FPL's need in 2009 through 2011?

A. FPL performed extensive analyses to optimize the capacity and efficiency of the units that would be sited at West County Energy Center to enable FPL to obtain the most cost-effective design configuration and prioritize contract terms related to the purchase of equipment and the construction of the units. Dr. Sim's testimony discusses these evaluations and demonstrates that the addition of West County 1 and 2 is the best, most cost-effective self build alternative to meet FPL's need in 2009 through 2011.

This optimization effort regarding the proposed West County 1 and 2 resulted in a plant configuration that would make these units, if selected following the RFP process, the most fuel-efficient, economic and reliable addition to FPL's

generation portfolio. Mr. Hicks' testimony describes the design configuration that was determined to be optimal.

In addition, FPL evaluated the addition of West County 1 and 2 in 2009 and 2010 in combination with the addition of two proposed advanced coal units in 2012 and 2013 to determine the strategic value to our customers of this combination, compared to an "all-gas" capacity addition plan through 2013. As discussed below, this evaluation concluded that the fuel-diverse combination of West County 1 and 2 with two advanced coal units would provide enhanced system reliability and fuel diversity, as well as improve the overall fuel efficiency of FPL's system.

Section 4. Alternatives FPL Has Considered in Its Integrated Resource Planning Process and Selection of Coal Additions for 2012 and 2013

Q. Has FPL considered generation types other than gas-fueled generation as alternatives in its resource planning process?

A. Yes. FPL has regularly included coal generation and coal-priced generation among the technology alternatives considered in its resource planning process.

Q. Has FPL proposed coal generation or coal-priced generation additions?

A. Yes. In 1992 FPL sought a Need Determination to purchase capacity and energy from two 416 MW coal-fueled units to be built and operated by Cypress Energy Partners, that would have been placed in-service beginning in 1997. However, a Need Determination was not granted and the plant was not built.

In 1994 FPL proposed to convert 1,600 MW of fuel oil generation at its Manatee plant to use Orimulsion, a bitumen-based fuel that would be delivered to the plant at the price of coal. The Commission concurred with FPL's proposal to implement this fuel conversion by 1998 and approved cost-recovery incentives to do the conversion, but the Florida Siting Board twice denied FPL's request for approval.

Q. Why was a Determination of Need not granted for the Cypress Energy units?

A. A Determination of Need was not granted because of uncertainty regarding whether the magnitude of fuel savings that the coal plant would generate compared to fuel costs at a gas-fueled plant would be sufficient to offset the higher capital cost of the coal plant.

FPL based its selection of the coal plant on the results of an economic analysis that used FPL's fuel price forecast which projected a growing differential

between coal and natural gas prices in the future, and sufficient fuel savings to offset the higher capital cost of the coal plant. FPL also performed an economic analysis using the assumption that the actual gas-coal price differential at the time of the analysis would remain unchanged in the future. The results of this fixed gas-coal price differential analysis indicated that fuel savings would not offset the higher capital cost of the coal plant. The Commission utilized the results of the latter analysis in reaching its decision.

Q. Did FPL consider coal generation as an alternative in 1998 through 2002?

A. Yes. FPL considered coal generation in its planning process in each of those years. The results of FPL's analyses performed in those years using FPL's fuel price forecasts did not definitively indicate a preference for coal generation. Even though the forecasts projected that the price differential between natural gas and coal would grow, the projected price differential was not sufficiently large to enable FPL to determine that coal generation would be the cost-effective choice for its customers. In fact, natural gas repowering and new combined cycle additions had lower projected costs in the 1998 and 2000 analyses, while circulating fluidized bed generation fueled with petroleum coke, a fuel with even lower costs than coal, had somewhat lower costs in the 1999 and 2001 analyses. However, in all of these years the range of uncertainty regarding the cost of building and operating circulating fluidized bed generation using petroleum coke, and thus the cost risk of these additions, was much greater than that for combined cycle units.

In addition, it should be noted that these inconclusive results all were based on fuel price forecasts that projected that the price differential between coal and natural gas would increase over time. But even in 2002 the actual price differential between coal and natural gas was only $2.35 per MMBtu. Applying the actual fuel price differential as had been previously applied in the Cypress Energy proceeding would not support the selection of coal generation over combined cycle gas generation.

Q. When FPL conducted in 2003 the evaluation that identified Turkey Point Unit 5 as the best alternative to meet FPL's 2007 capacity need, did FPL also consider a coal generation option?

