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:

DAVID N. HICKS

060225-EI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF DAVID N. HICKS

DOCKET NO. _____-EI

MARCH 13, 2006

Q. Please state your name and business address.

A. My name is David N. Hicks. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida, 33408-0420.

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

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as the Senior Director of Project Development.

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

A. I have overall responsibility for the development of FPL power generation projects.

Q. Please describe your education and professional experience.

A. I received a Bachelor of Economics from the University of Hawaii-Manoa in 1983 and a Masters of Economics from the University of California-Santa Barbara in 1987. I have approximately 18 years experience in the power generation industry, including production cost modeling, business

management, and project development.

Q. What is the purpose of your testimony?

A. I describe the site and unit characteristics for the combined cycle power plant proposed for FPL's West County plant site, including the size, number and type of units, the heat rate and operating characteristics (i.e., equivalent availability factor, equivalent forced outage rate, capacity factor, and operating costs), the fuel types, the estimated cost of the project, and the projected in-service dates. I also discuss FPL's experience with building and operating combined cycle generating plants and demonstrate that the assumptions made for the West County plant are reasonable and achievable. Further, I will describe FPL's activities related to adding coal-fueled generation capacity in 2012 and 2013.

Q. Are you sponsoring any exhibits in this case?

A. Yes. It consists of the following documents:

Document DNH-1	Typical 3x1 CC Unit Process Diagram
Document DNH-2	FPL Operational Combined Cycle Plants & FPL Combined Cycle Construction Projects In Progress
Document DNH-3	West County Plant Vicinity Map
Document DNH-4	West County Plant Aerial Map
Document DNH-5	West County Proposed Power Block Area
Document DNH-6	West County Unit1 Fact Sheet

Document DNH-7 West County Unit 2 Fact Sheet

Document DNH-8 Overall Water Balance for the West County Site

Document DNH-9 West County Expected Construction Schedule

Document DNH-10 West County Construction Cost Components

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

A. Yes. I co-sponsor Section III and sponsor Appendix J of the Need Study document.

I. Overview of Combined Cycle Technology

A. Description of Technology

Q. Please describe the combined cycle technology that will be used for the West County Project?

A. Referring to Document DNH-1, a combined cycle unit is a combination of combustion turbines (CTs), heat recovery steam generators (HRSGs), and a steam-driven turbine generator (STG). Each of the combustion turbines compress outside air into a combustion area where fuel, typically natural gas or light oil, is burned. The hot gases from the burning fuel air mixture drive a turbine, which, in turn, directly rotates a generator to produce electricity. The exhaust gas produced by each turbine, where the temperature is approximately 1,100°F, is passed through a HRSG before exiting the stack at approximately

200°F. The energy extracted by the HRSG produces steam, which is used to drive a STG. The utilization of waste heat from the combustion turbines provides an overall plant efficiency that is much better than that of the CTs or the conventional STG alone.

Each CT/HRSG combination is called a "train." The number of CT/HRSG trains used establishes the general size of the STG. In the case of the proposed West County plant, each of Units 1 and 2, three CT/HRSG trains will be connected to one STG, giving rise to the characterization of the project as a "three on one" (3x1) combined cycle plant.

B. Operating Advantages

Q. What level of operating efficiency is anticipated for the West County Project?

A. The proposed FPL combined cycle unit is based on the use of Mitsubishi Power Systems (MPS) "G" Class advanced combustion turbines. In general, combined cycle plants can be expected to achieve a fuel to electricity conversion rate ("heat rate") of less than 7,000 Btu/kWh, as opposed to values in the 10,000 Btu/kWh range for conventional steam-electric generating units. FPL anticipates that the new West County combined cycle units will each achieve an average base heat rate of 6,582 Btu/kWh (based on an average ambient temperature of 75°F) over the life of the project. The West County

plant will therefore produce the same amount of energy as a similarly sized conventional steam plant using, on average, one third less fuel. The addition of these two highly efficient units to the FPL system would improve the system heat rate by four percent.

Q. Are there other operational advantages to combined cycle technology?

A. Yes. Another advantage of the multi-train combined cycle arrangement is that it allows for greater flexibility in matching unit output to system operating characteristics over time. As designed, the proposed West County Units 1 and 2 can function as either a base load or intermediate unit as required by the Company's system.

C. FPL's History of Building and Operating Combined Cycle Plants

Q. Does FPL have experience in building combined cycle plants?

A. Yes, FPL has extensive experience in building combined cycle plants. FPL's first combined cycle plant (Putnam Units 1&2) went into service in 1976. As shown in Document DNH-2, FPL has 7,817 MW (net summer) of combined cycle capacity in service and the addition of Turkey Point Unit 5 is scheduled to be completed by June 2007, adding 1,144 MW.

Q. Please describe FPL's history of operating combined cycle plants.

A. FPL has 7,817 MW (net summer) of combined cycle equipment presently in-service which utilize combustion turbines from various manufacturers. These include 24 General Electric 7FA turbines, 4 Mitsubishi/Westinghouse 501F turbines and 4 Westinghouse 501B turbines. Our expertise with these advanced combustion turbines and our commitment to total operational quality enabled us to achieve an operating run of 203 consecutive days at Martin Unit 3 — a world record for F technology GE equipment at that time.

In addition to its combined cycle operating experience, FPL has extensive experience operating simple-cycle combustion turbines, which comprise the "front end" of the combined cycle technology. FPL has operated ten GE 7FA combustion turbines in simple-cycle mode at its Fort Myers and Martin plant sites in Florida. FPL also has been operating 48 smaller simple-cycle combustion turbine units for approximately 30 years.

Q. Please describe FPL's track record in building and operating combined cycle units.

A. FPL has consistently completed all combined cycle construction projects in time to supply the needs of the customer.

In meeting its obligation to serve, FPL has demonstrated its ability to construct reliable and efficient plants. For example, in 1994 we began

commercial operation of two new combined cycle units at our Martin plant and, just two years later, were awarded Power Magazine's Power Plant of the Year Award for world-class performance in O&M and availability for those units. In addition, the Fort Myers Repowering Project and Sanford Repowering Projects were recognized in 2003 and 2004 by Power magazine as two of the most efficient, best designed and constructed power plants in the world.

