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MARCO RUBIO
Speaker of the House of
Representatives



July 30, 2008

Ann Cole
Commission Clerk and
Administrative Services
Room 100, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 080009-El

Dear Ms. Cole:

Enclosed for filing, on behalf of the Citizens of the State of Florida, are the original and 15 copies of the public version of the Revised Direct Testimony of William R. Jacobs, Jr., Ph.D.

Please indicate the time and date of receipt on the enclosed duplicate of this letter and return it to our office.

Yours	truly.

	COM5+C+Rpr	Joe a. Mc Stathan Joseph A. McGlothlin
	GCL 2	Associate Public Counsel
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FPSC-COMMISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Nuclear Cost Recovery Clause.

DOCKETNO. 080009-EI

Filed: July 30, 2008

REVISED DIRECT TESTIMONY

AND

EXHIBITS OF

WILLIAM R. JACOBS, JR., Ph.D.

On Behalf of the Citizens of the State of Florida

PUBLIC VERSION

J.R. Kelly Public Counsel

Office of Public Counsel c/o The Florida Legislature 111 West Madison Street Room 812 Tallahassee, FL 32399-1400

Attorney for the Citizens Of the State of Florida

DOCUMENT NUMBER-DATE

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FPSC-COMMISSION CLERK

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Resu	ume of William R. Jacobs, Jr., Ph.D
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FPL	's Benchmarking Spreadsheet (Confidential)
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1		REVISED DIRECT TESTIMONY
2		OF
3		William R. Jacobs, Jr. Ph.D.
4		On Behalf of the Office of Public Counsel
5		Before the
6		Florida Public Service Commission
7		Docket No. 080009-EI
8		
9		I. Introduction
10	Q.	PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.
11	A.	My name is William R. Jacobs, Jr., Ph.D. I am a Vice President of GDS Associates, Inc.
12		My business address is 1850 Parkway Place, Suite 800, Marietta, Georgia, 30067.
13		
14	Q.	DR. JACOBS, PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND
15		AND EXPERIENCE.
16	A.	I received a Bachelor of Mechanical Engineering in 1968, a Master of Science in
17		Nuclear Engineering in 1969 and a Ph.D. in Nuclear Engineering in 1971, all from the
18		Georgia Institute of Technology. I am a registered professional engineer and a member
19		of the American Nuclear Society. I have more than thirty years of experience in the
20		electric power industry including more than twelve years of power plant construction
21		and start-up experience. I have participated in the construction and start-up of seven
22		power plants in this country and overseas in management positions including start-up
23		manager and site manager. As a loaned employee at the Institute of Nuclear Power
		DODUMENT MINORD DATE

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Operations ("INPO"), I participated in the Construction Project Evaluation Program, performed operating plant evaluations and assisted in development of the Outage Management Evaluation Program. Since joining GDS Associates, Inc. in 1986, I have participated in rate case and litigation support activities related to power plant construction, operation and decommissioning. I have evaluated nuclear power plant outages at numerous nuclear plants throughout the United States. I am currently on the management committee of Plum Point Unit 1, a 650 MWe coal fired power plant under construction near Osceola, Arkansas. As a member of the management committee, I assist in providing oversight of the EPC contractor for this project. My resume is included as Exhibit WRJ-1.

A.

Q. WHAT IS THE NATURE OF YOUR BUSINESS?

GDS Associates, Inc. ("GDS") is an engineering and consulting firm with offices in Marietta, Georgia; Austin, Texas; Corpus Christi, Texas; Manchester, New Hampshire; Madison, Wisconsin, Manchester, Maine; Bellingham, Washington; and Auburn, Alabama. GDS provides a variety of services to the electric utility industry including power supply planning, generation support services, rates and regulatory consulting, financial analysis, load forecasting and statistical services. Generation support services provided by GDS include fossil and nuclear plant monitoring, plant ownership feasibility studies, plant management audits, production cost modeling and expert testimony on matters relating to plant management, construction, licensing and performance issues in technical litigation and regulatory proceedings. GDS also

1		frequently provides consulting services regarding utility-related matters to public entities
2		such as state attorneys general and regulatory agencies.
3		•
4	Q.	FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?
5	A.	I am testifying on behalf of the Florida Office of Public Counsel.
6		·
7	Q.	WHAT WAS YOUR ASSIGNMENT IN THIS PROCEEDING?
8	A.	I was asked to assist the Florida Office of Public Counsel in the review and evaluation of
9		requests by Florida Power & Light Company (FPL) and Progress Energy Florida (PEF)
10		for authority to collect historical and projected costs associated with nuclear uprate
11		projects being pursued at FPL's Turkey Point Units 3 and 4 and St. Lucie Units 1 and 2
12		and PEF's Crystal River Unit 3, and historical and projected costs associated with FPL's
13		proposed Turkey Point Units 6 and 7 through the utilities' respective capacity cost
14		recovery clauses, all pursuant to the Commisson's Rule 25-6.0423, Florida
15		Administrative Code, "Nuclear or Integrated Gasification Combined Cycle Power Plant
16		Cost Recovery" ("nuclear cost recovery rule"). I was also asked to review preliminary
17		costs submitted in the discovery docket associated with PEF's plan to develop and
18		construct two new nuclear generating units in Levy County.
19		
20		II. The Nuclear Cost Recovery Rule
21 22	Q.	PLEASE BRIEFLY DESCRIBE THE NUCLEAR COST RECOVERY RULE
23		THAT THE COMMISSION ADOPTED IN 2006.
24	A.	The stated purpose of the rule is to:

establish alternative cost recovery mechanisms for the recovery of costs incurred in the siting, design, licensing, and construction of nuclear or integrated gasification combined cycle power plants in order to promote electric utility investment in nuclear or integrated gasification combined cycle power plants and allow for the recovery in rates of all such prudently incurred costs.

