

STATE OF FLORIDA

Commissioners: *

J. TERRY DEASON, CHAIRMAN
SUSAN F. CLARK
E. LEON JACOBS, JR.
LILA A. JABER



DIVISION OF RECORDS & REPORTING
BLANCA S. BAYÓ
DIRECTOR
(850) 413-6770

Public Service Commission

M-E-M-O-R-A-N-D-U-M

DATE: August 7, 2000

TO: _____ DIVISION OF APPEALS
_____ DIVISION OF COMPETITIVE SERVICES
_____ DIVISION OF ECONOMIC REGULATION
_____ DIVISION OF LEGAL SERVICES
_____ DIVISION OF POLICY ANALYSIS & INTERAGENCY LIAISON
_____ DIVISION OF REGULATORY OVERSIGHT
xx _____ DIVISION OF SAFETY & ELECTRIC RELIABILITY

FROM: DIVISION OF RECORDS AND REPORTING (Lockard)

RE: CONFIDENTIALITY OF CERTAIN INFORMATION

DOCUMENT NO: 09534-00 and 09535-00

DESCRIPTION: Direct testimony of John B. Crisp with attached Need Study and Supplemental direct testimony of Alan S. Taylor

SOURCE: Florida Power Corporation

DOCKET NO: 001064-EI

The above material was received with a request for confidentiality (attached). Please prepare a recommendation for the attorney assigned to the case by completing the section below and forwarding a copy of this memorandum, together with a brief memorandum supporting your recommendation, to the attorney. Copies of your recommendation should also be provided to the Division of Records and Reporting and to the Division of Appeals.

Please read each of the following and check if applicable.

- _____ The document(s) is (are), in fact, what the utility asserts it (them) to be.
- _____ The utility has provided enough details to perform a reasoned analysis of its request.
- _____ The material has been received incident to an inquiry.
- _____ The material is confidential business information because

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Public Service Commission

ACKNOWLEDGMENT

DATE: 8/7/00

TO: SASSO / ALDO LANTIERA

FROM: E. LEON JACOBS, Division of Records and Reporting

RE: Acknowledgment of Receipt of Confidential Filing

This will acknowledge receipt of a CONFIDENTIAL DOCUMENT filed in Docket No.

001364-21 or (if filed in an undocketed matter) concerning _____

FPC NEED DETERMINATION, and filed on behalf of _____

FPC. The document will

be maintained in locked storage.

Any questions regarding this matter should be directed to Kay Flynn at (850) 413-6744.

PSC/RAR 19 (3/00)

IN RE: PETITION FOR DETERMINATION OF NEED
BY FLORIDA POWER CORPORATION
FPSC DOCKET NO. 001064-EI

CONFIDENTIAL DIRECT TESTIMONY OF JOHN B. CRISP

1 I. INTRODUCTION AND BACKGROUND.

2

3 Q. Please state your name and business address.

4 A. My name is John B. Crisp, and my business address is Florida Power Corporation,
5 One Power Plaza, 263 13th Avenue, St. Petersburg, Florida 33701.

6

7 Q. By whom are you employed?

8 A. I am employed by Florida Power Corporation ("FPC" or the "Company"), as the
9 Director of Integrated Resource Planning and Load Forecasting.

10

11 Q. Are you filing non-confidential direct testimony in this proceeding?

12 A. Yes.

13

14 Q. Have you described your duties as Director of Resource Planning and other
15 pertinent background information in that testimony?

16 A. Yes, I have.

17

MAK 4.16.02
DECLASSIFIED
CONFIDENTIAL

1

DOCUMENT NUMBER-DATE
09534 AUG-78

1 **II. PURPOSE AND SUMMARY OF TESTIMONY.**

2

3 **Q. What is the purpose of your confidential testimony in this proceeding?**

4 A. In response to the Company's Request for Proposals ("RFP"), we received proposals
5 from two bidders, (1) Panda Leesburg, L.L.C. ("Panda") and (2) TECO Power
6 Services Corporation ("TECO") and Texaco Power and Gasification Global, Inc.
7 ("Texaco"), acting through a joint venture called "Eagle Energy." Both bidders
8 requested confidential treatment of the terms of their proposals. We evaluated both
9 proposals thoroughly, and we would like to describe these proposals and our
10 evaluation of them for the benefit of the Commission. In deference to the requests
11 for confidentiality by both of these bidders, however, we are referring to the bidders
12 simply as Bidder A and Bidder B, respectively, in our non-confidential testimony
13 and exhibits, and we do not describe the proposals or our evaluation of them in any
14 detail in our non-confidential submissions. That being the case, I am filing this
15 confidential testimony and supporting exhibits to describe the terms of the proposals
16 and our evaluation of them.

17

18 **Q. Are you sponsoring any confidential exhibits to your testimony?**

19 A. Yes. I am sponsoring the following confidential appendix items to the confidential
20 portion of our Need Study in this non-public portion of my testimony:

21

1	(Confidential) JBC-3, App. 1	Panda proposal.
	(Confidential) JBC-3, App. 2	Eagle Energy proposal.
	(Confidential) JBC-3, App. 3	Composite exhibit of correspondence concerning required information and the Bidders' responses.
	(Confidential) JBC-3, App. 4	Composite exhibit of correspondence concerning supplementation and clarification of the Bidders' proposals.
	(Confidential) JBC-3, App. 5	Economic comparison in initial screening of Hines 2 and the Panda and Eagle Energy proposals.
	(Confidential) JBC-3, App. 6	Economic comparison in supplemental screening of Hines 2 and the Panda and Eagle Energy proposals.
	(Confidential) JBC-3, App. 7	Evaluation of non-price attributes of Panda proposal.
	(Confidential) JBC-3, App. 8	Evaluation of non-price attributes of Eagle Energy proposal.

18 **III. OVERVIEW OF PANDA AND EAGLE ENERGY PROPOSALS.**

19

20 **Q. Please provide an overview of Panda's proposal.**

21 A. In our RFP we had identified a long-term need for generating capacity equivalent to
 22 our next-planned 530 MW, 25-year combined cycle Hines 2 unit. In response,
 23 Panda proposed to enter into a 2-year system power purchase agreement with FPC
 24 for 250 MW, with options to extend for 1-year periods for up to three additional
 25 years (for a total possible contract period of five years). Panda proposed to support

1 this contract primarily from a planned 1,000 MW gas-fired, combined cycle
2 generating plant – the Panda Leesburg plant – then the subject of a petition for
3 determination of need before the PSC. (PSC Docket No. 000288-EU). Panda also
4 expressed an ability to provide increased availability of the contracted capacity by
5 providing energy from various sources, including its proposed Panda Midway plant,
6 (another proposed 1,000 MW gas-fired, combined cycle plant), as necessary.

7 In the documentation describing its proposal, Panda indicated that it intended
8 to commit no more than 500 MW of the total capacity of either the Leesburg Plant
9 or the Midway Plant under firm power purchase agreements, operating the balance
10 of the plants on a merchant basis. Panda proposed capacity payments starting at
11 approximately \$81 per kw-yr, escalating at 5 percent annually after the base 2-year
12 period, and Panda proposed an indexed energy rate.

13 A copy of Panda’s full proposal is included as a confidential appendix item
14 to FPC’s Confidential Section of its Need Study, App. 1 to (Confidential) JBC-3.
15

16 **Q. Please provide a general overview of the Eagle Energy proposal.**

17 A. In its proposal, Eagle Energy chose a more complex operating technology from the
18 Hines 2 natural gas-fired, combined cycle technology and proposed to build a much
19 larger unit as well (exceeding our identified need by nearly 50 percent).
20 Specifically, Eagle Energy initially proposed to build an 809 MW power plant at the
21 Hines Energy Complex, using petroleum coke (“petcoke”) feedstock (fuel source)
22 and integrated gasification combined cycle (“IGCC”) technology. Eagle Energy
23 subsequently revised its proposal, after further refining the plant design, offering to

1 construct a 740 MW and then a 750 MW plant. Eagle Energy proposed to place the
2 plant in service in the spring of 2004 — several months after the RFP requested in-
3 service date, after the proposed in-service date of Hines 2, and after the winter of
4 2003/04 when additional capacity will be needed by FPC. Eagle Energy offered to
5 contract with FPC for any capacity level between 500 MW and the full 750 MW
6 capability of the Eagle Energy plant, at FPC’s discretion, for a 25-year period.

7 Eagle Energy proposed to obtain the petcoke needed for the plant from Gulf
8 Coast and Caribbean basin refineries. Eagle Energy would arrange to have the
9 petcoke carried to Tampa Bay by ocean barges, and then from the port a third of the
10 way across the state to the plant site requiring at least 250 tandem truck trips every
11 day (averaging at least one truck every six minutes around the clock).

12 The Eagle Energy proposal called for high capacity charges (approximately
13 \$230 per kw-yr, escalated at two percent per year) and low energy charges
14 (approximately \$3.53 per MWh, escalating at two percent) for the life of the
15 contract. This magnitude of the proposed capacity charges was significant. Eagle
16 Energy proposed a cap on capacity liquidated damages of ten percent of the capacity
17 charges, meaning that FPC would be liable for exceptionally high capacity payments
18 even in the event of non-performance.

19 A copy of Eagle Energy’s full proposal is included as a confidential
20 appendix item to FPC’s confidential portion of its Need Study, App. 2 to
21 (Confidential) JBC-3.

1 **Q. Did you seek additional information from these bidders?**

2 A. Yes, we did. In both cases, the bidders failed to include information in their original
3 submissions that we had required in our RFP. So our first step was to contact both
4 bidders to ask for pertinent information that was requested in the RFP but was not
5 submitted; this was information that was necessary to complete an objective and
6 comprehensive evaluation of each proposal. Both bidders provided additional
7 information in response to these requests. The correspondence between FPC and
8 both bidders concerning our follow-up requests for information is included in FPC's
9 Confidential Section of its Need Study, Appendix 3, (Confidential) JBC-3.

10 Following our preliminary review of the proposals, we then contacted both
11 Panda and Eagle Energy to ask for additional information pertinent to the proposals,
12 as indicated in Appendix 4 to FPC's Confidential Section of its Need Study,
13 (Confidential) JBC-3.

14 In Panda's case, among other things, we advised Panda that no other bidder
15 had offered a proposal that we could combine with Panda's 250 MW, 2- to 5-year
16 contract proposal in order to reach our 530 MW, 25-year need. So we asked Panda
17 whether it would be willing to increase its commitment of MWs and lengthen the
18 contract duration to better match the need identified in our RFP. In response, Panda
19 advised us that it would be willing to enter into a contract with FPC for a second
20 block of power of 250 MW. The proposed capacity charges in the second block
21 were \$109 per kw-yr, escalating at 3.5 percent annually after an initial two-year
22 period, which was higher than the first block, which started at approximately \$ 81
23 per kw-yr and escalated at 5 percent annually after the initial 2-year period. Both

1 blocks proposed had the same indexed, formula energy rate. In Panda's original
2 proposal, the bidder had offered 29 MW of supplemental capacity, at the same
3 capacity price per kW-yr, but with a significant heat rate penalty. With the second
4 capacity block, Panda also offered an additional 1 MW of supplemental capacity to
5 bring their total capacity offering to 530 MW, meeting FPC's capacity requirement.
6 Panda stated that it was not interested in extending the contract term, however,
7 though it would be willing to negotiate another contract at the end of the maximum
8 5-year contract period, with no assurance that the contract would in fact be extended.

9 This was significant because it meant that FPC would have to build or
10 purchase a 530 MW block of capacity (the equivalent of the Hines 2 plant) no later
11 than the expiration of the contract option periods (i.e., no later than five years out
12 from 2003), in addition to other units planned in FPC's Ten-Year Site Plan.
13 Contracting with Panda would thus impose uncertainty and market risk on FPC that
14 it would not have to face if it built the Hines 2 power plant, as planned, by the end of
15 November 2003. The fact that Panda declined to commit beyond the 5-year period
16 suggests that Panda may have a favorable view of opportunity sales in the post five-
17 year time frame. FPC would be forced to enter the opportunity market at this time,
18 having forfeited the hedging effect of a long-term generation resource in preference
19 for Panda's short-term supply contract. In addition, FPC would lose the opportunity
20 to exercise its previously negotiated agreement providing for a below-market price
21 and other favorable contract terms with its equipment supplier if FPC did not move
22 forward with Hines 2 in 2003. In all likelihood, FPC would have to pay
23 considerably more to build even the same unit five years out. If FPC elected to

1 contract with Panda, FPC would lose its place in the queue with its equipment
2 supplier and forfeit its below-market purchasing opportunity.

3 FPC requested clarification of a number of aspects of Eagle Energy's

4 proposal as well. For example, Eagle Energy's proposal called for high capacity
5 costs and low energy costs for the life of the contract. But the proposal omitted any
6 parent performance guarantees to support the limited capacity performance
7 guarantees provided by the joint venture subsidiaries. Further, the proposal provided
8 for capacity liquidated damages not to exceed 10 percent of the capacity charges for
9 the plant. What this meant was, if the plant were to go out of service for, say, nine
10 months, FPC would be obligated to pay 90 percent (or more) of the high capacity
11 charges during these nine months, even though no energy would be delivered. In
12 addition, FPC would have to go to the market to replace up to 530 MW of capacity
13 and energy, with no recourse against either TECO or Texaco. This was a significant
14 concern because, among other things, there is only one (small 35 MW) petcoke
15 IGCC plant generating electricity in the U.S. today (which happens to be operated
16 by another Texaco subsidiary), and Texaco declined to provide FPC with proprietary
17 performance data concerning that plant.

18 FPC asked Eagle Energy whether TECO's or Texaco's parent companies
19 would be willing to provide guarantees and whether Eagle Energy would be willing
20 to provide more meaningful capacity liquidated damages in the event of non-
21 performance. Eagle Energy responded that it was not their intent to accommodate
22 FPC in either respect.

23

1 IV. EVALUATION OF THE PROPOSALS.

2

3 **Q. Did FPC evaluate both proposals?**

4 A. Yes, we did.

5

6 **Q. Please tell us what initial steps you took to conduct your evaluation.**

7 A. As I explained, our evaluation actually began from the time we opened the bids.

8 Our first step was to ensure that we had all the information that we had requested in

9 our RFP to enable a thorough evaluation of all proposals. After taking steps to

10 acquire anything that was missing, we analyzed the proposals to make sure we

11 understood what was being offered. As a part of this review, we wrote to and met

12 with representatives of each bidder to make sure that we understood the proposals

13 and to obtain clarifying information, as may be needed.

14 After we had fully explored each proposal with representatives of the

15 bidders, and we were sure we understood what each bidder was offering, we

16 conducted an analysis of both the price terms and non-price attributes of each

17 proposal.

18 I should point out that, at the time these proposals were received, we had yet

19 to receive the result of the Supreme Court's decision in the Duke appeal. Apart

20 from any impact of that decision on the viability of either of these proposals, we

21 conducted a full analysis of all other pertinent aspects of each proposal and

22 concluded that, irrespective of the significant regulatory risk associated with each

23 proposal, neither proposal would be a superior or even an equivalent alternative to

1 the Hines 2 power plant. Hines 2 appeared to be a significantly superior alternative
2 to both proposals, even apart from the regulatory risks or prohibitions concerning the
3 merchant aspects of both projects.

4
5 **Q. Please explain how you analyzed the price terms of the proposals.**

6 A. The first thing we did was to put each proposal in its best light. Accordingly, in
7 conducting an analysis of the price terms of the Panda proposal, we had to take steps
8 to account for the fact that the Panda proposal offered a much shorter contract term
9 than we needed. The proposal offered options for a contract term of two, three, four,
10 or five years, for two separate blocks of 250 MW, each priced differently, with
11 supplemental capacity up to 30 additional MW available to FPC on an incremental
12 basis. To deal with the shorter contract term and the option of accepting either one
13 or both of the two differently priced blocks, we used the PROVIEW optimization
14 module of New Energy Associate's proprietary PROSCREEN modeling tool (1) to
15 combine various components of the Panda proposal with various other options that
16 we might pursue (for example, building peakers or combined cycles) to meet the
17 capacity and term requirements of our need and (2) to compare economic outcomes
18 based on comparative revenue requirements from a customer perspective (referring
19 to a comparison of revenues required to support Hines 2 versus the other proposed
20 scenarios). In optimizing the Panda proposal, the PROVIEW screening run
21 indicated that the best expansion plan alternative involving a Panda proposal option
22 would be to contract with Panda for 530 MW for two years (including the additional
23 30 MW "supplemental" capacity), and then build (or contract for) a generating unit

1 equivalent to Hines 2 at the expiration of the 2-year contract term to meet our need
2 after the Panda contract expired. Thus, at best, the Panda proposal would not allow
3 FPC to avoid building Hines 2, but would merely defer the need for the plant (or its
4 equivalent) by two years.

5 To evaluate the Eagle Energy project, we performed economic evaluations
6 with PROVIEW based on assumptions that we would contract for either the 530
7 MW we actually need or the full 750 MW of the proposed plant. In optimizing the
8 Eagle Energy proposal, PROVIEW indicated that the best scenario involving Eagle
9 Energy would be to contract with Eagle Energy for the 530 MW of the plant that we
10 actually needed.

11 The next step was to use PROVIEW to compare the best Panda scenario and
12 the best Eagle Energy scenario with Hines 2. In each case, Hines 2 proved to be the
13 superior alternative. See Appendix 5 to (Confidential) JBC-3.

14 Even when both proposals were modeled in the best light, given FPC's
15 system needs, neither one surpassed the Hines 2 resource option in the initial
16 screening. FPC could have stopped there. But, because FPC had received only two
17 proposals in response to its RFP, FPC elected to add an additional screening process
18 to its evaluation of the two proposals, providing for an even more refined assessment
19 of both the price and non-price attributes of the proposals. In this supplemental
20 screening process, neither proposal was omitted, and both were again compared to
21 the Hines 2 resource option.

22 In the supplemental screening process, we used Henwood Energy Services,
23 Inc.'s proprietary PROSYM production costing model and an Excel proforma

1 financial spreadsheet to develop more detailed system revenue requirements
2 comparisons between the options. In doing so, we were able to perform a more
3 sophisticated comparison of the price attributes of the best Panda option with Hines
4 2 and of the best Eagle Energy option with Hines 2. The results of these
5 comparisons, the cumulative present worth revenue requirements (“CPWRR”) of
6 each resource option, are reflected in Appendix 6 to the Confidential Section of
7 FPC’s Need Study, (Confidential) JBC-3. This graph depicts the revenue
8 requirements associated with Hines 2 as the baseline (the horizontal axis) and
9 depicts the revenue requirements associated with the Panda and Eagle Energy
10 proposals as the curves above the Hines 2 baseline when they are more expensive
11 than Hines 2 (and below the line if they are less expensive).

12 As the graph shows, the best Panda scenario would impose revenue
13 requirements over a 25-year period of at least \$66 million more than the projected
14 Hines 2 revenue requirements. The projected revenue requirements of the best
15 Eagle Energy proposal will exceed the projected revenue requirements of Hines 2 by
16 at least \$302 million over the same 25-year period of time.

17
18 **Q. Please describe key assumptions and data that you used in making these**
19 **comparisons.**

20 A. The Company’s forecasts of customers, energy sales, peak demand, fuel, and
21 economic factors remained consistent with the key forecasts and assumptions used
22 in the IRP update and Ten-Year Site Plan. Another critical component in the
23 supplemental screening evaluation of the bids was the analysis of the capital

1 requirements associated with each bid and the Hines 2 resource option. This
2 analysis allows us to assess both the costs associated with placing each resource
3 option into service on FPC's system and the impact of those costs on the Company.

4 One component in this part of our evaluation of the price terms of the bids was the
5 recognition of the impact of the imputed debt that would be associated with each of
6 the proposals. The financial community considers long-term contractual
7 arrangements as analogous to debt obligations of the responsible company. In
8 recognition of the financial obligation underlying a long-term contract, agencies,
9 such as Moody's and Standard & Poors, that establish the financial ratings of
10 companies like FPC will impute an appropriate level of debt in their evaluations of
11 the company's financial condition representing the cost of the contract, thereby
12 increasing that company's cost of capital. Consideration of such imputed debt is
13 required by the PSC rules. Subsection 7 of PSC Rule 25-22.081 (concerning what a
14 utility must show in its petition for a determination of need) states that "[i]f the
15 generation addition is the result of a purchased power agreement between an
16 investor-owned utility and a non-utility generator, the petition shall include a
17 discussion of the potential for increases . . . in the utility's cost of capital . . ."

18 When imputing a level of debt associated with a contractual arrangement, a
19 rating agency will first determine a "risk factor" to be applied to the contract. This
20 risk factor is statistically determined, based upon the underlying characteristics of
21 the contract (for example, fixed versus variable payments, provisions for liquidated
22 damages, etc.). The rating agency will then apply the risk factor to the cumulative
23 net present value of the projected payment stream associated with the contract to

1 calculate the amount of debt that will be imputed. As a point of reference, Standard
2 & Poors currently applies a 40 percent risk factor when imputing debt associated
3 with the Company's existing unit power sale contract with the Southern Company.

4 In order to ensure that imputed debt was accurately reflected in our financial
5 evaluation process, the Company contacted Standard & Poors to determine what risk
6 factor the rating agency might assign to the proposals made by the bidders on this
7 project. Panda's contract would involve a risk factor similar to the factor assigned to
8 the Company's contract with the Southern Company (~ 40 percent), but the overall
9 imputed debt would be very small because the contract term, even with the options
10 included, would be so short. Eagle Energy's contract, however, would involve a
11 higher risk factor (at least 50 percent and more probably 60 percent or higher),
12 because it is a longer-term proposal and because it is structured as a "take or pay"
13 contract. To be conservative (most favorable to Eagle Energy), we used a risk factor
14 of 40 percent in our evaluations (the same risk factor used to impute debt for our
15 existing contract with the Southern Company).

16 By multiplying that risk factor against the net present value of capacity
17 payments under a long-term contract, we obtain the amount of debt that rating
18 agencies reasonably will impute to the Company's balance sheets due to the
19 contract. Since electric utilities, like other businesses, try to maintain a reasonable
20 balance between debt and equity, the Company would need to raise an equivalent
21 amount of equity (at an after tax cost of equity of roughly 12 percent) to offset this
22 imputed debt. This is the manner in which a power purchase agreement will lead to

1 increased capital costs for the Company, and this impact is reflected in Appendices
2 5, and 6, to the Confidential Section of the Need Study, (Confidential) JBC- 3.

3 Even without taking into account the cost of imputed debt, Hines 2 would be
4 economically more advantageous than either proposal over the life of the Hines 2
5 plant (with the Eagle Energy option costing less than Hines 2 only in the early
6 years). Absent any impact by imputed debt, and over the 25-year period, the
7 revenue requirements for the Panda project would exceed those for Hines 2 by at
8 least \$62 million, and the revenue requirements for the Eagle Energy project would
9 exceed those of Hines 2 by at least \$8 million, on price-related factors alone. When
10 imputed debt is taken into account, Hines 2 is clearly superior to both proposals.

11
12 **Q. Did you perform any sensitivity analyses?**

13 A. Yes, we did. In addition to the base case analysis performed in the supplemental
14 screening phase, we examined several sensitivities to identify variances, if any, that
15 would warrant additional consideration in any of the scenarios. These sensitivities
16 included a high-fuel price forecast case, a low-fuel price forecast case, and a case
17 referred to as the "Gulfstream" sensitivity that represented a scenario in which that
18 proposed competing gas pipeline was developed and lower cost transportation was
19 available to us.

20 With respect to the Panda proposal, the difference in the CPWRR was
21 slightly higher in all of the sensitivities, and was highest (\$84 Million) in the
22 "Gulfstream" scenario, which presumes that Hines 2 would have access to the same
23 gas transportation option as Panda was depending on.

1 The only case in which the margins narrowed for Eagle Energy was the high-
2 fuel price forecast case. Since Eagle Energy's proposed energy price was fixed and
3 all other fuels prices were increasing, the result was expected. However, even in this
4 case, the Eagle Energy proposal was roughly \$234 Million more expensive than the
5 Hines 2 option. In the "Gulfstream" scenario, the cost increased to roughly \$366
6 Million.

7 Overall, the results from the sensitivity analyses were consistent with the
8 results of the base case analysis, with Hines 2 remaining the least-cost option. The
9 sensitivity studies helped confirm that Hines 2 was a robust option and that we
10 should be confident in moving forward with the selection process.

11
12 **Q. Did you evaluate the non-price attributes of both proposals?**

13 A. Yes, we did.

14
15 **Q. Please describe your evaluation of the non-price attributes of the proposals.**

16 A. We had identified a number of non-price attributes in our RFP that we anticipated
17 might be relevant and significant to the evaluation of competing proposals, though
18 we made clear in our RFP and during the pre-bid meeting that we wanted to
19 encourage creativity and innovation on the part of prospective bidders, on price and
20 non-price aspects of any proposal.

21 We reviewed each proposal thoroughly to analyze the strengths and
22 weaknesses of all non-price attributes of each proposal, and we developed a matrix
23 reflecting the results of our analysis. We decided not to attempt to assign numerical

1 values to these factors because (1) the analysis was often subjective, (2) the value of
2 a particular factor, either pro or con, might differ in the context of different
3 proposals, and (3) comparing one factor to another would be like comparing apples
4 to oranges and thus could not be done on an exact numerical basis. The matrices we
5 prepared reflecting the results of our evaluation of non-price attributes are included
6 as Appendix 7 (Panda) and Appendix 8 (Eagle Energy) to the Confidential Section
7 of FPC's Need Study, (Confidential) JBC-3.

8 Apart from the clear regulatory risks (or prohibitions) associated with each
9 proposal, each presented a number of significant non-price detractions. For
10 example, the Panda proposal, among other things, allowed Panda to walk away from
11 the project without recourse as late as September 2001 if Panda could not obtain
12 financing for any reason. This would severely jeopardize FPC's project timetable
13 and require that we keep alive the prospect of building Hines 2 in the meantime,
14 which would require continuing costs for regulatory approval, equipment, and other
15 uneconomic measures. In addition, Panda proposed no backup fuel capability for
16 the Panda Leesburg power plant. Although Panda indicated it would obtain natural
17 gas from Gulfstream to serve the Panda Leesburg plant, Panda stated that it would
18 be able to obtain backup fuel for the plant by having Gulfstream backhaul gas from
19 FGT's proposed connection with a second 1,000 MW plant Panda proposed to build,
20 called the Panda Midway plant. This backup fuel plan is unusual and a tenuous
21 arrangement because it is premised on infrastructure technology – multiple pipelines
22 and pumping stations – that does not exist in the State of Florida.

1 Additionally, we could see from Panda's documentation that it has begun an
2 aggressive international development campaign, proposing to grow rapidly from
3 under 500 MW in operation to almost 9,000 MW in advanced development. Given
4 that Panda's documentation also indicated that Panda was a relatively new entrant
5 into generation technology, we were concerned that the development program
6 apparently underway might tax Panda's ability to successfully finance and operate
7 all of its new generation assets, including the one proposed in its bid to us. On top
8 of this, we had a history of litigation with Panda regarding contract execution,
9 interpretation, and implementation, which, while in no way a determinative factor in
10 our analysis, did cause us to view contractual arrangements with Panda in the future
11 with caution.

12 The Eagle Energy proposal presented a number of drawbacks as well. For
13 example, Eagle Energy proposed to place the plant in service in March 2004, while
14 we expect to place Hines 2 in service at the end of November 2003 to meet our
15 reliability need in the winter of 2003/04. Notably, the proposal includes a 10
16 percent cap on liquidated damages, with no parent guarantees, which would shift the
17 risk of a relatively immature technology and ultimately the performance of the plant
18 to FPC and its ratepayers. In the absence of parent guarantees, Eagle Energy's
19 performance assurances did not adequately mitigate significant risks of failure to
20 meet the in-service date, equipment failure, or failure to perform. The proposal
21 further allowed Eagle Energy to walk away without recourse as late as the spring of
22 2002 if financing were not obtained for any reason. Finally, the specific design that
23 was being proposed, involving petcoke gasification and multi-train units, from all

1 accounts is a relatively immature and unproven technology, a fact borne out by
2 TECO's lack of experience with it and Texaco's experience limited to only one 35
3 MW petcoke IGCC-type unit currently in operation.

4

5 **Q. What conclusions did FPC reach on the basis of this evaluation?**

6 A. FPC determined that the Hines 2 alternative was clearly superior on price- and non-
7 price attributes to either the Panda or Eagle Energy proposal. After our thorough
8 evaluation of both competing proposals, FPC decided to proceed with obtaining the
9 necessary regulatory approvals to build Hines 2.

10

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

12 A. Yes, it does.

13

THE NEED STUDY

IN SUPPORT OF

**FLORIDA POWER CORPORATION'S
PETITION FOR DETERMINATION OF NEED
OF HINES ENERGY COMPLEX UNIT 2**

CONFIDENTIAL SECTION

LIST OF APPENDIX ITEMS.

1. Confidential Request For Proposal Response from Panda Leesburg, L.L.C. ("Panda").
2. Confidential Request For Proposal Response from "Eagle Energy," a joint venture project between Texaco Power and Gasification Global, Inc. and TECO Power Services Corporation ("Eagle Energy").
3. Confidential Florida Power Corporation ("FPC") Requests for Required Information and the Bidders' Responses.
4. Confidential Florida Power Corporation ("FPC") Requests for Supplemental Information and the Bidders' Responses.
5. Confidential FPC Initial Screening Evaluation of RFP Responses.
6. Confidential FPC Supplemental Screening Evaluation of RFP Responses.
7. Confidential FPC Non-Price Evaluation of Panda's Response to FPC's RFP.
8. Confidential FPC Non-Price Evaluation of Eagle Energy's Response to FPC's RFP.

March 24, 2000

DO NOT COPY

2-11

Mr. Michael D. Rib
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

CONFIDENTIAL

RE: Panda's Response to the Florida Power Corporation RFP, dated January 26, 2000

Dear Michael,

Panda Energy International, Inc. is pleased to present the above referenced response to the Florida Power Corporation RFP, in the form of the attached Capacity & Energy Sales Proposal and the various other required documents listed below, to Florida Power Corporation.

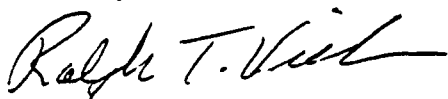
Included:

- Check to FPC in the amount of \$10,000.00 (non-refundable)
- Most current audited Panda Energy International Inc. Financial Statements (3 copies)
- Previous local newspaper publication regarding Panda's proposed power project (10 copies)
- Milestone schedule of Panda Leesburg Project (10 copies)
- Attachment B, Proposal Summary Form (10 copies)
- Attachment C, Capacity & Energy Sales Term Sheet with general proposal information and supply resource information (10 copies)
- Panda Energy International Inc. brochures indicating Panda's experience and qualifications (10 copies)
- Attachment E, FPC General Interconnection Study Data Request Form for Gas Turbines (10 copies)
- Attachment E, FPC General Interconnection Study Data Request Form for Steam Turbines (10 copies)
- General Electric's Supplement to FPC General Interconnection Study Data Request Form (10 copies)
- Data Tables (10 copies)
- Computer diskette (3.5 floppy) containing all electronic forms (1 copy)

Panda Energy International Inc would again like to express its sincere interest in serving the future energy and capacity needs of Florida Power Corporation and its customers. We believe Panda's Panda Leesburg Power Project offers unmatched flexibility and efficiency to serve your energy supply needs.

Please feel free to contact Sam Doaks or myself if you should have any questions at 972-980-7159.

Sincerely,



Ralph T. Killian
Executive Vice President

LWK/vt

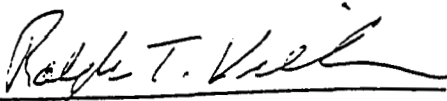
Enclosures

Attachment B

Proposal Summary Form

Company/Respondent: Panda Energy International, Inc.
Respondent Contact Name: Sam Doaks
Mailing Address: 4100 Spring Valley Road, Suite 1001
Dallas, Texas 75244
Telephone: 972-980-7159
Facsimile: 972-980-6815
General Description of the Proposed Project: Natural gas fired combined cycle plant
configured
As two blocks of 2X1, each capable of a nominal 500MW for a total of 1000MW.
(Attach additional sheets as needed)
Power Generation Technology: GE Frame 7FA in combined cycle
Unit(s) Name: Panda Leesburg Power Partners, L.P.
Project Location: Lake County, Florida
Contract Term: Two-year term, with option to renew for 3 additional
years
Unit(s) Summer MW Rating: Total Station 1000MW
Unit(s) Winter MW Rating: Total Station 1000MW
Unit(s) Fuel Type(s) Natural Gas
Proposed Capacity (MW) Delivered to FPC: 250MW
Proposed delivery point to FPC: FPC's 230 kV Central substation
Other Parties with an Interest in the Proposal: N/A

Certification: Respondent hereby certifies that all of the statements and representations made in this proposal, including all attachments, are true to the best of Respondent's knowledge and belief. Respondent agrees to be bound by its representations and the terms and conditions of the Request for Proposals. This proposal shall remain in effect until at least October 1, 2000.