To ensure ongoing best-in-class performance in today's highly competitive electricity generating industry, FPL focuses on excellence in people, technology, business and operating processes. FPL promotes a shift team concept in its power plants that emphasizes empowerment, engagement and accountability, with an understanding that each employee has the necessary knowledge, skill and motivation to perform any required task. This multifunctional, team-driven and well-trained workforce is the key to FPL's ability to consistently meet and often exceed plant performance objectives.

With world-class operational skills from which to draw, the Company maximizes the value of its existing and new assets by employing the best practices that underlie FPL's industry-leading positions. FPL's fossil-fueled fleet continues to achieve an above average availability compared with the U.S. industry average.

Q. Please describe how FPL monitors the operational performance of its power plants.

A. Technology helps FPL optimize plant operations, gain process efficiencies and leverage the deployment of technical skills as demand for services increases. An example is the Company's Fleet Performance and Diagnostics Center (FPDC) in Juno Beach, Florida. The FPDC provides FPL the capability to monitor every fossil-fueled plant in its system. The Company can compare the performance of like components on similar generating units, determine how it can make improvements and prevent problems before they occur. Live video links can be established between the FPDC and plant control rooms to immediately discuss, prevent and solve problems. In 2001, FPL was presented with an Industry Excellence Award from the Southeast Electric Exchange for the FPDC. The proposed West County Units 1 and 2 combined cycle project will be connected to the FPDC.

II. West County Combined Cycle Project

A. Site Description

Q. Please describe the existing facilities at the West County Plant site.

A. The West County site is a 220-acre parcel of land located in western Palm Beach County, a vicinity map of the site is presented on Document DNH-3.

As shown on an aerial photograph of the site, Document DNH-4, there are no on-site activities or facilities. The site is comprised of lands which were partially reclaimed and restored after mining of lime rock on the northern 50-acres of the site. Generally, the Site predominately has been in agricultural use for the past 30 years, with some limited mining of lime rock on the northern 50-acres. Adjacent lands to the east and north have been extensively mined for lime rock for the last 15 years.

Q. Why was the West County site selected over other potential sites?

A. In previous site selection studies, FPL has looked at sites located in Miami-Dade County (Levee), Broward County (Andytown), Palm Beach County (West County, previously identified as Corbett), Martin County (Martin) and St. Lucie County (Midway). The acquisition of the West County site in 2004 was significant because the site was acquired with all structural fill in-place, no wetland impacts, all zoning in place and with the necessary transmission interconnection queue requests in place (i.e., "power plant ready").

The West County Energy site is unique in that it has many attributes which make it one of the best power plant sites in Florida. These attributes include:

1. Located in the southeast region of our service territory, which is our load center.
2. Adjacent to our 230kV/500kV transmission system.
3. Currently zoned for power plant development.

4. Access to two major natural gas transmission systems, FGT to the east and Gulfstream to the north.

It is these attributes which were factored into our decision to locate the 2009 and 2010 Next Planned Generating Unit at West County.

B. Project Description

Q. Please describe the proposed West County Units 1 and 2 project in more detail.

A. The general arrangement of West County Units 1 and 2 is shown on Document DNH-5. Each will be a 3x1 combined cycle unit consisting of three 230-MW MPS "G" Class advanced CTs, with dry low-NOx combustors, and three HRSGs which will use the waste heat from the CTs to produce steam to be utilized in a new steam turbine generator.

Each CT unit will utilize inlet air evaporative cooling. Evaporative coolers achieve adiabatic cooling using water to cool the inlet air. This allows additional power to be produced more efficiently. For the MPS Frame G CT, an 8°F average decrease in temperature typically results in a three percent increase in power and an associated 0.5 percent decrease in heat rate. Thus, while power increases, the production of power is more efficient with lower emissions per MWh generated.

The evaporative coolers normally would be utilized when the ambient air temperature is greater than 60°F. Given an average annual temperature for the FPL system of approximately 75°F, the output and heat rate benefits of fogger operation are included in the base rating of 1,115 MW (net summer) for each of the West County units.

Each HRSG will include duct burners. The duct burners can be fired during peak demand periods to add an additional 104 MW of capacity to the unit at an incremental heat rate of 8,770 Btu/kWh.

West County Units 1 and 2, each with a summer generating capacity of 1,219 MW (net) from the base operation and duct burning operating mode capabilities described above, will be among the most efficient electric generators in Florida. The expected operating characteristics of West County Units 1 and 2 are shown in Document DNH-6 and 7, respectively.

Q. Please describe the potential air emissions of the West County Units 1 and 2 project.

A. Protecting the environment while providing safe, reliable and economic power to customers is of great importance to FPL. FPL will continue to comply with all applicable regulatory standards through construction and operation of West County Units 1 and 2.

The use of natural gas and advanced combustion controls will minimize air emissions from the West County 1 and 2 and ensure compliance with applicable emission-limiting standards. Using natural gas minimizes emissions of sulfur dioxide, particulate matter and other fuel-bound contaminants. Similarly, advanced combustion controls minimize the formation of nitrogen oxides (NOx), and the combustor design limits the formation of carbon monoxide and volatile organic compounds. When firing natural gas, NOx emissions will be controlled using dry low-NOx combustion technology and selective catalytic reduction (SCR), which will limit NOx emissions to 2.5 parts per million volume dry (ppmvd) (@ 15% O2 on natural gas). Water injection and SCR will be used to reduce NOx emissions during CC operation when firing light oil. These design alternatives maximize control of air emissions consistent with regulatory requirements for emission rates reflecting use of the "best available control technology." Taken together, the design of West County 1 and 2 will incorporate features that will make it one of the most efficient and cleanest power plants in Florida.