A. Yes. Although it was known that because of the longer lead times required for development, engineering and construction of a coal generating unit such coal generation could not be placed in service in 2007, FPL's planning process considered coal generation as an alternative to meet subsequent needs. Because the actual price differential between coal and natural gas had increased to $4.40 per MMBtu in 2003, putting aside other significant considerations, the economic competitiveness of coal generation had improved significantly. However, the preliminary evaluation conducted using information generally available concerning the design, operating characteristics and cost of coal generation did not support a decision to commit to the higher capital cost required for coal generation.

FPL proceeded to update and confirm the information regarding both gas generation and coal generation on which it would complete its formal analysis (as it regularly does in its planning process). In earlier years this effort had not identified significant developments regarding coal generation. However, by 2004 it became evident that coal generation technology had evolved significantly in Japan and Europe, and FPL believed that applying plant design, performance, and cost attributes that reflected those recent advancements could make coal generation cost-effective. FPL then used this information to re-assess the advanced technology coal generation option.

One aspect of coal generation that has not changed is that there continues to be much uncertainty regarding the criteria that would be applied by environmental, regulatory and other governmental agencies at all levels in their review of a proposed coal generation addition. This uncertainty imposes some risk regarding the cost estimates upon which decisions would be made. As noted above, FPL's two most recent requests for authorization to install generation capacity that would use a fuel other than natural gas were rejected.

Q. What action did FPL then take to effectively evaluate the viability and cost-effectiveness of coal generation as a resource to meet some of FPL's future generation capacity needs?

A. FPL conducted a study, beginning in late 2003, to develop and verify up-to-date information regarding various state-of-the-art coal generation

technologies, fuel supply sources, fuel transportation alternatives, and environmental requirements. The study also examined public perceptions and preferences regarding coal generation. This information was used to quantify the benefits and costs of adding coal generating units to FPL's system, and identify the potential effect of uncertainties where definitive, factual information is not available. As part of this study FPL evaluated four different advanced technologies that utilize coal, and examined fifteen potential sites in Florida, Georgia, Alabama and the Bahamas on which to place coal generation.

The results of FPL's evaluation of these advanced coal-fueled technologies, some of which had not been sufficiently developed in earlier years, were submitted to the Commission in FPL's Report on Clean Coal Generation, dated March 10, 2005, and orally presented to the Commission in summary form on March 28, 2005.

Q. What were FPL's findings regarding the viability and cost-effectiveness of advanced coal-fueled generation to meet FPL's future needs?

A. As explained in detail in FPL's Report on Clean Coal Generation, FPL concluded that adding the new advanced coal generation technology as one of the components of FPL's generation capacity plan was technically feasible, and that such additions would enhance system reliability and reduce fuel price volatility.

Based on its study FPL concluded that state-of-the-art advanced supercritical pulverized coal technology combined with the best available emissions control technology would give customers the best combination of relatively low capital and operating costs, high efficiency, low fuel cost, high reliability, low technology risk and environmentally responsible performance.

As part of the study FPL also narrowed the number of potential sites to those that met the physical and geographic characteristics necessary to accommodate an advanced supercritical pulverized coal generating plant.

In addition, FPL's study evaluated key issues and areas of uncertainty that could have an adverse effect on the viability, cost and economic competitiveness of advanced coal generation. These include the need for economic access to port facilities to receive waterborne fuel deliveries, the need for economically competitive choices for rail delivery of fuel to the plant, and uncertainty regarding the actual capital cost of completing an advanced coal generation facility, the future cost (capital and O&M) of complying with currently unknown environmental requirements that may be imposed in the future, the future price differential between coal and natural gas, and the acceptability of conditions that may be imposed during the plant licensing process. Although these key issues and areas of uncertainty remain significant potential impediments to the construction of new coal-fired

generation, FPL continues to pursue the addition of 1,700 MW of advanced coal generation beginning in 2012-2013.

In the study FPL determined that as a result of the significantly greater efficiency of the advanced supercritical pulverized coal design selected by FPL the minimum cost differential between natural gas and coal delivered to FPL required to make coal generation cost-competitive was reduced from over $4.40 per MMBtu to about $3.20 per MMBtu, subject to the other significant areas of uncertainty described above, which could well raise the required fuel cost differential.

In addition, by late 2004 there was for the first time a consensus that future gas prices would remain sufficiently high that the gas-coal price differential would remain above the $3.20 threshold in the future. Document RS-1 shows a comparison of FPL's projections of the future gas-coal price differential developed at different points in time. These price differentials were derived from the fuel price forecasts FPL developed and used in its integrated resource planning process. As the graph in Document RS-1 shows, the forecasts developed in 1997, 2002 and 2003 resulted in projected gas-coal price differentials that were lower than $3 per MMBtu in 2009 and, on average, lower than $3.40 per MMBtu for 2009 through 2026. These projected price differentials were not sufficient to support a decision to pursue the standard

coal technology that was available in those years over the advanced combined cycle technology.