Signed: 
Name: Ralph T. Killian
Title: Executive Vice President
Date: March 24, 2000

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A-11

ATTACHMENT "C"

NOTE: The original Panda proposal included only the first 3 of 5 pages of Attachment C. This update contains all 5 pages. Please add to your bid package.

M. Rib 4/9/00

CONFIDENTIAL

Proposed Terms and Conditions Between Florida Power Corporation, Inc. And Panda Energy International, Inc.

Date: March 24, 2000

Parties: Seller – Panda Energy International, Inc. (Panda)
Buyer – Florida Power Corporation (FPC)

Project: Panda Leesburg Power Partners, L.P.

Overview: Panda will build the Panda Leesburg Power Partners, L.P. (Panda Leesburg) power project in Lake County, Florida. Panda Leesburg will be a 1,000 Mw; natural gas fired combined cycle power generation facility. The project will consist of two 500 Mw power trains. Each train will contain two General Electric 7 FA combustion turbines, with heat recovery steam generators, and one steam turbine/generator set. The Panda Leesburg project is scheduled to begin commercial operation the second quarter of 2003.

Panda proposes to sell FPC, 250 Mw of system firm capacity and energy from the Panda Leesburg project. The 250 Mw block of power allocated to this RFP has not been offered for sale or proposal to any other entity. Panda will withhold the allocated block of power from the market until October 1, 2000, or through the negotiation and execution of a power sale agreement. Panda will not sell more than 50% of the entire Panda Leesburg project under long-term contract. From Panda's perspective long-term contracts are two to five years in length.

Panda will deliver the proposed contracted power to FPC at the 230kV Bus at FPC's Central substation (Delivery Point). Title and ownership of the delivered power will transfer from Panda to FPC at the Delivery Point. All current regulatory allowances, fees, taxes and other costs associated with the generation and delivery of the contracted power to the Delivery Point, required by federal, state and local authorities, will be assumed by Panda.

Panda is proposing to sell 250 Mw of base load capacity and energy to FPC. However, in consideration of FPC's potential needs for dispatchability, Panda is offering FPC a range of dispatch levels. A minimum load level of 175 Mw, a base load level of 250 Mw and an emergency or over-capacity load level of 279 Mw. When FPC dispatches their energy at the minimum load level, the energy price will be determined by using a heat rate of 9,486 Btu/kWh. The heat rate for energy dispatched at the emergency or over-capacity load level will be 8,619 Btu/kWh. FPC's ability to change its delivered energy between dispatch levels can be accommodated via dynamic or pseudo schedules. Although, its Panda's desire to have the energy and capacity dispatched within the ranges described above, we understand that from time-to-time, FPC will need to take their energy delivery to zero. The pricing and operational limits associated with resuming deliveries to FPC are described on Table 7.

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Contract Capacity: 250 Mw

Contract Term: 2 years beginning November 1, 2003 through October 31, 2005 with three one-year extensions, at FPC's option. Option notification time to be defined.

Initial Delivery Term	Nov 1, 2003 – Oct 31, 2005
First Optional Term	Nov 1, 2005 – Oct 31, 2006
Second Optional Term	Nov 1, 2006 – Oct 31, 2007
Third Optional Term	Nov 1, 2007 – Oct 31, 2008

Energy Type: Energy shall be provided as system firm energy in quantities up to the Contract Capacity.

Capacity Payment:

Initial Delivery Term	\$6.75 per kW-month
First Optional Term	\$7.10 per kW-month
Second Optional Term	\$7.45 per kW-month
Third Optional Term	\$7.80 per kW-month

Note: In any hour that FPC elects to exercise its option to generate above the base load rate, up to the over capacity rate limit, FPC will pay the applicable monthly capacity payment times the over capacity load rate (279 Mw) for the entire month.

Contract

Heat Rate:

Base Load (250 Mw)	7,100 Btu/kWh
Minimum Load (175 Mw)	9,486 Btu/kWh
Over Capacity Load (Up to 279 Mw)	8,619 Btu/kWh

Gas Index: The Gas Index shall be the midpoint price quoted in Gas Daily for the day of delivery as listed under the heading *Louisiana – Onshore South, FGT Z3* plus 0.82 \$/MMBtu

Variable Operations and Maintenance

(VOM) Rate: 1.50 \$/Mwh for the initial delivery term, escalating at a rate of 2% for each yearly delivery term thereafter.

Variable

Energy Payment: Buyer shall pay Seller a Variable Energy Payment each month equal to the following:

$[(\text{Gas Index} * \text{Contract Heat Rate}) + \text{VOM Rate}] * \text{energy purchased}$

Fuel Plan: Panda will build two 1,000 Mw natural gas fired power projects in Florida, Panda Leesburg and Panda Midway. Both plants will have flexible fuel delivery options. The fuel plans for both projects are as follows:

- (a) No on-site storage.
- (b) Fuel Specs. – Pipeline quality gas
- (c) Natural Gas Transporters
 - Panda Leesburg – Gulf Stream
 - Panda Midway – Gulf Stream, FGT

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(d) Connection Point(s) – (Both Plants) Delivery Point at the Plant sites

(e) Lateral Length – 0

(f) Transportation:	Firm	Interruptible
Leesburg	90,000 MMBtu	110,000 MMBtu
Midway	141,600 MMBtu	58,400 MMBtu

(Leesburg has ability to receive gas from Midway)
 FT is not recallable except by Midway and Leesburg

(g) Oil – None

(h) Other Fuels – None

(i) No Tolling

(j) No limits on Fuels

Pricing Summary:

Delivery Term	1	2	3	4	5
Contract Capacity (Mw)	250	250	250	250	250
Base Load Contract Heat Rate (Btu/KWh)	7,100	7,100	7,100	7,100	7,100
Fixed Capacity Payment (\$/kW-month)	6.75	6.75	7.10	7.45	7.80
VOM Rate (\$/Mwh)	1.50	1.53	1.56	1.59	1.62

Delivery Point:

Shall be the 230kV Bus at FPC's Central substation or, for alternate energy deliveries, at the FPC control area.

**Scheduling
And Dispatch:**

Buyer shall submit to Seller an hourly schedule no later than 8:00 a.m. Central Prevailing Time (CPT) the day immediately preceding the day of delivery. All schedule notifications shall be made via facsimile and/or telephone. All scheduling and dispatch shall be in accordance with the operating capabilities of the equipment and shall be in accordance with all applicable operating policies, criteria and/or guidelines of NERC, FRCC and any generally accepted regional or subregional operational requirements.

Unit Start Charges:

Buyer shall pay Seller \$7,500 per unit start. Each time Buyer takes delivery of energy starting from 0 Mwh per hour to a positive number of Mwh per hour in the next succeeding hour, a Unit Start Charge shall apply. A Unit Start Charge shall be deemed appropriate in accordance with the above whether or not Seller is actually required to start a combustion turbine or steam turbine.

**Scheduled
Maintenance:**

Seller shall schedule maintenance outages with Buyer 60 days prior to the beginning of each yearly delivery term. Seller shall have 500 hours per year, which will only be used in non-peak periods (to be defined). These hours are intended to provide Seller with the ability to manage scheduled maintenance outages.

**Availability
Provisions:**

Seller shall be obligated to provide generated energy, alternate energy or liquidated damages, subject to Scheduled Maintenance and Forced Outages, pursuant to the final terms of a negotiated power sales agreement, up to annual availability of 93.50% guaranteed:

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Delivery Short Falls:

If the Commercial Operation Date (COD) is delayed beyond beginning of the Initial Delivery Term, then for the period after such date until the earlier of either when COD takes effect or until the end of the Initial Delivery Term, Seller shall either pay for Buyer's replacement cost of energy that would have been purchased from the Project or Seller will provide alternate energy to FPC's system.

Project Major Milestones:

Interconnection Agreement	8/00
Fuel Supply Arrangements	6/01
SCA Approval	6/01
Financial Close	9/01
Start Construction	10/01
COD	5/03

Note: Detailed project is included in the bid package.

Force Majeure:

These provisions to be placed in the power sales agreement, as to be agreed by Buyer and Seller.

Credit:

Neither Buyer nor Seller nor any of their affiliates shall be required to post any security prior to financial close on the Project. Upon financial close Seller shall offer Buyer a parent guarantee from an investment grade entity, or a letter of credit for an amount no greater than \$15 million.

No Liability:

The provisions of this Proposal and the delivery hereof do not constitute and will not give rise to any legally binding obligation on the part of Seller or Buyer or any of their respective affiliates. This Proposal does not constitute an offer nor an acceptance. No past or future action, course of conduct or failure to act by Seller or Buyer or any of their respective affiliates, regarding, directly or indirectly, any of the matters considered herein, will give rise to or serve as a basis for any obligation or other liability on the part of Seller or Buyer, or any of their respective affiliates.

Any commitment or agreement would be subject to satisfactory completion of, among other things, (a) minimum credit requirements for both parties, (b) negotiation and execution of a mutually acceptable definitive power sales agreement, and (c) the prior approval of Panda Energy International Inc, senior management and Florida Power Corporation, Inc. senior management and/or Board of Directors.

Condition Precedent:

(a) Seller's obligations hereunder are subject to the execution of a credit or other agreement(s) for financing to or on behalf of Seller sufficient to pay the costs of acquiring and construction of the Panda Leesburg project on terms and conditions that are satisfactory to Seller and the availability to Seller of the proceeds thereof for such purposes.

(b) If the condition precedent set forth in section (a) has not been satisfied or waived by Seller on or before project financial close, or Seller determines in good faith prior to such date that despite its commercially reasonable efforts

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it will not be possible to satisfy the condition precedent, then Seller may immediately terminate the negotiated power sales agreement between Panda and FPC, by giving written notice thereof to the FPC. Upon termination, the negotiated power sales agreement shall be of no further force and effect and neither Party shall have any obligations or liability thereunder.

**Litigation
Summary:**

In the course of the Company's business its affiliates may encounter situations relating to their normal operations that relate to contract disputes (and resolutions) some of which may involve various causes of action prosecuted by or against such affiliates. Certain of these actions, as disclosed in the public filings of certain affiliates include:

Panda Rosemary, L.P. is currently engaged in litigation involving the transfer by its steam host at its North Carolina operations of the underlying contract to a purchaser of the host's facility, without compliance with the terms of such contract. Panda Rosemary, L.P. continues to provide steam and chilled water to this host during the pendency of this litigation.

ATTACHMENT "C"

~~Proposed Terms and Conditions Between~~
Florida Power Corporation, Inc.
And Panda Energy International, Inc.

Date: March 24, 2000

Parties: Seller - Panda Energy International, Inc. (Panda)
Buyer - Florida Power Corporation (FPC)

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FLORIDA - LEESBURG PROJECT Detail Project Schedule

DO NOT COPY

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003			
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
1	Project Initiated	1 day	Fri 10/01/99	Fri 10/01/99	10/01															
2																				
3	Land	516 days	Fri 10/01/99	Fri 09/21/01	[Solid Bar]															
4	Acquisition	516 days	Fri 10/01/99	Fri 09/21/01	[Solid Bar]															
5	Letter of Intent	1 day	Fri 10/01/99	Fri 10/01/99	10/01															
6	Selection	88 days	Mon 10/04/99	Wed 02/02/00	[Hatched Bar]															
7	Option Agreement Complete	22 days	Thu 02/03/00	Fri 03/03/00	[Hatched Bar]															
8	Second Option Payment	1 day	Fri 12/01/00	Fri 12/01/00	12/01															
9	Final Purchase	1 day	Fri 09/21/01	Fri 09/21/01	09/21															
10	Laydown Selection	22 days	Tue 01/04/00	Wed 02/02/00	[Hatched Bar]															
11	Laydown Option Agreement	11 days	Fri 02/18/00	Fri 03/03/00	[Hatched Bar]															
12	Rezoning	77 days	Wed 01/05/00	Thu 04/20/00	[Solid Bar]															
13	Prepare Comp Plan Amendment	19 days	Mon 03/06/00	Thu 03/30/00	[Hatched Bar]															
14	Prepare City Rezoning Filing	19 days	Wed 01/05/00	Mon 01/31/00	[Hatched Bar]															
15	Staff Review	5 days	Fri 03/31/00	Thu 04/06/00	[Hatched Bar]															
16	City Council Approval	10 days	Fri 04/07/00	Thu 04/20/00	[Hatched Bar]															
17	Prepare County Rezoning Filing	22 days	Tue 02/01/00	Wed 03/01/00	[Hatched Bar]															
18	Staff Review	10 days	Thu 03/02/00	Wed 03/15/00	[Hatched Bar]															
19	Planing & Zoning Hearing	1 day	Thu 03/16/00	Thu 03/16/00	[Hatched Bar]															
20	Planing & Zoning Approval	10 days	Fri 03/17/00	Thu 03/30/00	[Hatched Bar]															
21	County Commisioners Hearing	1 day	Fri 03/31/00	Fri 03/31/00	[Hatched Bar]															
22	County Commissioners Approval	10 days	Mon 04/03/00	Fri 04/14/00	[Hatched Bar]															
23	Surveys	10 days	Mon 03/06/00	Fri 03/17/00	[Hatched Bar]															
24	Property Boundary Survey	5 days	Mon 03/06/00	Fri 03/10/00	[Hatched Bar]															
25	TOPO Survey	5 days	Mon 03/13/00	Fri 03/17/00	[Hatched Bar]															

Project: Florida - Leesburg
 Project Start: Fri 10/01/99
 Project Finish: Thu 05/01/03
 Project Mgr: Steve Crain

Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00

Task



Summary



Rolled Up Progress



Split



Rolled Up Task



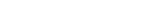
External Tasks



Progress



Rolled Up Split



Project Summary



Milestone



Rolled Up Milestone



2-1

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FLORIDA - LEESBURG PROJECT Detail Project Schedule

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003				
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2		
26	Meetings w/Local Govt	10 days	Mon 03/06/00	Fri 03/17/00																	
27																					
28	Environmental	504 days	Fri 10/01/99	Wed 09/05/01	[Gantt bar from 10/01/99 to 09/05/01]																
29	Retain Environmental Consultant	1 day	Fri 10/01/99	Fri 10/01/99																	
30	Prelim WW Estimate & Disch Assess.	85 days	Mon 10/04/99	Fri 01/28/00																	
31	Initial Supply Water Sampling	5 days	Mon 01/31/00	Fri 02/04/00																	
32	Coordination Meeting	1 day	Mon 02/07/00	Mon 02/07/00																	
33	Noise Background Monitoring	29 days	Tue 02/08/00	Fri 03/17/00																	
34	Listed Species Survey	5 days	Mon 03/20/00	Fri 03/24/00																	
35	Wetlands Determination	5 days	Mon 03/27/00	Fri 03/31/00																	
36	Final Water Balance	5 days	Mon 04/03/00	Fri 04/07/00																	
37	Environmental Complete	1 day	Wed 09/05/01	Wed 09/05/01																	
38																					
39	Permitting	482 days	Mon 11/29/99	Tue 10/02/01	[Gantt bar from 11/29/99 to 10/02/01]																
40	Determination of Need	168 days	Wed 01/19/00	Fri 09/08/00																	
41	Market Studies	15 days	Wed 01/19/00	Tue 02/08/00																	
42	Review Meeting	1 day	Thu 02/10/00	Thu 02/10/00																	
43	Prepare Petition & Exhibits	10 days	Fri 02/11/00	Thu 02/24/00																	
44	Prepare Testimony	6 days	Fri 02/25/00	Fri 03/03/00																	
45	Submit Application	1 day	Mon 03/06/00	Mon 03/06/00																	
46	Order Establishing Procedure	8 days	Tue 03/07/00	Thu 03/16/00																	
47	Issue Identification	7 days	Fri 03/17/00	Mon 03/27/00																	
48	Petitioner Testimony	7 days	Tue 03/28/00	Wed 04/05/00																	
49	Staff & Intervenor Testimony	9 days	Thu 04/06/00	Tue 04/18/00																	
50	Prehearing Statements	5 days	Wed 04/19/00	Tue 04/25/00																	

Project: Florida - Leesburg
 Project Start: Fri 10/01/99
 Project Finish: Thu 05/01/03
 Project Mgr: Steve Crain

Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00

Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

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FLORIDA - LEESBURG PROJECT Detail Project Schedule

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003	
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1
51	Rebuttal Testimony	5 days	Wed 04/26/00	Tue 05/02/00														
52	Prehearing & Order	8 days	Wed 05/03/00	Fri 05/12/00														
53	Hearing	3 days	Thu 06/01/00	Mon 06/05/00														
54	Briefs	17 days	Tue 06/06/00	Wed 06/28/00														
55	Staff Recommendation	10 days	Thu 06/29/00	Wed 07/12/00														
56	Agenda	4 days	Thu 07/13/00	Tue 07/18/00														
57	Order Issued	15 days	Wed 07/19/00	Tue 08/08/00														
58	Close Docket/Revise CASR	23 days	Wed 08/09/00	Fri 09/08/00														
59	Site Certification Application	462 days	Mon 11/29/99	Tue 09/04/01														
60	SCA Draft Preparation	95 days	Mon 11/29/99	Fri 04/07/00														
61	SCA Final Preparation	20 days	Mon 04/10/00	Fri 05/05/00														
62	Final Draft Review Meeting	3 days	Wed 05/10/00	Fri 05/12/00														
63	Produce Final SCA	4 days	Mon 05/15/00	Thu 05/18/00														
64	SCA Sumbittal	1 day	Fri 05/19/00	Fri 05/19/00														
65	PSD Application Submitted	1 day	Fri 05/19/00	Fri 05/19/00														
66	NPDES Application Submitted	1 day	Fri 05/19/00	Fri 05/19/00														
67	FDEP Determination of Complete	10 days	Mon 05/22/00	Fri 06/02/00														
68	SCA Distributed to Agencies	2 days	Mon 06/05/00	Tue 06/06/00														
69	Agency Sufficiency Reports	22 days	Wed 06/07/00	Thu 07/06/00														
70	Land Use Hearing Notice	1 day	Fri 07/07/00	Fri 07/07/00														
71	Initial Sufficiency Determination b	11 days	Fri 07/07/00	Fri 07/21/00														
72	Sufficiency Response by Panda	28 days	Mon 07/24/00	Wed 08/30/00														
73	Land Use Hearing	1 day	Tue 09/05/00	Tue 09/05/00														
74	Final Sufficiency Determination	22 days	Thu 08/31/00	Fri 09/29/00														
75	ALJ Land Use Order Issued	21 days	Wed 09/06/00	Wed 10/04/00														

Project: Florida - Leesburg
Project Start: Fri 10/01/99
Project Finish: Thu 05/01/03
Project Mgr: Steve Crain

Detail Project Schedule
Project No. 136/10
Data Date: Thu 03/23/00

Task



Summary



Rolled Up Progress



Split



Rolled Up Task



External Tasks



Progress



Rolled Up Split



Project Summary



Milestone

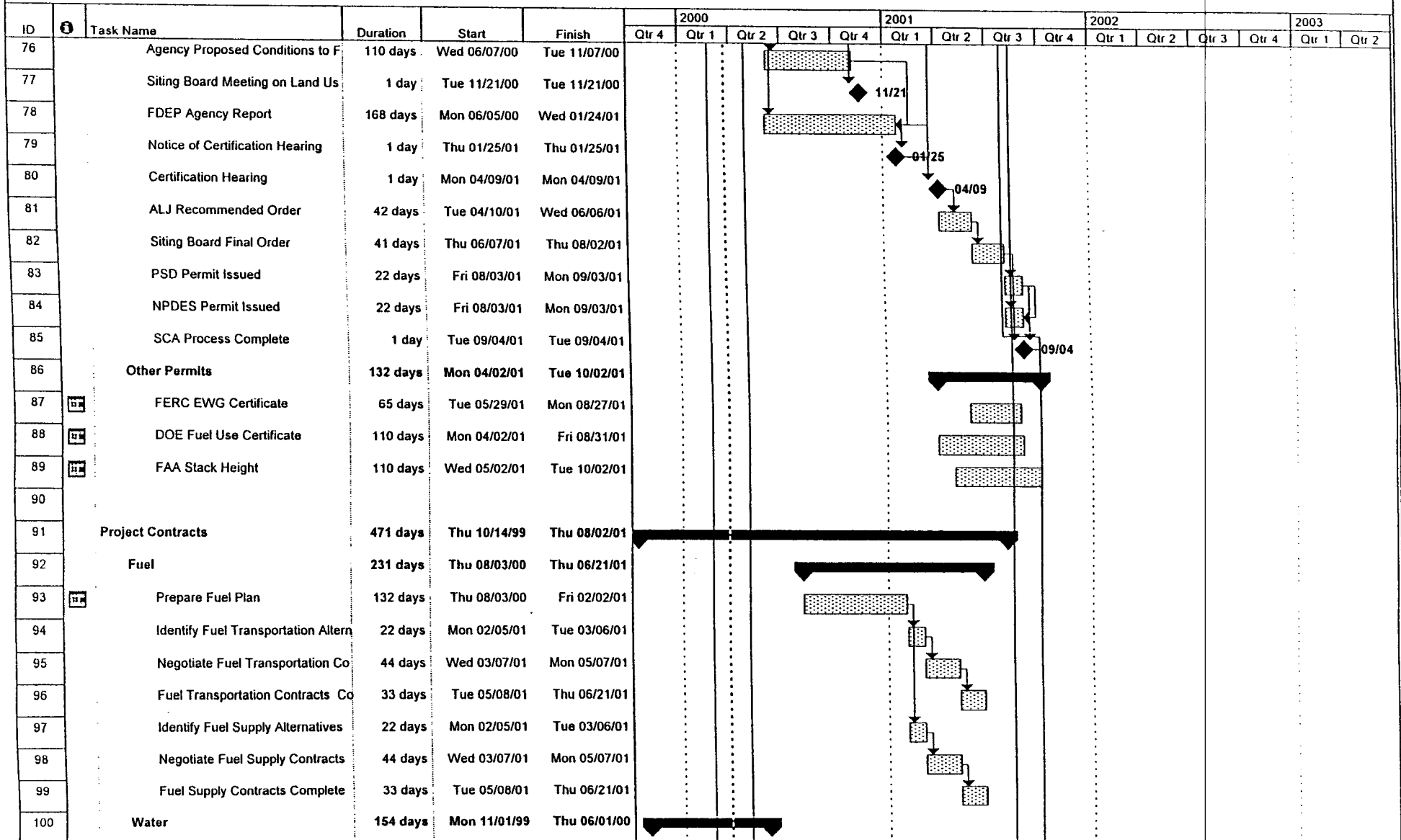


Rolled Up Milestone



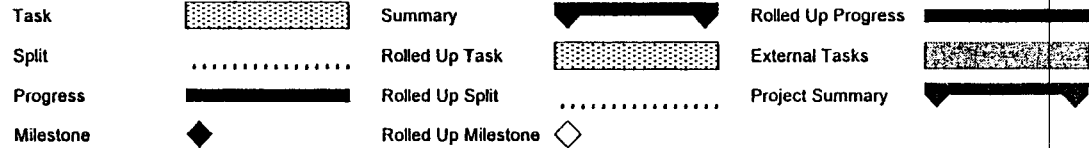
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FLORIDA - LEESBURG PROJECT Detail Project Schedule



Project: Florida - Leesburg
 Project Start: Fri 10/01/99
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Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00



CONFIDENTIAL

FLORIDA - LEESBURG PROJECT Detail Project Schedule

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003			
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
101	Identify Water Source & Supplier	66 days	Mon 11/01/99	Mon 01/31/00																
102	Contract for Water Supplies	66 days	Tue 02/01/00	Tue 05/02/00																
103	Pre-Design Water Delivery System	22 days	Wed 05/03/00	Thu 06/01/00																
104	Wastewater	121 days	Thu 01/06/00	Thu 06/22/00																
105	Identify WW Disposal Alternatives	33 days	Thu 01/06/00	Mon 02/21/00																
106	Contract for WW Removal	66 days	Tue 02/22/00	Tue 05/23/00																
107	Pre-Design WW Effluent System	22 days	Wed 05/24/00	Thu 06/22/00																
108	Interconnection	222 days	Thu 10/14/99	Fri 08/18/00																
109	Conceptual Study	80 days	Thu 10/14/99	Wed 02/02/00																
110	Interconnection Study Agreement	22 days	Thu 02/03/00	Fri 03/03/00																
111	Interconnection Study	60 days	Mon 03/06/00	Fri 05/26/00																
112	Facility Study Agreement	22 days	Thu 04/27/00	Fri 05/26/00																
113	Facility Study	60 days	Mon 05/29/00	Fri 08/18/00																
114	Interconnection Agreement	66 days	Fri 05/19/00	Fri 08/18/00																
115	EPC	176 days	Mon 07/03/00	Mon 03/05/01																
116	Identify Qualified Candidates	22 days	Mon 07/03/00	Tue 08/01/00																
117	Negotiate Contract	66 days	Wed 08/02/00	Wed 11/01/00																
118	Execute LOI	22 days	Thu 11/02/00	Fri 12/01/00																
119	Negotiate and Execute full EPC C	66 days	Mon 12/04/00	Mon 03/05/01																
120	O&M Contract	66 days	Thu 02/01/01	Thu 05/03/01																
121	Prepare and Issue RFP	22 days	Thu 02/01/01	Fri 03/02/01																
122	Negotiate Contract	22 days	Mon 03/05/01	Tue 04/03/01																
123	Execute Contract	22 days	Wed 04/04/01	Thu 05/03/01																
124	Power Sales	404 days	Mon 01/17/00	Thu 08/02/01																
125	Sales & Marketing	404 days	Mon 01/17/00	Thu 08/02/01																

Project: Florida - Leesburg
 Project Start: Fri 10/01/99
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Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00

Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

FLORIDA - LEESBURG PROJECT Detail Project Schedule

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003			
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
126	Initial Market Studies	22 days	Mon 01/17/00	Tue 02/15/00																
127	Final Market Studies	22 days	Mon 01/01/01	Tue 01/30/01																
128	Power Sales Plan	22 days	Wed 01/31/01	Thu 03/01/01																
129	Identify and Survey Potentia	22 days	Fri 03/02/01	Mon 04/02/01																
130	Negotiate Power Sales Agre	66 days	Tue 04/03/01	Tue 07/03/01																
131	PSAs Complete	22 days	Wed 07/04/01	Thu 08/02/01																
132	Power Management	84 days	Fri 03/02/01	Wed 06/27/01																
133	Identify Potential Power Man	18 days	Fri 03/02/01	Tue 03/27/01																
134	Negotiate Power Mgt Contra	66 days	Wed 03/28/01	Wed 06/27/01																
135																				
136	Engineering	116 days	Mon 01/24/00	Mon 07/03/00																
137	Site Survey	15 days	Mon 01/24/00	Fri 02/11/00																
138	Prelim Site Plan	10 days	Mon 02/14/00	Fri 02/25/00																
139	Geotech Fieldwork	28 days	Wed 02/02/00	Fri 03/10/00																
140	Prelim Water Balance	28 days	Wed 02/02/00	Fri 03/10/00																
141	Prelim Heat & Material Balance	22 days	Thu 02/10/00	Fri 03/10/00																
142	Fuel & Duct Burner Specs	18 days	Wed 02/02/00	Fri 02/25/00																
143	Geotech Report	10 days	Mon 03/13/00	Fri 03/24/00																
144	Final Water Balance	10 days	Mon 03/27/00	Fri 04/07/00																
145	Design water system	66 days	Mon 03/13/00	Mon 06/12/00																
146	Design wastewater system	66 days	Mon 03/13/00	Mon 06/12/00																
147	Retain Lender's Engineer	15 days	Tue 06/13/00	Mon 07/03/00																
148																				
149	Project Finance	295 days	Fri 08/04/00	Thu 09/20/01																
150	Begin Project Financing	1 day	Fri 08/04/00	Fri 08/04/00																

Project: Florida - Leesburg
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Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00

Task		Summary		Rolled Up Progress	
Split		Rolled Up Task		External Tasks	
Progress		Rolled Up Split		Project Summary	
Milestone		Rolled Up Milestone			

FLORIDA - LEESBURG PROJECT Detail Project Schedule

ID	Task Name	Duration	Start	Finish	2000				2001				2002				2003			
					Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	
151	Develop Financial Proforma	22 days	Mon 08/07/00	Tue 09/05/00				■												
152	Prepare Construction budget	22 days	Wed 09/06/00	Thu 10/05/00				■												
153	Finalize Consultant Reports	22 days	Fri 10/06/00	Mon 11/06/00				■												
154	Finalize Market Study	22 days	Tue 11/07/00	Wed 12/06/00				■												
155	Independent Engineer's Report	22 days	Thu 12/07/00	Fri 01/05/01				■												
156	Retain Fuel Consultant	22 days	Mon 01/08/01	Tue 02/06/01				■												
157	Develop Offering Memorandum	22 days	Wed 02/07/01	Thu 03/08/01				■												
158	Determine Financing Options	22 days	Fri 03/09/01	Mon 04/09/01				■												
159	Choose Lenders	22 days	Tue 04/10/01	Wed 05/09/01				■												
160	Road Shows	22 days	Thu 05/10/01	Fri 06/08/01				■												
161	Due Diligence	22 days	Mon 06/11/01	Tue 07/10/01				■												
162	Term Sheets	22 days	Wed 07/11/01	Thu 08/09/01				■												
163	Credit Facility Negotiations	22 days	Fri 08/10/01	Mon 09/10/01				■												
164	Financial Closing	1 day	Thu 09/20/01	Thu 09/20/01				◆												
165																				
166	Construction	420 days	Fri 09/21/01	Thu 05/01/03																
167	Notice to Proceed	1 day	Fri 09/21/01	Fri 09/21/01																
168	Turbine Ship	1 day	Fri 08/02/02	Fri 08/02/02															◆	
169	Commercial Operation	1 day	Thu 05/01/03	Thu 05/01/03																◆
170																				
171	Project Complete	1 day	Thu 05/01/03	Thu 05/01/03																◆

Project: Florida - Leesburg
 Project Start: Fri 10/01/99
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 Project Mgr: Steve Crain

Detail Project Schedule
 Project No. 136/10
 Data Date: Thu 03/23/00

Task



Summary



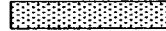
Rolled Up Progress



Split



Rolled Up Task



External Tasks



Progress



Rolled Up Split



Project Summary



Milestone



Rolled Up Milestone



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Florida

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move ahead with plans to build a gymnasium in the Montclair area of Leesburg. The Leesburg City Commission decided to discuss an agreement at a special meeting on March 1. A3

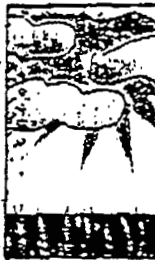
BUSINESS

NEW YORK

Dow nears record

The Dow Jones industrial average climbed 212.73, or by 2.3 percent, to 9,552.68, its biggest point gain in five weeks. That left the Dow 1 percent shy of the record 9,643.32 reached Jan. 8. The NASDAQ composite index was up 58.41, or by 2.6 percent, at 2,342.01 amid a renewed interest in Internet and other technology shares. A7

WEATHER



Today: Partly cloudy. High in the upper 50s to lower 60s.
Tonight: Fair. Low around 40.
Wednesday: Partly cloudy. High in the mid-60s.

INDEX

SECTION A		SECTION B	
Chills	A2	Sports	B1
Local	A3	Scoreboard	B2
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Stocks	A8	Advice	B8
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Weather	A12	Comics	B11
		History	B12

DATALINE
A FREE 24 HOUR INFORMATION SERVICE

DELIVERY REPLACEMENT
For home delivery of a missed paper, please call 702-360 from Lake County or 746-1833 from Summit County. More information about circulation is on page A2.



90994 17001

Vol. 124, No. 53, 2 sections

By MARCI ELLIOTT
Daily Commercial Staff Writer

TAVARES

Despite all the charts, maps and numbers involved with redistricting students when three new elementary schools open in August, one thing is certain: The Lake County School Board is willing to accommodate as many families as possible.

That was the consensus Monday as board members grappled one more time with deciding which students will attend which schools.

"Redistricting is not easy, and we try to be sensitive to everyone's request," Chairman Jimmy Conner said.

The School Board has held several meetings, workshops and community committee meetings to discuss the

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Leesburg approves power plant

By RICK REED
Daily Commercial Staff Writer

LEESBURG

City leaders agreed to lease 50 acres of the city spray field along County Road 470 to a Texas company with plans of constructing a \$200 million electric power plant.

City Administrator Tony Otte told the City Commission the plant will be a clean industry with no smoke stacks as he spelled out economic and other benefits, such as a new source of natural gas for the city utility department.

The new plant will also mean 45 new jobs paying annual salaries of \$50,000; the sale of treated waste water that will be used for cooling and steam turbines; and the rental of 50 acres of land used for spraying treated waste water.

The City Commission approved a
Please see PLANT. A4

DO NOT COPY

2-11

CONFIDENTIAL

ARSON

Continued from A1
revealed that an arsonist poured a "flammable liquid" in the living room ignited it with an open flame.

McSheehy said Linn initially invoked his right to silence at the Police Department, but then told detectives: "You get frustrated, angry, then violent. Those are the three stages: frustration, anger, violence."

Linn and Cockman have lived together since December at Linn's

mobile home on Cocos Plumosa Drive in the retirement community, according to police.