Cost are to be recovered annually through the individual requesting utility's Capacity
Cost Recovery Clause. The Commission Staff and parties to this proceeding have been
working to develop the Nuclear Filing Requirements (NFRs) needed to present the
project status and cost data in a consistent format. The NFRs require the submission of
three categories of cost data: (1) True-Up for Previous Years, (2) Actual/Estimated
(A/E) costs for the current year, and (3) Projected costs for Subsequent years. For a
given time period, the Commission is to consider the prudence of historical, actual TrueUp costs. With respect to the Actual / Estimated costs and Projected costs, it is to
consider whether such costs appear reasonable when determining the amount the
requesting utility can collect (subject to additional review) in the first instance, but a
final determination of prudence, including whether any amounts should be disallowed, is
reserved until the costs come before the Commission in a true-up filing. These costs are
then used in establishing the costs to be recovered through the Capital Cost Recovery
Clause.

A.

Q. HOW DO THESE DISTINCTIONS BEAR ON YOUR TESTIMONY IN THIS PROCEEDING?

I am informed by counsel that FPL and PEF have agreed that, while the historical costs included in the utilities' true-up claim may be incorporated in the calculation of their recovery factors, the issue of the prudence of those 2006-2007 costs, including whether

1		any portion should be disallowed, will be deterred until the next aimual hearing cycle of
2		the nuclear cost recovery mechanism. Accordingly, the scope of my testimony reaches
3		only the more preliminary threshold consideration of whether the costs claimed by the
4		utilities appear to be "reasonable."
5 6		. III. Requests for Authorization to Collect Costs
7		
8	Q.	PLEASE SUMMARIZE THE COSTS THAT FPL HAS REQUESTED
9		AUTHORITY TO COLLECT UNDER THE NUCLEAR COST RECOVERY
10		RULE.
11	Α.	FPL has requested that the Commission approve a Nuclear Power Plant Cost Recovery
12		amount of \$258,979,772 to be recovered through the 2009 Capital Cost Recovery
13		Clause. These costs result from carrying charges associated with the 2008
14		Actual/Estimated and 2009 Projected construction costs for the Extended Uprate
15		Projects for Turkey Point Units 3 and 4 and St. Lucie Units 1 and 2, preconstruction and
16		carrying charges associated with 2007 Actual, 2008 Actual/Estimated and 2009
17		Projected costs for Turkey Point 7 and 8 and Site Selection costs and carrying charges
18		associated with Turkey Point 7 and 8.
19		
20	Q.	PLEASE SUMMARIZE THE COSTS THAT PEF HAS REQUESTED
21		AUTHORITY TO COLLECT UNDER THE NUCLEAR COST RECOVERY
22		RULE.
23	A.	PEF has requested that the Commission approve a request for Nuclear Cost Recovery
24		for the Crystal River Unit 3 uprate projects of \$24.9 million. PEF has also requested

1		recovery of ***BEGIN CONFIDENTIAL SECTION***
2		CONFIDENTIAL SECTION*** in 2009 for the Levy Nuclear Project.
3		
4	Q.	HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?
5	A.	First I will briefly describe the methodology used in my evaluation of the filings by FPL
6		and PEF. Next I will describe a policy issue that is common to both FPL and PEF.
7		Following this I will present the results of my evaluation of FPL's request for
8		authorization to collect costs and then I will provide the results of my evaluation of
9		PEF's request for authorization to collect costs.
10		
11		IV. Methodology
12 13	Q.	PLEASE DESCRIBE THE METHODOLOGY THAT YOU USED TO REVIEW
14		AND EVALUATE THE REQUESTS FOR AUTHORIZATION TO COLLECT
15		COSTS SUBMITTED BY FPL AND PEF UNDER THE NUCLEAR COST
16		RECOVERY RULE.
17	A.	I first reviewed the Nuclear Cost Recovery Rule to gain an understanding of the process
18		and of the schedules included in the Companies' filings. Next, I reviewed the
19		Companies' filings in this docket. Working with counsel for OPC, I helped prepare
20		numerous interrogatories and requests for production of documents. Following an initial
21		review of the documents produced by the Companies, I assisted Office of Public
22		Counsel attorneys in deposing Company witnesses to further explore areas of interest.
23		Numerous late filed exhibits were requested during the depositions to provide additional
24		information relating to the Companies' requests.

1

2

4

Q. HOW DID YOU GAUGE THE REASONABLENESS OF THE COSTS FOR

3 WHICH THE COMPANIES REQUEST AUTHORITY TO BUILD INTO THE

2009 RECOVERY FACTOR?

5 To control their costs, the Companies must employ effective contracting and project A. management procedures and practices. The scope of work must be reasonable. The 6 7 Companies must employ competitive bidding or, if that is infeasible for some reason, 8 other methods such as comparisons with similar projects for which the cost is known. 9 The focus of my review was the procedures and processes utilized by the Companies to 10 solicit and evaluate the contracts underlying the claimed costs, and the methods used by the Companies to determine that the costs were reasonable. In addition, I focused on the 11 12 scope of the work contained in the contracts to assure that the work scope was 13 reasonable. I also reviewed the project management procedures and practices that will

be used to manage the projects as they move into the implementation stage.

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A.

14

Q. PLEASE DESCRIBE YOUR REVIEW OF THE CONTRACTING

PROCEDURES AND PRACTICES UTILIZED BY FPL AND PEF.

I reviewed the full spectrum of contracting activities, including identification of the project scope, development of the bid specification, development of the qualified vendor list, preparation of the request for proposals, and the bid evaluation process. The review encompassed both the procedures governing these activities and the implementation of the procedures. I gave special attention to instances in which the utilities departed from competitive bidding and used instead sole source or single source contracts. (A sole

source contract is one in which there is no alternative to the contractor. A single source contract is one in which other potential sources of the services exist, but reasons compel the choice of one without first soliciting competitive bids.) As I will discuss, the decision by the utility to enter a contract without first seeking competitive bids in these scenarios requires the utility to justify the departure from the bidding standard and to demonstrate the resulting costs are reasonable.

A.

Q. PLEASE DESCRIBE YOUR REVIEW OF THE PROJECT MANAGEMENT PROCEDURES AND PRACTICES UTILIZED BY FPL AND PEF.

The current requests for cost recovery stem primarily from the contracting activities discussed above. However, as the projects move into the implementation phase, proper and effective project management will be essential to ensure that projects are completed on schedule and within budget. The project management procedures and practices that I reviewed include establishment of project budgets, monitoring of budget variances, corrective actions for budget variances, establishment of project schedules, and monitoring of project schedule variances and corrective action for schedule variances. Activities in the project management area will be reviewed in more detail in the future as the projects move into the implementation stage.