As the graph in Document RS-1 also shows, there is a very significant increase in the projected gas-coal price differentials derived from the forecast developed in late 2004. This was the forecast FPL used in the analysis that supported the findings submitted to the Commission in March, 2005. The 2004 projection of the gas-coal differential reflects a definite change in the general perception on the part of gas market experts of future gas and coal prices when compared to that of previous years. FPL's forecast developed in 2004, which was consistent with this new perception, resulted in a projected gas-coal price differential of approximately $3.70 per MMBtu in 2009 and, on average, greater than $4.70 per MMBtu for 2009 through 2026. The gas-coal price differential derived from the 2005 forecasts is even greater in all years than that developed in 2004. Both the very recent improvements in coal generation technology and the marked change in market expectations of future gas prices reflected in the gas-coal price differential projected in 2004 and 2005 were key drivers in the analysis which shows that advanced coal generation would be cost-effective, assuming no significant impediments or delays in the siting and permitting processes, when compared to advanced combined cycle units.

Q. Has FPL incorporated the findings of its study regarding coal-fueled generation into a concrete plan to add coal-fueled generation to its generation mix?

A. Yes. In its Ten Year Site Plan filed with the Commission on April 1, 2005 FPL reflected its plan to add advanced coal generation capacity in 2012 and 2013. FPL's 2006 Ten Year Site Plan will continue to reflect these advanced coal generation additions.

On September 9, 2005, FPL issued a two-part RFP which identified West County 1 and 2 as FPL's proposed generation capacity additions in 2009 and 2010, and two coal-fueled units as FPL's proposed additions in 2012 and 2013, respectively. Part 1 of the RFP solicited proposals that would be compared to West County 1 and 2. Part 2 of the RFP document provided information regarding FPL's proposed advanced coal units such as the projected in-service dates and the size of the advanced coal units to enable interested parties to begin doing the work necessary to enable them to submit proposals in 2006. FPL indicated that additional detailed information regarding FPL's proposed advanced coal-fueled additions, would be issued in 2006 as part of an RFP Supplement to solicit proposals that would compete with FPL's self-build advanced coal additions. Mr. Scroggs' testimony discusses the RFP.

Mr. Hicks' testimony describes ongoing activities regarding the addition of FPL self-build coal generation in 2012 and 2013.

Q. Does FPL intend to implement its plan to add coal generation in 2012 and 2013 and solicit proposals in 2006 that would compete with its proposed advanced coal generating units for 2012 and 2013?

A. Yes. FPL remains committed to implement its plan to add advanced coal generation in 2012 and 2013. Later this year FPL will solicit proposals that would provide alternatives to FPL's proposed advanced coal units for 2012 and 2013. Such proposals would be restricted to generation technologies that, like advanced coal generation, would enhance the fuel diversity of FPL's system.

In effect, as discussed at the end of Section 3 above, FPL's current generation capacity plan is not limited to the West County 1 and 2 for which FPL is now seeking a Determination of Need. The plan also includes FPL's two proposed advanced coal units in 2012 and 2013, or other more cost-effective fuel diversity-contributing alternatives that may be proposed by others in response to FPL's upcoming Part 2 RFP Supplement. Document RS-2 shows FPL's plan for capacity additions in 2009 through 2013. FPL's projected fuel mix in 2014 will depend to a significant extent on whether FPL will be authorized to add advanced coal generation in 2012 and 2013. As shown in Document RS-3, if West County 1 and 2 are approved and FPL's plan to add advanced coal

generation in 2012 and 2013 is achieved, in 2014 the contribution of coal generation would be more than 9 percent higher than it would be without the 2012 and 2013 coal additions.

FPL recognizes that its plans to add new advanced coal generating capacity are important to all its customers and to the communities that would host its proposed new units. Therefore, FPL will continue to maintain and promote an active dialogue with communities and all other stakeholders regarding its plans to add advanced coal generation in order to inform the public and learn about, and be in a better position to address, the communities' concerns, interests and priorities.

Section 5. Evaluation of Proposals Submitted in Response to FPL's RFP – Part 1

Q. The Commission's Bid Rule allows a potential participant to file objections to the RFP within 10 days of issuance. Were any objections filed?