Pasek-Breedlove said Cockman was with a female friend Saturday evening at a nearby Moose lodge when Linn showed up. After Cockman and the friend left the lounge, they noticed that Linn was following them, detectives said.

The friend told police that she planned to park at her house, leave Cockman in the car, unlock the front door and have Cockman run inside.

Instead, the friend told police, she

got out of her car and Linn approached, reaching in to grab Cockman by the upper arm and put a gun to her back.

"What did I say would happen to you if you turned on me?" Linn reportedly asked Cockman.

The friend said she heard a gunshot and ran inside to call 911.

McSheehy said police later found a holster on the passenger seat of Linn's pickup truck.

Police found a gun in Linn's home, but said they weren't sure yet if it was the gun that was used.

PLANT

Continued from A1
letter of intent 4-0 that will give Panda Energy International the option to enter the lease within 2½ years. The city will receive \$12,000.

"I think I speak for all of us when I say we're real happy to have this project come here," said Mayor Bob Lovell.

The lease will be for 20 years, and the power company would have the option of three 10-year extensions. The monetary rate hasn't been agreed on, but Otte doesn't expect any problems.

Leesburg has been negotiating for

several months with Panda Energy International, a Texas company.

The city will sell its treated waste water at 50 cents per 1,000 gallons to the power company to be used for cooling and steam generation, up to a maximum of 8 million gallons per day.

The city has also been attempting to find another source of natural gas. Otte said tapping into the plant's gas line was a key component in the agreement. The electric plant will be powered by natural-gas generators and use fuel oil as a backup power source. No coal will be permitted for either the primary or backup system.

Commissioner Ben Perry asked Steven Crain of Panda Energy why

his company choose Leesburg.

Crain told the commission there were four key reasons: the cooperation of the community, the availability of a gas line, a nearby water source, and a transmission facility to send the power to. The site is close to the large Florida Power substation on State Road 44.

Panda International will sell power wholesale outside the city's service area, but the city could eventually become a customer. The company will have 2½ years to build the plant once the agreement is approved, but that could be extended.

"The city staff feels this is a real win-win situation," Otte said.

CHURCH

Continued from A3

"Mr. Hattan was upset that the small child fingered the pies after church.

"He told the church that if the child wasn't excluded, he was going to leave."

Baxley said Hattan started his lawsuit after Caballero told him she would have the child controlled but not excluded from activities.

Church officials insisted, meanwhile, that the oral agreement was a straight loan of \$160,000, not a mortgage, and didn't expose the church to foreclosure.

Caballero said Hattan kept chang-

ing the terms and conditions from the original 10-year, no-interest loan.

In one condition, Caballero said, Hattan originally offered that his estate would forgive any debt left after his death.

Lockett asked Cauthen and Baxley to write memoranda of law as to how Hattan could do so without a formal will.

GYM

Continued from A4

Christian said giving the city the property and annexing it wouldn't be a problem.

But finding the \$100,000 in a tight budget could be trouble, according to some commissioners.

"We're not going to build a gym for

\$100,000," Commissioner Ben Perry said. "All down the line in the general fund has been asked to cut, cut, cut."

"The only issue I have is how can we afford doing it."

Commissioner Chet Blackmon said he agreed to spend \$100,000 for a gym because they were considering spending \$1 million to 2 million for a much-needed city gym when Christ-

ian came forward with the Men of Distinction's offer. Perry said he wants to know how much building and operating the gym would cost the city. "Let us bring something back at the next meeting," City Administrator Tony Otte suggested. "We can define roles."

The meeting will be at 5:30 p.m. in the City Commission Chambers in City Hall.

COURT

Continued from A3

But unlike regular criminal court, the attorneys don't call witnesses. Usually the defendant answers ques-

There's no need for witnesses if the defendant has already pleaded. Custar noted.

Sentences come in durations of community service for nonprofit organizations like Boggy Creek Gang and the local Humane Society, she said.

proven to be tougher on their peers than adults would be, she said. Someone who stole a candy bar from a grocery could get 10 to 17 hours of community service, and someone caught with marijuana could see 38 to 50 hours, she said.

"We may order restitution," she said. "And often a public apology to their parents in front of everyone. ... And they have to agree to come back to be on the next jury. This is so the defendants will know that not all the jurors are 'goody-two-shoes.'"

Following the hearing, Custar will

the imposed sanctions.

If the defendant completes the sanctions within the prescribed time, the State Attorney's Office is notified, and usually no further action is taken and the case is dismissed.

If the defendant fails to do so, however, Custar said, he or she goes before Judge Johnson — and not just to observe this time.

SCHOOLS

Continued from A1
them," Peebles said. "I wish school officials would wait on the people."

Darlene Weller of Least she was concerned the qualifications at Beverly Shores tary, where her children would be lowered by a possibil-

Thousands of Money Mistake

People are attending seminars hoping to find answers to their biggest money worries.

Unfortunately, many are subjected to a mass sales pitch instead.

"I can't wait until they finally generate the success."

Seminars with titles like "Care" or "Investing for Retirement" pitches for a single product hoping for useful, generic information.

What's worse, some seminars aren't worth it.

At "The Biggest Tax You'll Find Out All"

- Stealth Money
- Taxation of Social Security
- IRA (and 401(k))
- Smart Ways to Maximize Your Income
- The One Mistake Most People Make
- How You Can Avoid It



Speaker: Bill Schmidt, CFP
President Schmidt Financial

LEESBURG
eyes power
plant deal
May lease land
for new facility

By RICK REED
Daily Commercial Staff Writer

LEESBURG

City leaders are excited about the possibility of leasing 50 acres of the city waste-water spray field to a company wanting to construct a \$200-million electrical power plant on the property along County Road 470 near Okahumpka.

It will be a clean, no-smoke-stack operation, with only the release of water vapors through cooling towers, according to the city.

Leesburg has been negotiating for several months with Panda Energy International, a Texas company. A letter of intent has been agreed upon, and the Leesburg City Commission is expected to approve it during tonight's 5:30 meeting.

"This is a very exciting project from many standpoints," said City Manager Tony Otte.

The city will sell its treated waste water at 50 cents per 1,000 gallons to the power company to be used for cooling and steam generation, up to a maximum of 8 million gallons per day.

The power plant will also mean an extra source of natural gas for the city to tap into. The plant will construct a gas line because it will be powered by natural gas generators and use fuel oil as a backup power source. No coal will be permitted for either the primary or backup systems.

The city has been attempting to find another source of natural gas for Leesburg's system. Otte called it a key component in the agreement.

The new power plant will also mean the influx of high-paying jobs.

"It's going to be an economical development coup for the city," said Assistant City Manager Sally Sherman.

The power plant will produce 45 jobs with an annual salary of \$50,000.

Once the agreement is signed the city will receive \$12,000 for an option to enter into a lease within 2½ years. The lease will be for 20 years and the power company would have the option of three 10-year extensions.

Rent for the site hasn't been agreed upon, but Otte doesn't expect any problems.

Please see POWER 12

L 1.7.7
POWER

Continued from A1

"They approached us because the site is close by a source of water and across the street from our new waste-water plant," Otte said.

It is also close to the large electric substation on State Road 44.

"That's where the power will go," Otte said.

Panda International will not sell power within the city's electric service area, but Otte said the city could become a customer. The company will have 2½ years to build the plant once the agreement is approved, but it could extend that time frame.

Florida Power Corporation
Generation Interconnection Study
Data Request Form

INSTRUCTIONS

(*) denotes items that are required for both a Generation Interconnection Feasibility Study and a Generation Interconnection Study and must be completed and included in Respondent's proposal. All items on this form are required prior to the start of engineering design.

If a data item is unavailable, please provide an estimate and indicate it as an estimate. Please note that a restudy could be required if data assumptions change while the study is in progress.

Please fill out and attach a copy of Section II for each generator on the site.

Please use this form to supply the requested data. Submittal of manufacturer data sheets, other than generator characteristic curves, is not an acceptable alternative to completing this form.

SECTION I - Generation Site Data

A) **Contact Person** - Provide name and address of person completing this form

(*)1. Name: Ted A. McElroy
(*)2. Address: 4100 Spring Valley Road, Suite 1001
(*)3. City/State/Zip: Dallas, Texas 75244
(*)4. Telephone: 972-980-7159
(*)5. Date: February 29, 2000

B) **Site Location**

(*)1. County: Lake County
(*)2. Section / Township / Range: 8/20S/24E

(*3. Site Drawing: Include a site drawing indicating county, section, township, and range. In addition, for a Generation Interconnection Study, a preliminary equipment layout on the site, suitable for site plan permitting, is required.
(See Attached)

C) Proposed Load Requirements for Site

- (*1. Required Date: December 1, 2002
- (*2. Nature of Load (Station Service, Start-up Power, Etc.) Start Up Power (Back Feed)
- (*3. Connected kVA Load: 7,800
- (*4. Peak Demand kVA Load: 12,500
- (*5. Expected Power Factor: 0.80
- (*6. Service Voltage: 230kV
- (*7. Anticipated Future Load Requirements (please describe): None
- _____
- _____

D) Other Site Information

- (*1. Net Generation Output (MVA) for Site @ 59°F Outdoor Ambient: 1,353.0MVA
1,150.0MW
New and clean (Includes transformer and T-line Z losses)
- (*2. Net Generation Output (MVA) for Site @ 90°F Outdoor Ambient: 1,265.0MVA
1,075.0MW
New and clean (Includes transformer and T-line Z losses)
- (*3. Proposed Interconnections with Other Systems (please describe): _____

Please See Attached Single Line Diagram Drawing No 100 Rev C. Dated 02/28/00

LAK.

Magnolia Island

Flat Island

Radio Tower (WBIL)

Hillcrest Memorial Gardens

Trailer Park

Clayton

County = Lake Co.
Township = 20s
Range = 24E
Section = 8

Lake Denham

Helena Run

Bugs Spring

Okahumpka

Mt Olive

408

(CENTER HILL)
4641 33 NW

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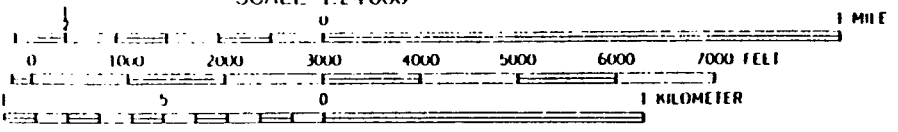
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E) In-Service Dates

(*).1. Required connection to grid for generator testing: December 1, 2002

(*).2. Commercial in-service date: May 1, 2003

SECTION II – Individual Generator Data

A) Unit Identification

- (*) 1. Plant Name and Unit Number GTG1, GTG2, GTG3, GTG4
Panda Leesburg Power Partners, L.P.
- 2. Manufacturer GE Gas Turbine Generator Design No. 80904G
- 3. Generator Serial Number These units are on order from GE on a bulk purchase order.
- 4. Turbine Serial Number These units are on order from GE on a bulk purchase order.

B) Ratings and Capabilities

- 1. Nameplate kV Rating (nominal design voltage) 18.0
- 2. MVA Rating

	MVA Rating	@ Hydrogen Pressure
a.	<u>207</u>	<u>30.0 PSIG</u>
b.	<u>207</u>	<u>30.0 PSIG</u>
c.	<u>207</u>	<u>30.0 PSIG</u>
d.	<u>207</u>	<u>30.0 PSIG</u>
- (*).3. Gross MW Rating @ 59°F Outdoor Ambient 175.950
- (*).4. Net MW Rating @ 59°F Outdoor Ambient 170.469
- (*).5. Gross MW Rating @ 90°F Outdoor Ambient 160.107
- (*).6. Net MW Rating @ 90°F Outdoor Ambient 154.891

7. Rated Power Factor	<u>0.85 LAG. 0.95 LEAD</u>
8. Rated Speed	<u>3600 RPM</u>
9. Rated Turbine Capability	<u>175.950 kW</u>
<hr/>	
10. Field Voltage at Rated Load	<u>300</u>
11. Field Current at Rated Load	<u>1478.1</u>
12. No-load Field Voltage at Generator Rated Voltage	<u>114.8</u>
13. Air Gap Field Voltage at Generator Rated Voltage	<u>109.45</u>
14. Field Resistance	<u>0.199</u> ohms @ <u>125</u> °C

C) Inertia

(*) 1. WR^2 for Generator and Exciter	<u>85.360</u> lb-ft ²
(*) 2. WR^2 for Turbine	<u>293.260</u> lb-ft ²
(*) 3. Calculated H Constant	<u>5.5kW</u> sec/KVA @ <u>207</u> MVA

D) Losses and Efficiency

1. Open circuit core loss	<u>350.4</u> kW
2. Windage loss	<u>201.3</u> kW
3. H ₂ seal and exciter friction loss	<u>44</u> kW
4. Stator I ² R Loss at rated power and voltage	<u>100</u> °C <u>216.3</u> kW
5. Rotor I ² R Loss at rated power and voltage	<u>125</u> °C <u>429.3</u> kW
6. Stray Load loss	<u>432</u> kW
7. Excitation losses	<u>175</u> kW

Total Generator Losses Excluding Bearings = 1,827.5kW

E) Generator Time Constants

1. T'_{do} (Direct axis open circuit transient time constant)	<u>4.767</u>	sec
2. T''_{do} (Direct axis open circuit subtransient time constant)	<u>0.033</u>	sec
3. T'_{qo} (Quadrature axis open circuit transient time constant)	<u>0.392</u>	sec
4. T''_{qo} (Quadrature axis open circuit subtransient time constant)	<u>0.074</u>	sec
5. T_{a3} (Short circuit time constant)	<u>0.349</u>	sec

F) Generator Impedances

(*) 1. MVA base for all impedance data	<u>207</u>	MVA
(*) 2. kV base for all impedance data	<u>18.0</u>	kV

<u>Parameter</u>	<u>Description</u>	<u>p.u. value</u>
(*) 3. X_d	Direct axis synchronous reactance (unsaturated)	<u>1.893</u>
4. X_q	Quadrature axis synchronous reactance (unsaturated)	<u>1.806</u>
(*) 5. X'_d	Direct axis transient reactance (unsaturated)	<u>1.893</u>
6. X'_{ds}	Direct axis transient reactance (saturated)	<u>0.210</u>
7. X'_q	Quadrature axis transient reactance (unsaturated)	<u>0.460</u>
8. X'_{qs}	Quadrature axis transient reactance (saturated)	<u>0.143</u>
(*) 9. X''_d	Direct axis subtransient reactance (unsaturated)	<u>0.202</u>
10. X''_q	Quadrature axis subtransient reactance (unsaturated)	<u>0.195</u>
11. X_L	Armature leakage reactance	<u>0.167</u>
12. R_1	Positive sequence armature resistance at 75° C	<u>0.003@100°C</u>
13. R_2	Negative sequence armature resistance at 75° C	<u>0.013@100°C</u>
14. X_2	Negative sequence armature reactance at rated voltage	SAT. $X_{2v} = 0.140$ <u>UNSAT. $X_{21} = 0.192$</u>

15. X_0	Positive sequence armature resistance at 75° C	<u>.003 PU</u>
16. R_{dc}	Direct current armature resistance at 75° C	<u>0.00167 Ω @ 100°C</u>
17.	Generator neutral grounding resistance 20KVA	<u>0.525(secondary) ohms</u>
(*)18.	Generator neutral grounding reactance 20KVA	<u>5.25(estimate) ohms</u>

G) Required Characteristic Curves and Diagrams

- (*) 1. Real and reactive power capability curves (**Maximum var capability, lagging and leading, is sufficient for Feasibility Study**) (See Attached)
2. Saturation curve, full load and no-load (See Attached)
3. "V" curves (See Attached)
4. Governor overspeed response curve (See Attached)
5. One-Line diagram showing generator and substation equipment connections (See Attached)

H) Excitation System Data

1. Excitation system type Static GE EX 2000
2. Voltage regulator model name GE
3. Excitation system model, supply block diagram and model parameters in IEEE¹ or PSS/E format (See Attached)
4. Voltage compensation, supply block diagram and settings if used (Requested)
5. Voltage regulator overexcitation limiters, supply block diagram and model parameters in IEEE² format. (Requested)
6. Power System Stabilizer (if used), supply Power System Stabilizer block diagram and model parameters in IEEE or PSS/E format (See Attached)

¹ IEEE Standard 421.5-1992 "IEEE Recommended Practice for Excitation System Models for Power System Stability Studies"

² IEEE Committee Report, "Recommended Models for Overexcitation Limiting Devices," IEEE Transactions on Energy Conversion, Vol. 10, No. 4, December 1995

GAS TURBINE GENERATOR

ESTIMATED GENERATOR DATA

MGD309

GEN DES NO F307T33 DATE 20-NOV-98

ATT-2-207000 KVA 3600 RPM 18000 VOLTS 0.85 PF 30.0 PSIG 40.0 C HZ
 175950 KW 6540 AMPS 0.54 SCR 300 FLD VOLTS 0 FT ALT WYE CONN

REACTANCE DATA - (PER UNIT)	DIRECT AXIS		QUADRATURE AXIS	
SATURATED SYNCHRONOUS	X/DV	1.893	X/QV	1.806
UNSATURATED SYNCHRONOUS	X/DI	1.893	X/QI	1.806
SATURATED TRANSIENT	XP/DV	0.210		
UNSATURATED TRANSIENT	XP/DI	0.285	XP/Q	0.460
SATURATED SUBTRANSIENT	XPP/DV	0.147	XPP/QV	0.143
UNSATURATED SUBTRANSIENT	XPP/DI	0.202	XPP/QI	0.195
SATURATED NEGATIVE SEQUENCE	X/2V	0.140		
UNSATURATED NEGATIVE SEQUENCE	X/2I	0.192		
SATURATED ZERO SEQUENCE	X/OV	0.094		
UNSATURATED ZERO SEQUENCE	X/OI	0.124		
LEAKAGE REACTANCE, OVEREXCITED	X/LM, OEX	0.167		
LEAKAGE REACTANCE, UNDEREXCITED	X/LM, UEX	0.167		

FIELD TIME CONSTANT DATA - (SEC AT 125C)

OPEN CIRCUIT	TP/D0	4.767 ✓	TP/Q0	0.392
THREE PHASE SHORT CIRCUIT TRANSIENT	TP/D3	0.530	TP/Q	0.392
LINE TO LINE SHORT CIRCUIT TRANSIENT	TP/D2	0.822		
LINE TO NEUTRAL SHORT CIRCUIT TRANSIENT	TP/D1	0.997		
SHORT CIRCUIT SUBTRANSIENT	TPP/D	0.023	TPP/Q	0.023
OPEN CIRCUIT SUBTRANSIENT	TPP/D0	0.033 ✓	TPP/Q0	0.074

ARMATURE DC COMPONENT TIME CONSTANT DATA - (SEC AT 100C)

THREE PHASE SHORT CIRCUIT	T/A3	0.349
LINE TO LINE SHORT CIRCUIT	T/A2	0.349
LINE TO NEUTRAL SHORT CIRCUIT	T/A1	0.311

ARMATURE WINDING SEQUENCE RESISTANCE DATA - (PER UNIT)

POSITIVE	R/1	0.003
NEGATIVE	R/2	0.013
ZERO	R/0	0.007

- ANSI ROTOR SHORT-TIME THERMAL CAPACITY, 125C ✓ = 10.0
- TURBINE-GENERATOR COMBINED INERTIA CONSTANT, H = 5.5 KW SEC/KVA
- THREE PHASE ARMATURE WINDING CAPACITANCE = 1.103 MICROFARADS
- ARMATURE WINDING DC RESISTANCE (PER PHASE) = 0.00167 OHMS (100 C)
- FIELD WINDING DC RESISTANCE = 0.199 OHMS (125 C)
- FIELD CURRENT AT RATED KVA, ARM VOLTAGE, AND PF = 1478.1 AMPS
- FIELD CURRENT AT RATED KVA AND ARM VOLTAGE, 0PF LAGGING (FOR SYSTEMS STUDY ONLY - NOT ALLOWABLE OPERATING POINT) = 1723.3 AMPS

REQ. ENGINEER

GENERAL ELECTRIC COMPANY GE Power Generation SCHEMECTADY, NY	SIZE A	GAGE CODE	DWG NO 363A2885
CM Killian	SCALE	SHEET	14
ISSUED Document Services			



GAS TURBINE DRIVEN GENERATOR - PROPOSAL DATA FOR PROP. NUMBER: 80160

DATE 20-NOV-98 CUSTOMER

DESIGN NUMBER F307T33

GENERATOR RATING

BASE AT 0 FT ALTITUDE, 40 DEG C AMBIENT-
207000 KVA - 0.85 PF - 175950 KW - 3600 RPM - 2 POLE - 3 PHASE
60 HERTZ - 18000 A.C. VOLTS - 6640 A.C. AMPS - WYE CONNECTED
0.54 SCR - 30.0 PSIG

EXCITER RATING
TYPE - STATIC 462 KW - 300 VOLTS - 1540 D.C. AMPS

MAXIMUM EXCITATION REQUIRED- 448 KW - 300 VOLTS

TOTAL TEMPERATURES ARE GUARANTEED NOT TO EXCEED- INSULATION MATERIAL
STATOR COILS- 100. DEG C BY EMBEDDED DETECTOR ARMATURE - CLASS F
COLLECTOR- 125. DEG C BY THERMOMETER FIELD - CLASS F
FIELD COILS- 110. DEG C BY RESISTANCE

COOLING WATER REQUIRED - 1600. GPM - 95 DEG F MAX - HEAD LOSS

DIELECTRIC TESTS - BETWEEN COILS AND GROUND, 60 HERTZ AC FOR 1 MIN-

STATOR - 37000 VOLTS
ROTOR - 3000 VOLTS

GENERATOR COMPONENTS-
GEN DES F307T33
STATOR G317T13
ARM WDG F307T10
ROTOR F307T26
FLD WDG F307T26

CURVES-
SAT AND IMPED F307T33 -1
REACTIVE CAP F307T33 -2
EXCITATION V F307T33 -3
LOSS F307T33 -6A, -6B
TEMPERATURE F307T33 -7A, -7B
GENERATOR DATA F307T33

FRAME SIZE 89.0-42.300 X 168.00

MODEL-

GENERATOR ENGINEERING

GENERAL ELECTRIC COMPANY
SCHENECTADY, NY

SIZE
A

CAGE CODE

DWG NO

363A2885



GE Power Generation

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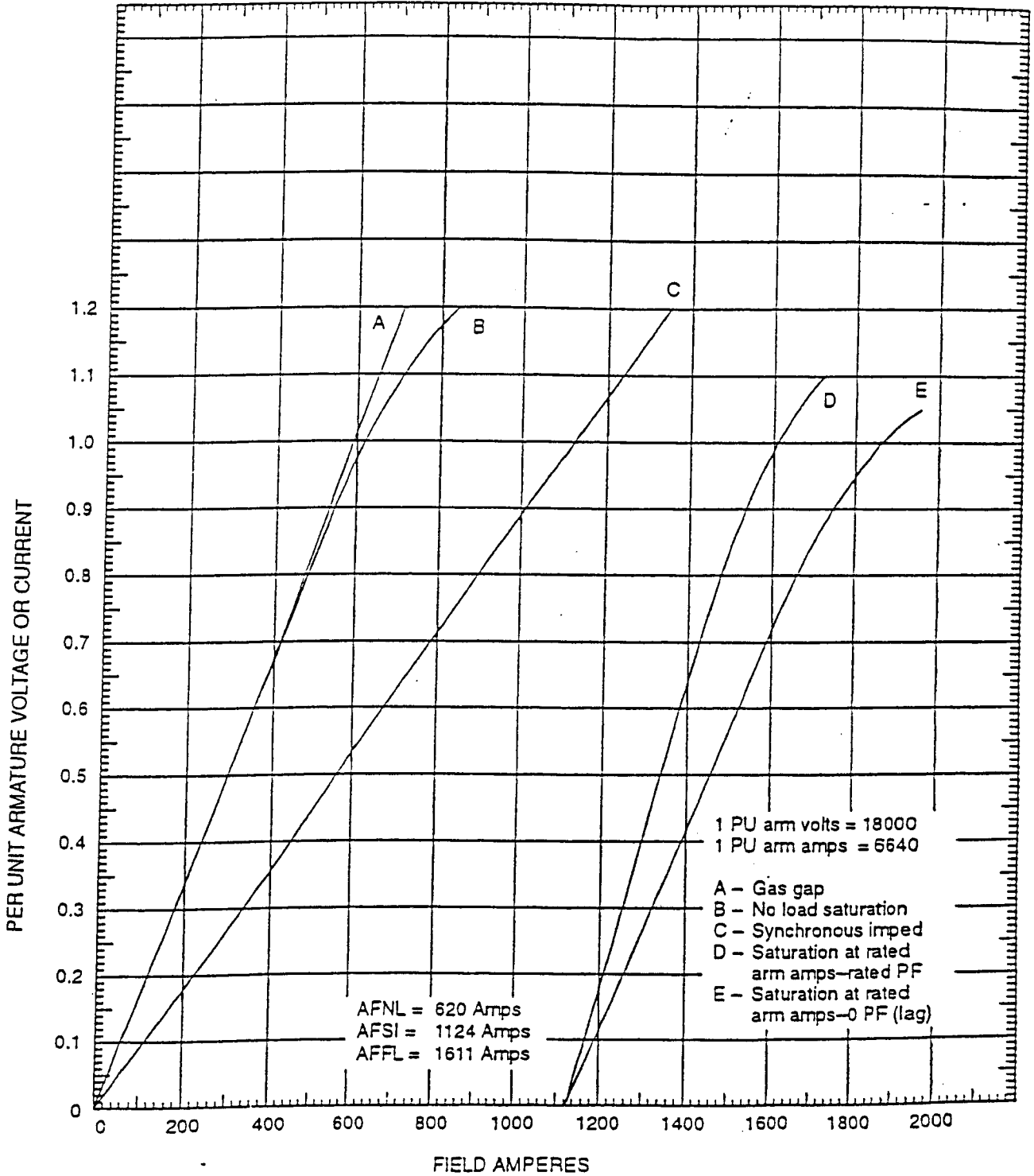
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GTG

ESTIMATED SATURATION AND SYNCHRONOUS IMPEDANCE CURVES

207000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
340 FLD VOLTS - 40 C COLD GAS - 30 PSIG H₂

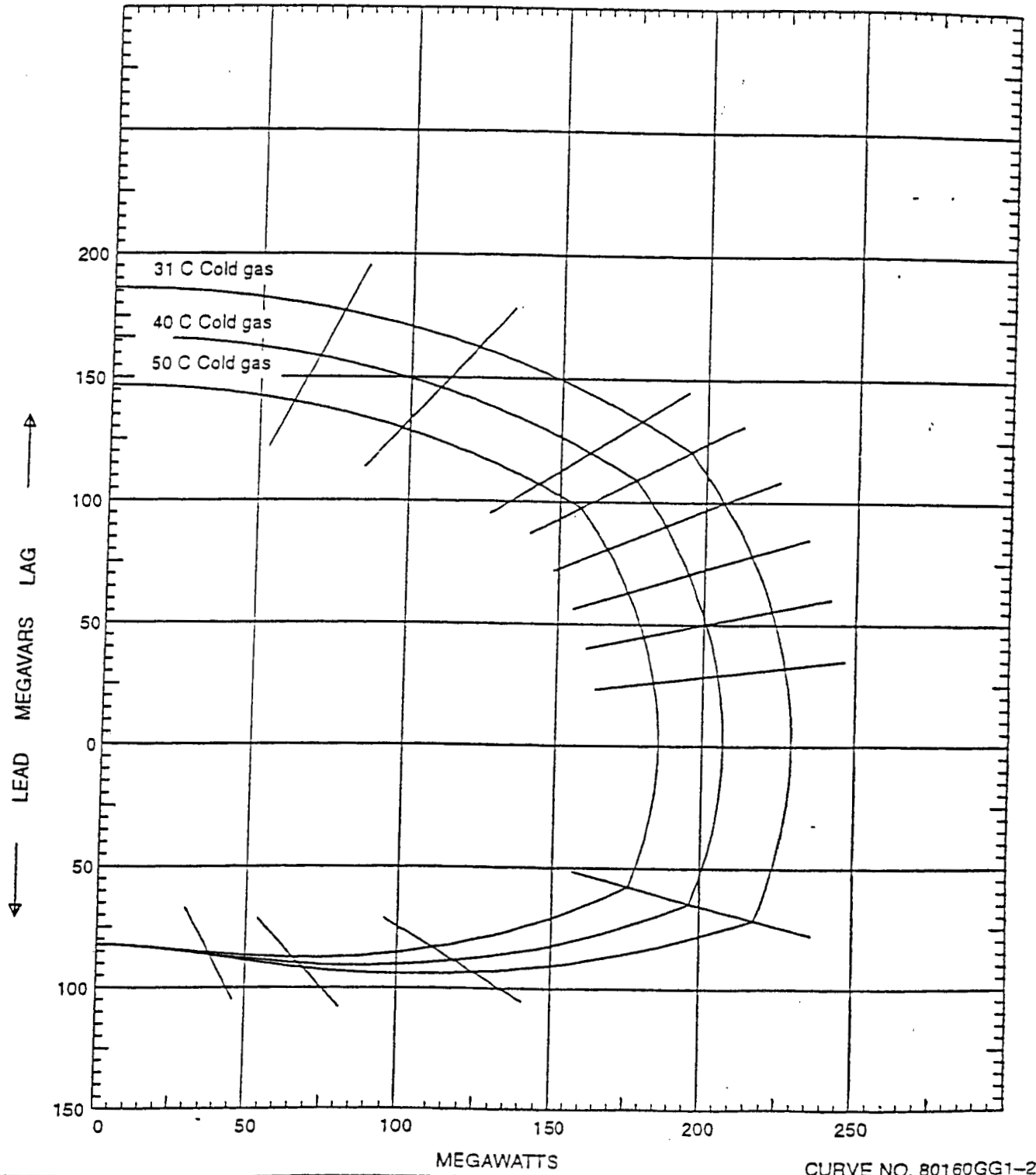


CURVE NO. 80160GG1-1

GTG

ESTIMATED REACTIVE CAPABILITY CURVES

207000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
340 FLD VOLTS - 40 C COLD GAS - 30 PSIG H2

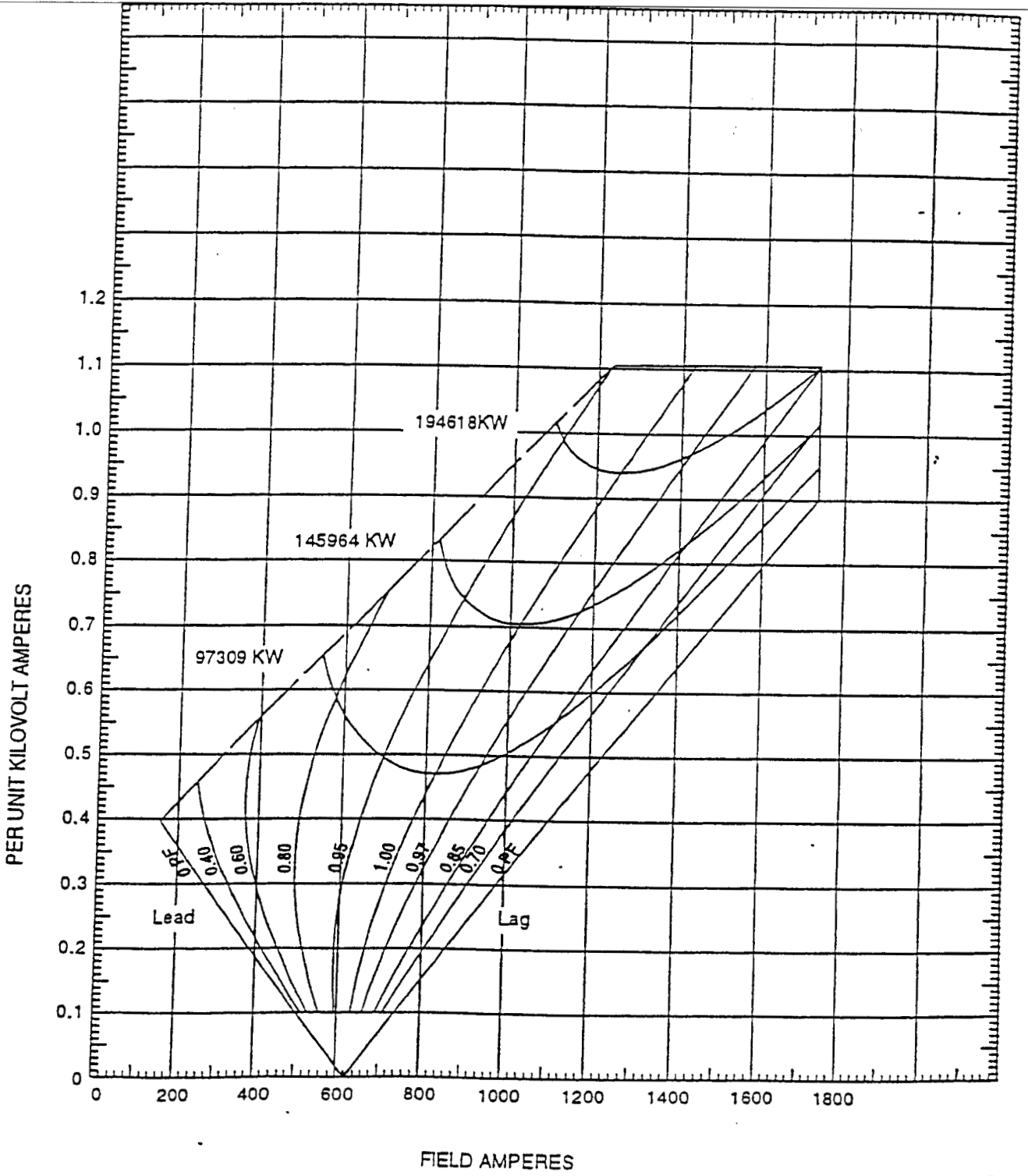


CURVE NO. 80160GG1-2

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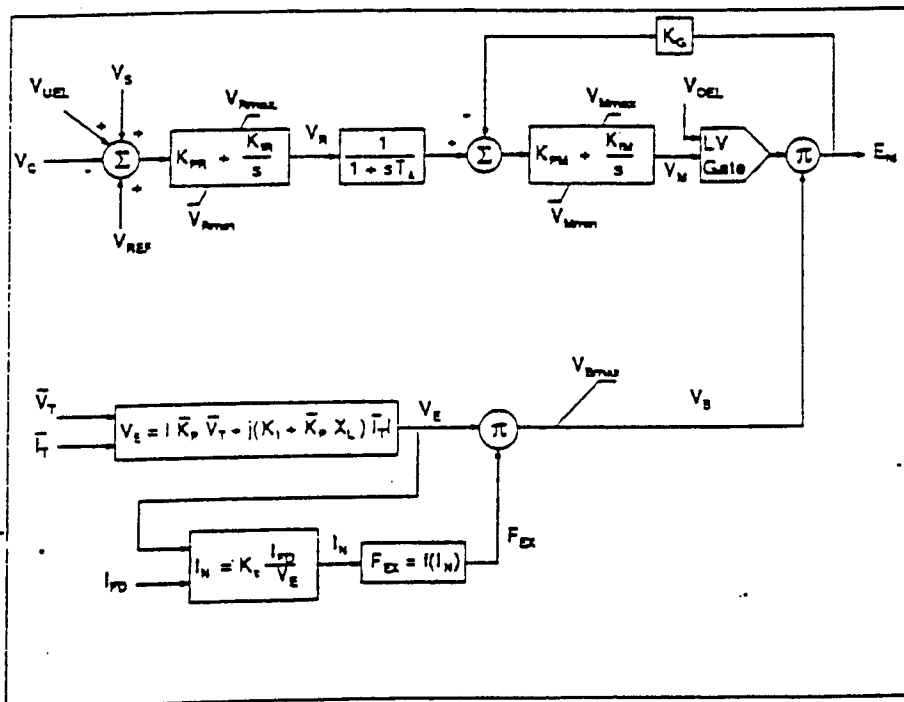
ESTIMATED EXCITATION V CURVES

207000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
340 FLD VOLTS - 40 C COLD GAS - 30 PSIG H2



CURVE NO. 80160GG1-3

Customer	PANDA ENERGY INTERNATIONAL		
unit			
Generator	337X708, 709, 710, 711		
Design	F307T33	7FH2	
MVA Rating	207	KV Rating	18
RPM	3600	PF	0.85
SCR	0.54	H2PSI	30
Volts DC	300	RFG at 100 C	0.1853
AFAG amps	549	AFFL amps	1478
EX2000 Busted Exciter Model Parameters			
IEEE ST4B Model Format		Exciter Nominal Response at rated input	2.0
TR	0	KC	0.13
KPR	3.97	KIR	3.97
VRMAX	1.00	VRMIN	-0.87
TA	0.01	KG	0
KPM	1.00	KIM	0
VMMAX	1.00	VMIMIN	-0.87
KP	5.04	KI	0
VBMAX	6.30	XL	0



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GENERAL ELECTRIC COMPANY SCHENECTADY, NY		SIZE A	CAGE CODE	DWG NO 363A7335
GE Power Generation				
DRAWN Harold C. Sanderson	98/11/30	SCALE	11/30/98 2:21 PM	SHEET 2



GENROU

GTG

Round Rotor Generator Model (Quadratic Saturation)

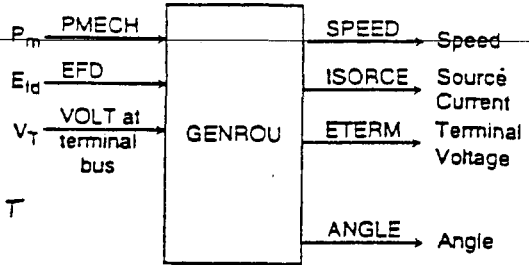
This model is located at system bus # _____ IBUS.

machine # _____ I.