V. Evaluation of Requests for Authorization to Collect Costs

Q. PLEASE DESCRIBE THE POLICY ISSUE YOU HAVE IDENTIFIED THAT IS COMMON TO FPL AND PEF.

A. This issue is related to the incremental nature of some EPU project costs. When the operating license of a nuclear plant is extended by 20 years, many capital projects are typically required to ensure reliable operation beyond the original 40 year operating life of the plant. Typical projects would include replacement of Main Transformers, Feedwater Heaters and other equipment that would likely need to be replaced during the original 40 year operating life of the plant. These costs can amount to many millions of dollars and would be recovered through normal base rate cost recovery mechanisms. As I understand the Nuclear Plant Cost Recovery rule, it is not intended to apply to the normal maintenance or replacement of equipment of existing nuclear units. Therefore, where such items would have been necessary in the absence of an uprate project, I believe that only the incremental costs required for the EPU projects—those over and above what would have been spent anyway—should be recoverable under the rule.

A.

Q. PLEASE PROVIDE AN EXAMPLE TO CLARIFY YOUR POSITION ON THIS ISSUE.

Certainly. Assume that when the operating license of a nuclear plant was extended for an additional 20 years it was determined that the Main Generator Step-Up Transformer would need to be replaced for the plant to operate reliably for an additional 20 years.

Subsequent to the relicensing of the plant, it was determined to increase the capacity of

the plant through an Extended Power Uprate. Analyses of the EPU determined that a larger Main Generator Step-up Transformer would be required to handle the additional output capacity of the plant. Since the original transformer was going to be replaced in the normal course of business to ensure reliable plant operation, I believe that only the incremental cost of the larger transformer needed for the EPU compared to the replacement cost of the original transformer should be recoverable under the rule.

Q.

A.

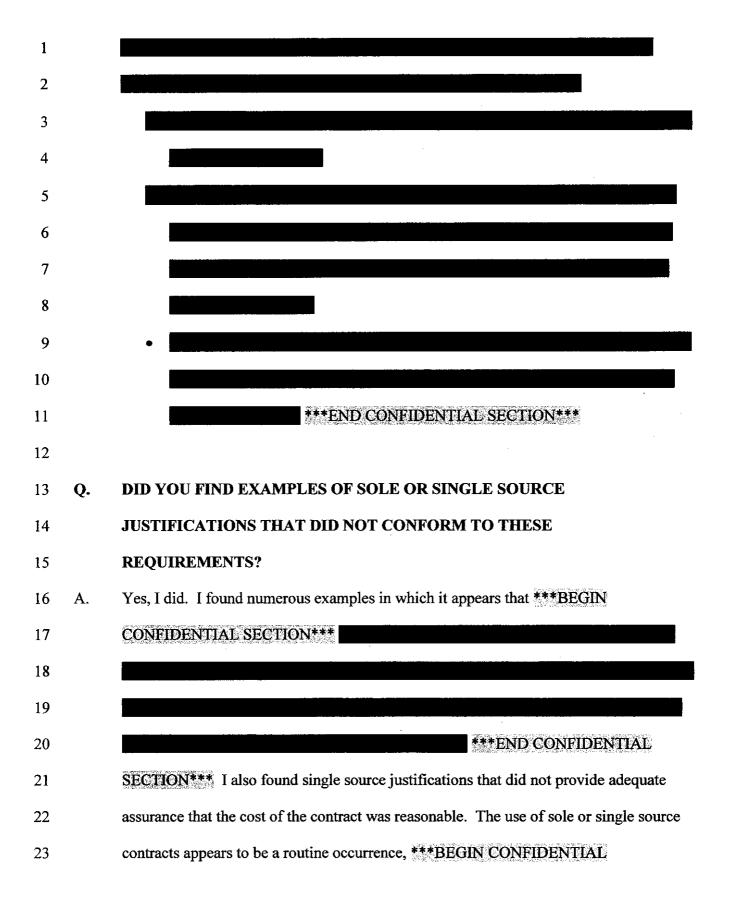
HAVE YOU IDENTIFIED AN EXAMPLE IN WHICH A MAJOR PLANT COMPONENT IS BEING REPLACED TO IMPROVE PLANT RELIABILITY AND PERFORMANCE THAT IS NOT BEING INCLUDED AS AN EPU COST? Yes, I have. The steam generators at Crystal River 3 are being replaced during an

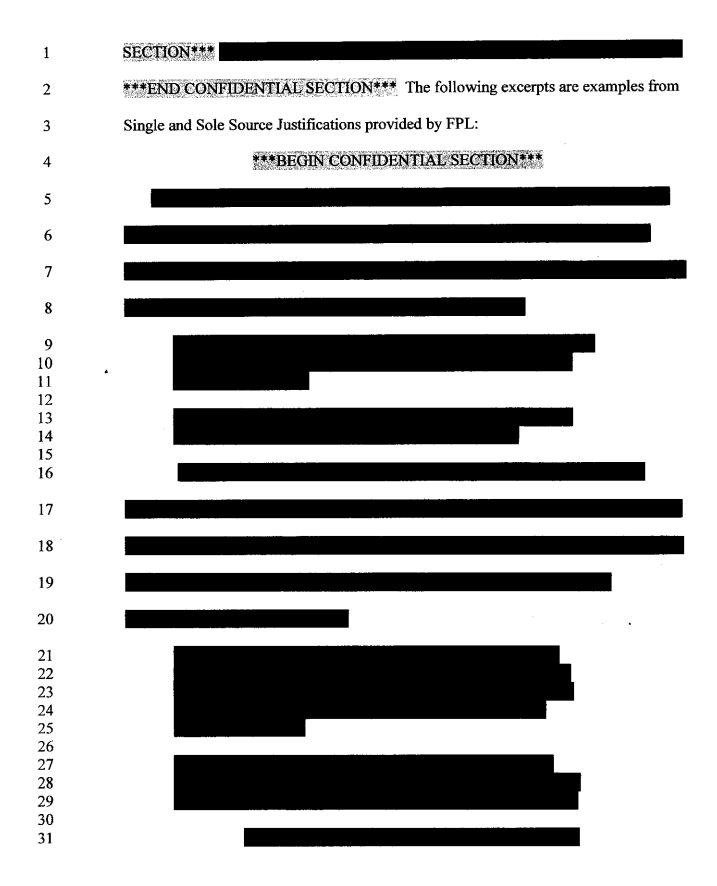
Yes, I have. The steam generators at Crystal River 3 are being replaced during an upcoming refueling outage. The reason for the replacement is to ensure reliable plant performance for the remainder of the extended operating life of the plant. During the steam generator replacement outage, other projects will be accomplished that are related to the EPU project. However, PEF has not requested that the cost of the steam generator replacement project be recovered via the Nuclear Plant Cost Recovery mechanism of the rule. In this example, if the replacement steam generators had been modified specifically to support the EPU project, then I believe that only the incremental cost of the modification to support the EPU project would have qualified for recovery through the cost recovery clause, and the remainder of the costs would have been recovered through normal base rate mechanisms.