Q. What types of fuel will West County 1 and 2 be capable of burning?

A. The project will be capable of burning two fuel types: natural gas and light fuel oil. In his direct testimony, Gerard Yupp explains how fuel will be supplied to West County 1 and 2.

C. Water Supply – Access and Availability

Q. What are the water requirements for the West County 1 and 2 project, and how will they be met?

A. The overall water balance for West County 1 and 2 is shown on Document DNH-8. Primary water uses will be for condenser cooling, combustion turbine evaporative coolers, steam cycle makeup and service water. Water also will be used on a limited basis for NOx control when using light oil. Condenser cooling for the steam cycle portion will be accomplished using mechanical draft cooling towers with make-up water from either surface water from an adjacent canal or, when this source is not available, from deep Floridan Aquifer wells. Service and process water for the unit will come from the adjacent canal.

D. Electric Transmission Interconnection Facilities

Q. How will the West County 1 and 2 projects be interconnected to FPL's transmission network?

A. The units will connect to the adjacent and existing Corbett system substation via new tie lines. The system substation will be expanded to accommodate the new interconnection to FPL's electric transmission system Unit 1 will interconnect into the 230 kV system while Unit 2 will be interconnected into the 500 kV system.

E. Proposed Construction Schedule

Q. What is the proposed construction schedule for the West County Units 1 and 2 project?

A. A summary of construction milestone dates is shown on Document DNH-9. FPL will begin construction upon receipt of the necessary federal and state certifications and permits. The expected construction duration for the West County Units 1 and 2 project is 48 months, based on the Company's experience constructing Martin Units 3 & 4, Fort Myers, Sanford, Martin Unit 8 and Manatee Unit 3 plants, and the rate of progress for the current construction project at the Turkey Point plant. Therefore, with a planned in-service date of June 2009 for Unit 1 and June 2010 for Unit 2, the Company anticipates that construction must commence on or before June 1, 2007.

Q. What is the current status of the certifications and permits required to begin construction of West County 1 and 2?

A. The 220-acre site currently has all the necessary zoning approvals, which includes Zoning Petition DOA-1989-052(F) with Palm Beach County. The project's site certification application was submitted on April 14, 2005, and was deemed complete and sufficient by the Florida Department of Environmental Protection (FDEP) on April 29, 2005 and September 12, 2005 respectively. A Final Land Use Order was issued on November 15, 2005 by the Governor and Cabinet, who sits as the Siting Board under the Power Plant

Siting Act. As of March 1, 2006, the Company is awaiting issuance of the FDEP Staff Analysis Report prior to a public hearing which is scheduled for November 1, 2006.

F. Estimated Construction Costs

Q. What does FPL estimate that the West County Units 1 and 2 will cost?

A. The expected installed cost for West County Unit 1 is $688.6 million (2009 dollars). This cost includes $585.3 million for the power block, $13.2 million for the land, $22.7 million for the transmission interconnection and integration (including GSU transformers) and $67.4 million in allowances for funds used during construction (AFUDC) to an in-service date of June 2009.

The expected installed cost for West County Unit 2 is $632.4 million (2010 dollars). This cost includes $515.9 million for the power block, $13.2 million for the land, $33.6 million for the transmission interconnection and integration (including GSU transformers) and $69.7 million in allowances for funds used during construction (AFUDC) to an in-service date of June 2010.

The components of the total plant costs are shown in Document DNH-10.

Q. Are these estimated costs for West County Units 1 and 2 consistent with the estimated costs published in the 2005 Request for Proposals (RFP)?

A. Yes, these plant costs are consistent with FPL's estimates in Table VI-1 of the RFP.

III. Consequences of Delay

Q. What consequences on licensing and construction of West County 1 and 2 would be likely if the need determination for the project was delayed?

A. To achieve our reliability criteria for summer 2009 and 2010, FPL has set in-service dates of June 2009 and June 2010. The two units have an overall projected 48-month construction schedule (24 months for West County 1 and 24 months for West County 2), which dictates that construction begins on or before June 1, 2007. Consistent with this schedule for commencing construction, FPL needs to receive a site certification for the project by the end of February 2007, with the air permit and underground injection control permit concurrently or shortly after site certification. This remains a realistic timetable for the site certification, but with less than three months between the expected date upon which all approvals would be received and the actual date that construction must begin to support a June 2009 in-service date, it is important that the FDEP receive all agency reports (including the Commission's Need Determination) in a timely matter.

If the start of construction of the project is delayed beyond June 1, 2007, FPL may not be able to meet its system reliability criteria starting in 2009. Also, the introduction of efficient and cost-effective energy would be delayed to the detriment of FPL's customers.

Q. Is there an advantage in conducting the engineering, equipment procurement and construction of the two West County units as a joint project instead of two separate projects?

A. Yes. Conducting the engineering, equipment procurement and construction for both West County units as a joint project would reduce the cost to FPL's customers by $65 million (nominal dollars) due to project synergies.

IV. FPL Activities Related to Adding Coal Generation in 2012 and 2013

Q. Please describe the activities FPL has undertaken to determine the viability of coal-fueled generation as an addition to the FPL system in 2012 and 2013.

A. During 2003 FPL worked to update and confirm information on the current cost and performance characteristics of coal-fueled technologies. This investigation, supervised by me, involved interviews of numerous equipment vendors, engineers and design architects to gather the latest information necessary to evaluate the cost, performance and reliability of the technology, understand the siting and permitting requirements necessary to support the

technology and conduct an economic evaluation to determine the cost-effectiveness of coal fueled generation as a part of the FPL system. In addition it was necessary to develop a thorough understanding of the economic and logistic issues associated with the international procurement, shipment and delivery of the coal fuels needed to support a contemplated project.