This model uses CONs starting with # _____ J.

The machine MVA is ~~300~~ ³⁰⁷ for each of 4 units = _____ MBASE. $0.144 \times 10^6 \text{ SAT}$

ZSORCE for this machine is _____ + j _____ on the above MBASE. $0.199 \times 10^6 \text{ diSAT}$



CONs	#	Value	Description
J		3.816	$T_{do} (> 0)$ (Seconds)
J+1		0.033	$T_{do} (> 0)$ (Seconds)
J+2		0.420	$T_{qo} (> 0)$ (Seconds)
J+3		0.073	$T_{qo} (> 0)$ (Seconds)
J+4		5.6	Inertia H
J+5		N/A	Speed Damping D
J+6		1.890	X_d
J+7		1.815	X_q
J+8		0.207	X'_d
J+9		0.443	X'_q
J+10		0.144	$X''_d = X''_q$
J+11		0.164	X_l
J+12		0.05	S(1.0)
J+13		0.19	S(1.2)

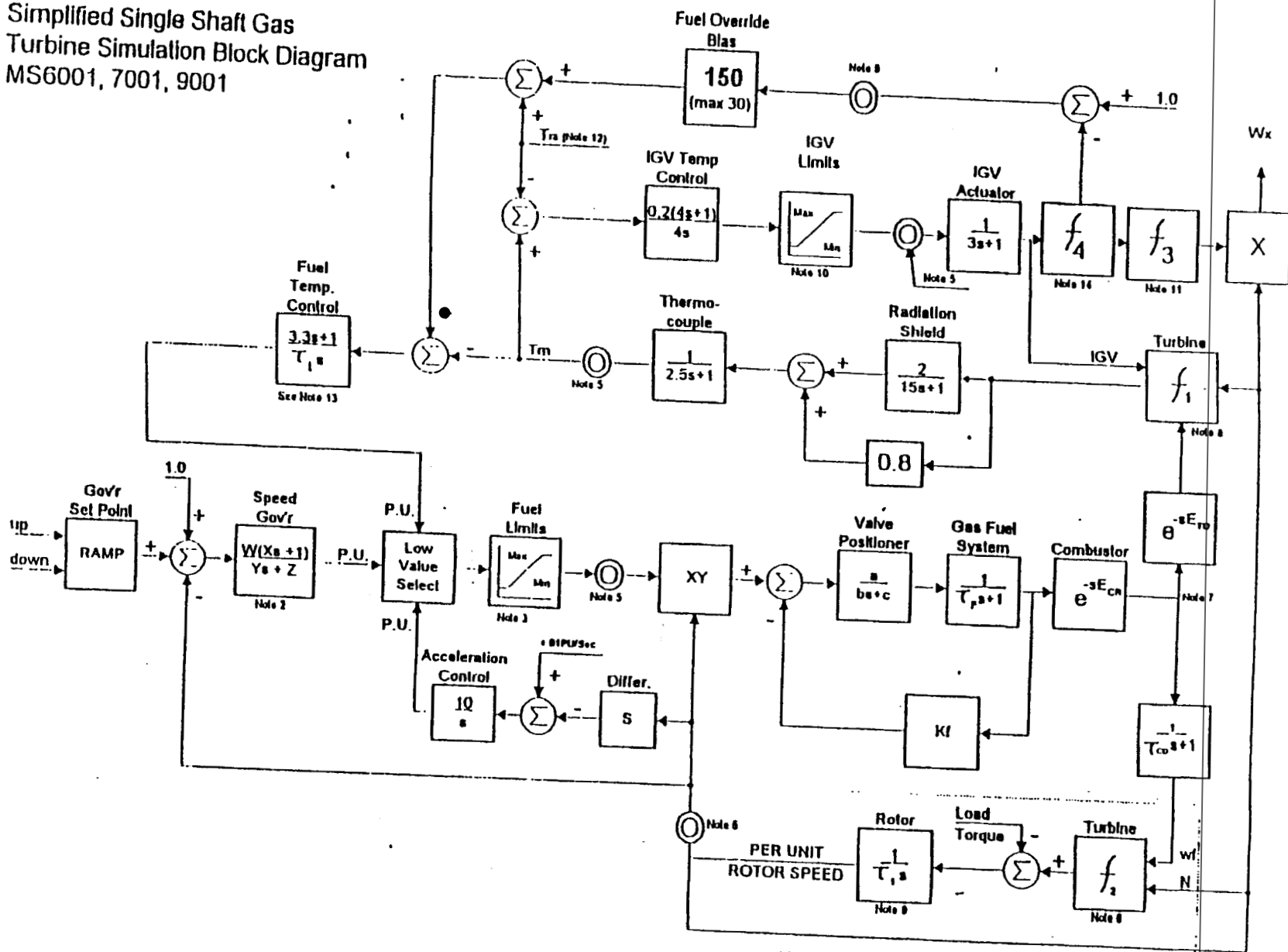
$X_d, X_q, X'_d, X'_q, X''_d, X''_q, X_l, H$ and D are in p.u., machine MVA base.

X''_q must be equal to X''_d .

IBUS, 'GENROU', I, $T_{do}, T'_{do}, T_{qo}, T'_{qo}, H, D, X_d, X_q, X'_d, X'_q, X''_d, X_l, S(1.0), S(1.2)$

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Figure 1:
Simplified Single Shaft Gas
Turbine Simulation Block Diagram
MS6001, 7001, 9001



NOTES FOR FIGURE 1

Simplified Single Shaft Gas Turbine Simulation Block Diagram

1. Speed Governor Digital Setpoint Limit: 95% to 107% Speed

Time required for loading to Base with a 4% droop setting:

<u>Model</u>	<u>Manual</u>	<u>Normal</u>	<u>Fast Load</u>
MS6001B	0.5 min	4 Min	0.5 Min
MS7001EA	6 Min	12 Min	1.5 Min
MS7001FA	6 Min.	12 Min	NA
MS9001E	6 Min.	12 Min.	1.5 Min
MS9001FA	6 Min.	12 Min.	NA

2. Speed Governor Transfer Function Coefficient

Type	<u>W</u>	<u>X</u>	<u>Y</u>	<u>Z</u>
Droop	K_D	0	0.05	1
Isochronous	K_I	2.5	0.83	0
Const. Settable Droop	K_C	τ	τ	0

Where $K_D = 1/\text{Droop}$ or $K_D = 25$ for 4% droop setting

$K_I = 8$ for Mark IV Controls

$K_C = 10$ for all machines

$\tau = 2.5$ sec Standard and DLN1, 5 for DLN2 - typically

3. The P.U. Fuel limits are based on :

Rated Load	= 1.00 P.U.;	Min = 0.15 P.U
No Load	= 0.23 P.U.;	Max = 1.20 P.U

4. Fuel System Characteristics

Type	Models	<u>a</u>	<u>b</u>	<u>c</u>	<u>τ_f</u>	<u>K_f</u>
Gas	All	1	0.05	1	0.40	0
Liquid	6	10	1	0	0.10	1
Liquid	7EA & 9E	1	0.20	1	0.10	0
Liquid	7FA & 9FA	1	0.20	1	0.20	0

5. For high accuracy applications, locations designated by the symbol \odot should incorporate transport delays of 0.125 seconds for Mark IV and 0.0625 seconds for Mark V.

6. Turbine Torque Calculation

$$f_2 = 1.3 (W_f - 0.23) - 0.5 (1-N)$$

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NOTES FOR FIGURE 1 con't

7. Gas Turbine Dynamic Characteristics

Model Series	$\underline{E_{CR}}$	$\underline{T_{CD}}$	$\underline{E_{TD}}$
6	0.01	0.10	0.02
7&9	0.01	0.20	0.04

8. Turbine Exhaust Temperature Calculation

$$f_1 = T_x = [T_r - 700(1-W) + 550(1-N) + 3.5(\text{MaxIGV-IGV})] * [1 / (1 + 0.0027(59 - T_a))] \text{ in } ^\circ\text{F}$$

$$f_1 = T_x = [T_r - 390(1-W) + 306(1-N) + 1.94(\text{MAXIGV-IGV})] * [1 / (1 + 0.0050(15 - T_a))] \text{ in } ^\circ\text{C}$$

9. Rotating Train Inertia Turbine and Generator

Model	Turbine Speed RPM	Torque Kg-M	Inertia Kg-M ²	τ_1 Sec.	Exhaust Temperature T_r , °C
6001B	5100	6844	4046	15.1	552
7001EA	3600	20282	8822	14.6	541
9001 E	3000	34619	21603	17.1	541
7001 F	3600	40585	15695	14.0	593
9001 F	3000	69384	34544	15.4	593

10. Inlet Guide Vane Limits

Model	Min IGV Angle	Max IGV Angle
6B	57	86
7EA, 9EA, C	57	84
7/9 F, FA	54	86

11. Turbine Exhaust Flow Calculation

$$f_3 = W_x / N = (L_{T_r})^{0.257} \{519 / (T_x + 460)\} \text{ in } ^\circ\text{F}$$

$$f_3 = W_x / N = (L_{T_r})^{0.257} \{288 / (T_x + 273)\} \text{ in } ^\circ\text{C}$$

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NOTES FOR FIGURE 1 con't

12. The exhaust temperature control point for constant firing temperature is a function of compressor discharge pressure which is a function of many factors. For these models this can be expressed purely as a function of ambient temperature as shown below:

$$T_n = T_r - 0.6 (59 - T_a) \text{ in degrees F.}$$

$$T_n = T_r - 0.6 (15 - T_a) \text{ in degrees C.}$$

where T_r is obtained from Table in Note 9.

13. $\tau_c = 450^\circ$ in degrees F or 250° in degrees C.

14. Inlet Guide Vane Angle conversion to per Unit

$$6B \quad f_4 = \text{Ligv} = 0.01862 (\text{IGV}) - 0.6014$$

$$7E/9E \quad f_4 = \text{Ligv} = 0.02 (\text{IGV}) - 0.68$$

$$7F/9F \quad f_4 = \text{Ligv} = 0.016875 (\text{IGV}) - 0.45125$$

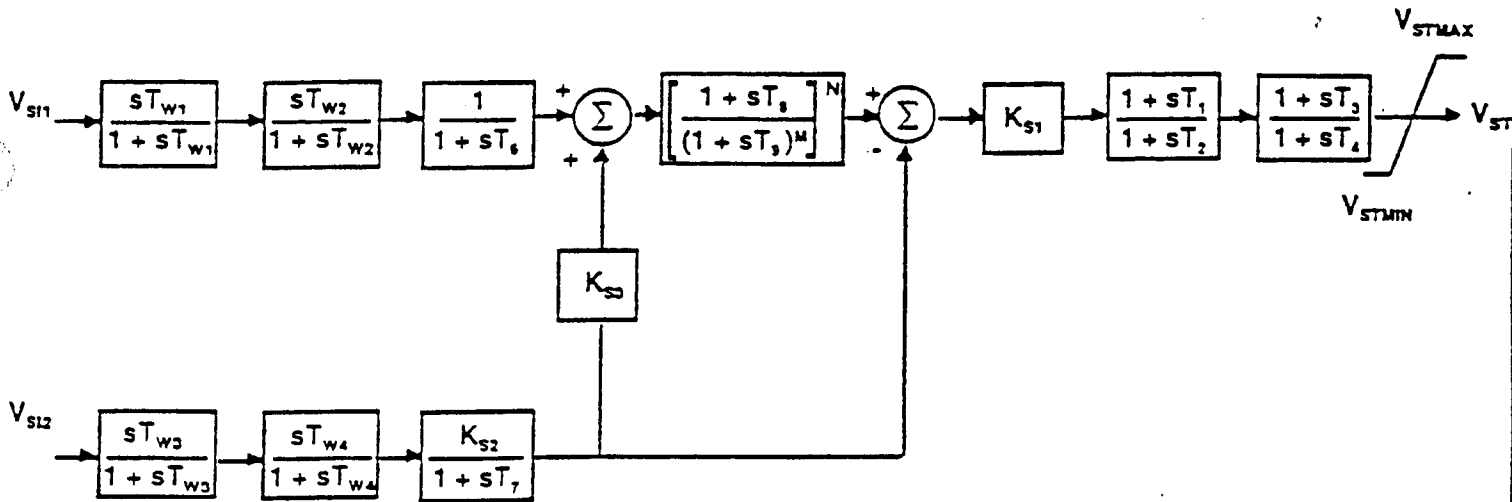
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Typical Power System Stabilizer Model Utilizing Speed Plus Power Input

Customer = Panda Energy International
 Generator: 337X708, 709, 710, 711
 Generator Design: F307T33
 Exciter Type: Busfed Exciter with EX2000 Digital Controls

IEEE Model Type PSS2A			
T1 = 0.15 @	T2 = 0.03 @	T3 = 0.15 @	T4 = 0.03 @
KS1 = 30 @	VSTmax = 0.1	VSTmin = -0.1	
TW1 = 2	TW2 = 2	T6 = 0	
TW3 = 2	TW4 = 0	T7 = 2	KS2 = 0.149
KS3 = 1.0	T8 = 0.5	T9 = 0.1	
M = 5	N = 1		
VS11 = Speed(pu)		VS11 = PE(pu) (Electrical Power)	

@ = Use field settings. Optimum settings can be provided at extra cost.



IEEE Type PSS2A Dual Input Stabilizer Model



I) Turbine Governor Data

1. Speed/Load governor model name GE MARK V

2. Governor model, supply block diagram and model parameters in IEEE^{3,4} or PSS/E format (See Attached)

J) Generator Step-up Transformer Data

1. Manufacturer Hyundai

2. Model Type TL0702

3. Serial Number These units are on order from Hyundai on a bulk purchase order.

(* 4. Rating 126/168/210 @ 65°C MVA

(* 5. High voltage winding, nominal voltage 230.0 kV

(* 6. High voltage winding connection (wye/delta) WYE

(* 7. Low voltage winding, nominal voltage 18.0 kV

(* 8. Low voltage winding connection (wye/delta) Delta

9. Transformer resistance 0.157% p.u.

(* 10. Transformer reactance $x/r = 65$ 10.32% p.u.

(* 11. Transformer impedance base values 10% @ 126 MVA 230 kV

12. Available tap settings

HV taps 241.5, 235.75, 230.0, 224.25, 218.5 kV

LV taps 18.0 kV

³ IEEE Committee Report, "Dynamic Models for Steam and Hydro Turbine Control Models for System Dynamic Studies," IEEE transactions on Power Apparatus and Systems, Vol. PAS-92, November, 1973

⁴ W.I. Rowen, "simplified Mathematical Representations of Heavy Duty Gas Turbines," Transactions of ASME, Vol.105(1), 1983

13. Expected tap settings

HV taps	<u>241.5</u>	kV
LV taps	<u>18.0</u>	kV

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Florida Power Corporation
Generation Interconnection Study
Data Request Form

INSTRUCTIONS

(*) denotes items that are required for both a Generation Interconnection Feasibility Study and a Generation Interconnection Study and must be completed and included in Respondent's proposal. All items on this form are required prior to the start of engineering design.

If a data item is unavailable, please provide an estimate and indicate it as an estimate. Please note that a restudy could be required if data assumptions change while the study is in progress.

Please fill out and attach a copy of Section II for each generator on the site.

Please use this form to supply the requested data. Submittal of manufacturer data sheets, other than generator characteristic curves, is not an acceptable alternative to completing this form.

SECTION I - Generation Site Data

A) **Contact Person** - Provide name and address of person completing this form

(*)1. Name: Ted A. McElroy

(*)2. Address: 4100 Spring Valley Road, Suite 1001

(*)3. City/State/Zip: Dallas, TX 75244

(*)4. Telephone: 972-980-7159

(*)5. Date: 2/29/00

B) **Site Location**

(*)1. County: Lake

(*)2. Section / Township / Range: 8/20S/24E

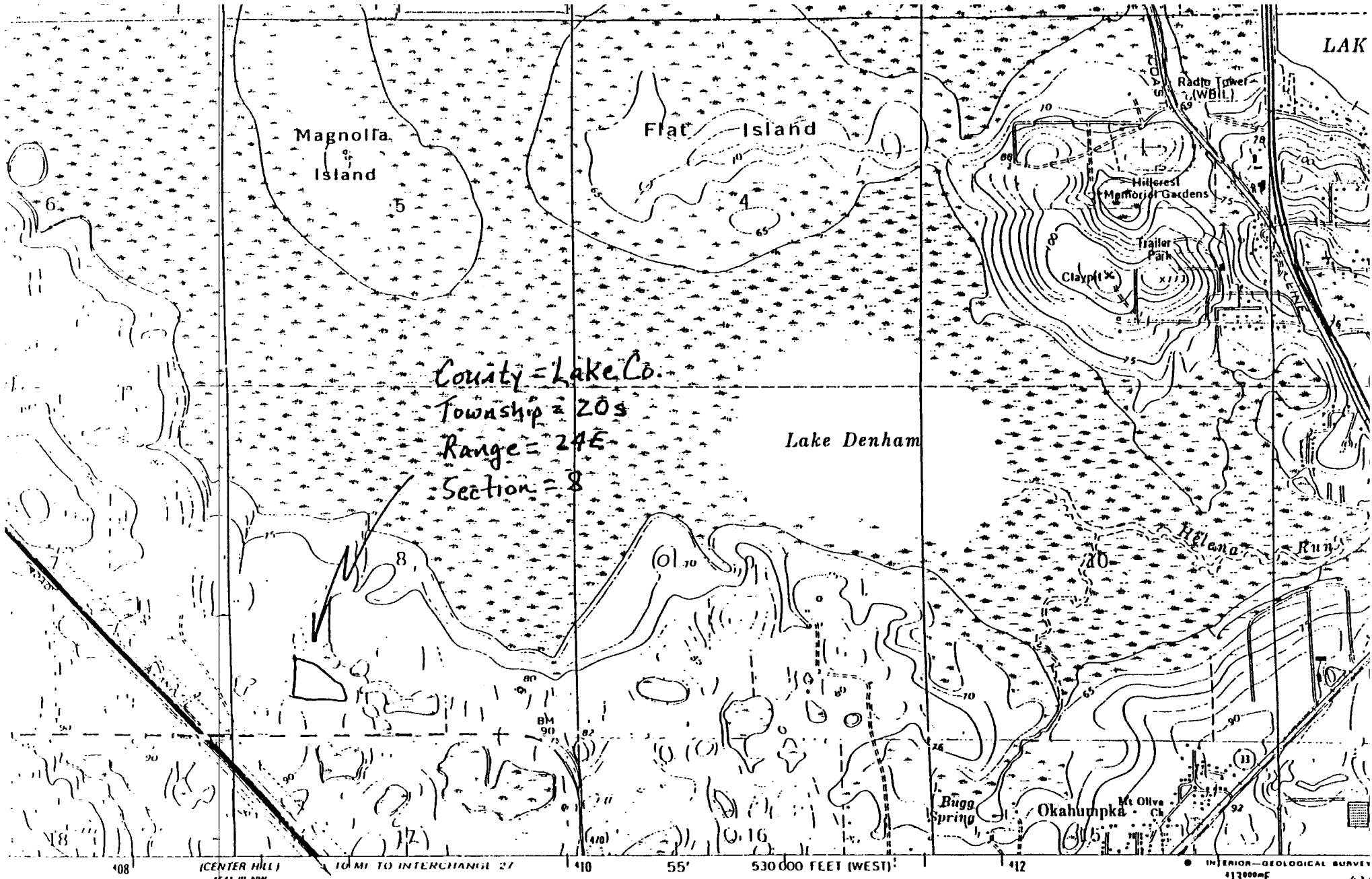
- (*3. Site Drawing: Include a site drawing indicating county, section, township, and range. In addition, for a Generation Interconnection Study, a preliminary equipment layout on the site, suitable for site plan permitting, is required.
(See attached.)

C) Proposed Load Requirements for Site

- (*1. Required Date: December 1, 2002
- (*2. Nature of Load (Station Service, Start-up Power, Etc.) Start Up Power (Back Feed)
- (*3. Connected kVA Load: 7,800
- (*4. Peak Demand kVA Load: 12.500
- (*5. Expected Power Factor: 0.80
- (*6. Service Voltage: 230kV
- (*7. Anticipated Future Load Requirements (please describe): None
-
-
-

D) Other Site Information

- (*1. Net Generation Output (MVA) for Site @ 59°F Outdoor Ambient: 1,150 MW 1,353 MVA
- (*2. Net Generation Output (MVA) for Site @ 90°F Outdoor Ambient: 1,075 MW 1,265 MVA

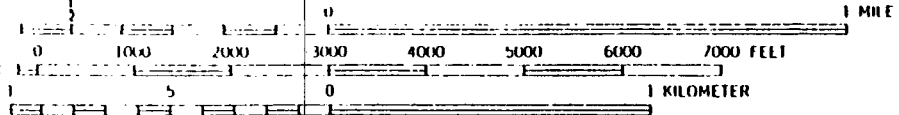


County = Lake Co.
 Township = 20s
 Range = 24E
 Section = 8

Lake Denham

108 (CENTER HILL) 4541 III NW 10 MI TO INTERCHANGE 27 410 55' 530 000 FEET (WEST) 412 INTERIOR- GEOLOGICAL SURVEY 1:30000E 431

SCALE 1:24 000



CONTOUR INTERVAL 5 FEET
 DATUM: GEODETIC VERTICAL DATUM OF 1929



ROAD CLASS
 Heavy-duty
 Medium-duty
 U. S. Route

(*).3. Proposed Interconnections with Other Systems (please describe):

Please see attached single line diagram

Drawing No.100 Rev C. dated 02/28/00

E) In-Service Dates

(*).1. Required connection to grid for generator testing: December 1, 2002

(*).2. Commercial in-service date: May 1, 2003

SECTION II - Individual Generator Data

A) Unit Identification

(*).1. Plant Name and Unit Number Panda Leesburg Power Partners, L.P.

STG1, STG2

2. Manufacturer

GE Steam Turbine Generator Design No.80904S

These units are on order from

3. Generator Serial Number

GE on a bulk purchase order

These units are on order from

4. Turbine Serial Number

GE on a bulk purchase order

B) Ratings and Capabilities

1. Nameplate kV Rating (nominal design voltage) 18,0KV, 3 phase, 60HZ

2. MVA Rating

MVA Rating

@ Hydrogen Pressure

a. 300.00

45 PSIG

b. 300.00

45 PSIG

c. _____

d. _____

(*).3. Gross MW Rating @ 59°F Outdoor Ambient 255.0

(*).4. Net MW Rating @ 59°F Outdoor Ambient 246.692

(*).5. Gross MW Rating @ 90°F Outdoor Ambient 232.04

(*) 6. Net MW Rating @ 90°F Outdoor Ambient	<u>227.72 MW</u>
7. Rated Power Factor	<u>0.85 LAG, 0.95 LEAD</u>
8. Rated Speed	<u>3600 RPM</u>
9. Rated Turbine Capability	<u>255 MW</u>
10. Field Voltage at Rated Load	<u>211</u>
11. Field Current at Rated Load	<u>1487</u>
12. No-load Field Voltage at Generator Rated Voltage	<u>583</u>
13. Air Gap Field Voltage at Generator Rated Voltage	<u>194</u>
14. Field Resistance	<u>0.363 ohms @ 125°C</u>

C) Inertia (Rotor 30,900)

(*) 1. WR^2 for Generator and Exciter	<u>109,140</u> lb-ft ²
(*) 2. WR^2 for Turbine	<u>250,000</u> lb-ft ²
(*) 3. Calculated H Constant	<u>3.58393</u> sec. @ <u>300 MVA</u>

D) Losses and Efficiency

1. Open circuit core loss	<u>485.5</u> kW
2. Windage loss	<u>508.3</u> kW
3. H ₂ seal and exciter friction loss	<u>59.</u> kW
4. Stator I ² R Loss at rated power and voltage	<u>100°C</u> <u>323.1</u> kW
5. Rotor I ² R Loss at rated power and voltage	<u>125°C</u> <u>802.0</u> kW
6. Stray Load loss	<u>518.1</u> kW
7. Excitation losses	<u>78.2</u> kW

E) Generator Time Constants

1. T'_{do} (Direct axis open circuit transient time constant)	<u>4.235</u> sec
2. T''_{do} (Direct axis open circuit subtransient time constant)	<u>0.032</u> sec
3. T'_{qo} (Quadrature axis open circuit transient time constant)	<u>0.353</u> sec
4. T''_{qo} (Quadrature axis open circuit subtransient time constant)	<u>0.071</u> sec
5. T_{a3} (Short circuit time constant)	<u>0.405</u> sec

F) Generator Impedances

(*) 1. MVA base for all impedance data	<u>300.0</u> MVA
(*) 2. kV base for all impedance data	<u>18.0</u> kV

<u>Parameter</u>	<u>Description</u>	<u>p.u. value</u>
(*) 3. X_d	Direct axis synchronous reactance (unsaturated)	<u>1.831</u>
4. X_q	Quadrature axis synchronous reactance (unsaturated)	<u>1.769</u>
(*) 5. X'_d	Direct axis transient reactance (unsaturated)	<u>0.314</u>
6. X'_{ds}	Direct axis transient reactance (saturated)	<u>0.236</u>
7. X'_q	Quadrature axis transient reactance (unsaturated)	<u>0.519</u>
8. X'_{qs}	Quadrature axis transient reactance (saturated)	<u>0.5</u>
(*) 9. X''_d	Direct axis subtransient reactance (unsaturated)	<u>0.227</u>
10. X''_q	Quadrature axis subtransient reactance (unsaturated)	<u>0.223</u>
11. X_L	Armature leakage reactance	<u>0.185</u>
12. R_1	Positive sequence armature resistance at 75° C	<u>0.003</u>
13. R_2	Negative sequence armature resistance at 75° C	<u>0.014</u>
14. X_2	Negative sequence armature reactance at rated voltage	<u>0.217</u>

15.	X_0	Positive sequence armature reactance at 75° C	<u>0.127</u>
16.	R_{dc}	Direct current armature resistance at 75° C	<u>0.00116</u>
17.	Generator neutral grounding resistance	30KVA	<u>0.525 Ω secondary ohms</u>
(*)18.	Generator neutral grounding reactance	30KVA	<u>5.25 ohms (estimate)</u>

G) Required Characteristic Curves and Diagrams

- (*) 1. Real and reactive power capability curves (Maximum var capability, lagging and leading, is sufficient for Feasibility Study) See attached
- 2. Saturation curve, full load and no-load See attached
- 3. "V" curves See attached
- 4. Governor overspeed response curve See attached
- 5. One-Line diagram showing generator and substation equipment connections
See attached

H) Excitation System Data

- 1. Excitation system type Static
- 2. Voltage regulator model name GE
- 3. Excitation system model, supply block diagram and model parameters in IEEE¹ or PSS/E format (See attached GE EX2000)
- 4. Voltage compensation, supply block diagram and settings if used Requested
- 5. Voltage regulator overexcitation limiters, supply block diagram and model parameters in IEEE² format. (See attached) Requested
- 6. Power System Stabilizer (if used), supply Power System Stabilizer block diagram and model parameters in IEEE or PSS/E format (See attached)

I) Turbine Governor Data

- 1. Speed/Load governor model name GE Mark V

¹ IEEE Standard 421.5-1992 "IEEE Recommended Practice for Excitation System Models for Power System Stability Studies"

² IEEE Committee Report, "Recommended Models for Overexcitation Limiting Devices," IEEE Transactions on Energy Conversion, Vol. 10, No. 4, December 1995

ESTIMATED GENERATOR DATA

MGD309 GEN DES NO 80904S DATE 6-FEB-00
 ATB-2-300000 KVA 3600 RPM 18000 VOLTS 0.85 PF 45.0 PSIG 40.0 C H2
 255000 KW 9623 AMPS 0.57 SCR 540 FLD VOLTS 0 FT ALT WYE CONN

REACTANCE DATA - (PER UNIT)	DIRECT AXIS		QUADRATURE AXIS	
SATURATED SYNCHRONOUS	X/DV	1.831	X/QV	1.769
UNSATURATED SYNCHRONOUS	X/DI	1.831	X/QI	1.769
SATURATED TRANSIENT	XP/DV	0.236		
UNSATURATED TRANSIENT	XP/DI	0.314	XP/Q	0.519
SATURATED SUBTRANSIENT	XPP/DV	0.172	XPP/QV	0.168
UNSATURATED SUBTRANSIENT	XPP/DI	0.227	XPP/QI	0.223
SATURATED NEGATIVE SEQUENCE	X/2V	0.164		
UNSATURATED NEGATIVE SEQUENCE	X/2I	0.217		
SATURATED ZERO SEQUENCE	X/0V	0.098		
UNSATURATED ZERO SEQUENCE	X/0I	0.127		
LEAKAGE REACTANCE, OVEREXCITED	X/LM, OEX	0.185		
LEAKAGE REACTANCE, UNDEREXCITED	X/LM, UEX	0.185		