A. No. None of the 31 entities that registered to receive the RFP filed any objections.

Q. How many proposals did FPL receive?

A. FPL originally received five proposals from three entities, but one proposal was subsequently withdrawn. The proposers were Progress Energy Florida, Progress Energy Ventures and Southern Company Generation. The proposals and their key characteristics are presented in tabular form in Document RS-4. It should be noted that there is no combination of proposals received in response to FPL's RFP that could replace West County 1 and 2, the first self-build addition proposed by FPL, and meet FPL's need in 2009. The total capacity contained in the proposals that would be available in 2009 is about 350 megawatts, far short of the necessary 950 megawatts. Therefore, all the combinations considered in the economic evaluations included West County 1. Consequently, the four proposals were combined with either West County 1 alone in 2009, or with both West County 1 and 2 in 2009 and 2010, respectively, resulting in three alternative portfolios of generation additions to meet FPL's needs in 2009 through 2011, and were then evaluated and compared to FPL's NPGU. These alternative portfolios differed regarding which capacity addition would be placed in service in 2010, as well as regarding whether incremental capacity (in addition to West County 1) would be added in 2009.

Q. What were the results of FPL's economic evaluation?

A. The results of the economic evaluation established that the addition of West County 1 and 2 is the most cost-effective alternative available to meet FPL

customers' needs in 2009 through 2011. The closest alternative portfolio that did not include both West County 1 and 2 had cumulative present value revenue (CPVRR) that were over $750 million, greater than those for West County 1 and 2. These results are summarized in Document RS-5. Dr. Sim discusses these results in greater detail.

Q. What were the results of the economic evaluation performed by an independent evaluator?

A. The independent evaluator's results confirmed that the addition of West County 1 and 2 is the most cost-effective alternative. Specifically, the results of the independent economic evaluation indicate that the closest alternative portfolio that did not include both West County 1 and 2 had costs that were also over $750 million, CPVRR, greater than those for West County 1 and 2. Mr. Taylor discusses these results in detail.

Q. Please explain the results of FPL's non-economic evaluation.

A. A non-economic review was conducted to identify and, if necessary, address the risk exposure presented by the proposals included in the various alternative portfolios, and to compare such risk exposure to that of FPL's NPGU. This step sought to identify major issues of concern related to environmental, technical/operational and project execution factors.

The conclusion of the non-economic evaluation was that FPL's proposed addition of West County 1 and 2 has a stable, acceptable risk profile related to all three of the risk factors listed above, and that its risk profile is at least as favorable as those of the alternative portfolios, or better. Dr. Sim's testimony discusses the non-economic evaluation in detail.

Section 6. Key Points Related to FPL's Updated Load Forecast

Q. Has FPL's load forecast been updated since FPL began evaluation of proposals submitted in response to FPL's RFP?

A. Yes. As Dr. Green explains in his testimony, FPL updated its load forecast in November, 2005 as part of its normal, ongoing planning process. The primary changes in the updated forecast are that it reflects the actual number of FPL customers in 2005, which was significantly greater than had been projected in FPL's prior load forecast, and utilizes the University of Florida's updated population forecast for future years. These adjustments result in higher forecasted loads in the future.

Q. How does the updated forecast affect FPL's need for future capacity additions?

A. As Dr. Sim explains in his testimony, application of the updated forecast in the planning process significantly increases FPL's capacity needs and accelerates the first year of need from 2009 to 2006.

Q. Has FPL taken any action to address the increase in its projected need for capacity beginning in 2006?

A. Yes. FPL has determined that additional economic DSM opportunities exist in 2006 through 2008. FPL will soon petition the Commission for approval to modify a number of its DSM programs to enable FPL to achieve additional MW from these programs. This would help offset some of the incremental capacity needs. In addition, FPL has purchased additional quantities of firm capacity from existing facilities beginning in 2006, and is in the process of securing the necessary transmission to deliver the purchased capacity to FPL.

Q. Using FPL's updated load forecast, and reflecting actions FPL has already taken to offset or meet some of the increased need for capacity, how would FPL's projected need change in 2009 through 2011?

A. As Dr. Sim explains, FPL's projected need in 2009 would increase from 950 MW to 1,067 MW; the need for 2009 and 2010 together would increase from 1,788 MW to 2,400 MW, and the need for 2009, 2010 and 2011 together would increase from 2,371 MW to 2,983 MW. In other words, the proposed

addition of West County 1 and 2 in 2009 and 2010, each of which contribute 1,219 MW, would meet the need in those years, but there would be an additional need of 545 MW in 2011.