Four different technologies and fifteen different sites were reviewed as a part of this study. The results of the investigations identified that coal-fueled generation was feasible to meet the capacity needs projected for 2012 and 2013. Specifically, advanced technology supercritical coal combustion technology in combination with a state-of-the-art emissions control suite would be the most cost-effective coal-fueled technology that could be constructed to meet the system reliability requirements within the 2012 - 2013 time period. Economies of scale indicated that two 850 MW units, built with commercial operation dates of June 2012 and June 2013 respectively were preferred. The results of this analysis were the basis for the 2005 Clean Coal Study.

Q. Based on these results, what specific project activities did FPL undertake?

A. Using a number of criteria, the list of potential sites that could support the two 850 MW unit design was reduced, and a site in St. Lucie County offering a

number of strong supportive features was selected in early 2005. Efforts to obtain the appropriate Land Use and Zoning designations at the county level were unsuccessful and were concluded in November 2005. FPL currently is pursuing Land Use and Zoning approvals at two sites, either of which could support the chosen design. FPL is pursuing site layout and design and local community outreach activities to support both sites.

FPL has also pursued the necessary logistical arrangements to provide international and domestic coal supplies to the facility. During the summer of 2005 an RFP for coal transportation services and commodity supply was held. The results generally supported FPL's current delivered solid fuel price and availability forecasts. FPL has continued extensive investigations and negotiations centered around new coal receiving terminals on both the west and east coasts of Florida and in the southeastern United States. The facilities are necessary to provide access to coal supplies from domestic and international sources. FPL has also continued the technical development of the project and has engaged the services of Worley Parsons as the detailed design engineering firm. The assistance of Worley Parsons will enable FPL to solidify the design requirements and equipment needs of the facility and support the development of a project cost and performance estimate that will be suitable for use in the planned 2006 Generation Capacity RFP Supplement to compare to external proposals to provide fuel diverse generation additions to the FPL system.

In order to support commercial operation of Unit 1 by June 1, 2012, it is necessary to start construction no later than June 1, 2008.

V. Conclusion

Q. What level of confidence does FPL have in the cost projection and construction schedule for the two units discussed herein?

A. In establishing the construction schedule and capital cost estimates for the two units, FPL has drawn upon its design and construction experience in Florida. FPL is confident that its current design philosophy and construction processes will allow the Company to complete these power blocks and associated transmission interconnections on schedule and in accordance with the expected construction costs.

Q. Please summarize your testimony.

A. FPL's West County 1 and 2 will use highly efficient, low-emission combined cycle technology, with which FPL has a great deal of experience building and operating. FPL is confident of the accuracy of its construction cost estimate and projected unit capabilities.

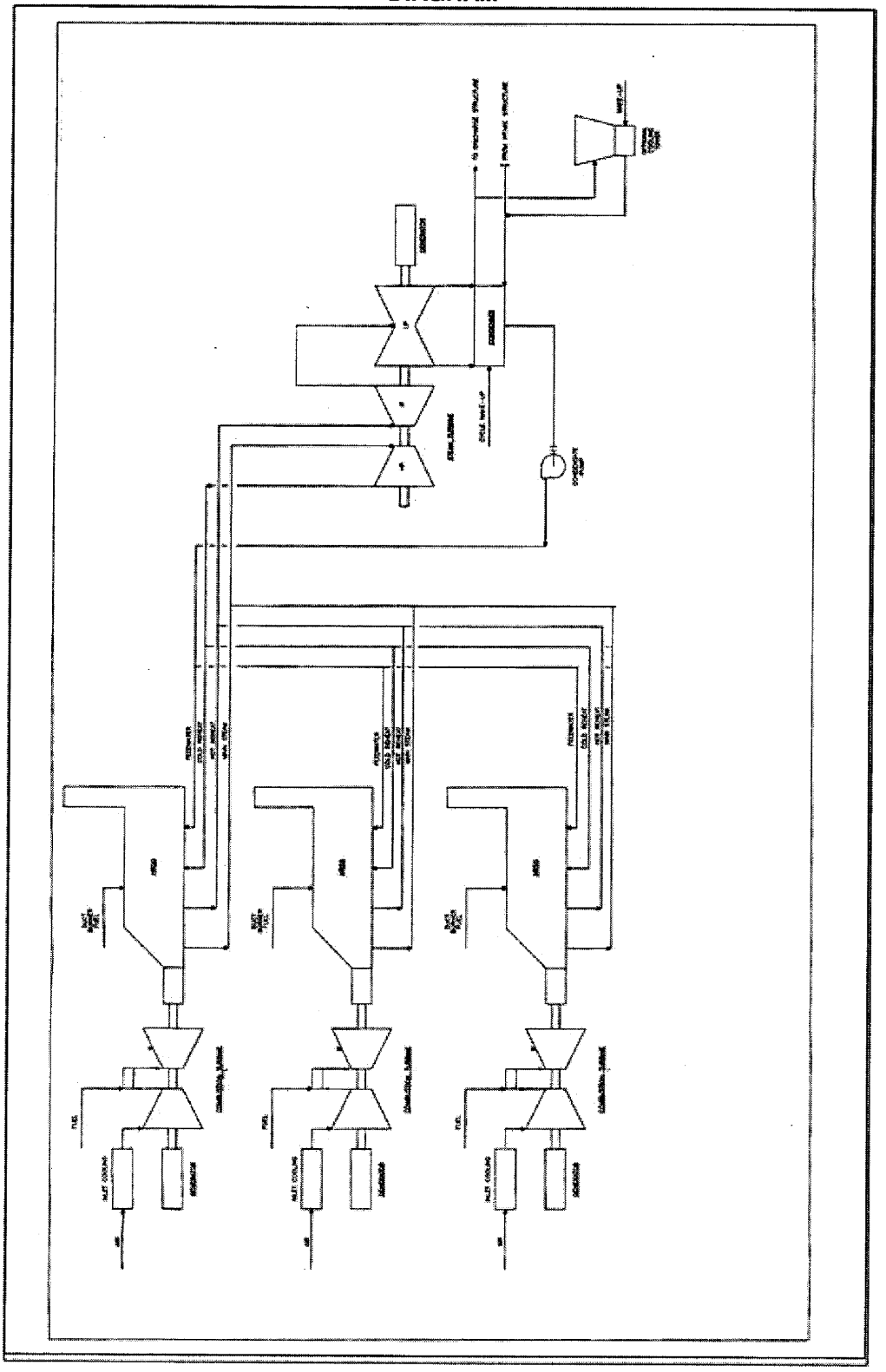
The West County site is an ideal location for the project because of the existing transmission infrastructure, which includes a transmission system substation for both the 230 kV and 500 kV systems. Additionally, the