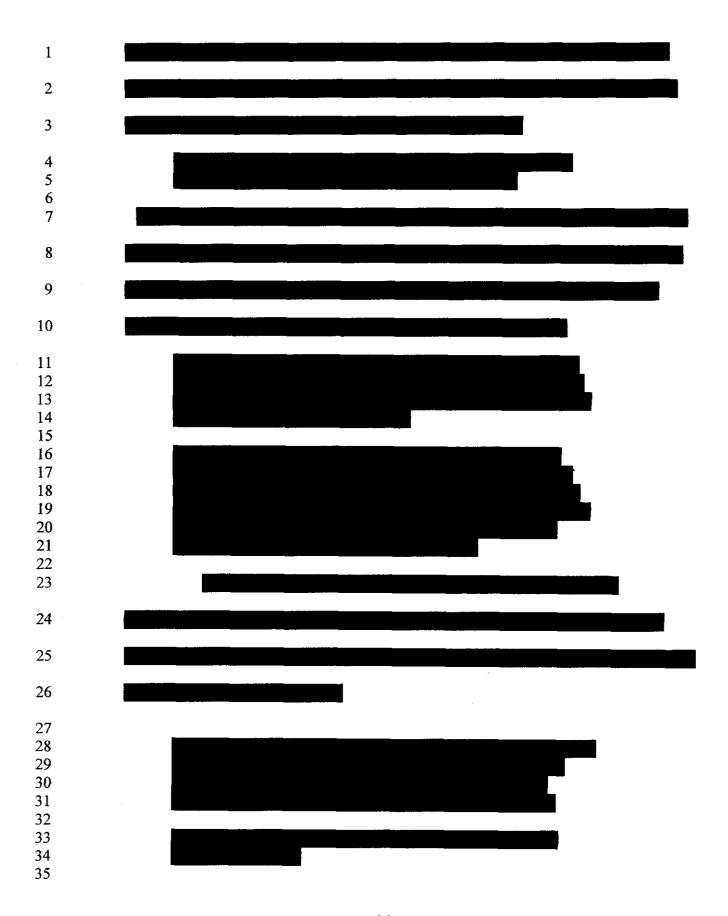
1	Q.	HAVE FPL AND PEF IDENTIFIED IN THEIR SUBMISSIONS THE CAPITAL
2		REQUIREMENTS THAT WOULD BE COMMON TO BOTH THE LICENSE
3		RENEWALS AND THE UPRATE PROJECTS?
4	A.	Aside from the steam generator example, I have seen no attempt by either utility to
5		undertake such an analysis.
6		
7	Q.	IN THE ABSENCE OF SUCH AN ANALYSIS, WHAT SHOULD THE
8		COMMISSION DO IN THIS PROCEEDING?
9	A.	The failure of the requesting utilities to address the potential for recovery of costs that
10		exceed the incremental effect of the uprate projects goes directly to the reasonableness
11		of their proposed recovery amounts. At a minimum, the Commission should declare
12		that its approval of amounts related to the uprate projects is conditional, and subject to a
13		thorough identification, in the next annual hearing cycle of this ongoing proceeding, of
14		the nature and costs of the capital items that would be associated with the license
15		renewal and longer operating life in the absence of an uprate. The utilities should be
16		required to compare those costs with the costs of the uprate project, for the purpose of
17		refunding any costs that are not attributable solely to the fact of the uprate projects.
18 19		
20	Q.	PLEASE DESCRIBE FPL'S REQUEST FOR AUTHORIZATION TO COLLECT
21		COSTS FOR THE EXTENDED POWER UPRATE PROJECTS.
22	A.	FPL is requesting authorization to recover 2008 actual/estimated carrying costs of
23		\$3,746,731 and 2009 projected carrying costs of \$16,748,149 for the Turkey Point and
24		St. Lucie EPU projects.

1		
2	Q.	PLEASE DESCRIBE FPL'S REQUEST FOR AUTHORIZATION TO COLLECT
3		COSTS FOR THE TURKEY POINT UNIT 6 AND 7 PROJECT.
4	A.	FPL is requesting authorization to recover actual preconstruction and carrying charges
5		of \$2,543,239 for 2007, actual/estimated preconstruction and carrying charges of
6		\$108,441,514 for 2008, and projected pre-construction and carrying charges of
7		\$119,696,175 for 2009.
8		
9	Q.	PLEASE DESCRIBE FPL'S REQUEST FOR AUTHORIZATION TO COLLECT
10		COSTS FOR THE TURKEY POINT UNIT 6 AND 7 PROJECT SITE
11		SELECTION ACTIVITIES.
12	A.	FPL is requesting authorization to recover actual site selection and carrying charges of
13		\$6,533,498 for 2006-2007, actual/estimated site selection carrying charges of \$729,563
14		for 2008, and site selection carrying charges of \$535,351 for 2009.
15		
16	Q.	DID YOU IDENTIFY ANY ISSUES OF CONCERN WITH FPL'S REQUEST
17		FOR AUTHORIZATION TO RECOVER COSTS?
18	A.	Yes, I did. My review of FPL's filings and documents provided indicate an extensive
19		use of sole and single source contracts. All of the contracts in excess of \$1 million
20		shown in Schedule AE-8 for the EPU were sole source contracts. Two of the three
21		contracts shown in Schedule AE-8 for the new Turkey Point Units were sole or single
22		source contracts, and the only contract for site selection activities is a single source
23		contract. In addition, many of the contracts for less than \$1 million were issued as sole