FIELD TIME CONSTANT DATA - (SEC AT 125C)

OPEN CIRCUIT	TP/D0	4.235	TP/Q0	0.353
THREE PHASE SHORT CIRCUIT TRANSIENT	TP/D3	0.547	TP/Q	0.353
LINE TO LINE SHORT CIRCUIT TRANSIENT	TP/D2	0.851		
LINE TO NEUTRAL SHORT CIRCUIT TRANSIENT	TP/D1	1.009		
SHORT CIRCUIT SUBTRANSIENT	TPP/D	0.023	TPP/Q	0.023
OPEN CIRCUIT SUBTRANSIENT	TPP/D0	0.032	TPP/Q0	0.071

ARMATURE DC COMPONENT TIME CONSTANT DATA - (SEC AT 100C)

THREE PHASE SHORT CIRCUIT	T/A3	0.405
LINE TO LINE SHORT CIRCUIT	T/A2	0.405
LINE TO NEUTRAL SHORT CIRCUIT	T/A1	0.350

ARMATURE WINDING SEQUENCE RESISTANCE DATA - (PER UNIT)

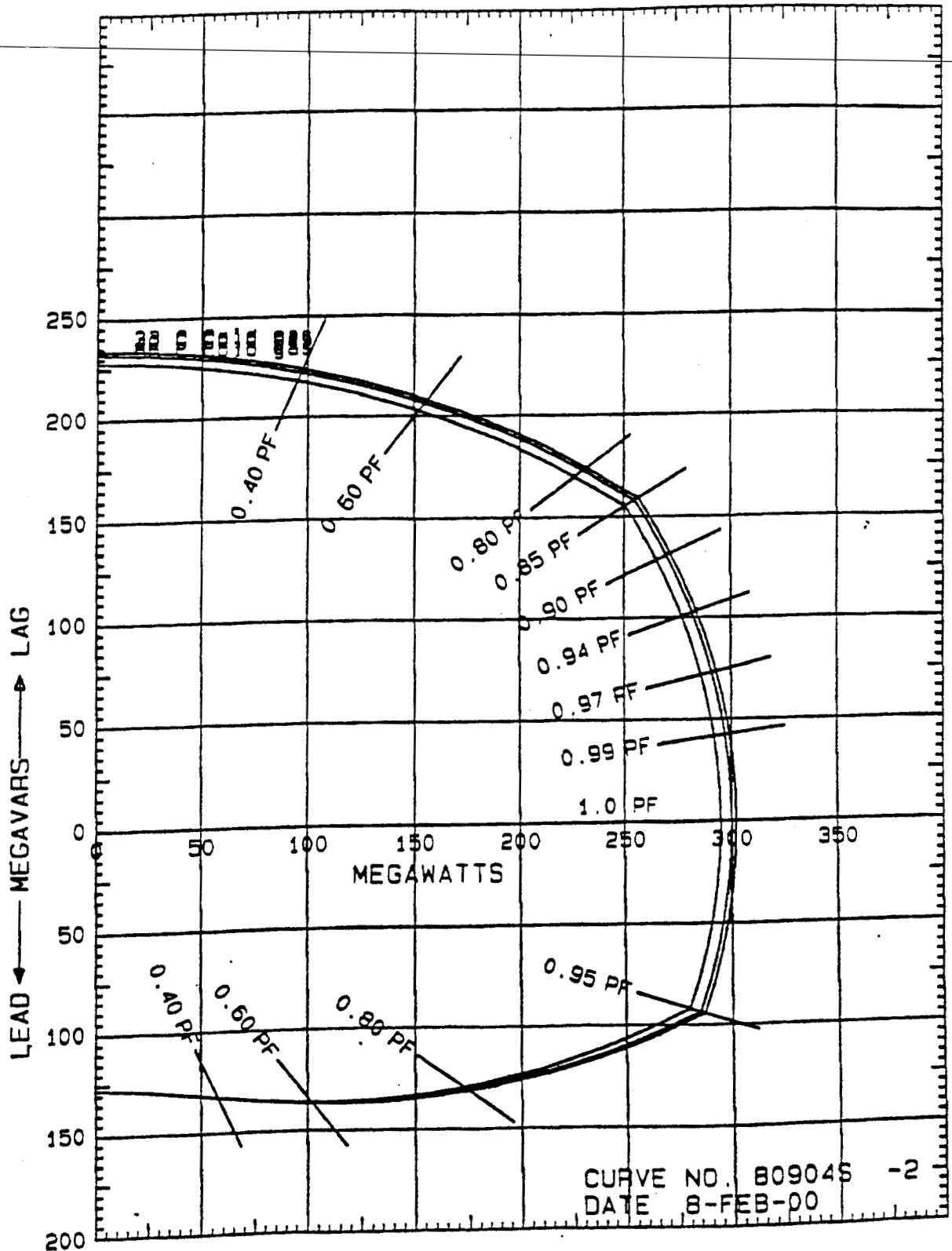
POSITIVE	R/1	0.003
NEGATIVE	R/2	0.014
ZERO	R/0	0.006

ANSI ROTOR SHORT-TIME THERMAL CAPACITY, I2SQ T = 10.0
 TURBINE-GENERATOR COMBINED INERTIA CONSTANT, H = KW SEC/KVA
 THREE PHASE ARMATURE WINDING CAPACITANCE = 1.917 MICROFARADS
 ARMATURE WINDING DC RESISTANCE (PER PHASE) = 0.00116 OHMS (100 C)
 FIELD WINDING DC RESISTANCE = 0.363 OHMS (125 C)
 FIELD CURRENT AT RATED KVA, ARM VOLTAGE, AND PF = 1486.9 AMPS
 FIELD CURRENT AT RATED KVA AND ARM VOLTAGE, 0PF LAGGING (FOR SYSTEMS
 STUDY ONLY - NOT ALLOWABLE OPERATING POINT) = 1798.6 AMPS

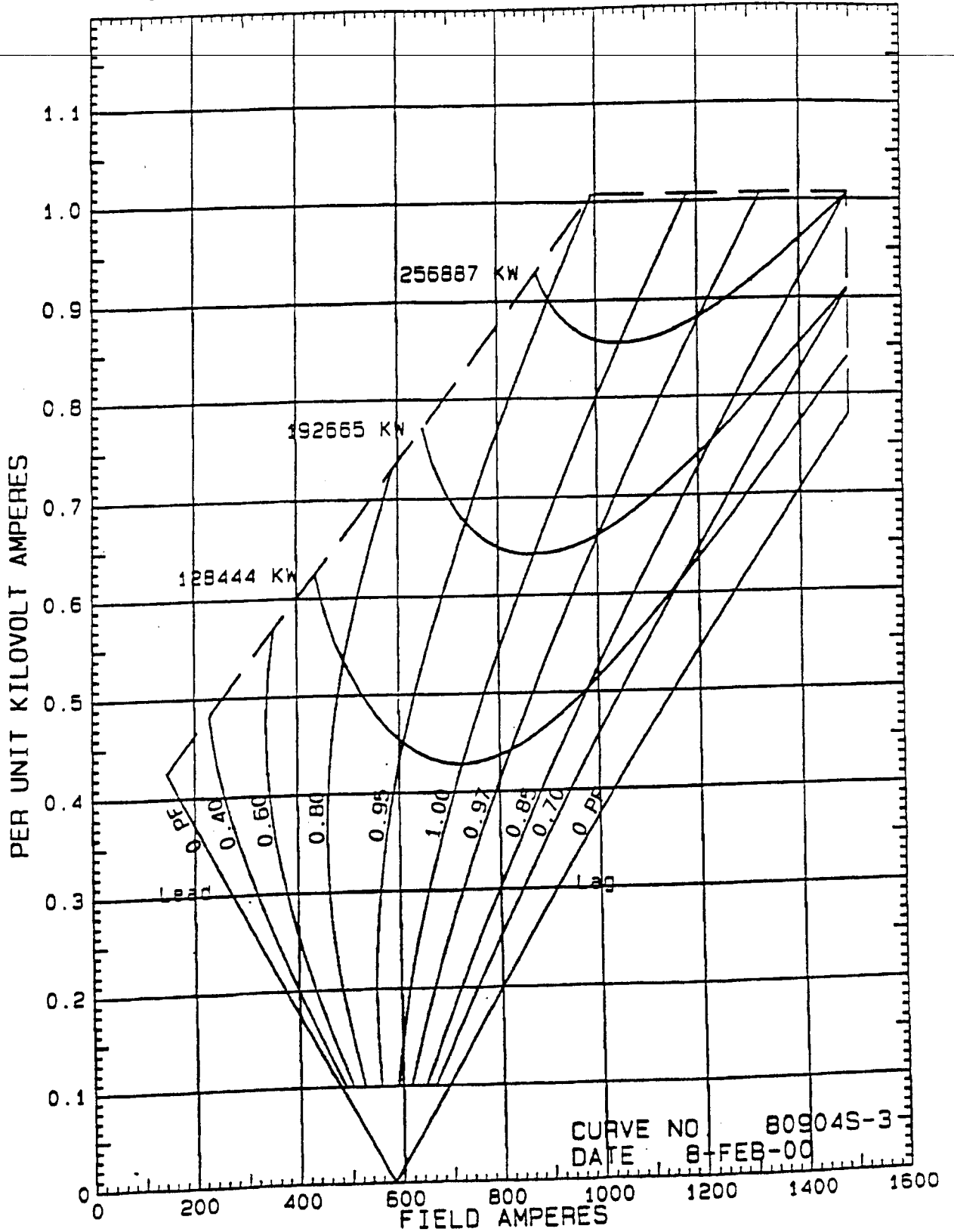
 REQ. ENGINEER

ESTIMATED REACTIVE CAPABILITY CURVES

300000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
 540 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2

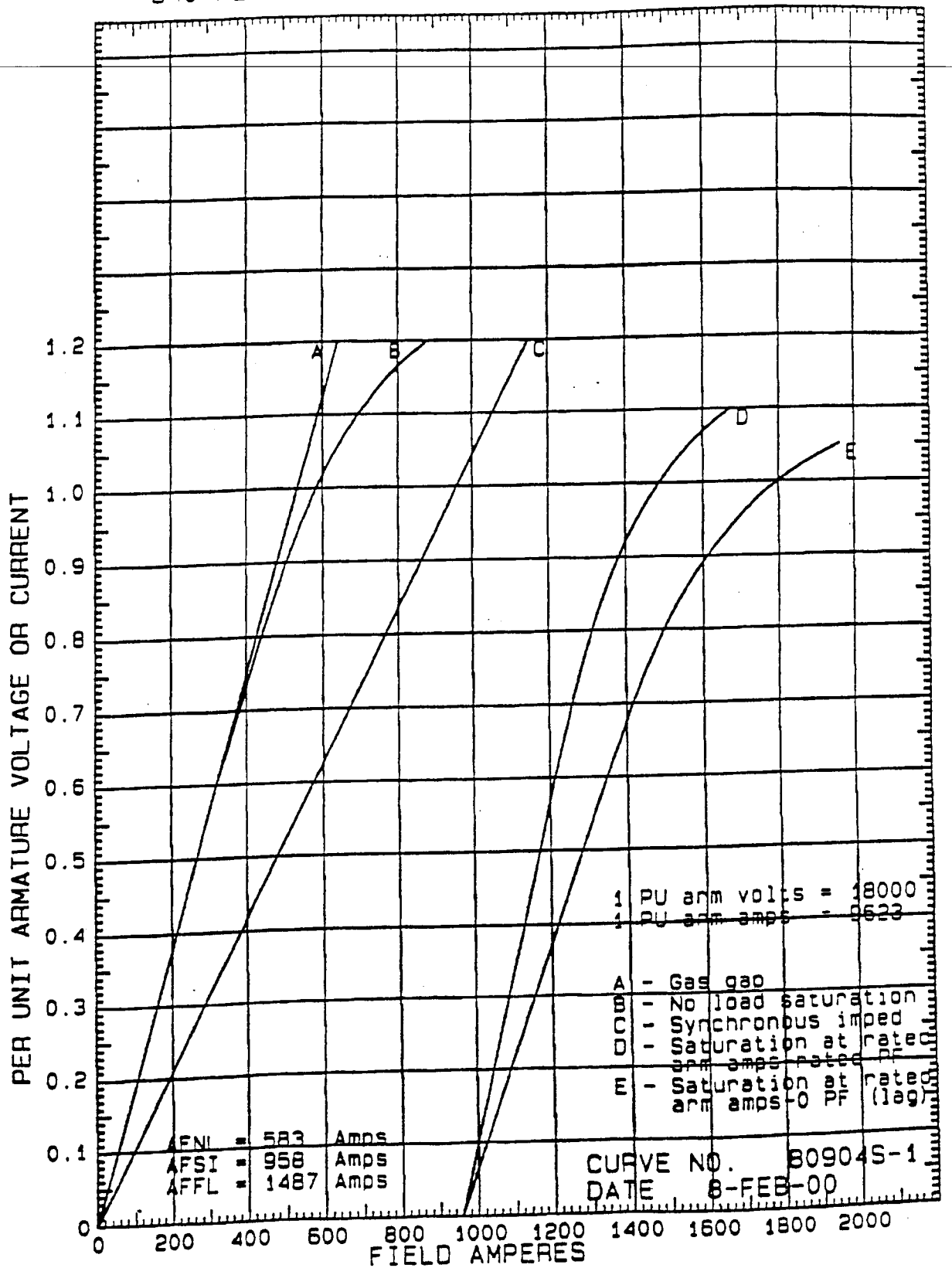


ESTIMATED EXCITATION V CURVES
 300000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
 540 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2

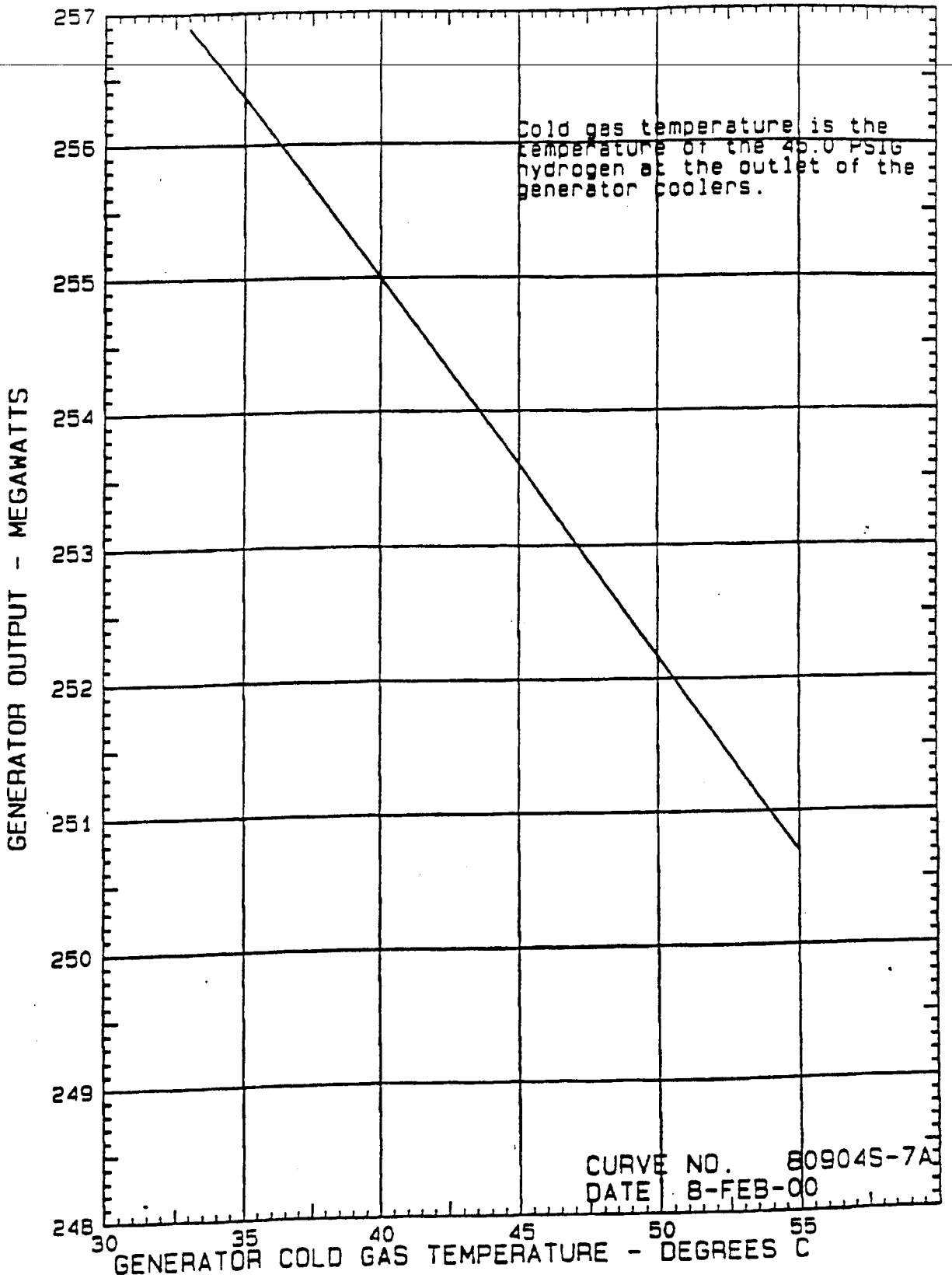


CURVE NO 80904S-3
 DATE 8-FEB-00

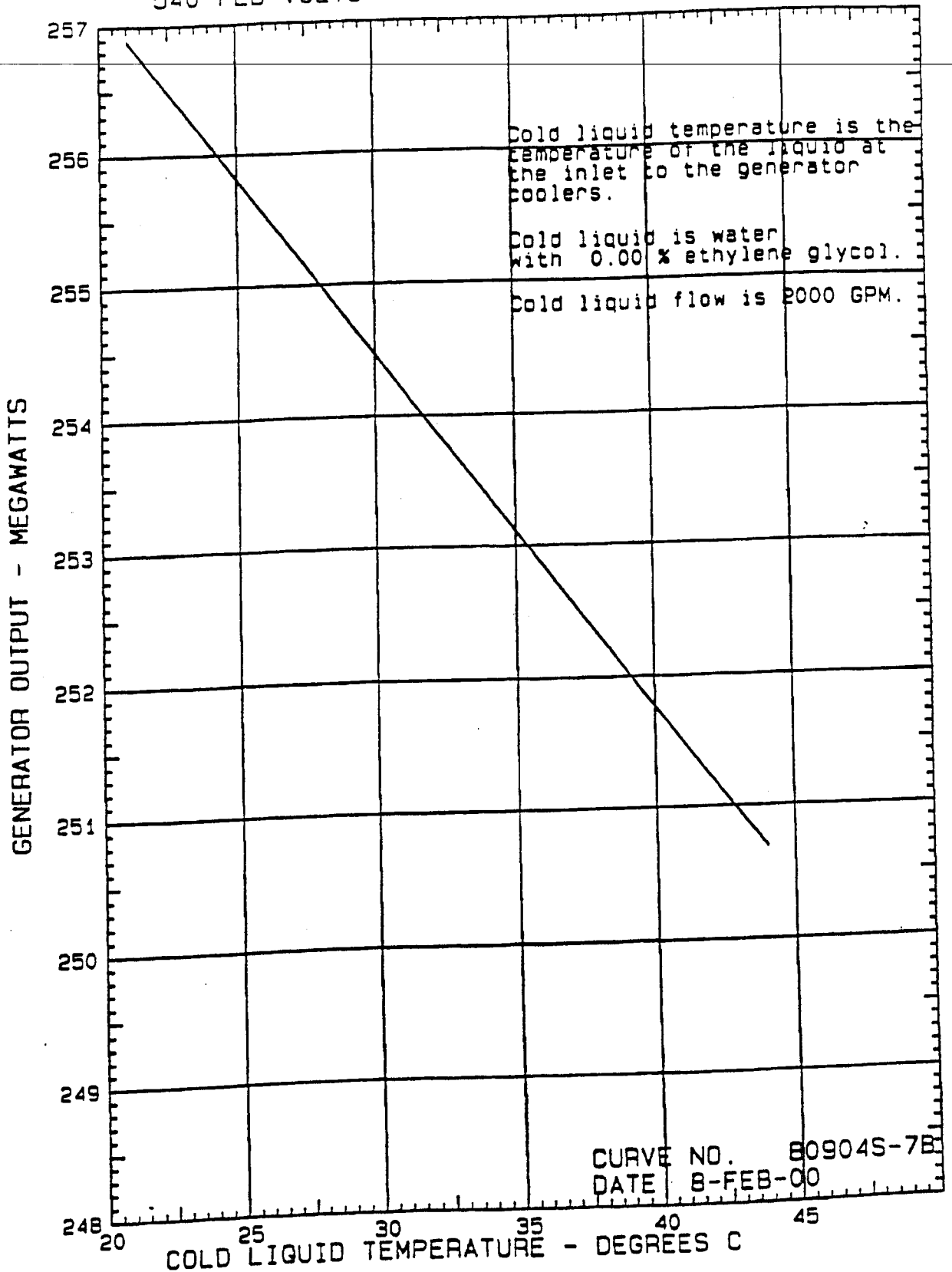
ESTIMATED SATURATION AND SYNCHRONOUS IMPEDANCE CURVES
 300000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
 540 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2



GENERATOR OUTPUT AS A FUNCTION OF COLD GAS TEMPERATURE
 300000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
 540 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2



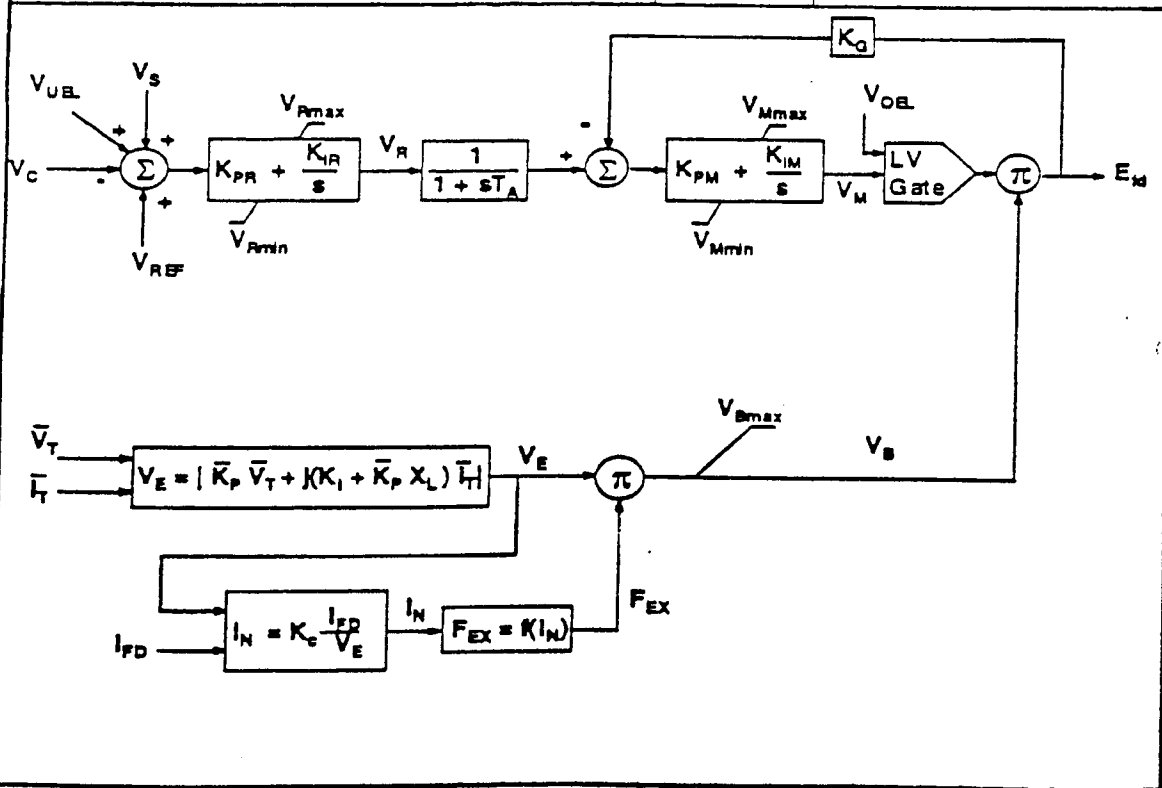
GENERATOR OUTPUT AS A FUNCTION OF COLD LIQUID TEMPERATURE
 300000 KVA - 3600 RPM - 18000 VOLTS - 0.85 PF
 540 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2



Customer	Leesburg		
unit	Leesburg		
Generator	IPS80904S		
Design	80904S	324	
MVA Rating	300	KV Rating	18
RPM	3600	PF	0.85
SCR	0.57	H2PSI	45
Volts DC	540	RFG at 100 C	0.3376
AFAG amps	534	AFFL amps	1487

EX2000 Busfed Exciter Model Parameters

IEEE ST4B Model Format	Exciter Nominal Response at rated Inp		2.0
TR	0	KC	0.09
KPR	4.14	KIR	4.14
VRMAX	1.00	VRMIN	-0.87
TA	0.01	KG	0
KPM	1.00	KIM	0
VMMAX	1.00	VMIMIN	-0.87
KP	4.83	KI	0
VBMAX	6.03	XL	0



Harold C. Sanderson		02/29/2000 13:46
GE Excitation/Controls Engineering		
ex2000/	IPS80904S .xls	

TR	AC sensor time constant		
KPR	AVR proportional gain		
KIR	AVR integral gain		
VRMAX	Maximum AVR Output		
VRMIN	Minimum AVR output		
TA	AVR time constant		
KG	Field voltage feedback gain		
KPM	Inner loop proportional gain		
KIM	Inner loop integral gain		
VMMAX	Maximum inner loop output		
VMIMIN	Minimum inner loop output		
VBMAX	Maximum source voltage		
KP	Potential source constant		
KI	Current source constant		
XL	Source leakage reactance		
KC	Rectifier loading factor		
VS	Stabilizing input		
VOEL	Over Excitation limit input		
VUEL	Under excitation limit input		
VC	Compensated terminal voltage		
VREF	Terminal voltage setpoint		
EFD	Field voltage		
IFD	Field current		
VT	Terminal voltage		
IT	Terminal current		

GENROU

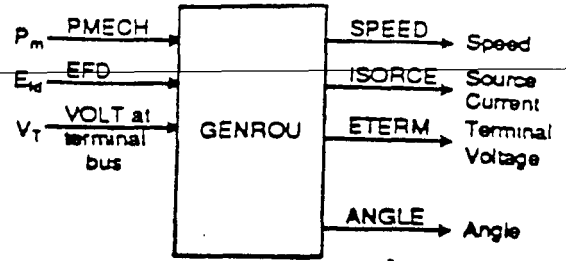
Round Rotor Generator Model

This model is located at system bus # _____ IBUS.
 machine # _____ I.

This model uses CONs starting with # _____ J,
 and STATEs starting with # _____ K.

The machine MVA base is 300 for each of
2 units = _____ MBASE.

ZSORCE for this machine is _____ + j _____ on the
 above MBASE.



CONs	#	Value	Description
J		4.77	$T_{do} (> 0)$ (Seconds)
J+1		0.033	$T'_{do} (> 0)$ (Seconds)
J+2		0.391	$T''_{do} (> 0)$ (Seconds)
J+3		0.074	$T'''_{do} (> 0)$ (Seconds)
J+4		3.584	Inertia H
J+5		—	Speed Damping D
J+6		1.875	X_d
J+7		1.789	X_q
J+8		0.283	X'_d
J+9		0.457	X'_q
J+10		0.200	$X''_d = X''_q$
J+11		0.166	X_l
J+12		0.05	S(1.0)
J+13		0.23	S(1.2)

STATEs	#	Description
K		E'_d
K+1		E'_q
K+2		ψ_{kd}
K+3		ψ_{kq}
K+4		Δ Speed (p.u.)
K+5		Angle (radians)

$X_d, X_q, X'_d, X'_q, X''_d, X''_q, X_l, H$ and D are in p.u., machine MVA base.
 X''_q must be equal to X''_d .