selection of the G technology provides for a highly efficient plant, the lowest in the state, which also serves to minimize air emissions. The site is also a reclaimed parcel that requires no impact to environmentally sensitive lands which will further minimize environmental impacts. There are no water supply, fuel supply, transmission or other constraints that will interfere with FPL's ability to successfully construct and operate either facility.

Q. Does this conclude your testimony?

A. Yes.

TYPICAL 3 X 1 CC UNIT PROCESS DIAGRAM



FPL OPERATIONAL COMBINED CYCLE POWER PLANTS

Facility	Location	In-Service Year	Technology	Summer Capacity (MW)	Primary Fuel
Martin Unit 8	FL	2005	4 x 1 combined cycle	1,107	Natural gas
Manatee Unit 3	FL	2005	4 x 1 combined cycle	1,107	Natural gas
Sanford Unit 4	FL	2003	4x1 combined cycle	940	Natural gas
Fort Myers Unit 2	FL	2002	6x2 combined cycle	1,423	Natural gas
Sanford Unit 5	FL	2002	4x1 combined cycle	940	Natural gas
Martin Unit 3	FL	1994	2x1 combined cycle	471	Natural gas
Martin Unit 4	FL	1994	2x1 combined cycle	472	Natural gas
Lauderdale Unit 4	FL	1993	2x1 combined cycle	430	Natural gas
Lauderdale Unit 5	FL	1993	2x1 combined cycle	429	Natural gas
Putnam Unit 1	FL	1976	2x1 combined cycle	249	Natural gas
Putnam Unit 2	FL	1976	2x1 combined cycle	249	Natural gas
			Total Combined Cycle Capacity - Summer (net) →	7,817	

FPL COMBINED CYCLE CONSTRUCTION PROJECTS IN PROGRESS

Project	Technology	Summer Capacity (MW)	Primary Fuel
Turkey Point Unit 5	4x1 combined cycle	1,144	Natural gas

Exhibit No. ____
Document No. DNH-3
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VICINITY MAP OF PROPOSED WEST COUNTY UNITS 1 AND 2