Q. What additional action is FPL contemplating to meet the increased projected need?

A. FPL is evaluating a number of alternatives including the possible addition of simple cycle combustion turbines, additional firm power purchases from existing facilities or new generators if firm delivery to meet peak demand could be assured, and capacity upgrades to some of its existing units. In addition, FPL will continue to evaluate DSM opportunities in the future.

Q. How would the application of FPL's updated load forecast have affected the evaluation of proposals submitted in response to FPL's RFP?

A. As Dr. Sim explains, although the absolute results for the various combinations would change somewhat, the relative economic difference between the various portfolios would remain essentially unchanged, and the addition of West County 1 and 2 would remain, by far, the most cost-effective alternative to meet FPL's needs.

Section 7. Adverse Consequences if a Determination of Need for West County 1 and 2 Were Not Granted.

Q. Would there be any adverse consequences to FPL and its customers if the Commission were not to grant an affirmative determination of need for West County 1 and 2 in this proceeding?

A. Yes. If a Determination of Need for West County 1 and 2 were not granted in this proceeding, FPL's customers will face significant adverse consequences related to both system reliability and cost.

Q. What would be the effect of denying a Need Determination for West County Unit 1?

A. If a Determination of Need for West County 1 were to be denied, FPL would not be able to place West County 1 in service by June 1, 2009. Based on FPL's updated load forecast, this would require FPL to attempt to obtain 1,067 MW of replacement capacity through a combination of less economic self-build alternatives such as combustion turbines, and additional purchases of power deliverable to FPL through firm transmission, to meet its 20 percent reserve margin reliability criterion. The recent RFP solicited 950 MW of capacity for 2009 and received proposals that, in the aggregate, offered only about 350 MW for 2009. Thus, we believe that it is highly unlikely that there is adequate replacement capacity available to meet FPL's need in 2009.

Even if we assume that FPL would be able to purchase the necessary replacement generation capacity to meet its 20 percent reserve margin criterion in 2009, it is likely that the cost to customers would significantly exceed that of the West County 1. For example, even assuming that the full 1,067 MW of replacement capacity for 2009 were similar in price and other characteristics to those of the RFP responses that offered capacity in 2009, the net incremental cost to FPL's customers in 2009 due to a seven month delay in the in-service date of West County 1 (to January, 2010) would be more than $14 million (nominal). Of course, in reality, to the extent generating capacity were to be available to meet FPL's short term need, it would likely cost more than the prices quoted in long-term proposals; therefore, FPL expects that the actual short term incremental cost to FPL's customers would be much greater. In addition, delaying the addition of West County 1 would make it more costly to build due to escalation, so that in the long term the incremental cost to FPL's customers would be approximately $52 million (CPVRR). This calculation is discussed in Dr. Sim's testimony and in Section VIII of the Need Study. Incremental costs due to delays in the addition of West County 1 would continue to mount over time until a capacity addition that is as cost-effective as West County 1 is placed in service.

If, as is more likely, FPL were not able obtain capacity in the market to make up the 1,067 MW shortfall in 2009, FPL's customers would be served by a far less reliable system, with a reserve margin of only 15.1 percent, well below

the level deemed appropriate by the Commission. Also, it should be noted that because demand on FPL's system is projected to grow at an average rate more than 500 MW per year, falling behind the construction curve and not meeting the reserve margin criterion in 2009 would present significant hurdles for FPL and its customers going forward, including having to construct or purchase much more generation capacity in a shorter period of time, as well as placing FPL in weaker negotiation position with the limited number of viable equipment suppliers, architect-engineers and power sellers in the future because FPL would have less time and less flexibility to negotiate favorable terms.

In summary, FPL's customers will be served by a more economic, reliable and efficient system in both the short term and the long term with the addition of West County 1 than with any other alternative.

Q. What would be the effect of granting a Need Determination for West County 1, but denying a Need Determination for West County 2?

A. After adding West County 1 in 2009, but without the addition of West County 2 in 2010, FPL's reserve margin would decrease to 14.7 percent for the summer of 2010, and only 12.2 percent in 2011. Consequently, unless FPL can obtain a total of 1,181 megawatts of replacement capacity in 2010, denying a Need Determination for West County 2 would result in FPL's customers having a far less reliable system to serve them.

Even if FPL were able to obtain all the needed replacement capacity in 2010, the results of FPL's RFP demonstrate that FPL's customers would incur significantly greater costs for electricity. The results of FPL's evaluation of the three alternative portfolios considered as part of the RFP process show that the addition of West County 1 and 2 in close sequence, in 2009 and 2010, respectively, is more cost-effective than any alternative available to meet FPL's needs in these years that does not include both West County units. Therefore, if only one of the West County units is added, the capacity and energy that the "missing" 2010 unit is projected to provide would have to be replaced with significantly higher-cost replacement capacity and energy.