IBUS, 'GENROU', I, $T_{do}, T'_{do}, T''_{do}, T'''_{do}, H, D, X_d, X_q, X'_d, X'_q, X''_d, X_l, S(1.0), S(1.2)$

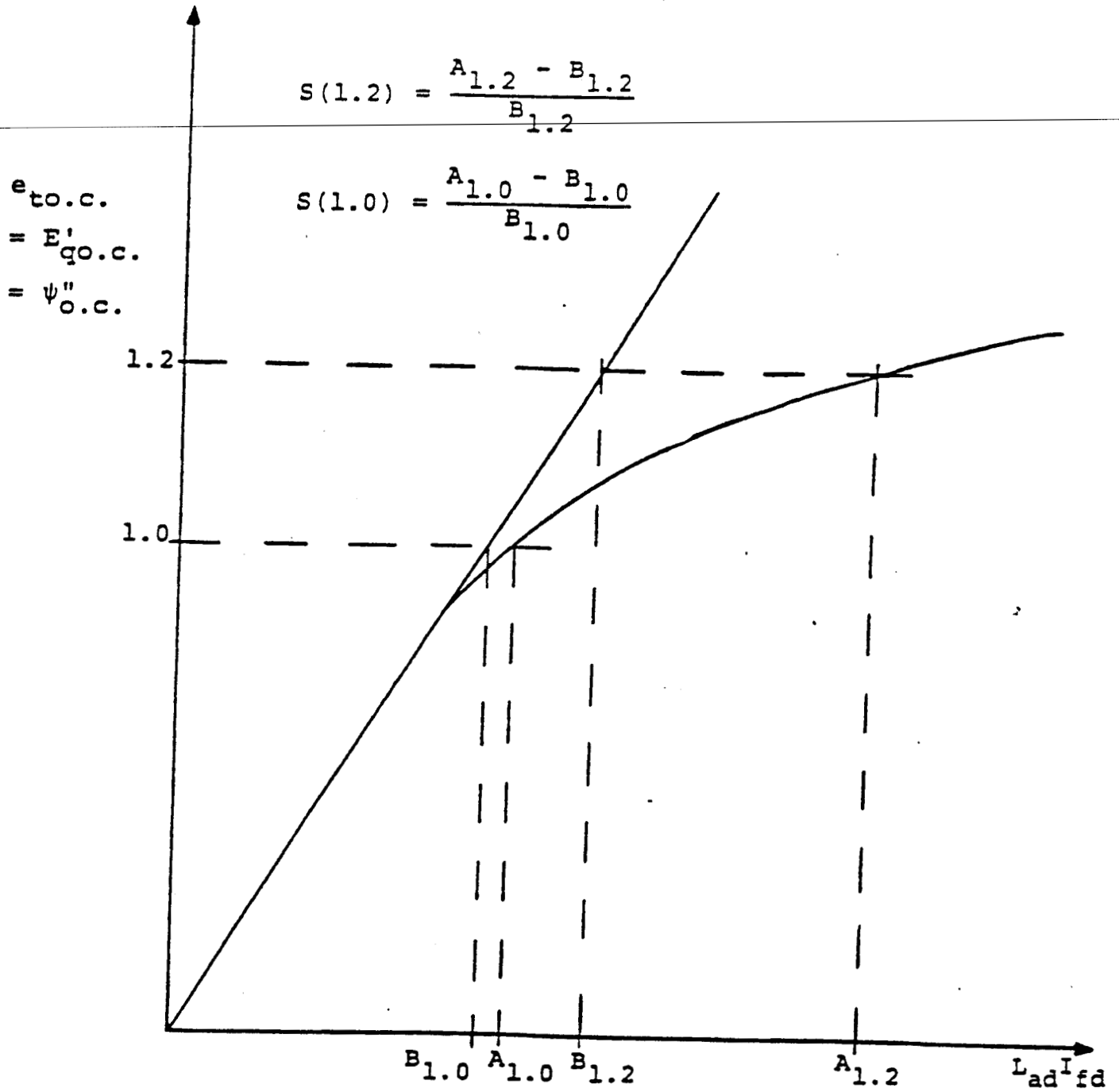


FIGURE 13.6

Definition of Saturation Factor, S,
for Entry as Generator Data

2. Governor model, supply block diagram and model parameters in IEEE^{3,4} or PSS/E format (See attached)

J) Generator Step-up Transformer Data

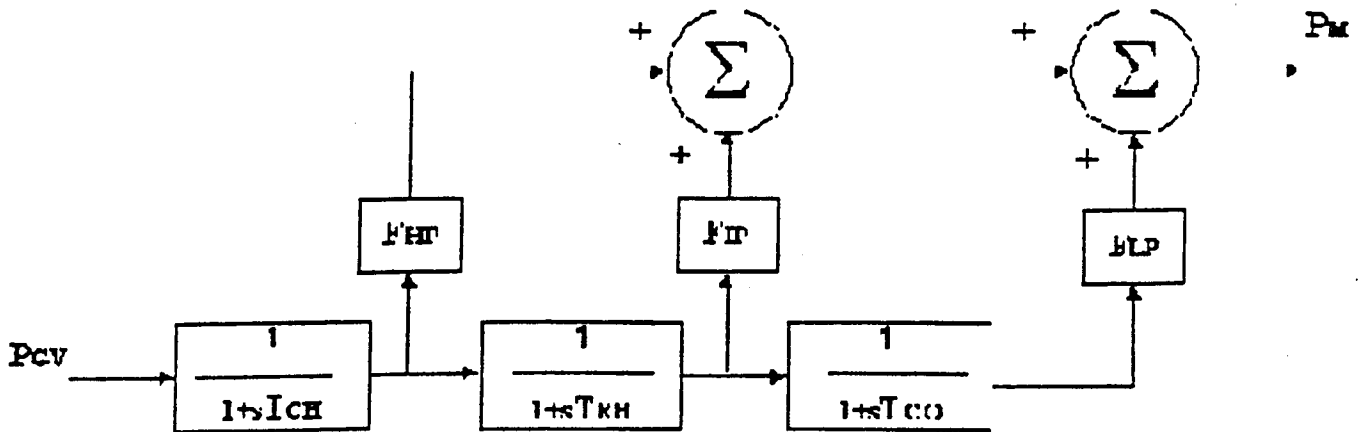
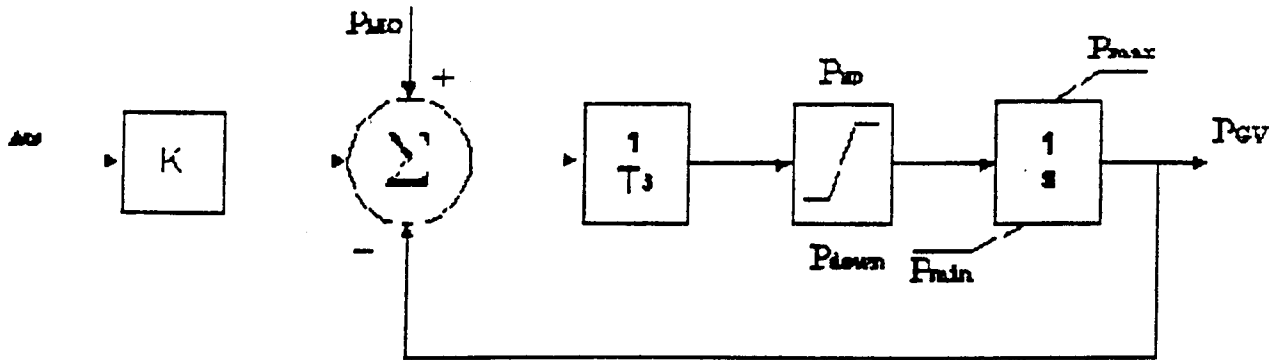
1. Manufacturer	<u>Hyundai</u>	
2. Model Type	<u>TL0702</u>	
3. Serial Number	<u>These units are on order from Hyundai on a bulk purchase order</u>	
(*) 4. Rating	<u>186/248/310 MVA @ 65°C</u>	MVA
(*) 5. High voltage winding, nominal voltage	<u>230.0</u>	kV
(*) 6. High voltage winding connection (wye/delta)	<u>WYE</u>	
(*) 7. Low voltage winding, nominal voltage	<u>18.0</u>	kV
(*) 8. Low voltage winding connection (wye/delta)	<u>Delta</u>	
9. Transformer resistance (0.55 Ω @ 85°C)	<u>0.157%</u>	p.u.
(*)10. Transformer reactance x/R = 65	<u>10.32%</u>	p.u.
(*)11. Transformer impedance base values	<u>10% @ 186 MVA</u>	<u>230.0</u> kV
12. Available tap settings		
HV taps	<u>241.5, 235.75, 230.0, 224.25, 218.5</u>	kV
LV taps	<u>18.0</u>	kV
13. Expected tap settings		
HV taps	<u>241.5</u>	kV
LV taps	<u>18.0</u>	kV

³ IEEE Committee Report, "Dynamic Models for Steam and Hydro Turbine Control Models for System Dynamic Studies," IEEE transactions on Power Apparatus and Systems, Vol. PAS-92, November, 1973

⁴ W.I. Rowen, "simplified Mathematical Representations of Heavy Duty Gas Turbines," Transactions of ASME, Vol.105(1), 1983

STEAM TURBINE CONTROL MODEL

GOVERNOR



STEAM TURBINE CONTROL MODEL CONSTANTS

Panda IPS 80904

SYMBOL	VALUE		
Gain/Regulation	K		20
Gov Servo Constant	T3(sec)		0.15
Servo rate limit-opening	Pup(pu/sec)		0.012 **
Servo rate limit-closing	Pdown (pu/sec)		0.012 **
Upper power limit	Pmax (pu)		1.00
Lower power limit	Pmin (pu)		0.0
Steam chest and inlet piping delay	Tch (sec)		0.275
Reheater and reheat Bowl delay	Trh (sec)		0.1 *
Crossover and LP Bowl delay	Tco (sec)		0.3
HP turbine power fraction	FHP		0.224
IP/Reheat turbinepower fraction	FIP		0.395
LP turbine power fraction	FLP		0.381

$\Delta\omega$ = deviation in turbine speed

P_{MO} = initial per unit mechanical power

P_{GV} = per unit mechanical power at control valves

P_M = mechanical power

- • Customer to add time constant for reheater
- ** constant is highly dependent on position of valves. Value given is for the small scale incremental power change(+/- 2% change) around the normal operation point of "valves wide open". Full stroke change rates are in the neighborhood of 0.83 pu/sec. With valves wide open drop in turbine speed will result in no additional power.

Power Generation Systems Engineering



GE Power Systems

Fax Cover Sheet

General Electric Company

1 River Road, Bldg. 37, 3rd floor
Schenectady, NY 12345

TO:

Name: Ted McElroy

Date: 972-980-6815

Phone: 972-980-8159

Fax: _____

FROM:

Name: Paul Chmielewski

Location: _____

Phone: 518-385-7771

Fax: (518)385-_____
8*235-_____

No. of Sheets (including cover sheet): 1

In Reference To: _____

NOTES:

GTC question G)4. - answer attached

Thank You!

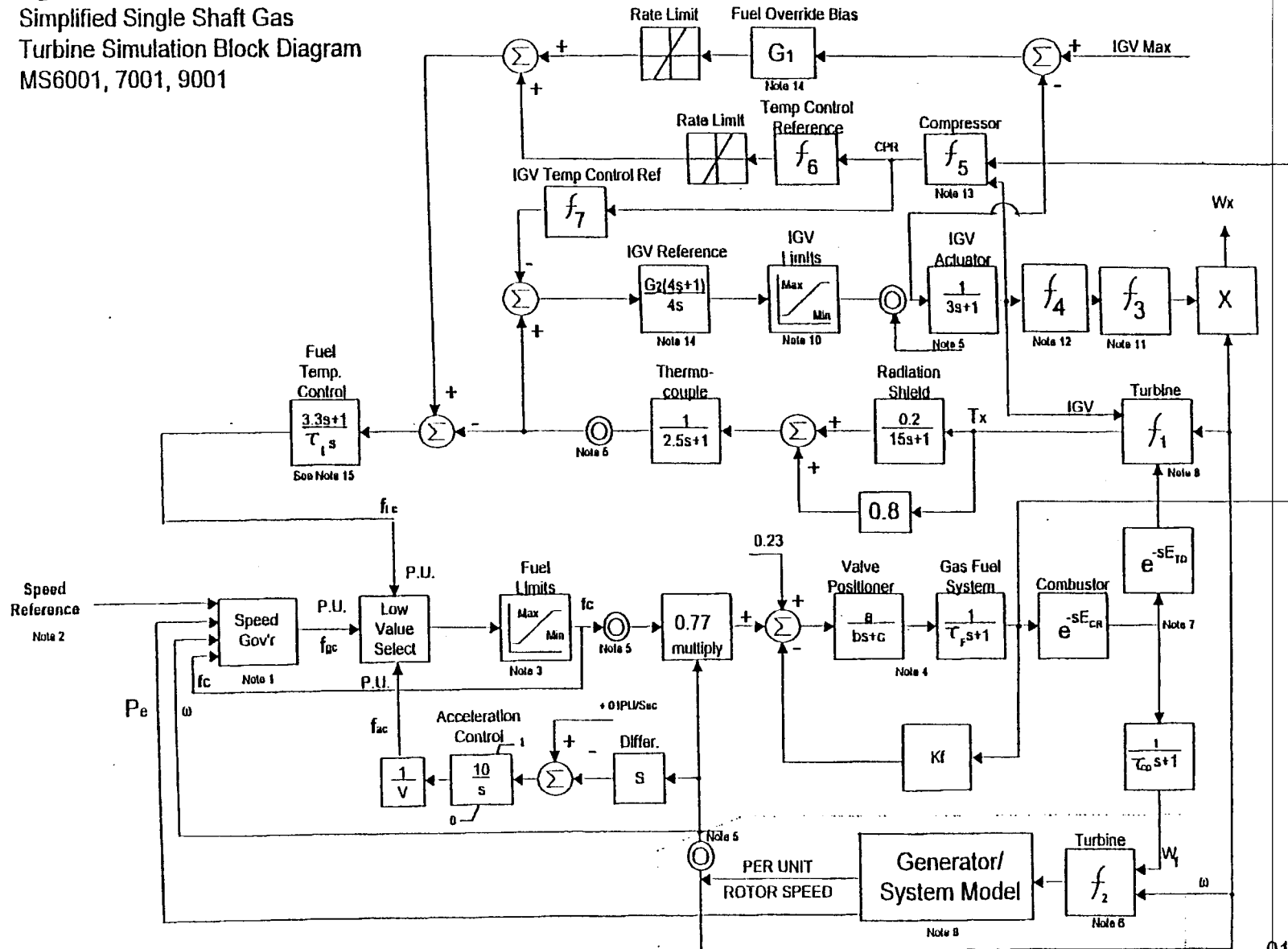
SPEED RESPONSE - NO CURVE EXISTS, IS TO COMPLICATED TO PREDICT, AS MANY FACTORS IMPACT CONTROLS RESPONSE AS:

- 1) SPEED γ τ_0 VARIATION
- 2) GT UNIT LOAD CONDITION
- 3) IGV ANGLE
- 4) SC VS. CC OPERATION
- 5) GRID FREQ. VARIATION
- 6) DROPP VS. ISOCRONOUS CONTROL
- 7) AMBIENT TEMP
- 8) FUEL FLOW

MUST RUN IEEE MODEL (ATTACHED) γ
INPUT CONDITIONS REQUIRED.

MARK II SPEEDTRONIC SET UP DOES NOT ALLOW OVERSPEED TO RISE ABOVE TRIP SETPOINT
; WILL KEEP SHAFT SPEED $< 110\%$ RATED WITH A FULL BASE LOAD REJECTION.

Figure 1:
Simplified Single Shaft Gas
Turbine Simulation Block Diagram
MS6001, 7001, 9001



01/12/2000

Simplified Single Shaft Gas Turbine Simulation Block Diagram

NOMENCLATURE

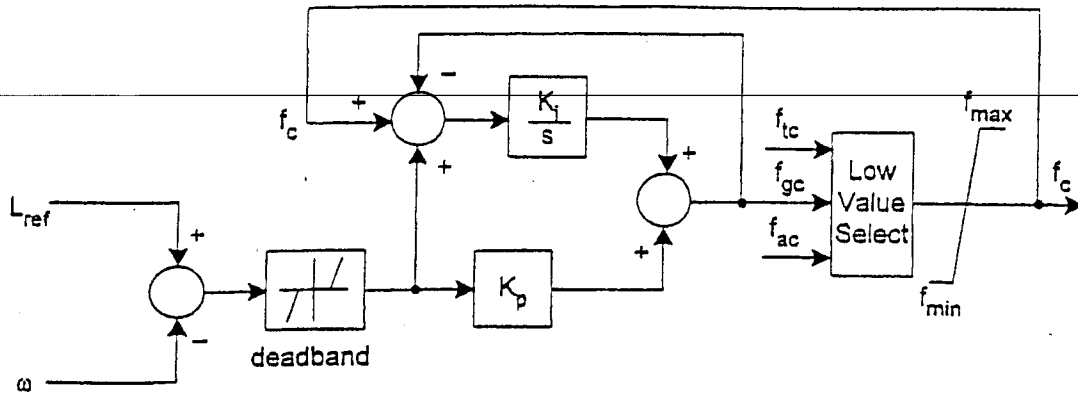
a, b, c	= Fuel System Transfer Function Coefficients
w, x, y, z	= Governor Transfer Function Coefficients
K_D	= Governor Gain
K_F	= Fuel System Feedback
ω	= Per Unit Turbine Rotor Speed
s	= Laplace Operator
T_R	= Turbine Rated Exhaust Temperature - °F or °C
T_X	= Turbine Exhaust Temperature - °F or °C
VCE	= Per Unit Fuel Command/ Per Unit Speed
W_f	= Per Unit Fuel Flow
W_x	= Compressor Air Flow
ϵ_{CR}	= Combustion Reaction Time Delay
ϵ_{TD}	= Turbine and Exhaust System Transport Delay
τ_{CD}	= Compressor Discharge Volume Time Constant
τ_F	= Fuel System Time Constant
τ_I	= Turbine Rotor Time Constant
τ_i	= Temperature Controller Integration Rate
τ_{DW}	= C.S.D Time Constant
f_c	= Fuel command signal
f_{acc}, f_{sp}, f_{tc}	= Fuel command signal from acceleration, speed and temperature control, respectively
P_e	= Generator Electrical Power Per Unit of GT ISO Base Load
R	= Droop in Per Unit
FSR	= Fuel Stroke Reference, i.e. Position command to the fuel valve
V	= Conversion From FSR To VCE (FSR at Full Speed Full Load - FSR at Full Speed No Load, FSNL)
CPR	= Compressor Pressure Ratio

Units for all time functions are in seconds except for digital set point times, which are in minutes.

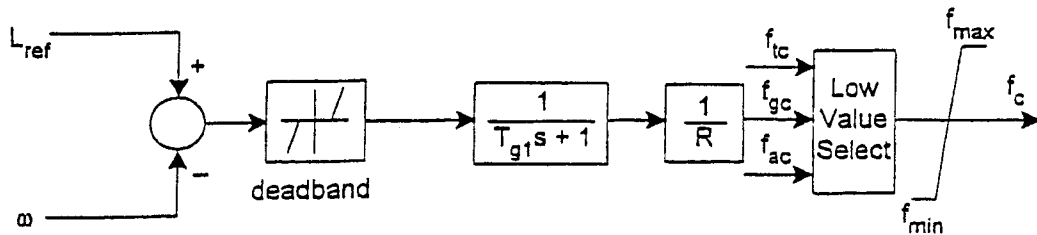
NOTES FOR FIGURE 1

1. Speed Governor is Represented for each control mode as:

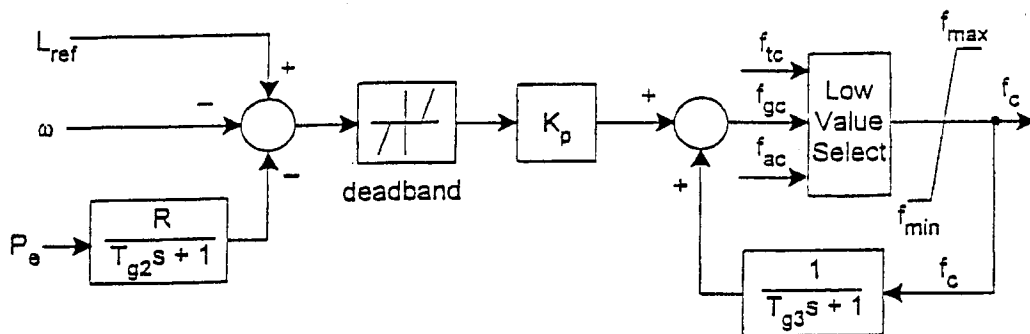
- (a) **Isochronous Control** - used when the unit is operating in an isolated island, thus the speed of the GT is controlled to be constant, at synchronous speed, by using a proportional-integral (PI) controller. The load reference, L_{ref} , which in this mode of operation will act as a speed reference, is set to 1.0 pu speed.



(b) **Standard Droop Control** –used when the unit's generator is synchronized to the grid. The constant R is the unit's droop and is the per unit change in system frequency required to cause a 1.0 pu change in turbine power output.



(a) **Constant Settable Droop** – This is the other mode of speed control that can be used when the unit's generator is synchronized to the grid. Again R is the droop of the unit.



Speed Control Parameters

Speed Control Type	Speed Error Deadband (pu)	K_p Proportional Gain	K_i Integral Gain	R Droop (pu)	T_{g1} (sec.)	T_{g2} (sec.)	T_{g3} (sec.)
Isoch.	0.00025	50	20	N/A	N/A	N/A	N/A
Standard Droop	0.0	N/A	N/A	0.04	0.02	N/A	N/A

Const. Settable Droop	0.00025	10	N/A	0.04	N/A	5	5
		$FSR_{FSFL} - FSR_{FSNL}$					

2. Typical Total Time required for loading to Base:

Model	Manual	Normal	Fast Load
MS6001B	0.5 min	4 Min	0.5 Min
MS7001EA	6 Min	12 Min	1.5 Min
MS7001FA	6 Min	12 Min	NA
MS6001FA	6 Min	12 Min	NA
MS9001E	6 Min	12 Min.	1.5 Min
MS9001FA	6 Min	12 Min.	NA

The actual ramp rate of the governor is set = %Droop/Total Loading Time

3. The P.U. Fuel limits are based on :

Rated Load = 1.00 P.U.; Min = $(FSR_{MIN} - FSR_{FSNL}) / V$
 No Load = 0.0 P.U.; Max = $(FSR_{MAX} - FSR_{FSNL}) / V$

4. Fuel System Characteristics

Type	Models	a	b	c	τ_f	K_f
Gas	All	1	0.05	1	0.40	0
Liquid	6	10	1	0	0.10	1
Liquid	7EA,9E,6FA	1	0.20	1	0.10	0
Liquid	7FA & 9FA	1	0.20	1	0.20	0

5. For high accuracy applications, locations designated by the symbol \bigcirc should incorporate transport delays of 0.125 seconds for Mark IV and 0.0625 seconds for Mark V.

6. Turbine Torque Calculation

$$f_2 = 1.3(W_f - 0.23) + 0.5(1 - \omega)$$

7. Gas Turbine Dynamic Characteristics

Model Series	ϵ_{ca}	τ_{ca}	ϵ_{TD}
6	0.01	0.10	0.02
7&9, 6FA	0.01	0.20	0.04

8. Turbine Exhaust Temperature Calculation

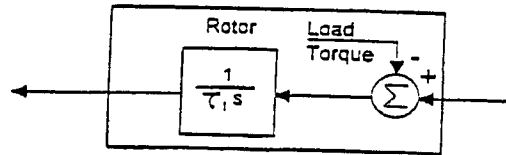
$$f_1 = T_x = [T_r - A_1(1 - W_f) + 550(1 - \omega) + A_2(IGV_{max} - IGV)] \cdot \left[\frac{1}{1 + 0.0027(59 - T_g)} \right] \text{ in } ^\circ\text{F}$$

$$f_1 = T_x = \left[T_r - \left(\frac{5}{9} \right) A_1 (1 - W_f) + 306(1 - \omega) + \left(\frac{5}{9} \right) A_2 (IGV_{max} - IGV) \right] \cdot \left[\frac{1}{1 + 0.0050(15 - T_a)} \right] \text{ in } ^\circ\text{C}$$

	6B	6FA	7EA	7FA	9EA	9FA
A ₁				1075		
A ₂				11.1		

T_r is given in Note 9

9. For Isolated operation the Generator / System Model may be represented as:



In which case the following parameters apply.

Rotating Train Inertia Turbine and Generator

Model	Turbine Speed	Torque	Inertia	τ ₁	Exhaust Temperature T _r	
	RPM	Kg-M	Kg-M ²		°C	°F
6001B	5100	6844	4046	15.1	552	1026
6001FA(50HZ)	5132	13276	8915	12.54	591	1096
6001FA(60HZ)	5154	13220	7250	14.69	589	1092
7001EA	3600	20282	8822	14.6	541	1006
9001E	3000	34619	21603	17.1	541	1006
7001FA	3600	40585	15695	14.0	593	1100
9001FA	3000	69384	34544	15.4	593	1100

10. Inlet Guide Vane Limits

Model	Min IGV_Angle	Max IGV_Angle
6B	57	86
7EA, 9EA,C	57	84
6FA	54	84
7/9 F, FA	54	86

Note: Some FA units may have 88 deg Max IGV

11. Turbine Exhaust Flow Calculation

$$f_3 = \frac{W_x}{\omega} = \left(L_{IGV} \right)^{0.257} \left(\frac{519}{T_a + 460} \right) \text{ in } ^\circ\text{F}$$

$$f_3 = \frac{W_x}{\omega} = \left(L_{IGV} \right)^{0.257} \left(\frac{288}{T_a + 273} \right) \text{ in } ^\circ\text{C}$$

12. Inlet Guide Vane Angle conversion to per Unit.

$$6B \quad f_4 = L_{IGV} = 0.01862(IGV) - 0.6014$$

$$7E/9E \quad f_4 = L_{IGV} = 0.02(IGV) - 0.68$$

$$6FA \quad f_4 = L_{IGV} = 0.018(IGV) - 0.512$$

$$7F/9F \quad f_4 = L_{IGV} = 0.016875(IGV) - 0.45125$$

13. The exhaust temperature control point for constant firing temperature is a function of compressor pressure ratio. For these models this can be expressed as a function of IGV angle and fuel flow.

Compressor Pressure Ratio Calculation

$$f_5 = CPR = \left(CPR_0 + CPR_1(IGV - IGV_{min}) - CPR_2(1 - W_f) \right) C_1$$

where:

	6B	6FA	7EA/9EA	7FA	9FA
CPR ₀	9.96	11.55	10.71	12.66	12.29
CPR ₁	0.11	0.14	0.12	0.08	0.14
CPR ₂	3.33	4.16	3.44	5.27	4.48

$$\text{and } C_1 = \left(\frac{519}{T_u + 460} \right) \text{ for } ^\circ\text{F} \text{ or } C_1 = \left(\frac{288}{T_o + 273} \right) \text{ for } ^\circ\text{C}$$

14. Inlet Guide Vane Temp Bias Gain

$$G_1 = 3^\circ\text{F} / \text{deg IGV, output limited to 30}$$

$$G_1 = 1.67^\circ\text{C} / \text{deg IGV, output limited to 16.67}$$

$$G_2 = 0.2 \text{ deg IGV/F}$$

$$G_2 = 0.36 \text{ deg IGV/C}$$

15. $\tau_c = 1650$ (V) in degrees F or 917 (V) in degrees C.

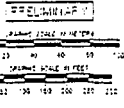
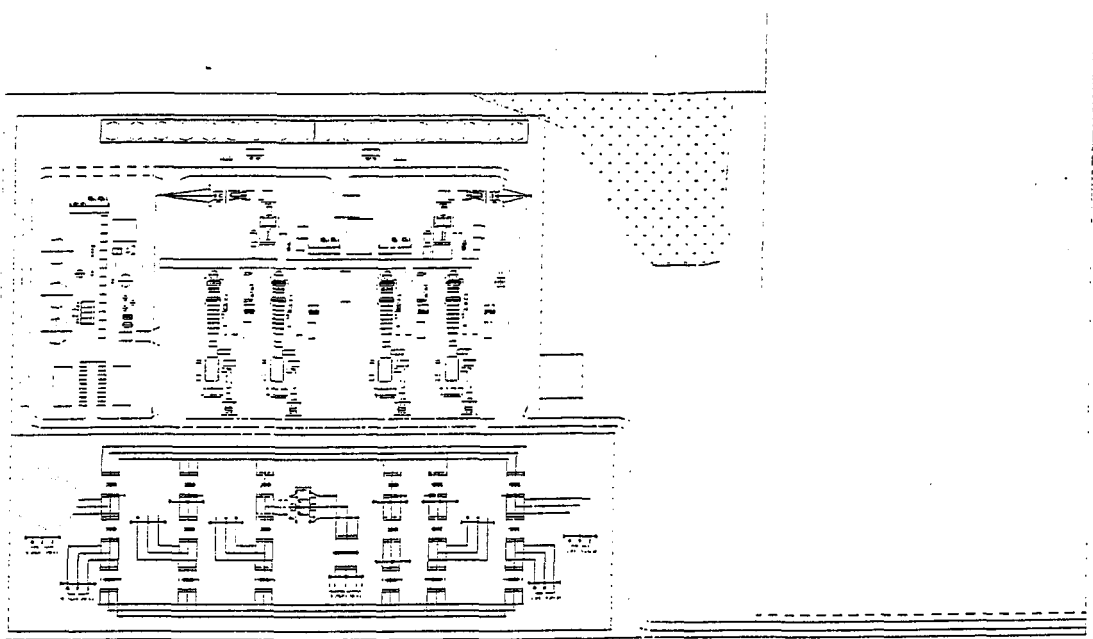
16. Exhaust Temperature Control Reference

$$f_6 = (B - S(CPR)) \text{ limited at I (isotherm) where B, S and I are unit specific}$$

17. IGV Temperature Control Reference

$$f_7 = (B_{IGV} - S_{IGV}(CPR)) \text{ where } B_{IGV} \text{ and } S_{IGV} \text{ are unit specific}$$

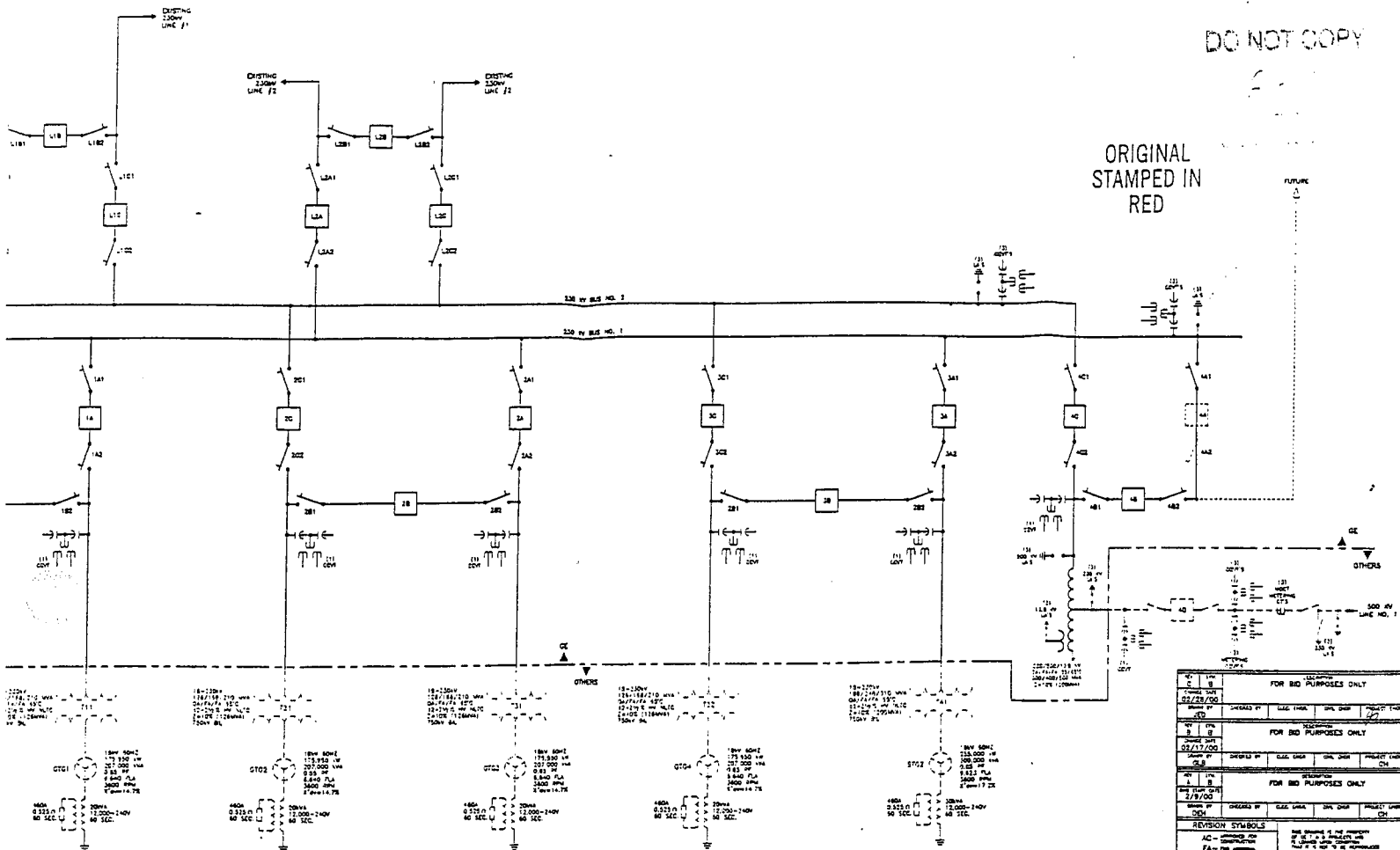
DO NOT



DUKE/FLUOR DANIEL				PROJECT: STEPHEN INTERNATIONAL 101 SUBJECT: POWER PROJECT DRAWING: MECHANICAL	
APPROVED FOR DESIGN DATE: _____ BY: _____				APPROVED PLOT PLAN: OPTION 2 NO FLEET AIR CHILLING	
SHEET: _____ OF _____ SCALE: _____ DATE: _____				PROJECT NO.: _____ DRAWING NO.: _____	

DO NOT COPY

ORIGINAL
STAMPED IN
RED



REV	DATE	DESCRIPTION
1	02/25/00	FOR BID PURPOSES ONLY
2	02/25/00	FOR BID PURPOSES ONLY
3	02/25/00	FOR BID PURPOSES ONLY
4	02/25/00	FOR BID PURPOSES ONLY

REV	DATE	DESCRIPTION
1	02/25/00	FOR BID PURPOSES ONLY
2	02/25/00	FOR BID PURPOSES ONLY
3	02/25/00	FOR BID PURPOSES ONLY
4	02/25/00	FOR BID PURPOSES ONLY

REVISION SYMBOLS

AC - Added

FA - No change

BA - No change

RA - No change

DA - No change

EA - No change

FA - No change

GA - No change

HA - No change

IA - No change

JA - No change

KA - No change

LA - No change

MA - No change

NA - No change

OA - No change

PA - No change

QA - No change

RA - No change

SA - No change

TA - No change

UA - No change

VA - No change

WA - No change

XA - No change

YA - No change

ZA - No change

PANDA LEESBURGH
POWER PARTNERS L.P.