1		or single source contracts, even though FFL identified more than one that were
2		capable of performing the needed work.
3		
4	Q.	DID YOU REVIEW FPL'S PROCEDURE THAT CONTROLS CONTRACTING
5		AND NUCLEAR RELATED PROCUREMENT ACTIVITIES?
6	A.	Yes, I reviewed FPL Nuclear Division Nuclear Policy NP-1100 Revision 15, dated
7		02/25/08. This procedure is entitled "Procurement Control." It specifically addresses the
8		requirements for issuing a sole or single source contract.
9		
10	Q.	PLEASE DESCRIBE THE REQUIREMENTS OF NP-1100 RELATED TO SOLE
11		SOURCE OR SINGLE SOURCE CONTRACTS.
12	A.	NP-1100 clearly specifies that ***BEGIN CONFIDENTIAL SECTION***
13		
14		
15 16 17 18 19 20 21 22 23 24	·	
25		
26		
27		





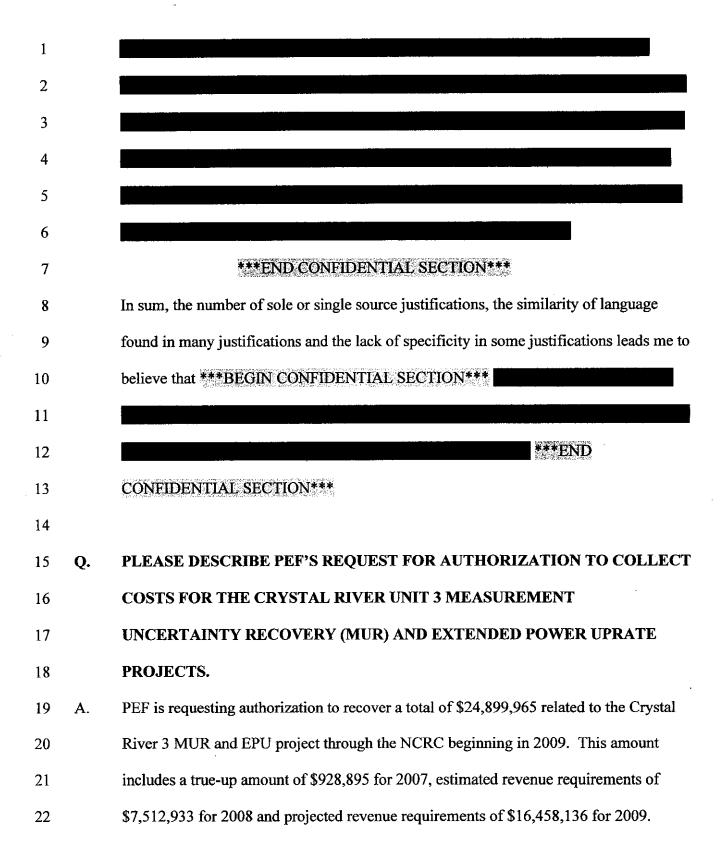


1		***END CONFIDENTIAL SECTION***
2		As seen from the above examples, many of FPL's single and sole source justifications
3		rely on schedule pressure to justify the use of a sole or single source contract rather than
4		a competitive bidding process required by FPL's procurement procedure.
5		
6	Q.	HAS FPL DEMONSTRATED, EITHER WITHIN ITS SUBMISSION OR IN ITS
7		RESPONSES TO DISCOVERY REQUESTS, THAT THE COSTS INCURRED IN
8		THE SOLE SOURCE AND SINGLE SOURCE CONTRACTS ARE
9		REASONABLE?
10	A.	No, FPL has not. The best way to demonstrate that the cost of a contract is reasonable is
11		through a competitive bidding process. Absent a competitive bidding process the
12		Company must use cost comparisons, or benchmarking with similar work, or a detailed
13		analysis of the work scope and labor rates to ensure that the cost of the contract is
14		reasonable. Many of the single source justifications stated that the costs were reasonable
15		based on FPL's experience with similar projects. In another justification, the
16		reasonableness of costs for a project costing more than****BEGIN CONFIDENTIAL
17		SECTION*** ***END CONFIDENTIAL SECTION*** was a back-of-
18		the-envelope type analysis based on comparison data that was 5 years old.
19		
20	Q.	PLEASE DESCRIBE THE EXAMPLE YOU DISCUSSED ABOVE IN MORE
21		DETAIL.
22	A.	In response to Staff's request for details of claimed benchmarking of costs by FPL, FPL
23		provided a spreadsheet comparing various elements of uprate projects at the Company's

END CONFIDENTIAL SECTION

1	nuclear plants St. Lucie, Turkey Point, Seabrook, Point Beach and Ginna. I am
2	attaching the spreadsheet as Exhibit (WRJ7). We noticed that one of the major EPU
3	projects planned for St. Lucie, specifically ***BEGIN CONFIDENTIAL SECTION***
4	***END CONFIDENTIAL
5	SECTION*** had no equivalent project at the other four units shown in the comparison
6	During a deposition we asked how the benchmarking exercise showed that the cost of
7	***BEGIN CONFIDENTIAL SECTION***
8	***END CONFIDENTIAL SECTION*** project was reasonable. FPL responded that
9	they had another comparison showing the reasonableness of the cost of this project and
10	that they would provide it as a late filed exhibit. The late filed exhibit provided by FPL,
11	which I am attaching as Exhibit(WRJ-8), revealed that the benchmarking study
12	relied upon for this project costing more than ***BEGIN CONFIDENTIAL
13	SECTION***
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	***END CONFIDENTIAL SECTION*** The