A reasonable measure of the incremental cost to FPL's customers caused by denial of a Need Determination for West County 2 is provided by the results of FPL's evaluation of proposals submitted in response to the RFP. Based on those results, the next best alternative portfolio that did not include both West County 1 and 2 would cost FPL's customers over $750 million (CPVRR) more than the addition of both West County 1 and 2. This increased cost to FPL's customers cannot be justified.

Q. Are there other advantages from granting a Need Determination for both West County 1 and 2 at present, as opposed to deferring the decision on a Need Determination for Unit 2 to a future proceeding?

A. Yes. As stated in Mr. Yupp and Mr. Hicks' testimonies, completing the licensing and permitting process and planning and executing all aspects of the addition of West County 1 and 2 together contributes synergies that are valued at about $120 million (CPVRR). Deferring a decision on a Determination of Need would preclude FPL from conducting these activities together and would result in a corresponding increase in cost to FPL's customers.

Moreover, there is no reasonable expectation that deferring the Need Determination for West County 2 could result in any benefit to FPL's customers. As stated above, the only competition offered by the proposals submitted in response to FPL's RFP was competing against West County 2, and the result of the economic analysis showed that adding FPL's West County 1 in 2009, combined with a proposed alternative in 2010 would be over $750 million (CPVRR) more costly than adding FPL's West County 1 and 2 in 2009 and 2010, respectively. Thus, deferring the decision on West County 2 would be certain to cost FPL's customers about $120 million (CPVRR) in lost project synergies, with no expectation of any offsetting benefit.

Summary: The Addition of West County 1 and 2 is FPL's Best, Most Cost-Effective Alternative to Meet FPL's Resource Needs in 2009 through 2011.

Q. Why do you believe that the Commission should grant a Determination of Need in this proceeding for the addition of West County 1 and 2 in 2009 and 2010, respectively?

A. As indicated in my testimony and in that of the other FPL witnesses, all of FPL's analyses demonstrate that the addition of West County 1 and 2 is the best, most cost-effective alternative to meet the capacity and energy needs of FPL's customers in 2009 through 2011. This West County project is needed to maintain system reliability in 2009 through 2011 as measured by FPL's reliability criteria, and it will provide FPL's customers with much improved system fuel efficiency and an adequate supply of electricity at a reasonable cost.

The economic evaluations performed by FPL concluded that adding West County 1 and 2 is more than $750 million (CPVRR) less costly than any viable alternative that does not also include both West County 1 and 2, and that all viable alternatives included West County Unit 1 as part of the portfolio. A separate analysis performed by an independent evaluator also concluded that adding West County 1 and 2 is more than $750 million (CPVRR) less costly to FPL's customers.

The non-economic evaluation concluded that FPL's experience in permitting, building and operating combined cycle facilities in Florida, and the maturity of the technology proposed by FPL for West County 1 and 2 result in a low, acceptable level of risk, at least as low as those of all other portfolios. In addition, the addition of West County 1 and 2 provides a significant benefit because it further enhances the balance between regional demand and installed capacity in Southeast Florida.

Furthermore, as stated above obtaining an affirmative Determination of Need in this proceeding to license and build both West County 1 and 2 will reduce the cost of adding these generating units by about $120 million (CPVRR), compared to the cost that would be incurred if each unit were authorized separately.

FPL's addition of West County 1 and 2 in 2009 and 2010, respectively, meets all of the criteria required by the Commission as the best and most cost-effective alternative available to FPL to meet its customers' capacity need in 2009 through 2011, and both should be granted a Determination of Need in this proceeding.