230-300 kV SWITCHYARD

SINGLE LINE DIAGRAM

GE Industrial Systems
Power Equipment Projects
Jackson, Mississippi

NOTES:

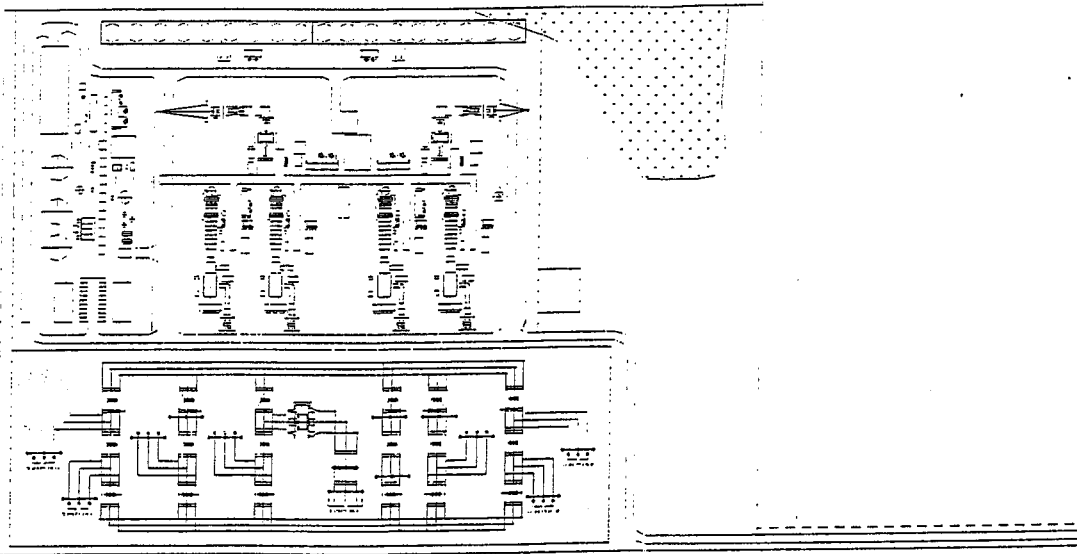
1. _____ EQUIPMENT PROPOSED BY GE

2. - - - - - EQUIPMENT PROVIDED BY OTHERS

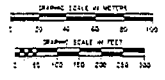
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2	02/25/00	FOR BID PURPOSES ONLY
3	02/25/00	FOR BID PURPOSES ONLY
4	02/25/00	FOR BID PURPOSES ONLY

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2-11



PRELIMINARY

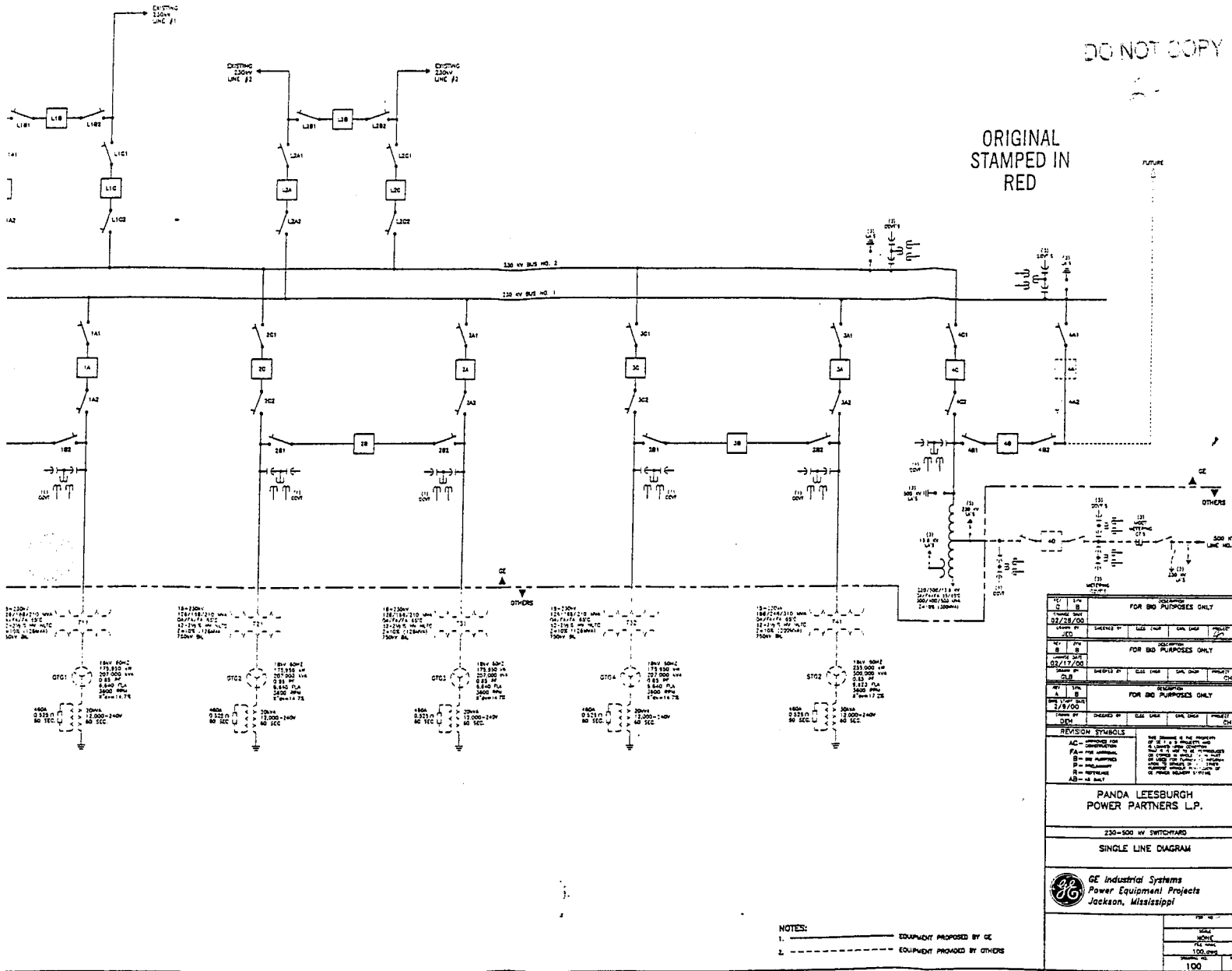


REVISION NUMBER	DATE	DESCRIPTION	BY	CHECKED	DATE	APPROVED FOR DESIGN	DATE	APPROVED FOR CONSTRUCTION	DATE	DUKE/FLUOR DANIEL	PROJECT NAME	PROJECT NUMBER	SCALE	DATE
1		APPROVED FOR DESIGN									DUKE ENERGY INTERNATIONAL INC LEESBURG POWER PROJECT LEESBURG, ILLINOIS			
2											PROPOSED PLOT PLAN OPTION 1 PILE AIR CHILLED			
3														
4														
5														
6														
7														
8														
9														
10														

GRAPHIC SCALE IN METERS
0 20 40 60 80 100
GRAPHIC SCALE IN FEET
0 100 200 300

DO NOT COPY

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STAMPED IN
RED



10/11/00		FOR BID PURPOSES ONLY	
DESIGNED BY	CLASS	DATE	PROJECT
10/11/00	B	02/28/00	230
10/11/00		FOR BID PURPOSES ONLY	
DESIGNED BY	CLASS	DATE	PROJECT
10/11/00	B	02/28/00	230
10/11/00		FOR BID PURPOSES ONLY	
DESIGNED BY	CLASS	DATE	PROJECT
10/11/00	B	02/28/00	230
REVISION SYMBOLS			
AC	ADD COMMENTS	DATE	
FA	FOR APPROVAL	DATE	
B	BY REVISION	DATE	
D	DELETE	DATE	
AB	AS BUILT	DATE	
PANDA LEESBURGH POWER PARTNERS L.P.			
230-500 kV SWITCHYARD			
SINGLE LINE DIAGRAM			
GE Industrial Systems Power Equipment Projects Jackson, Mississippi			
NOTES:		EQUIPMENT PROPOSED BY GE	
1. _____		EQUIPMENT PROPOSED BY OTHERS	
2. _____		EQUIPMENT PROPOSED BY OTHERS	
100		C	

Table 23. Variable Price Structure (Primary Fuel Units Below)

Season	Year 2003		Emissions		All-in Price (\$/MWh)	Fuel Transportation (units)	Season	Year 2010		Emissions		All-in Price (\$/MWh)	Fuel Transportation (units)
	Fuel	O&M (\$/MWh)	Commodity (¢/MMBtu)	SO2 (\$/ton)				Other (\$/MWh)	Fuel	O&M (\$/MWh)	Commodity (¢/MMBtu)		
Winter	Price	1.10	na	na	na	na	Winter	Price	na	na	na	na	na
	Escal./Index	na	na	na	na	na		Escal./Index	na	na	na	na	na
Shoulder	Price	1.10	na	na	na	na	Shoulder	Price	na	na	na	na	na
	Escal./Index	na	na	na	na	na		Escal./Index	na	na	na	na	na
Summer	Price	1.10	na	na	na	na	Summer	Price	na	na	na	na	na
	Escal./Index	na	na	na	na	na		Escal./Index	na	na	na	na	na

Table 3. Resource Capacity Rating- (units below)

		40°F	59°F	90°F
Guaranteed Contract Rating	MW	288	282	270
	MVAR	178	174	167
	MVA	338	331	317
Maximum Unit Rating	MW	1152	1130	1080
	MVAR	713	697	668
	MVA	1355	1329	1270

Table 6. Planned Maintenance Requirements- (Number of Outages/Year, Total Hours/Year)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number/year	n/a	1	1	1	1	1	1	1	1	1	1	1	1
Maint Hrs/yr	n/a	144	144	288	144	144	480	144	144	288	144	144	480
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Number/year	1	1	1	1	1	1	1	1	1	1	1	1	1
Maint Hrs/yr	144	144	288	144	144	480	144	144	288	144	144	480	144

Table 7. Operational Parameters- (units below)

Minimum run time per dispatch call	8	Hours
Minimum down time between calls	2	Hours
Startup Energy		MMBtu
Ramp Rate	Varies	MW / minute
Ramp Rate	204 (c) 1.81 (H)	minutes to full load
Number of Hot Starts per year	150	Maximum
Number of Hot Starts per year	0	Included in bid proce
Cost of Each Hot Start Beyond Those Included	7500	Dollars
Number of Cold Starts per year	75	Maximum
Number of Cold Starts per year	0	Included in bid proce
Cost of Each Cold Start Beyond Those Included	7500	Dollars
Quick Start Capability- Minutes to 1st MW	n/a	Minutes
Quick Start Capability- MW in ten minutes	n/a	MW
Start up time from cold start	204	Minutes
Start up cost from cold start	7500	\$
Start up time from hot start	81	Minutes
Start up costs from hot start	7500	\$

Table 8a. Capacity States on Primary Fuel (units below)*

Fuel:	40°F	59°F	90°F
Min Plant Output (Net MW)	175	175	175
Associated Net Heat Rate (Btu/kWh)	8200	8300	9300
1st Breakpt Plant Output (Net MW)	730	713	673
Associated Net Heat Rate (Btu/kWh)	7623	7606	7662
2nd Breakpt Plant Output (Net MW)	887	866	817
Associated Net Heat Rate (Btu/kWh)	7276	7260	7313
Expected Max Output (Net MW)	1043	1019	962
Associated Net Heat Rate (Btu/kWh)	6930	6915	6965
Overcapacity Plant Output (Net MW)	109	111	118
Associated Net Heat Rate (Btu/kWh)	8650	8600	8450

Table 8b. Capacity States on Secondary Fuel (units below)

Fuel:	40°F	59°F	90°F
Min Plant Output (Net MW)	n/a	n/a	n/a
Associated Net Heat Rate (Btu/kWh)	n/a	n/a	n/a
1st Breakpt Plant Output (Net MW)	n/a	n/a	n/a
Associated Net Heat Rate (Btu/kWh)	n/a	n/a	n/a
2nd Breakpt Plant Output (Net MW)	n/a	n/a	n/a
Associated Net Heat Rate (Btu/kWh)	n/a	n/a	n/a
Expected Max Output (Net MW)	n/a	n/a	n/a
Associated Net Heat Rate (Btu/kWh)	n/a	n/a	n/a
Overcapacity Plant Output (Net MW)	n/a	n/a	n/a
Associated Net Heat Rate (Btu/kWh)	n/a	n/a	n/a

Table 9. Fuel Supply Requirements

Units

Primary Fuel Maximum Flow rate	8300	MMBtu/M
Primary Fuel Pressure Requirement	540	psig
Primary Fuel Metering Requirement	TBD	
Primary Fuel Storage Capacity	0	MMBtu/M
Secondary Fuel Maximum Flow rate	N/A	
Secondary Fuel Pressure Requirement	N/A	
Secondary Fuel Metering Requirement	N/A	
Secondary Fuel Storage Capacity	N/A	

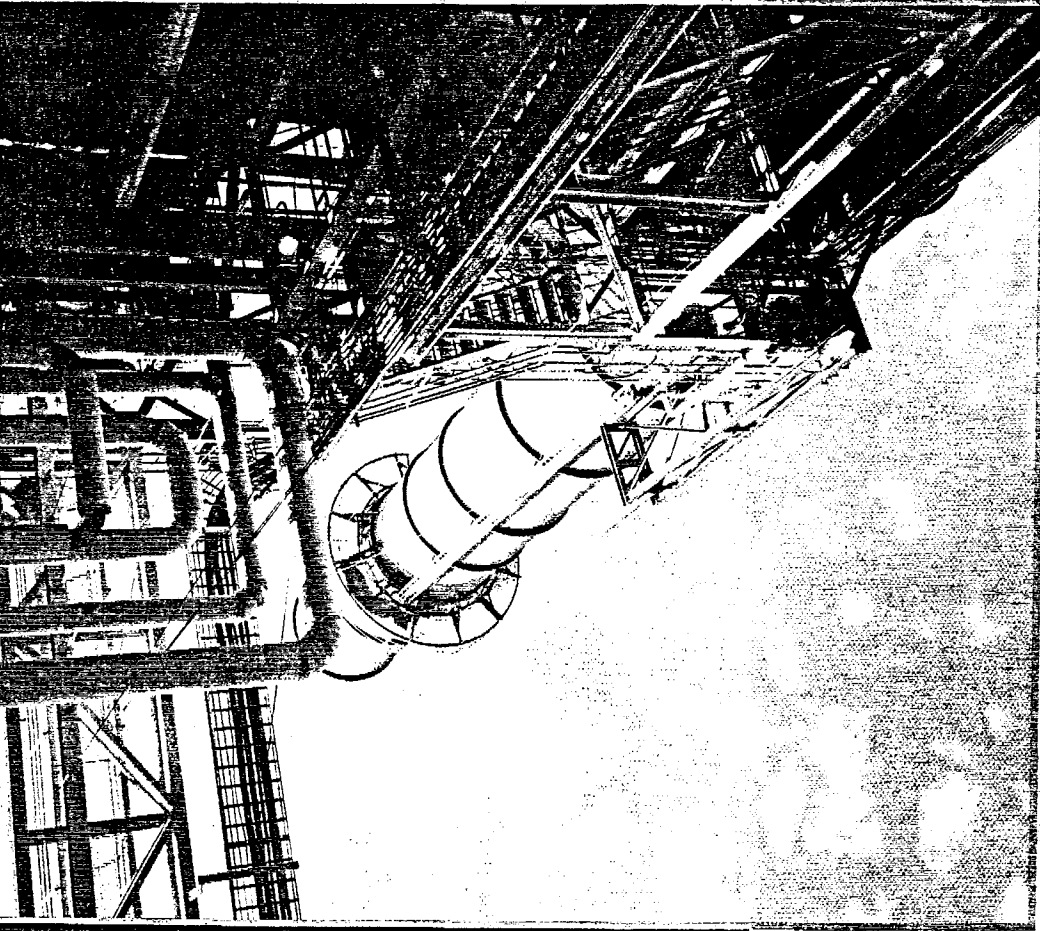
Table 10. Water Requirements

Units

Cooling	5829	GPM
Consumptive Use	376	GPM
Other	n/a	n/a

MISSION STATEMENT

*Panda Energy
International, Inc.
Develops Power and
Infrastructure Projects
through
Creative Application
of Technology,
Resources and Skills
Of Our People*



Established in 1982 as a privately owned developer of cogeneration projects, Panda Energy International, Inc. is recognized as a highly successful developer, owner and operator of power projects in the global energy market. With headquarters in Dallas, Texas, Panda Energy's team of experts work together to provide highly personalized service and focus to each project.

Panda Energy designs, builds and owns independent energy facilities that are efficient, economical and environmentally correct. Panda Energy currently has power facilities in operation, under construction or development in many countries throughout the world.

Powerful Resources

Panda Energy's primary focus is to be the low cost provider of dependable power. This goal can and is achieved by developing more efficient and environmentally correct alternative sources of power.

Panda Energy generates power by natural gas, coal and hydro energy. With the experience and knowledge required to design, build and own these facilities, Panda Energy's project teams bring to bear the disciplines necessary to handle the independent development of these resources.



The Panda-Rosemary facility serves as an excellent example of the dynamic and flexible resources Panda can provide. In 1990, after only 14 months of construction, the 180 megawatt Rosemary facility became fully operational. Financing was provided by Morgan Stanley and Fuji Bank. Fuel is delivered by a 10 mile natural gas pipeline which was constructed by Panda. Electricity produced by this cogeneration plant supplements the increasing energy needs of Virginia Electric & Power Company. Steam and chilled water are supplied to a nearby textile manufacturing company.

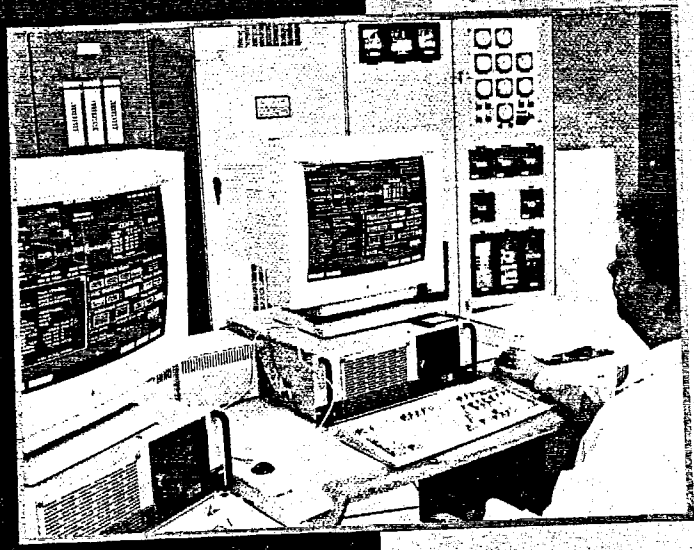
Panda Energy is successful in developing power projects in the emerging international markets. Panda's Luannan facility, a 100 megawatt coal-fired cogeneration project, is one of the first of its type privately developed and owned in The Peoples Republic of China. This project is important to China's efforts to help supply increasing clean power and thermal needs. The electricity will be sold to the North China Power Group, the third largest industrial group in China. Steam and hot water will be supplied to local industries and commercial customers. Construction of the facility was financed through the international bond market.

efficient

The competitive edge for Panda is our ability to provide fast and flexible personal service and attention to customers reducing turnaround time between a project's design phase and commercial operations. Panda avoids the constraints and roadblocks of corporate hierarchy with a highly motivated team of individuals personally dedicated to the success of each project on a timely basis.

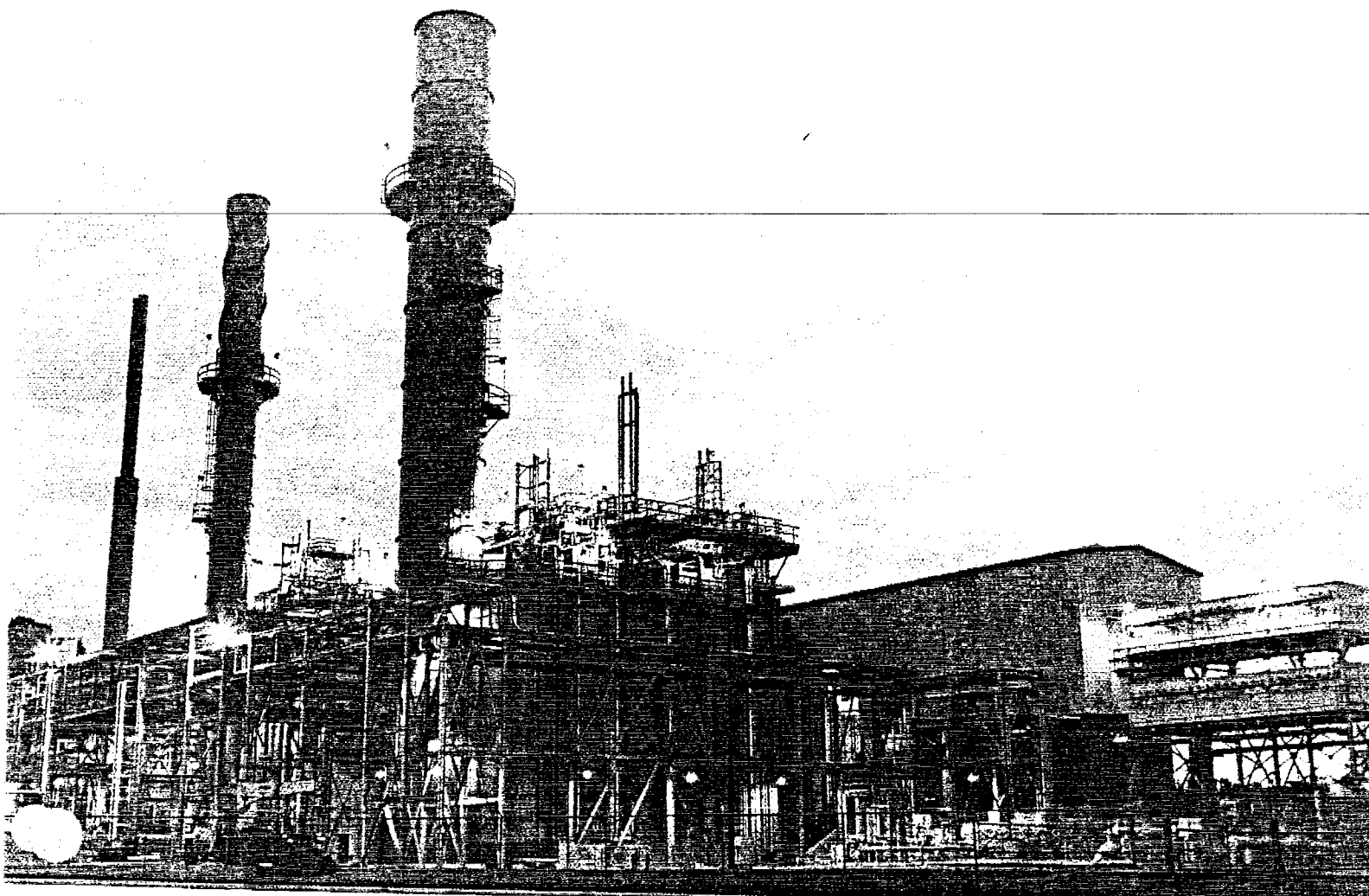
Panda is committed to being a responsible corporate citizen in the communities where we operate. Seventy-five percent of our personnel are local residents. Panda provides active support for such things as youth soccer teams, city parks, Junior Achievement, the United Way, the Scouts, community hospitals and schools for children.

The professionals at Panda Energy International have created a corporate environment and framework for solving power and energy needs of governments and industries all over the globe and are challenged every day to live up to the Panda Mission Statement:



Develop Power and Infrastructure Projects Through Creative Application of Technology, Resources and the Skills of Our People.

**Panda Energy International
Powerful Resources.
Powerful Results.**



Powerful Results

Panda Energy is an experienced leader in the field of energy and independent power production. Our team is comprised of a diverse group of development specialists with the ability to design, build, finance and operate clean, reliable power facilities with a primary emphasis on economy. Panda Energy's success is attributable to its comprehensive approach to the following disciplines:

- Project Development**
- Project Finance**
- Engineering Concepts**
- Construction Management**
- Project Ownership**
- Plant Operations and Maintenance**
- Pipeline Development and Construction**
- Water Treatment Facilities**

Through the exploration and acquisition of oil and gas reserves, Panda Energy is seeking opportunities to develop supplies of natural gas to help insure long term fuel supplies for its domestic and foreign power projects. The Panda-Brandywine facility is one of the plants that benefits from this approach by using natural gas and cogeneration technology to provide clean and reliable electricity for Potomac Electric Power Company. This 230 megawatt facility provides electricity in Washington D.C. for more than 65,000 area homes and businesses. GE Capital and Credit provided funding for this project.

*"Congratulations on being
named by Inc. Magazine
as one of the fastest
growing private
companies in America.
This accomplishment
reflects the hard work,
ingenuity, innovations
and diligence that have
brought your company to
the forefront of the
business community."*

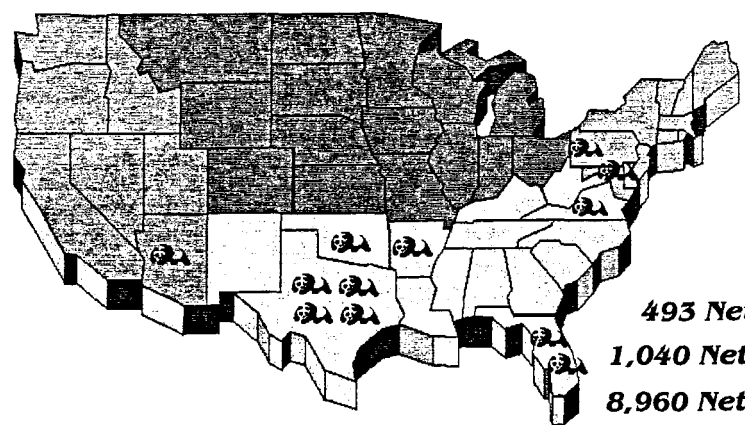
Bill Clinton

President of the United States



PANDA ENERGY INTERNATIONAL, INC., a leader in the global energy market, is committed to developing more efficient sources of energy with outstanding personal service and attention to our customers.

Corporate Infrastructure Focused on Efficient Energy



493 Net MW In operation
1,040 Net MW Under construction
8,960 Net MW US merchant plants in advanced development (with secured turbines)

Team of Professionals Providing Project Expertise

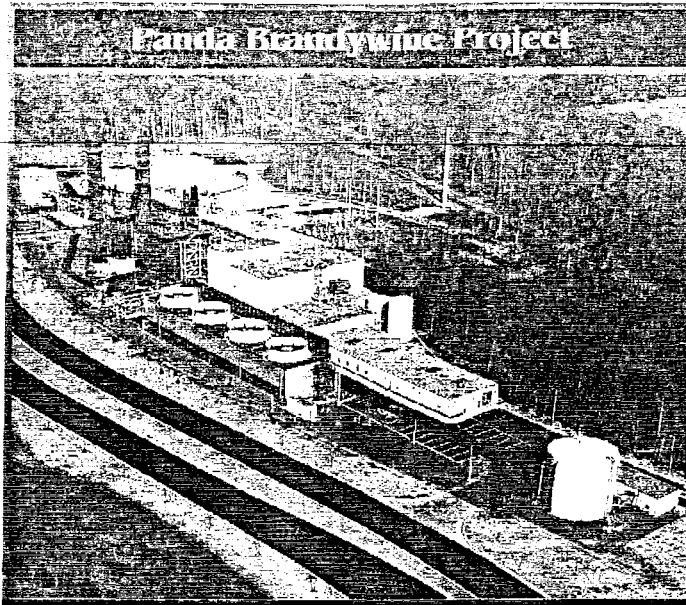
Greenfield Development
Mergers & Acquisitions
Project Finance
Engineering & Design
Construction Management

Plant Operations & Maintenance
Pipeline Development & Construction
Water Treatment Facilities
Fuel Supply
Contracts & Regulatory Procedures

Powerful Resources

Powerful Results





The 230 MW Brandywine cogeneration facility is located 17 miles south of nearby Washington, D.C. in Brandywine, Maryland. Operational since 1996, this \$217.5 million cogeneration facility was financed by GE Capital Corporation and Credit Suisse First Boston, as an agent for a group of seven lenders. The facility utilizes two GE Frame 7EA natural gas-fired combustion turbines in a combined cycle configuration which is capable of consuming up to 48,000 MCF/day of natural gas.

Potomac Electric and Power Company in Washington, D.C. is the power purchaser under a 25-year contract. This project is the only cogeneration project in the D.C. area to have completed the dual permitting process in both the D.C. and Maryland regulatory jurisdictions.

Location:

Brandywine, Maryland, USA

Power Sales Agreement:

*Potomac Electric Power Company
230 MW Natural Gas Fired Facility*

Construction Contractor:

Raytheon Engineers & Constructors

Commenced Construction:

October 1, 1995

Commercial Operations:

October 30, 1996

Financing:

*Construction Loan and Leveraged Lease:
\$217,500,000 GE Capital,
Credit Suisse First Boston*

Project Participants:

*Chadbourne & Parke LLP (Legal Counsel);
Deloitte & Touche (Auditors); ICF Resources
and Pacific Energy Systems (Independent
Engineer); CC Pace Resources (Fuel
Consultant); MCN Corporation (Natural Gas
Supplier); and Columbia Gas Transmission,
Cove Point LNG, and Washington Gas Light
(Natural Gas Transportation); and Ogden
Power (Operations & Maintenance Contractor).*

This announcement appears as a matter of record only

\$217,500,000
Project Financing for


Panda Brandywine, L.P.

For the construction and operation of a 230 MW
gas-fired cogeneration facility in Brandywine, Maryland


Developed by:

PANDA ENERGY INTERNATIONAL, INC.
Dallas, Texas, U.S.A.

Construction loan and leveraged lease
financing provided by:



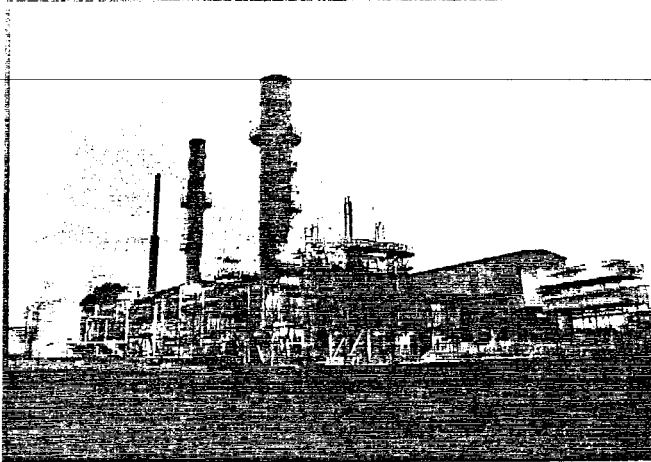
GE Capital



**Credit Suisse
First Boston**

December 1996

Panda Rosemary Project



The 180 MW Panda-Rosemary cogeneration facility is located in Roanoke Rapids, North Carolina. The \$140 million combined cycle facility became operational in December 1990. The facility is fueled by natural gas transported via a 10-mile natural gas pipeline which was constructed by Panda.

Electricity produced by the cogeneration facility is sold to Virginia Electric & Power Company under a long-term power contract. Steam and chilled water are sold to a nearby industrial facility.

Location:

Roanoke Rapids, North Carolina, USA

Power Sales Agreement:

North Carolina Power
(a subsidiary of Virginia Electric & Power Co.)
180 MW Natural Gas Fired Facility

Construction Contractor:

Hawker Siddley Power Engineering

Commenced Construction:

September 29, 1989

Commercial Operations:

October 30, 1996

Investment Bankers:

Salomon Brothers, Inc.
Jefferies & Company, Inc.

Financing:

Debt: \$111,400,000
First Mortgage Bonds Due 2016
Equity: 100%
Panda Energy International, Inc.

Project Participants:

Chadbourne & Parke LLP (Legal Counsel);
Deloitte & Touche (Auditors); Burns &
McDonnell (Independent Engineer); Benjamin
Schlesinger and Associates (Fuel Consultant);
Natural Gas Clearinghouse (Natural Gas
Supplier); and Transcontinental Gas Pipeline
and North Carolina Nation Gas (Natural Gas
Transportation).

This announcement appears as a matter of record only

July 1996

\$111,400,000

PANDA 
ENERGY INTERNATIONAL, INC.
Dallas, Texas, U.S.A.

Panda-Rosemary Limited Partnership

**Panda-Rosemary
Cogeneration Project**

The undersigned acted as financial advisor and placement agent
for Panda Energy International, Inc.

JEFFERIES & COMPANY, INC.

PANDA 
ENERGY INTERNATIONAL, INC.

Panda Luannan Project



This 100 MW coal-fired cogeneration facility is the first of its kind in China to be financed in the U.S. capital markets.

The facility will sell electricity to the North China Power Group Co. and steam to local industries. A major coal mine in the region as well as smaller local mines supply the coal.

The Luannan project demonstrates Panda's development skills and international business alchemy.

Location:

Luannan County, Heibei Province, PRC

Power Sales Agreement:

North China Power Group Company
(Ministry of Electric Power of China)
100 MW Coal Fired Cogeneration Facility

Construction Contractor:

Harbin Power Engineering Company

Commenced Construction:

May 1997

Commercial Operations:

Third Quarter 1999

Investment Bankers:

Donaldson, Lufkin & Jenrette

Financing:

\$155,200,000

Senior Secured Notes Due 2004

Project Participants:

Simpson, Thacher & Bartlett (Legal Counsel); Parsons Brinckerhoff Energy Services (Owner's Engineer); Arthur Andersen (Tax and Accounting Advisor); Burns & McDonnell (Independent Engineer); Anderson & Schwab (Fuel/Coal Experts); Kailuan Coal Administration (Coal Supplier); and Duke Fluor Daniel (Operations & Maintenance Contractor).

These securities have not been registered under the Securities Act of 1933 and may not be offered in the United States or in 12 U.S. territories without registration or an exemption therefrom from the registration requirements. These securities have not been previously sold. This advertisement appears as a matter of record only.

April 11, 1997

\$155,200,000



Panda Global Energy Company
a Panda Energy International, Inc. Company

12½% Senior Secured Notes due 2004

Fully and Unconditionally Guaranteed by

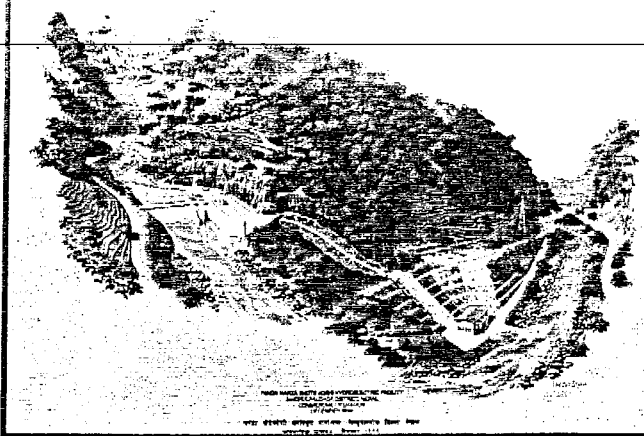
Panda Global Holdings, Inc.

The undersigned privately placed these securities with qualified institutional buyers pursuant to Rule 144A and outside the United States in reliance on Regulation S under the Securities Act of 1933.

Donaldson, Lufkin & Jenrette
Securities Corporation

PANDA 
ENERGY INTERNATIONAL, INC.