1		cost comparison used by FPL to justify this project on a single source basis is at best
2		what I would call a back-of-the-envelope calculation, and in my opinion is insufficient
3		to justify that the cost for a project of this magnitude is reasonable.
4		
5	Q.	DO YOU HAVE OTHER CONCERNS WITH FPL'S USE OF SOLE OR SINGLE
6 .		SOURCE CONTRACTS?
7	A.	Yes. From my review of the sole and single source justifications for many projects, it
8		appears that FPL is not rigorously following the requirements of NP-1100 ***BEGIN
9		CONFIDENTIAL SECTION ***
10		***END
11		CONFIDENTIAL SECTION*** The language in many of these justifications is so
12		similar that it appears their preparation is a matter of rote rather than a specific,
13		individual analysis. For example, the sentence ***BEGIN CONFIDENTIAL
14		SECTION***
15		****END COFNFIDENTIAL
16		SECTION***appears in several justifications. During discovery, we learned that at
17		times there has been a disconnect between the language of the justification
18		memorandum and the actual reason on which FPL relies.
19		***BEGIN CONFIDENTIAL SECTION***
20		
21		
22		
23		



1		These costs represent primarily carrying charges for costs that have been or will be
2		incurred to support activities required for the MUR and EPU projects.
3		
4	Q.	DID YOU IDENTIFY ANY ISSUES OF CONCERN WITH PEF'S REQUESTS
5		RELATED TO THE EPU PROJECTS?
6	A.	No, I did not.
7		
8	Q.	DID YOU REVIEW PEF'S TESTIMONY IN SUPPORT OF COSTS FOR THE
9		LEVY NUCLEAR PROJECT IN DOCKET NUMBER 080149?
10	A.	I briefly reviewed PEF's testimony concerning the Levy Nuclear Project. While I did
11		not identify any issues of concern in this filing, I did not conduct a detailed review of
12		this filing. I will conduct a detailed review of the Levy Nuclear Project when PEF
13		requests authorization to recover costs in the next NPCR cycle.
14		
15		VI. Conclusions and Recommendations
16		
17	Q.	PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING FPL'S
18		REQUEST FOR AUTHORIZATION TO COLLECT COSTS.
19	A.	Despite its stated preference for competitive bidding, FPL has used sole and single
20		source contracts extensively. I believe FPL has fallen short of demonstrating that the
21		costs associated with those contracts are reasonable. For example, as described above,
22		one project with costs of more than ***BEGIN CONFIDENTIAL SECTION***
23		

1 2

END CONFIDENTIAL SECTION Use of a sole or single source contract eliminates competitive bidding as a means of ensuring reasonable costs. Without a competitive bidding process, reasonable cost comparisons, benchmarks or analyses must be provided to demonstrate the reasonableness of the costs of sole or single source contracts.

A.

- Q. PLEASE PROVIDE YOUR RECOMMENDATIONS REGARDING FPL'S REQUEST FOR AUTHORIZATION TO COLLECT COSTS RELATED TO SOLE SOURCE AND SINGLE SOURCE CONTRACTS.
 - My observation applies to numerous sole and single source contracts, only several of which I have described in my testimony. The contracts vary widely in terms of the amounts of money they involve. Because of the materiality of the contract to which Exhibits __ and__ (WRJ-7 and WRJ-8) apply, I suggest the Commission focus on this item as the vehicle for communicating to FPL the importance of either adhering to a competitive bidding standard or justifying thoroughly a departure from this standard. I believe the Commission has several alternatives under the circumstances. My first recommendation stems from the fact that FPL's obligation to demonstrate the costs of the contract are reasonable is based on the need to apply its own standard as well as the requirement that it satisfy the Commission on this point. I believe it would be appropriate to disallow, and remove from the amount that flows through the cost

recovery clause, that portion of the carrying cost of the contract that represents the return that FPL is seeking to earn on its equity investment in the capital asset.

Alternatively, the Commission could withhold a portion of the requested carrying charges—I suggest 10% would be appropriate—and inform FPL that FPL will be allowed to collect the withheld portion from customers only if FPL can demonstrate the costs are reasonable in the next hearing cycle.

If the Commission considers this first round of hearings as uncharted territory, and for that reason decides to allow FPL to collect the entire amount of carrying charges, it should at a minimum place FPL on notice that on a going forward basis the Commission intends to require a rigorous and detailed justification for any departure from competitive bidding.

Q.

PLEASE PROVIDE YOUR RECOMMENDATIONS REGARDING RECOVERY OF ONLY INCREMENTAL COSTS FOR THE EXTENDED POWER UPRATE PROJECTS.

18 A. I note
19 advoc
20 absence
21 the EF

I note that the NFRs developed to date do not require the type of analysis that I advocate. I do not propose withholding any amounts from the utilities based on the absence of analyses that would disclose any recovery beyond the incremental costs of the EPU projects. However, I recommend that the Commission retain jurisdiction over these amounts, and require PEF and FPL to conduct analyses to identify which EPU costs are incremental to capital costs that would normally be expected during the

1		operational life of the nuclear power plants and present them during the hearing cycle
2		for the 2010 recovery factor. Only those incremental costs should be allowed to be
3		recovered through the Nuclear Cost Recovery Clause. The remainder of the costs, if any
4		should be refunded to customers and recovered through normal base rate cost recovery
5		mechanisms.
6		
7	Q.	DOES THAT CONCLUDE YOUR TESTIMONY?
8	A.	Yes, it does.

DOCKET NO. 080009-EI CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing public version of the Revised Direct Testimony and Exhibits of William R. Jacobs has been furnished by U.S. Mail to the following parties on this 30th day of July, 2008.

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Joseph A. McGlothlin
Joseph A. McGlothlin

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WRJ-1 Resume of William R. Jacobs, Jr., Ph.D.