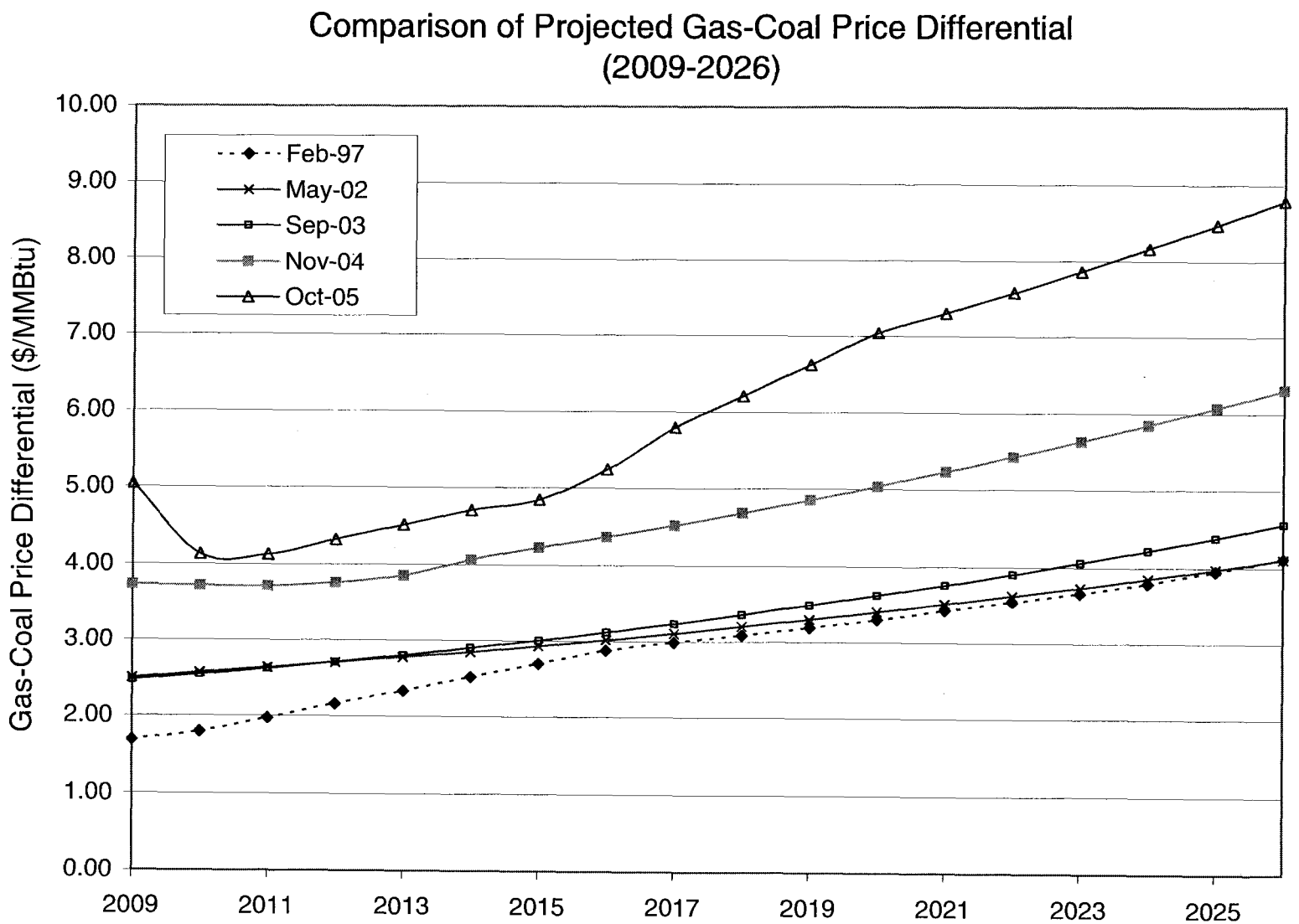
Also, FPL's updated load forecast, which differs from the previous forecast primarily in that it reflects FPL's actual number of customers in 2005 and utilizes the University of Florida's updated population forecast, demonstrates

that the need for new capacity additions has accelerated, making the timely addition of West County 1 and 2 critical to maintain service reliability.

Moreover, FPL's planned addition of West County 1 and 2 in 2009 and 2010, respectively, combined with FPL's two proposed advanced coal generating units in 2012 and 2013 constitutes the most effective combination to improve system efficiency and enhance fuel diversity at a reasonable cost, in an environmentally responsible manner.

Q. Does this conclude your testimony?

A. Yes.


Comparison of Projected Gas-Coal Price Differential
(2009-2026)
Gas-Coal Price Differential ($/MMBtu)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2009
2011
2013
2015
2017
2019
2021
2023
2025
Feb-97
May-02
Sep-03
Nov-04
Oct-05