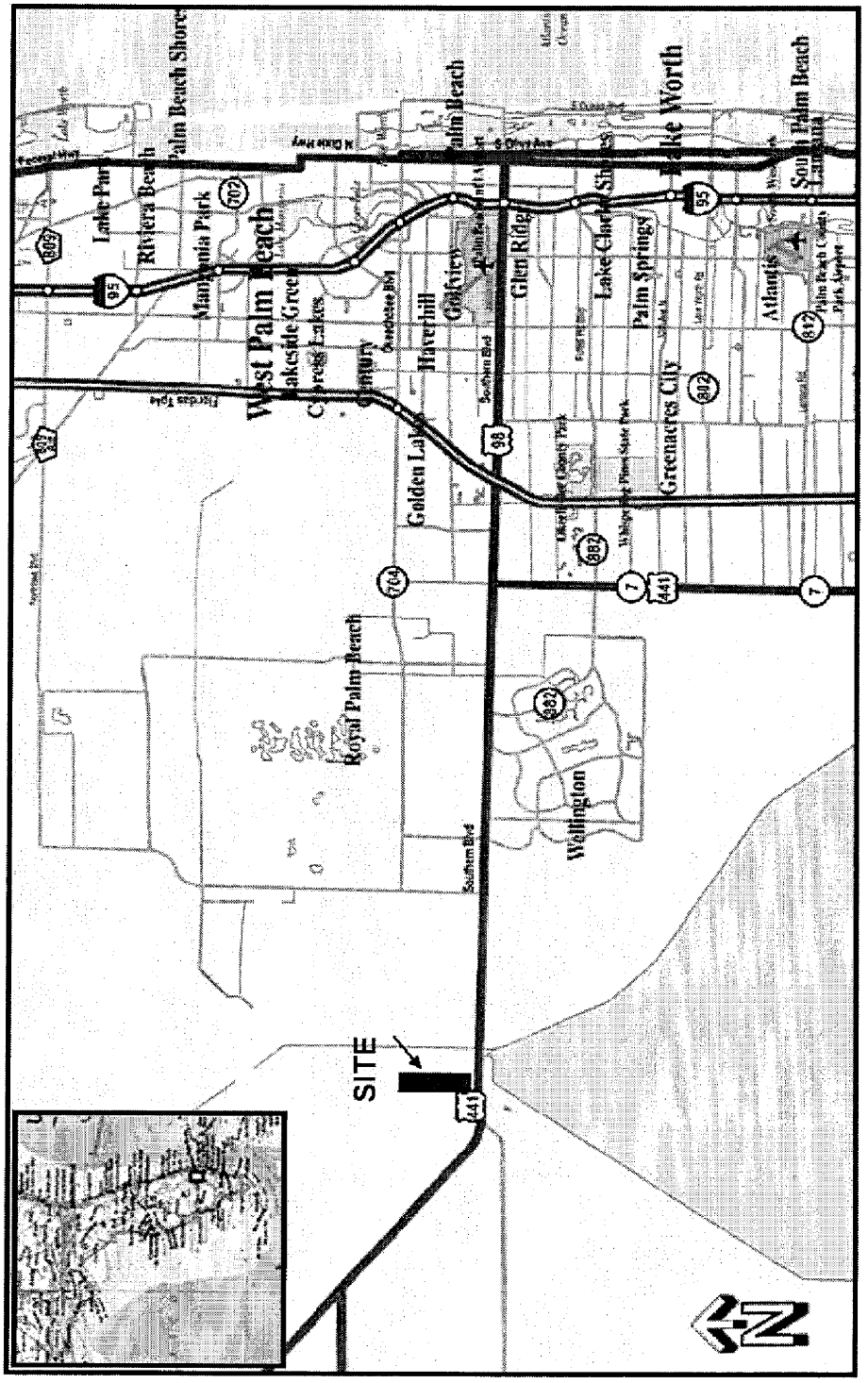

Exhibit No. ____
Document No. DNH-4
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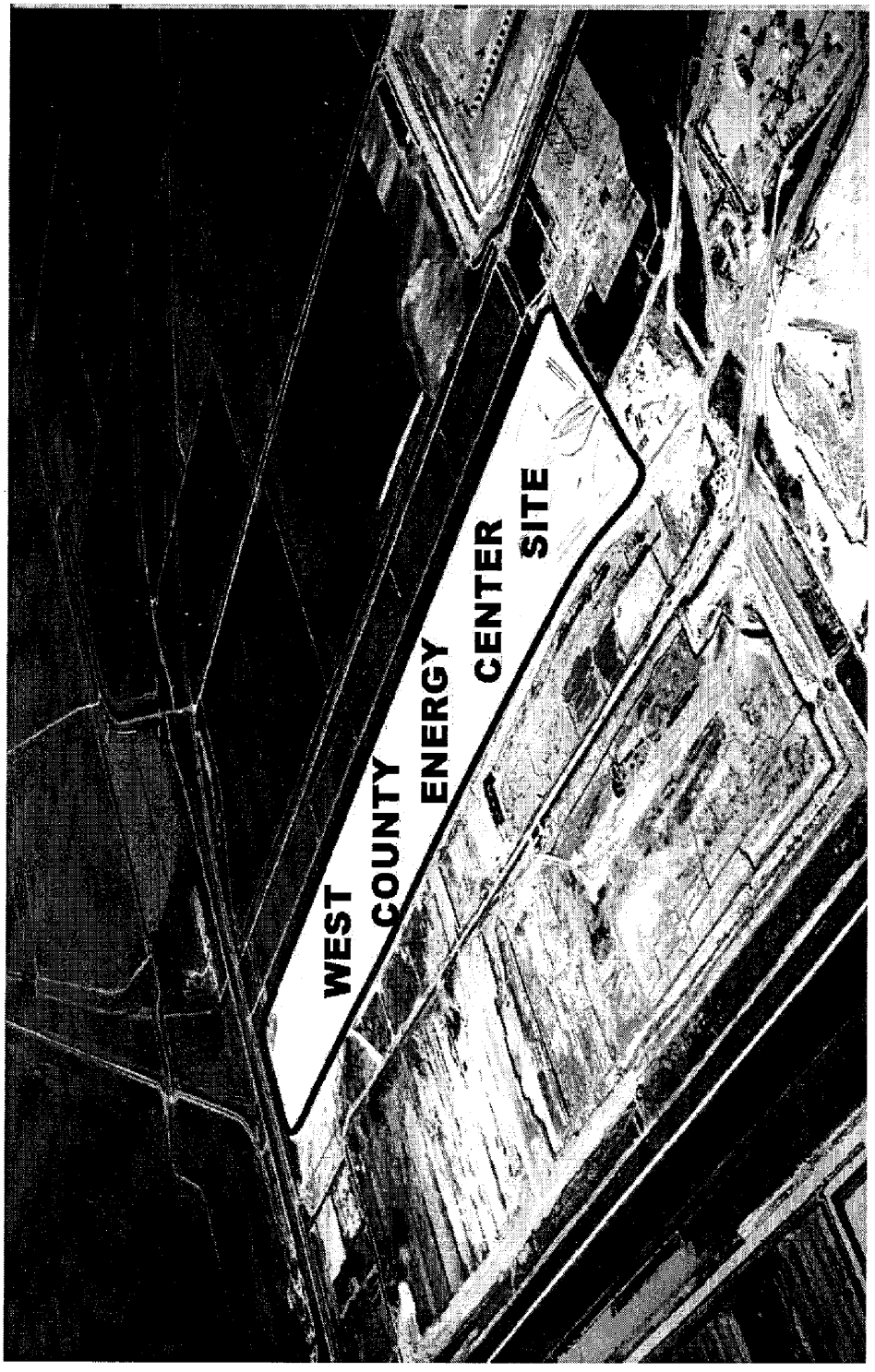
AERIAL MAP OF
PROPOSED WEST COUNTY SITE