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EDUCATION:

Ph.D., Nuclear

Engineering, Georgia Tech 1971

MS, Nuclear Engineering, Georgia Tech 1969 BS, Mechanical Engineering, Georgia Tech 1968

ENGINEERING REGISTRATION:

Registered

Professional Engineer

PROFESSIONAL MEMBERSHIP:

American

Nuclear Society

EXPERIENCE:

Dr. Jacobs has over thirty-five years of experience in a wide range of activities in the electric power generation industry. He has extensive experience in the construction, startup and operation of nuclear power plants. While at the Institute of Nuclear Power Operation (INPO), Dr. Jacobs assisted in development of INPO's outage management evaluation group. He has provided expert testimony related to nuclear plant operation and outages in Texas, Louisiana, South Carolina, Florida, Wisconsin, Indiana, Georgia and Arizona. He currently provides nuclear plant operational monitoring services for GDS clients. He is assisting the Florida Office of Public Counsel in monitoring the development of four new nuclear units in the State of Florida. He will provide testimony concerning the prudence of expenditures for these nuclear units. He has assisted the Georgia Public Service Commission staff in development of energy policy issues related to supply-side resources and in evaluation of applications for certification of power generation projects and assists the staff in monitoring the construction of these projects. He has also assisted in providing regulatory oversight related to an electric utility's evaluation of responses to an RFP for a supply-side resource and subsequent negotiations with short-listed bidders. He has provided technical litigation support and expert testimony support in several complex law suits involving power generation facilities. He monitors power plant operations for GDS clients and has provided testimony on power plant operations and decommissioning in several jurisdictions. Dr. Jacobs represents a GDS client on the management committee of a large coal-fired power plant currently under construction. Dr. Jacobs has provided testimony before the Georgia Public Service Commission, the Public Utility Commission of Texas, the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Iowa State Utilities Board, the Louisiana Public Service Commission, the Florida Public Service Commission, the Indiana Regulatory Commission, the Wisconsin Public Service Commission, the Arizona Corporation Commission and the FERC.

A list of Dr. Jacobs' testimony is available upon request.

1986-Present GDS Associates, Inc.

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As Vice-President, Dr. Jacobs directs GDS' nuclear plant monitoring activities and has assisted clients in evaluation of management and technical issues related to power plant construction, operation and design. He has evaluated and testified on combustion turbine projects in certification hearings and has assisted the Georgia PSC in monitoring the construction of the combustion turbine projects. Dr. Jacobs has evaluated nuclear plant operations and provided testimony in the areas of nuclear plant operation, construction prudence and decommissioning in nine states. He has provided litigation support in complex law suits concerning the construction of nuclear power facilities.

1985-1986 Institute of Nuclear Power Operations (INPO)

Dr. Jacobs performed evaluations of operating nuclear power plants and nuclear power plant construction projects. He developed INPO Performance Objectives and Criteria for the INPO Outage Management Department. Dr. Jacobs performed Outage Management Evaluations at the following nuclear power plants:

- Connecticut Yankee Connecticut Yankee Atomic Power Co.
- Callaway Unit I Union Electric Co.
- Surry Unit I Virginia Power Co.
- Ft. Calhoun Omaha Public Power District
- Beaver Valley Unit 1 Duquesne Light Co.

During these outage evaluations, he provided recommendations to senior utility management on techniques to improve outage performance and outage management effectiveness.

1979-1985 Westinghouse Electric Corporation

As site manager at Philippine Nuclear Power Plant Unit No. 1, a 655 MWe PWR located in Bataan, Philippines, Dr. Jacobs was responsible for all site activities during completion phase of the project. He had overall management responsibility for startup, site engineering, and plant completion departments. He managed workforce of approximately 50 expatriates and 1700 subcontractor personnel. Dr. Jacobs provided day-to-day direction of all site activities to ensure establishment of correct work priorities, prompt resolution of technical problems and on schedule plant completion.

Prior to being site manager, Dr. Jacobs was startup manager responsible for all startup activities including test procedure preparation, test performance and review and acceptance of test results. He established the system turnover program, resulting in a timely turnover of systems for startup testing.

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As startup manager at the KRSKO Nuclear Power Plant, a 632 MWE PWR near Krsko, Yugoslavia, Dr. Jacobs' duties included development and review of startup test procedures, planning and coordination of all startup test activities, evaluation of test results and customer assistance with regulatory questions. He had overall responsibility for all startup testing from Hot Functional Testing through full power operation.

<u>1973 - 1979</u> NUS Corporation

As Startup and Operations and Maintenance Advisor to Korea Electric Company during startup and commercial operation of Ko-Ri Unit 1, a 595 MWE PWR near Pusan, South Korea, Dr. Jacobs advised KECO on all phases of startup testing and plant operations and maintenance through the first year of commercial operation. He assisted in establishment of administrative procedures for plant operation. As Shift Test Director at Crystal River Unit 3, an 825 MWE PWR, Dr. Jacobs directed and performed many systems and integrated plant tests during startup of Crystal River Unit 3. He acted as data analysis engineer and shift test director during core loading, low power physics testing and power escalation program.

As Startup engineer at Kewaunee Nuclear Power Plant and Beaver Valley, Unit 1, Dr. Jacobs developed and performed preoperational tests and surveillance test procedures.

1971 - 1973 Southern Nuclear Engineering, Inc.

Dr. Jacobs performed engineering studies including analysis of the emergency core cooling system for an early PWR, analysis of pressure drop through a redesigned reactor core support structure and developed a computer model to determine tritium build up throughout the operating life of a large PWR.

SIGNIFICANT CONSULTING ASSIGNMENTS:

<u>East Texas Electric Cooperative</u> – Represents ETEC on the management committee of the Plum Point Unit 1 a 650 Mw coal-fired plant under construction in Osceola, Arkansas and represents ETEC on the management committee of the Harrison County Power Project, a 525 Mw combined cycle power plant located near Marshall, Texas.

<u>Arizona Corporation Commission</u> – Evaluated operation of the Palo Verde Nuclear Generating Station during the year 2005. Included evaluation of 11 outages and providing written and oral testimony before the Arizona Corporation Commission.

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<u>Citizens Utility Board of Wisconsin</u> – Evaluated Spring 2005 outage at the Kewaunee Nuclear Power Plant and provided direct and surrebuttal testimony before the Wisconsin Public Service Commission.

<u>Georgia Public Service Commission</u> - Assisted the Georgia PSC staff in evaluation of Integrated Resource Plans presented by two investor owned utilities. Review included analysis of purchase power agreements, analysis of supply-side resource mix and review of a proposed green power program.

<u>State of Hawaii, Department of Business, Economic Development and Tourism</u> – Assisted the State of Hawaii in development and analysis of a Renewable Portfolio Standard to increase the amount of renewable energy resources developed to meet growing electricity demand. Presented the results of this work in testimony before the State of Hawaii, House of Representatives.