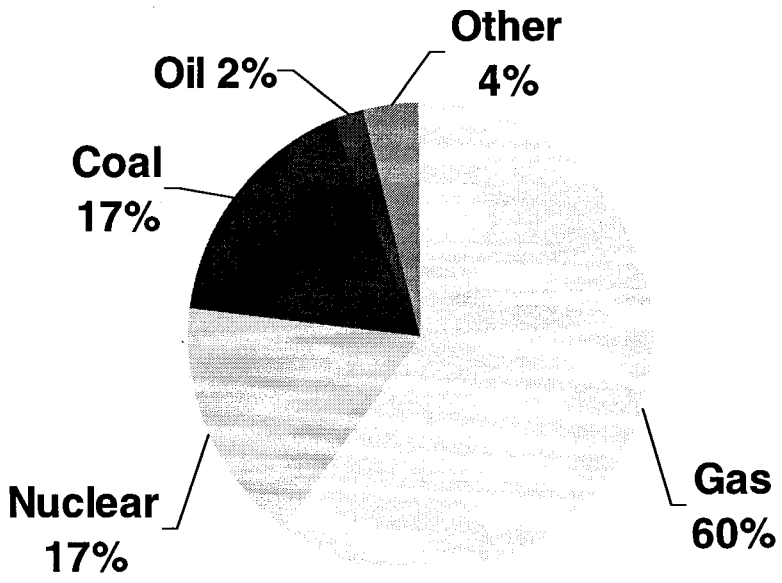
Capacity Additions
Years 2009 - 2013

Year	Technology	Summer MW	Fuel	Backup Fuel
2009	Combined Cycle	1219	Natural Gas	Distillate
2010	Combined Cycle	1219	Natural Gas	Distillate
2011	*Combined Turbines(2)	160(each)	Natural Gas	Distillate
2012	Supercritical Pulverized Coal	850	Coal/Pet Coke	-
2013	Supercritical Pulverized Coal	850	Coal/Pet Coke	-

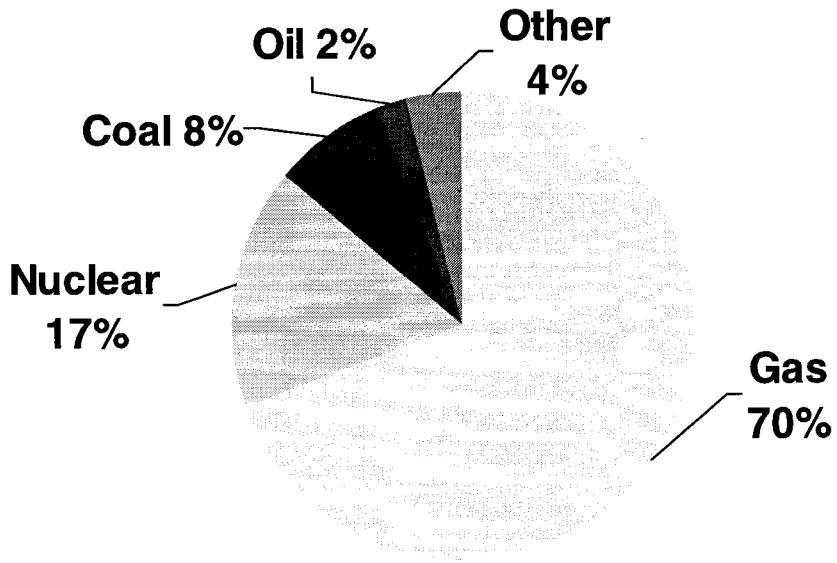
*FPL is currently analyzing whether the 2011 need can be met by a combination of additional purchased power, enhancements to exiting units and/or additional cost-effective DSM. Therefore, the 2 combustion turbines shown in the table above represent a "stand in" construction option until these analysis are completed.

FPL Projected Energy Mix in 2014

2014 Fuel Mix
TYSP Additions



2014 Fuel Mix
All Gas Additions



Proposal Details

Proposal Code Number	Capacity Offered (Summer MW)	Technology	Proposed Term-of-Service (Years)
Proposal 1 (P1)	1,050	Combined Cycle (CC)	25
Proposal 2 (P2)	298	Combustion Turbine (CT)	Sale of Unit
Proposal 3 (P3)	298	Combustion Turbine (CT)	15
Proposal 4 (P4)	50	Utility System Sale	5
Proposal 5 (P5) *	50	Utility System Sale	3
	1,398 * *		

* Proposal 5 (P5) was eventually withdrawn by the Bidder.

* * The capacity amounts offered for P2 and P3 were mutually exclusive as were the capacity amounts offered for P4 and P5.

Economic Evaluation Results for Portfolios - All Costs

(millions, CPVRR, 2005 dollars)

Ranking of Portfolio	Portfolio Number	Description of Portfolios			Total Costs	Difference from lowest cost portfolio
		2009	2010	2011		
1	2	WCEC 1	WCEC 2	---	99,640	0
2	1	WCEC 1 & P4	WCEC 2	---	99,664	24
3	5	WCEC 1	P1	---	100,398	758
4	4	WCEC 1 & P4	P1	---	100,417	777