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Document No. DNH-5
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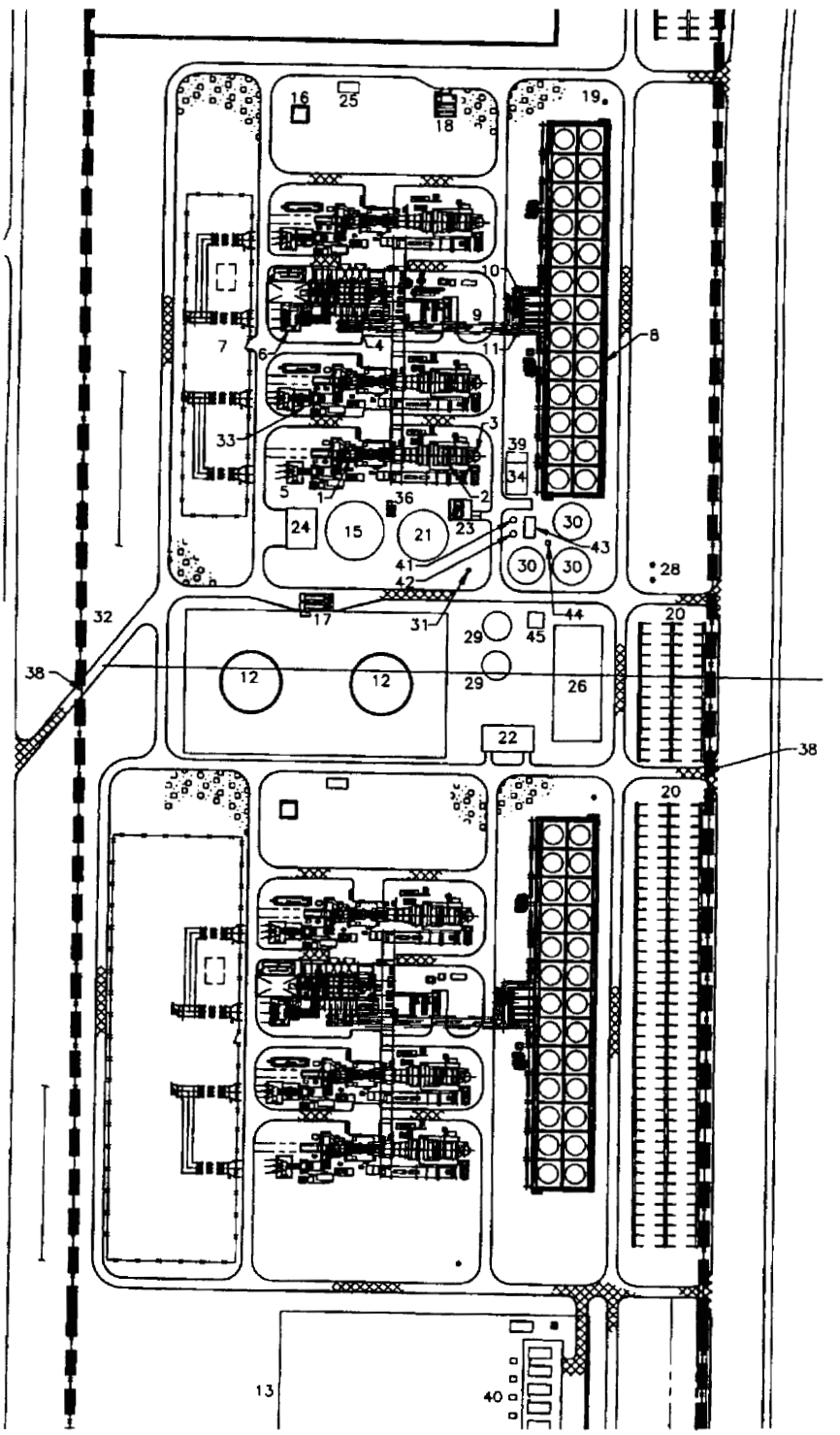
FOOTPRINT OR DRAWING OF
PROPOSED WEST COUNTY UNITS 1 AND 2



WEST COUNTY UNIT 1 FACT SHEET

Generation Technology - "Three on One" (3x1) Combined Cycle Configuration:

- Three (3) MPS 501G Combustion Turbines w/ Evaporative Coolers
- Three (3) Heat Recovery Steam Generators with Duct Burners and Selective Catalytic Reduction System for NO_x Control
- One (1) Single-Reheat Steam Turbine

Expected Plant Peak Capacity:

Summer (95°F / 50% RH)	1,219 MW
Winter (35°F / 60% RH)	1,335 MW

Projected Unit Performance Data:

Average Forced Outage Rate (EFOR)	1.1%
Average Scheduled Maintenance Outages	1 wk/yr (2.1% POF)
Average Equivalent Availability Factor (EAF)	96.8%
Base Average Net Operating Heat Rate @ 75°F / 60% RH	6,582 Btu/kWh (HHV)
Annual Fixed O&M – incremental (2009 dollars)	$4.61/kW-yr
Variable O&M – excluding fuel (2009 dollars)	$0.138/MWh

Fuel Type and Base Load Typical Usage @ 75°F:

Primary Fuel	Natural Gas
Natural Gas Consumption	7,642,000 scf/hr
Backup Fuel	Light Oil
Light Oil Consumption	48,000 gal/hr

Expected Base Load Air Emissions Per Train @ 75°F:	**Natural Gas**	**Light Oil**
NO_x (@ 15% O_2)	2.5 ppmvd	10 ppmvd
CO	4.1 ppmvd	8 ppmvd
PM_{10}	6.1 lb/hr	35.0 lb/hr
SO_2	13.7 lb/hr	3.3 lb/hr

Water Balance:

- Annual average consumptive use for West County Unit 1 is approximately 9.8 MGD.
- Process wastewater deep well injected

Linear Facilities:

- One (1) Gulfstream gas lateral will serve the site.
- No light oil pipeline – light oil delivered to site by truck

WEST COUNTY UNIT 2 FACT SHEET

Generation Technology - "Three on One" (3x1) Combined Cycle Configuration:

- Three (3) MPS 501G Combustion Turbines w/ Evaporative Coolers
- Three (3) Heat Recovery Steam Generators with Duct Burners and Selective Catalytic Reduction System for NO_x Control
- One (1) Single-Reheat Steam Turbine

Expected Plant Peak Capacity:

Summer (95°F / 50% RH)	1,219 MW
Winter (35°F / 60% RH)	1,335 MW

Projected Unit Performance Data:

Average Forced Outage Rate (EFOR)	1.1%
Average Scheduled Maintenance Outages	1 wk/yr (2.1% POF)
Average Equivalent Availability Factor (EAF)	96.8%
Base Average Net Operating Heat Rate @ 75°F / 60% RH	6,582 Btu/kWh (HHV)
Annual Fixed O&M – incremental (2010 dollars)	$3.07/kW-yr
Variable O&M – excluding fuel (2010 dollars)	$0.138/MWh

Fuel Type and Base Load Typical Usage @ 75°F:

Primary Fuel	Natural Gas
Natural Gas Consumption	7,642,000 scf/hr
Backup Fuel	Light Oil
Light Oil Consumption	48,000 gal/hr