Georgia Public Service Commission - Assisted the Georgia PSC staff in providing oversight to the bid evaluation process concerning an electric utility's evaluation of responses to a Request for Proposals for supply-side resources. Projects evaluated include simple cycle combustion turbine projects, combined cycle combustion turbine projects and co-generation projects.

<u>Millstone 3 Nuclear Plant Non-operating Owners</u> — Evaluated the lengthy outage at Millstone 3 and provided analysis of outage schedule and cost on behalf of the non-operating owners of Millstone 3. Direct testimony provided an analysis of additional post-outage O&M costs that would result due to the outage. Rebuttal testimony dealt with analysis of the outage schedule.

<u>H.C. Price Company</u> – Evaluated project management of the Healy Clean Coal Project on behalf of the General Contractor, H.C. Price Company. The Healy Clean Coal Project is a 50 megawatt coal burning power plant funded in part by the DOE to demonstrate advanced clean coal technologies. This project involved analysis of the project schedule and evaluation of the impact of the owner's project management performance on costs incurred by our client.

<u>Steel Dynamics, Inc.</u> – Evaluated a lengthy outage at the D.C. Cook nuclear plant and presented testimony to the Indiana Utility Regulatory Commission in a fuel factor adjustment case Docket No. 38702-FAC40-S1.

<u>Florida Office of Public Counsel</u> - Evaluated lengthy outage at Crystal River Unit 3 Nuclear Plant. Submitted expert testimony to the Florida Public Service Commission in Docket No. 970261-EI.

<u>United States Trade and Development Agency</u> - Assisted the government of the Republic of Mauritius in development of a Request for Proposal for a 30 MW power plant to be built on a Build, Own, Operate (BOO) basis and assisted in evaluation of Bids.

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<u>Louisiana Public Service Commission Staff</u> - Evaluated management and operation of the River Bend Nuclear Plant. Submitted expert testimony before the LPSC in Docket No. U-19904.

<u>U.S. Department of Justice</u> - Provided expert testimony concerning the in-service date of the Harris Nuclear Plant on behalf of the Department of Justice U.S. District Court.

<u>City of Houston</u> - Conducted evaluation of a lengthy NRC required shutdown of the South Texas Project Nuclear Generating Station.

Georgia Public Service Commission Staff - Evaluated and provided testimony on Georgia Power Company's application for certification of the Intercession City Combustion Turbine Project - Docket No. 4895-U.

<u>Seminole Electric Cooperative, Inc.</u> - Evaluated and provided testimony on nuclear decommissioning and fossil plant dismantlement costs - FERC Docket Nos. ER93-465-000, <u>et al.</u>

Georgia Public Service Commission Staff - Evaluated and prepared testimony on application for certification of the Robins Combustion Turbine Project by Georgia Power Company - Docket No. 4311-U.

North Carolina Electric Membership Corporation - Conducted a detailed evaluation of Duke Power Company's plans and cost estimate for replacement of the Catawba Unit 1 Steam Generators.

Georgia Public Service Commission Staff - Evaluated and prepared testimony on application for certification of the McIntosh Combustion Turbine Project by Georgia Power Company and Savannah Electric Power Company - Docket No. 4133-U and 4136-U.

New Jersey Rate Counsel - Review of Public Service Electric & Gas Company nuclear and fossil capital additions in PSE&G general rate case.

<u>Corn Belt Electric Cooperative/Central Iowa Power Electric Cooperative</u> - Directs an operational monitoring program of the Duane Arnold Energy Center (565 Mwe BWR) on behalf of the non-operating owners.

<u>Cities of Calvert and Kosse</u> - Evaluated and submitted testimony of outages of the River Bend Nuclear Station - PUCT Docket No. 10894.

<u>Iowa Office of Consumer Advocate</u> - Evaluated and submitted testimony on the estimated decommissioning costs for the Cooper Nuclear Station - IUB Docket No. RPU-92-2.

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Georgia Public Service Commission/Hicks, Maloof & Campbell - Prepared testimony related to Vogtle and Hatch plant decommissioning costs in 1991 Georgia Power rate case - Docket No. 4007-U.

<u>City of El Paso</u> - Testified before the Public Utility Commission of Texas regarding Palo Verde Unit 3 construction prudence - Docket No. 9945.

<u>City of Houston</u> - Testified before Texas Public Utility Commission regarding South Texas Project nuclear plant outages - Docket No. 9850.

<u>NUCOR Steel Company</u> - Evaluated and submitted testimony on outages of Carolina Power and Light nuclear power facilities - SCPSC Docket No. 90-4-E.

Georgia Public Service Commission/Hicks, Maloof & Campbell - Assisted Georgia Public Service Commission staff and attorneys in many aspects of Georgia Power Company's 1989 rate case including nuclear operation and maintenance costs, nuclear performance incentive plan for Georgia and provided expert testimony on construction prudence of Vogtle Unit 2 and decommissioning costs of Vogtle and Hatch nuclear units - Docket No. 3840-U.

<u>Swidler & Berlin/Niagara Mohawk</u> - Provided technical litigation support to Swidler & Berlin in law suit concerning construction mismanagement of the Nine Mile 2 Nuclear Plant.

<u>Long Island Lighting Company/Shea & Gould</u> - Assisted in preparation of expert testimony on nuclear plant construction.

North Carolina Electric Membership Corporation - Prepared testimony concerning prudence of construction of Carolina Power & Light Company's Shearon Harris Station - NCUC Docket No. E-2, Sub537.

<u>City of Austin, Texas</u> - Prepared estimates of the final cost and schedule of the South Texas Project in support of litigation.

<u>Tex-La Electric Cooperative/Brazos Electric Cooperative</u> - Participated in performance of a construction and operational monitoring program for minority owners of Comanche Peak Nuclear Station.

<u>Tex-La Electric Cooperative/Brazos Electric Cooperative/Texas Municipal Power Authority (Attorneys - Burchette & Associates, Spiegel & McDiarmid, and Fulbright & Jaworski) - Assisted GDS personnel as consulting experts and litigation managers in all aspects of the lawsuit brought by Texas Utilities against the minority owners of Comanche Peak Nuclear Station.</u>

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SINGLE SOURCE JUSTIFICFATION (EXAMPLE #2)

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SINGLE SOURCE JUSTIFICFATION (EXAMPLE #5)

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Contract on Spreadsheet
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