Expected Base Load Air Emissions Per Train @ 75°F:	**Natural Gas**	**Light Oil**
NO_x (@ 15% O_2)	2.5 ppmvd	10 ppmvd
CO	4.1 ppmvd	8 ppmvd
PM_{10}	6.1 lb/hr	35.0 lb/hr
SO_2	13.7 lb/hr	3.3 lb/hr

Water Balance:

- Annual average consumptive use for West County Unit 2 is approximately 9.8 MGD.
- Process wastewater deep well injected

Linear Facilities:

- One (1) Gulfstream gas lateral will serve the site.
- No light oil pipeline – light oil delivered to site by truck

Exhibit No. ____
Document No. DNH-8
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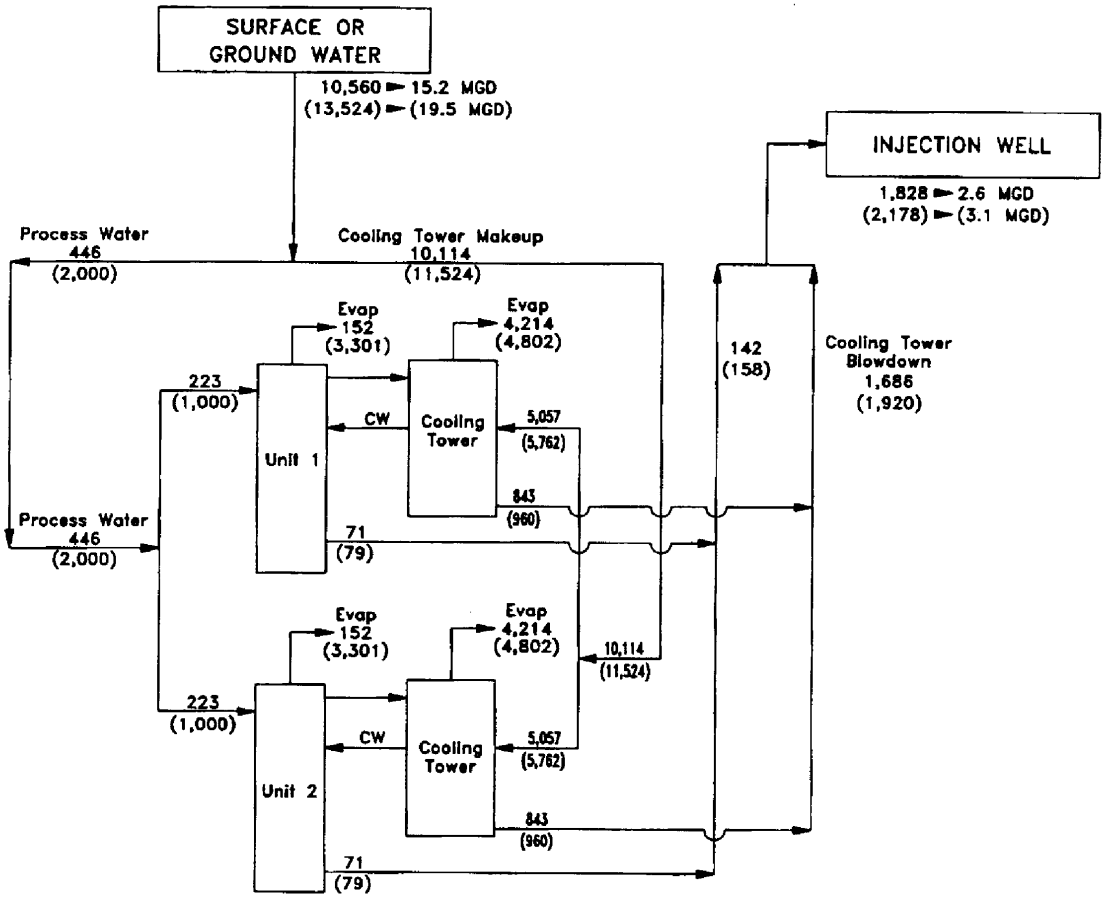
OVERALL WATER BALANCE FOR THE WEST COUNTY SITE



NOTES:

1. FLOWS ARE IN GALLONS PER MINUTE (UNO).
2. FLOWS SHOWN WITH NO ( ) ARE BASE ON AVERAGE DAILY WATER USE.
3. NUMBERS IN ( ) ARE PEAK INTERMITTENT FLOWS.
4. FLOWS ARE BASED ON 6 CONC. IN CT.

WEST COUNTY UNITS 1 AND 2

EXPECTED CONSTRUCTION SCHEDULE

	Unit 1		Unit 2	
Milestone	**Begin**	**End**	**Begin**	**End**
Initiate sequence of HRSG orders (LNTP x 4)	Feb 06	Dec 06	Feb 06	Dec 07
Initiate sequence of CT orders (LNTP x 4)	Apr 06	Jun 06	Apr 06	Jun 07
Issue LNTP for steam turbine	-	Nov 06	-	May 07
Receive approvals necessary to begin construction	-	Mar 07	-	Mar 07
Site preparation & foundations	Jun 07	Feb 08	Jun 08	Feb 09
Balance of Plant	Jun 07	Dec 08	Jun 08	Dec 09
Erect HRSGs	Nov 07		Nov 08	
Erect CTs	Feb 08		Feb 09	
Erect steam turbine	Apr 08		Apr 09	
Startup	Jan 09	May 09	Jan 10	May 10
Commercial Operation	-	Jun 09	-	Jun 10

WEST COUNTY UNITS 1 AND 2
PLANT CONSTRUCTION COST COMPONENTS

	Unit 1 (2009$)	Unit 2 (2010$)
Power Block	$585.3	$515.9
Land	$13.2	$13.2
Transmission Interconnect & Integration	$22.7	$33.6
Gulfstream Infrastructure Upgrades	$0	$0
AFUDC	$67.4	$69.7
Total Plant Cost	$688.6	$632.4
Total Project Costs	$1,321.0	