Panda Nepal Project



Construction began on the 36 MW run of the river hydroelectric facility in January 1998 with completion and commercial operation set for June 2000. The facility is located on the Bhote Koshi River approximately 110 km from Kathmandu, the capital of Nepal.

Panda signed a Power Purchase Agreement with the Nepal Electricity Authority in July 1996 to provide power to the Kathmandu Valley region of Nepal. His Majesty's Government of Nepal guarantees payment for power. This agreement is the first ever of its kind between the Nepalese Government and a U.S. company.

The debt and equity financing for the project was achieved in December 1997. This project will increase Nepal's dependable supply of electricity by approximately ten percent.

Location:

110 km Northeast of Kathmandu, Nepal

Power Sales Agreement:

Nepalese Electrical Authority
36 MW Hydroelectric Facility

Construction Contractor:

China Gezouba Construction Company

Commenced Construction:

January 1998

Commercial Operations:

June 2000

Financing:

Debt: \$68,750,000

Senior Debt Financing: International Finance Corporation; DEG-Deutsche Investitions-und Entwicklungshesellschaft mbH; FMO Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.; Bayerische Vereinsbank AG; Dresdner Bank AG.

Equity: \$29,450,000

Project Equity: Panda Energy International, Inc; Harza Engineering Company International, LP; Himal International Power Corporation, Pvt., Ltd; MCN Investment Corporation.

Project Participants:

Chadbourne & Parke LLP (Owner's Legal Counsel); Fulbright & Jaworski (Lender's Legal Counsel); Harza Engineering (Owner's Engineer and Operations & Maintenance Contractor); Stone & Webster (Lender's Engineer); and Raytheon Infrastructure Services (Independent Engineer).

\$98,200,000

Project Financing for the
Upper Bhote Koshi Hydroelectric Project in Nepal

**BHOTE
KOSHI
POWER
COMPANY**



a Panda Energy International, Inc. Company

\$68,750,000

Senior Debt Financing

International Finance Corporation
DEG-Deutsche Investitions-und Entwicklungshesellschaft mbH
FMO-Nederlandse Financierings-Maatschappij voor
Ontwikkelingslanden N.V.
Bayerische Vereinsbank AG
Dresdner Bank AG

\$29,450,000

Project Equity

Panda Energy International, Inc.
Harza Engineering Company International, LP
Himal International Power Corporation Pvt., Ltd.
MCN Investment Corporation December 1997



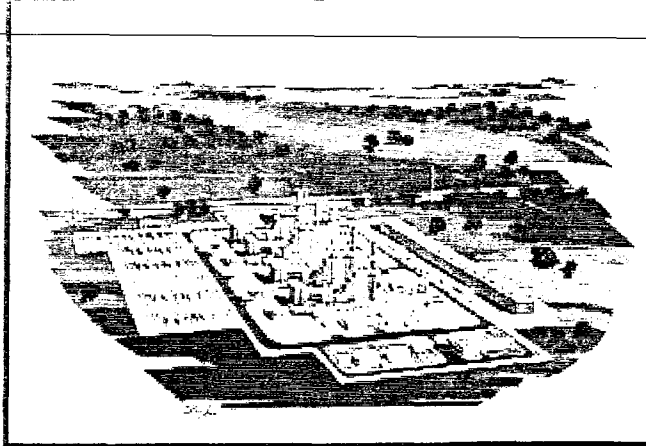
December 1997



PANDA 

ENERGY INTERNATIONAL, INC.

Guadalupe Power Partners, L.P.



This 1000 MW Natural Gas Fired Combined Cycle Facility is one of the cleanest and most efficient power facilities in ERCOT. Construction began August 1999 with commercial operation date of December 2000.

Texas Independent Energy, LP is a 50/50 joint venture of Panda Energy International, Inc. and PSEG Global. The respective companies are experienced leaders in the field of energy and independent power production. Our project team has expertise in all areas of development. Guadalupe Power Partners, LP, a subsidiary of Texas Independent Energy, LP, is the project developer, operator and owner.

Location:

Guadalupe County, Texas, USA

Construction Contractor:

Duke Fluor Daniel

Commenced Construction:

August 1999

Commercial Operations:

500 MW December 2000

500 MW March 2001



Financing:

ING Barings

Project Participants:

LeBoeuf, Lamb, Green & McRae (Legal Counsel); Deloitte & Touche (Auditors); Stone & Webster Engineering (independent Engineer); Pace Global Energy Services (Fuel Consultant); ENRON Capital & Trade Resources Corporation (Fuel Supply); Oasis Pipeline Company Texas & PG&E Transmission TECO, Inc. (Natural Gas Transportation); Guadalupe-Blanco River Authority (Water Supply); and Texas Independent Energy Operating Company (Operations and Maintenance).

US \$496,500,000
Project Financing for
Guadalupe Power Partners

Panda Energy  **INTERNATIONAL, INC.**
TEXAS INDEPENDENT ENERGY
 **PSEG**
Global

Project Financing for the
1,000 MW Gas Fired Generation Power Plant
located in Guadalupe County, Texas

\$312,000,000
Senior Credit Facilities

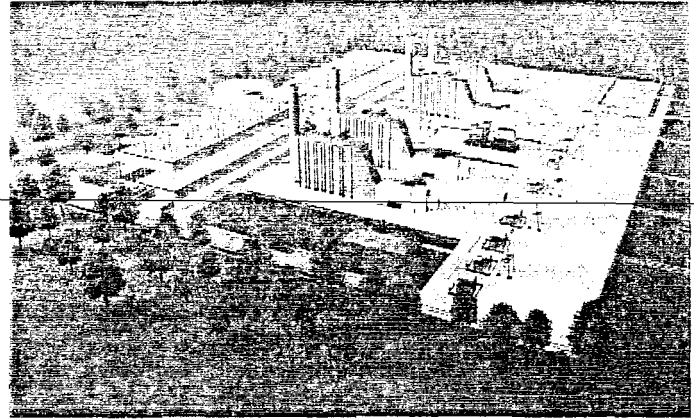
ING  BARINGS

The following banks participated as co-agents and co-arrangers:

Westdeutsche Landesbank, CoBank ACB, The Bank of Nova Scotia, Union Bank of California, Meespierson Capital Corp., Bayerische Hypo-und Vereinsbank AG, The Dai-ichi Kangyo Bank Ltd., KBC Bank, N.V., The Bank of Scotland, De Nationale Investeringsbank N.V., Norddeutsche Landesbank, Abbey National Treasury Services, Credit Agricole Indosuez, and ING (U.S.) Capital LLC

PANDA 
ENERGY INTERNATIONAL, INC.

Panda Guadalupe Project



**1000 MW Combined Cycle
Natural Gas Fired Facility
High Efficiency "F" Technology
Located Near Marion, Texas, USA
Commercial Operations - December 2000**

- ◆ The project will create new, hi-tech job opportunities for qualified residents of Guadalupe County.
- ◆ The total project will provide **300-350 jobs during peak construction**. Much of the estimated **\$35 million construction payroll** will be spent locally, further boosting the areas economy.
- ◆ Approximately **46 full-time permanent jobs** will be created. The **annual payroll** is projected to be about **\$2.3 million**. Panda's policy is to hire locally whenever possible.
- ◆ Approximately **800 additional "spin-off" jobs** will be created during construction and plant operation.
- ◆ Panda Guadalupe will buy approximately **\$10-\$14 million in local materials and services** during construction.
- ◆ Water for the project will be purchased from Guadalupe-Blanco River Authority.
- ◆ **\$3-\$5 million in local purchases** during each year of operation. Purchases will range from construction materials and equipment to hardware and food service.
- ◆ Panda Guadalupe will be a major taxpayer contributing some **\$3-\$4.5 million a year in local and school taxes**, which will support schools, roads, firefighters, police and other essential community services.

JOBS

- ***350 peak construction; \$35 million payroll***
- ***46 permanent on-site; \$2.3 million annual payroll***

LOCAL PURCHASES

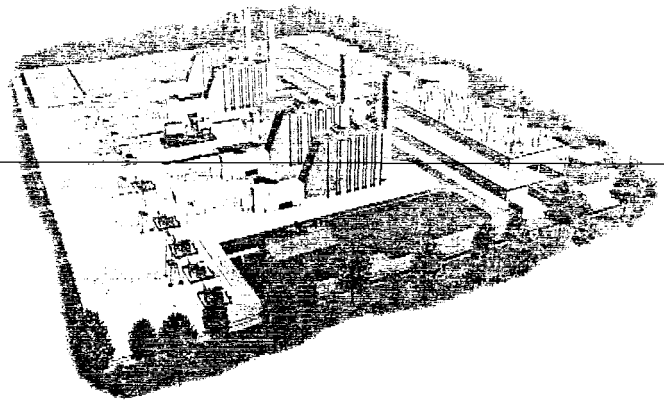
- ***\$10-\$14 million in goods and services during construction***
- ***\$3-\$5 million in goods and services each year of operation***

TAX REVENUES

\$3-\$4.5 million per year

ECONOMICAL ENERGY

Panda Paris Project



- ◆ The project will create new, hi-tech job opportunities for qualified residents of Lamar County.
- ◆ The total project will provide **300-350 jobs during peak construction**. Much of the estimated **\$35 million construction payroll** will be spent locally, further boosting the areas economy.
- ◆ Approximately **46 full-time permanent jobs** will be created. The **annual payroll** is projected to be about **\$2.3 million**. Panda's policy is to hire locally whenever possible.
- ◆ Approximately **800 additional "spin-off" jobs** will be created during construction and plant operation.
- ◆ Panda Paris will buy approximately **\$10-\$14 million in local materials and services** during construction.
- ◆ Water for the project will be purchased from the city of Paris.
- ◆ **\$3-\$5 million in local purchases** during each year of operation. Purchases will range from construction materials and equipment to hardware and food service.
- ◆ Panda Paris will be a major taxpayer contributing some **\$3-\$4.5 million a year in local and school taxes**, which will support schools, roads, firefighters, police and other essential community services.

**1000 MW Combined Cycle
Natural Gas Fired Facility
High Efficiency "F" Technology
Located in Paris, Texas, USA
Commercial Operations - June 2000**

JOB

- **350 peak construction; \$35 million payroll**
- **46 permanent on-site; \$2.3 million annual payroll**

LOCAL PURCHASES

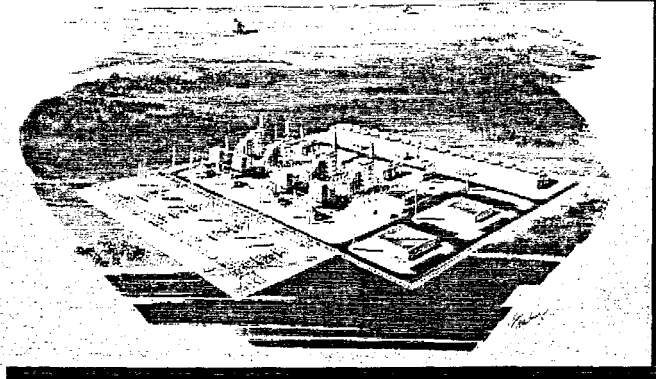
- **\$10-\$14 million in goods and services during construction**
- **\$3-\$5 million in goods and services each year of operation**

TAX REVENUES

\$3-\$4.5 million per year

ECONOMICAL ENERGY

ODESSA-ECTOR POWER PARTNERS PROJECT



**1000 MW Natural Gas Fired
Combined Cycle Facility**

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in ERCOT. Construction began in February 2000 and commercial operations are scheduled for June 2001.

Texas Independent Energy, LP is a 50/50 joint venture of Panda Energy International, Inc. and PSEG Global. The respective companies are experienced leaders in the field of energy and independent power production. Our project team has expertise in all areas of development. Odessa-Ector Power Partners, LP, a subsidiary of Texas Independent Energy, LP, is the project developer, operator and owner.

Location:

Ector County, Texas (Odessa)

Facility Description:

2 on 1 configuration of four GE 7FA Combustion Turbines and two GE Steam Turbines

Construction Contractor:

Duke Fluor Daniel

Transmission:

Located adjacent to TXU's 345 kV and 138 kV Odessa EHV Switching Station

Fuel:

Interconnected with El Paso Natural Gas, PG&E -Valero and KN-Westar pipelines

Water Supply:

Two separate sources offering redundancy, as well as more water than the plant will require

Financing:

Financial closing February 10, 2000

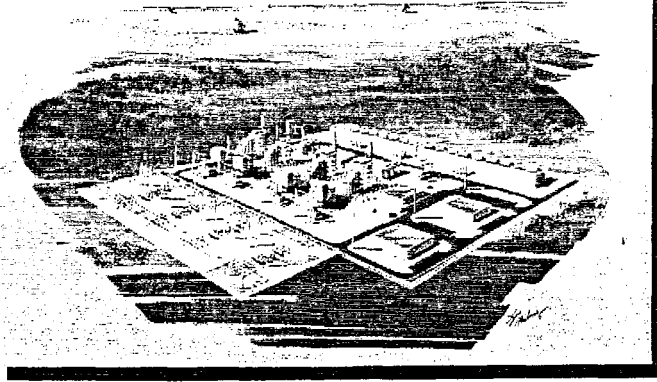
Commercial Operation:

June 2001

Services Offered:

- **Firm Capacity**
(Planned/Unplanned)
- **Non-firm energy**
- **Responsive reserves**
- **Spinning reserves**
- **Planning reserves**
- **Load following/load regulation**
- **Static/Dynamic scheduling**
- **Voltage and VAR support**
- **Back-up service**
- **Emergency energy**

ODESSA-ECTOR POWER PARTNERS, LP



1000 MW Natural Gas Fired Combined Cycle Facility

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in ERCOT. Construction began in February 2000 and commercial operations are scheduled for June 2001.

Texas Independent Energy, LP is a 50/50 joint venture of Panda Energy International, Inc. and PSEG Global. The respective companies are experienced leaders in the field of energy and independent power production. Our project team has expertise in all areas of development. Odessa-Ector Power Partners, LP, a subsidiary of Texas Independent Energy, LP, is the project developer, operator and owner.

Location:

Ector County, Texas (Odessa)

Facility Description:

2 on 1 configuration of four GE 7FA Combustion Turbines and two GE Steam Turbines

Construction Contractor:

Duke Fluor Daniel

Transmission:

Located adjacent to TXU's 345 kV and 138 kV Odessa EHV Switching Station

Fuel:

Interconnected with El Paso Natural Gas, PG&E -Valero and KN-Westar pipelines

Water Supply:

Two separate sources offering redundancy, as well as more water than the plant will require

Financing:

Financial closing February 10, 2000

Commercial Operation:

June 2001

Benefits to the Community

JOBS

- 600 peak construction; \$35 million payroll
- 46 permanent on-site; \$2.5 million annual payroll

LOCAL PURCHASES

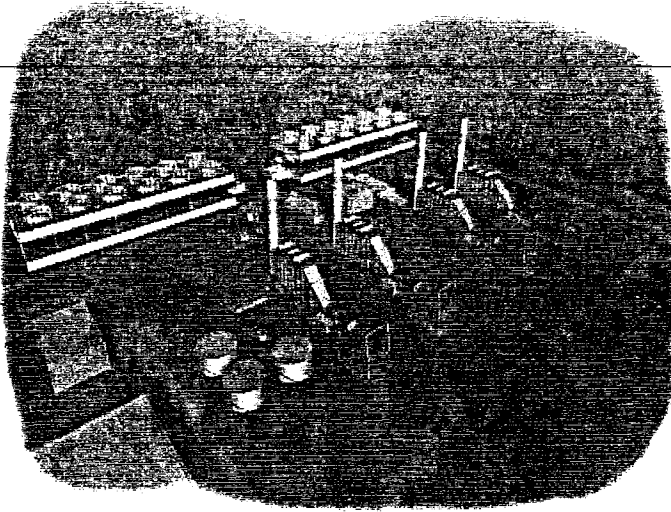
- \$10-\$14 million in goods and services during construction
- \$3-\$5 million in goods and services each year of operation

TAX REVENUES

- In excess of \$5 million

CLEAN, LOW COST POWER

PANDA ONETA POWER PARTNERS PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Coweta, Oklahoma

Facility Description:

*2 on 1 configuration of four GE 7FA
Combustion Turbines and two GE Steam
Turbines
(Combustion Turbine production slots
have already been secured)*

Construction Contractor:

To Be Determined

Transmission:

*Located adjacent to PSO's 345 kV
Oneta Switching Station*

Fuel:

*Potential interconnects with Oneok,
Transok*

Water Supply:

*Supplies available, preliminary
negotiations completed with Broken Arrow
and Rural Water District #4.*

Financing:

Financial closing anticipated July 2000

Commercial Operation:

*500 MW, January 2002
500 MW, April 2002*

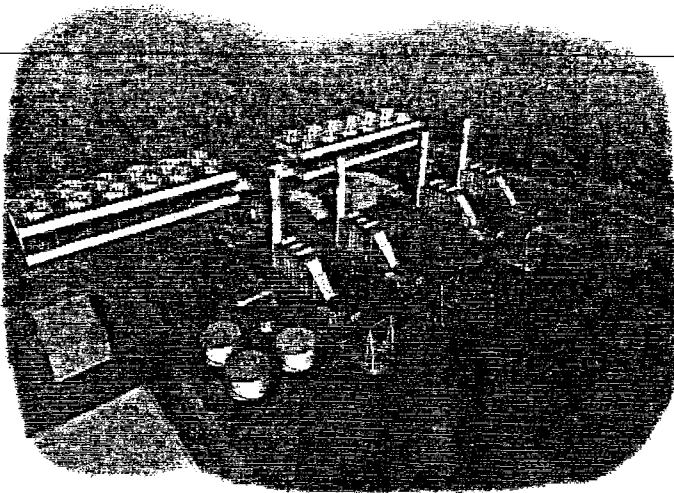
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Southwest Power Pool. Construction is scheduled to begin August 2000 with the full commercial operation date scheduled for April 2002.

Panda Oneta Power L.P. is a subsidiary of Panda Energy International, Inc. Panda is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development.

Services Offered:

- **Firm Capacity
(Planned/Unplanned)**
- **Non-firm energy**
- **Responsive reserves**
- **Spinning reserves**
- **Planning reserves**
- **Load following/load regulation**
- **Voltage and VAR support**
- **Back-up service**
- **Emergency energy**

PANDA ONETA POWER PLANT, ETC. PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Coweta, Oklahoma

Facility Description:

*2 on 1 configuration of four GE 7FA
Combustion Turbines and two GE Steam
Turbines*

*(Combustion Turbine production slots
have already been secured)*

Construction Contractor:

To Be Determined

Transmission:

*Located adjacent to PSO's 345 kV
Oneta Switching Station*

Fuel:

*Potential interconnects with Oneok,
Transok*

Water Supply:

*Supplies available, preliminary
negotiations completed with Broken Arrow
and Rural Water District #4.*

Financing:

Financial closing anticipated July 2000

Commercial Operation:

500 MW, January 2002

500 MW, April 2002

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Southwest Power Pool. Construction is scheduled to begin August 2000 with the full commercial operation date scheduled for April 2002.

Panda Oneta Power L.P. is a subsidiary of Panda Energy International, Inc. Panda is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development.

Benefits To Community

JOBS

- **350 peak construction; \$35 million payroll**
- **46 permanent on-site; \$2.3 million annual payroll**

LOCAL PURCHASES

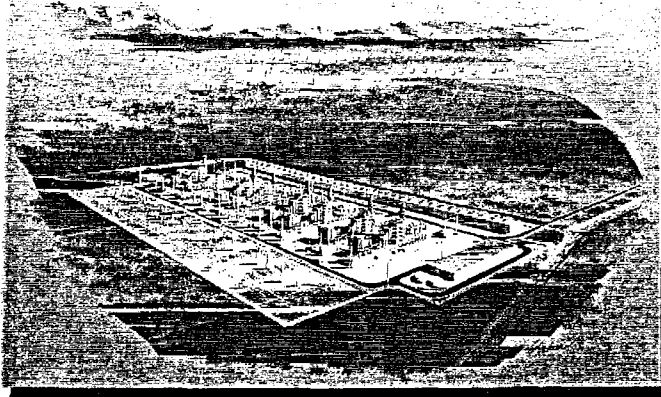
- **\$10-\$14 million in goods and services during construction**
- **\$3-\$5 million in goods and services each year of operation**

TAX REVENUES

\$3-\$4.5 million per year

CLEAN, LOW COST POWER

PANDA GILA RIVER PROJECT



2080 MW Natural Gas Fired Combined Cycle Facility

Location:

Gila Bend, Arizona

Facility Description:

*2 on 1 configuration of eight GE 7FA
Combustion Turbines and Two GE Steam
Turbines*

*(Combustion Turbine production slots have
already been secured)*

Construction Contractor:

Duke Fluor Daniel

Transmission:

Interconnection to APS 500kV System

Fuel:

*Interconnection with El Paso Natural Gas
Company*

Water Supply:

Ground water previously in agricultural use

Financing:

*Financial closing anticipated December
2000*

Commercial Operation:

June 2002

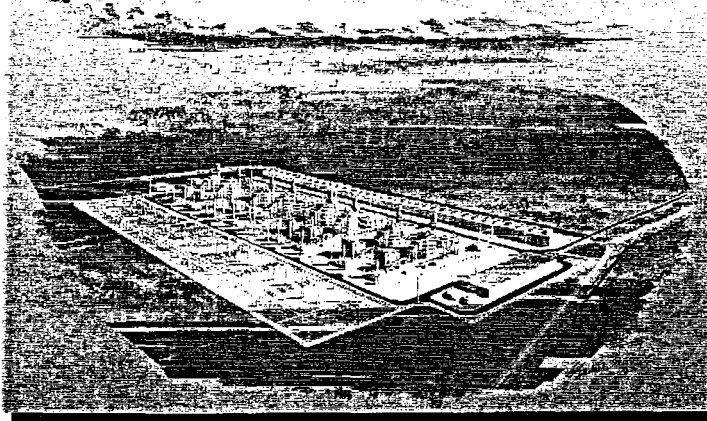
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Arizona. Construction is scheduled to begin December 2000 with commercial operation date of June 2002.

Panda Gila River, L.P. is a subsidiary of Panda Energy International, Inc. Panda is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development.

Services Offered:

- *Firm Capacity
(Planned/Unplanned)*
- *Non-firm energy*
- *Responsive reserves*
- *Spinning reserves*
- *Planning reserves*
- *Load following/load regulation*
- *Voltage and VAR support*
- *Back-up service*
- *Emergency energy*
- *Project will meet WSCC
Reliability Criteria and be a
member of the Southwest
Reserve Sharing Group*

PANDA GILA RIVER PROJECT



With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Arizona. Construction is scheduled to begin December 2000 with commercial operation date of June 2002.

Panda Gila River, L.P. is a subsidiary of Panda Energy International, Inc. Panda is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development.

2080 MW Natural Gas Fired Combined Cycle Facility

Location:

Gila Bend, Arizona

Facility Description:

*2 on 1 configuration of eight GE 7FA
Combustion Turbines and Two GE Steam
Turbines*

*(Combustion Turbine production slots have
already been secured)*

Construction Contractor:

Duke Fluor Daniel

Transmission:

Interconnection to APS 500kV System

Fuel:

*Interconnection with El Paso Natural Gas
Company*

Water Supply:

Ground water previously in agricultural use

Financing:

*Financial closing anticipated December
2000*

Commercial Operation:

June 2002

Benefits To Community

JOBS

- *1030 peak construction; \$50 MM payroll*
- *60 permanent on-site; \$3 MM annual payroll*

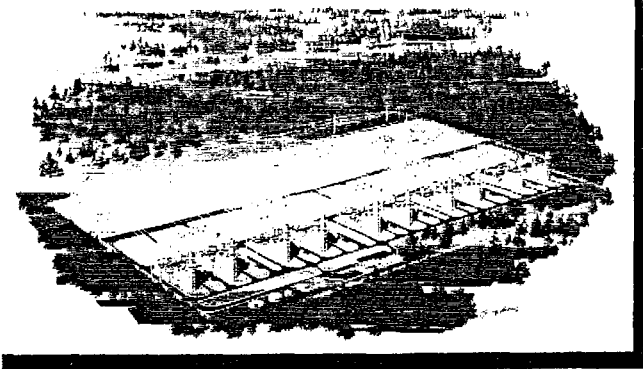
LOCAL PURCHASES

- *\$10-\$14 million in goods and services during construction*
- *\$5-\$8 million in goods and services each year of operation*

TAX REVENUES

\$2-\$3 million per year

CLEAN, LOW COST POWER



**2720 MW Natural Gas Fired
Combined Cycle Facility**

Location:

Union County, Arkansas (El Dorado)

Facility Description:

*1 on 1 configuration of ABB Combustion Turbines and Steam Turbines
(Combustion Turbine production slots have already been secured)*

Construction Contractor:

ABB

Transmission:

Located adjacent to Entergy Switching Station with 4 -500kV transmission lines

Fuel:

Panda will build, own and operate an interstate pipeline that will connect to Texas Gas and other interstate pipeline companies

Water Supply:

In co-operation with Union County Water Conservation Board, Will build raw water pipeline from Ouachita River to plant site (approximately 5 miles)

Financing:

Financial closing anticipated August 2000

Commercial Operation:

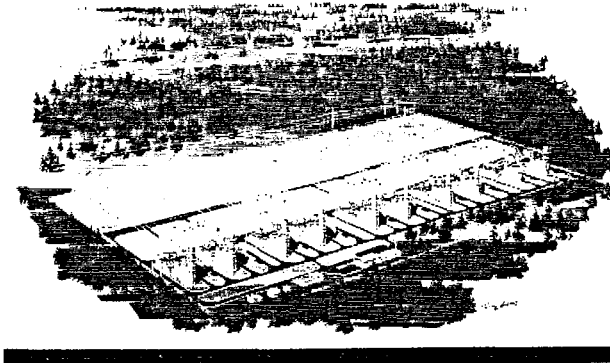
April 2002

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in SERC. Construction is scheduled to begin August 2000 with commercial operation date of April 2002.

Union Power Partners, L.P. is a wholly owned subsidiary of Panda Energy International, Inc. Panda Energy International Inc. is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development. Union Power Partners, L.P. is the project developer, operator and owner.

Services Offered:

- **Firm Capacity**
(Planned/Unplanned)
- **Capacity and Energy Option**
- **Non-firm energy**
- **Responsive reserves**
- **Spinning reserves**
- **Planning reserves**
- **Load following/load regulation**
- **Static/Dynamic scheduling**
- **Voltage and VAR support**
- **Back-up service**
- **Emergency energy**



**2720 MW Natural Gas Fired
Combined Cycle Facility**

Location:

Union County, Arkansas (El Dorado)

Facility Description:

*1 on 1 configuration of ABB Combustion
Turbines and Steam Turbines*

*(Combustion Turbine production slots have
already been secured)*

Construction Contractor:

ABB

Transmission:

*Located adjacent to Entergy Switching
Station with 4 -500kV transmission lines*

Fuel:

*Panda will build, own and operate an
interstate pipeline that will connect to Texas
Gas and other interstate pipeline companies*

Water Supply:

*In co-operation with Union County Water
Conservation Board, Will build raw water
pipeline from Ouachita River to plant site
(approximately 5 miles)*

Financing:

Financial closing anticipated August 2000

Commercial Operation:

April 2002

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in SERC. Construction is scheduled to begin August 2000 with commercial operation date of April 2002.

Union Power Partners, L.P. is a wholly owned subsidiary of Panda Energy International, Inc. Panda Energy International Inc. is an experienced leader in the field of energy and independent power production. Our project team has expertise in all areas of development. Union Power Partners, L.P. is the project developer, operator and owner.

Benefits to the Community

JOBS

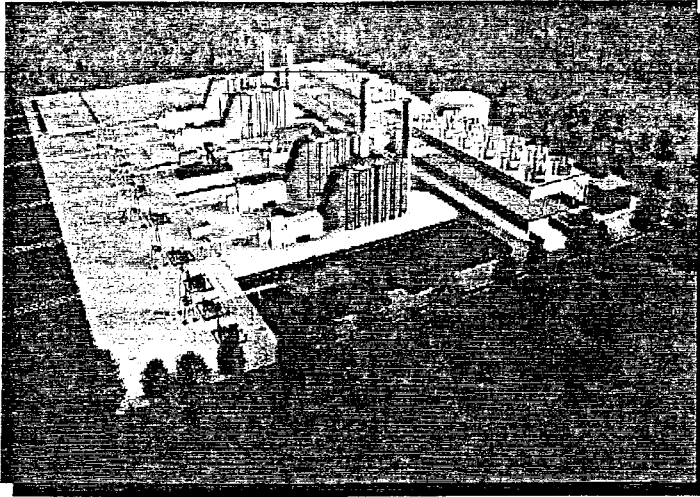
- 1000+ peak construction;
approximately \$85 million payroll*
- 65 on-site; approximately \$3.25
million annual payroll*

LOCAL PURCHASES

*\$5-8 million in goods and services
each year of operation*

CLEAN, LOW COST POWER

PANDA MIDWAY POWER PARTNERS PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

St. Lucie County, Florida

Facility Description:

*2 on 1 configuration of Four GE 7FA
Combustion Turbines and Two GE Steam
Turbines*

*(Combustion Turbine production slots
have already been secured)*

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to FP&L's 500 kV substation

Fuel:

Will be served by the new Gulfstream pipeline

Water Supply:

*Mix of City of Port St. Lucie and untreated
Floridian water supplied by the City. As City's
volume of effluent increases, use of Floridian
water will be decreased.*

Financing:

Financial closing anticipated November 2001

Commercial Operation:

Spring 2003

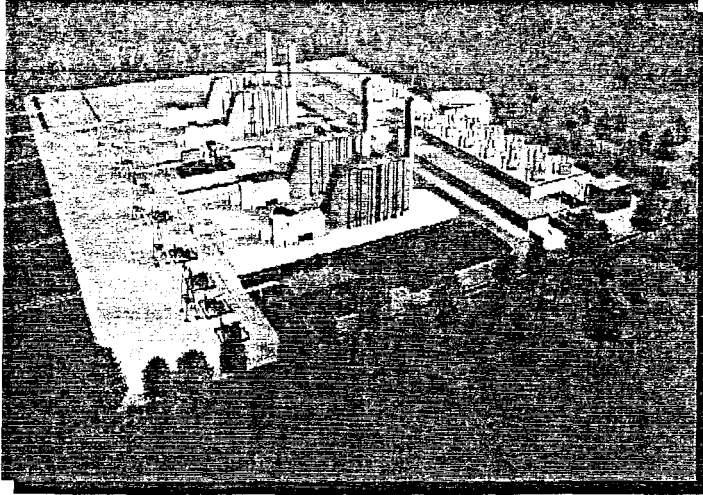
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Florida. Construction is scheduled to begin in the fall of 2001 with commercial operation expected in the spring of 2003.

Panda Midway Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Services Offered:

- **Firm Capacity**
(Planned/Unplanned)
- **Non-firm energy**
- **Responsive reserves**
- **Spinning reserves**
- **Planning reserves**
- **Load following/load regulation**
- **Voltage and VAR support**
- **Back-up service**
- **Emergency energy**

PANDA MIDWAY POWER PARTNERS PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

St. Lucie County, Florida

Facility Description:

*2 on 1 configuration of Four GE 7FA
Combustion Turbines and Two GE Steam
Turbines*

*(Combustion Turbine production slots
have already been secured)*

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to FP&L's 500kV substation

Fuel:

Will be served by the new Gulfstream pipeline

Water Supply:

*Mix of City of Port St. Lucie and untreated
Floridan water supplied by the City. As City's
volume of effluent increases, use of Floridan
water will be decreased.*

Financing:

Financial closing anticipated November 2001

Commercial Operation:

Spring 2003

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Florida. Construction is scheduled to begin in the fall of 2001 with commercial operation expected in the spring of 2003.

Panda Midway Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Benefits to the Community

JOBS

- **350 peak construction; \$35 million payroll**
- **46 permanent on-site; \$2.3 million annual payroll**

LOCAL PURCHASES

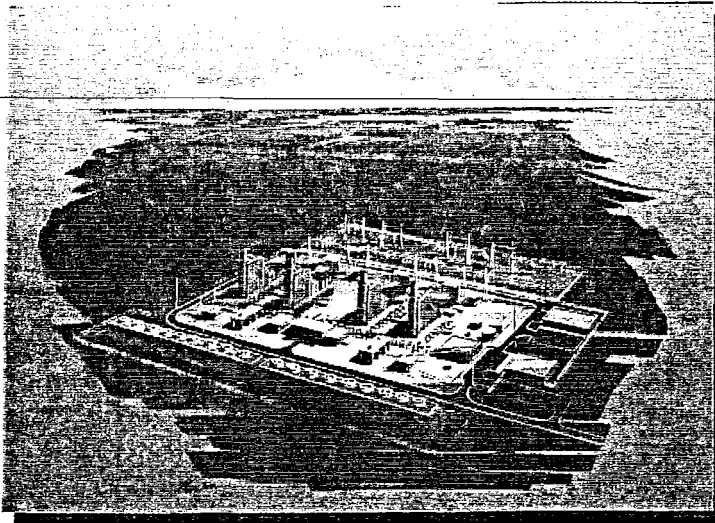
- **\$10-\$14 million in goods and services during construction**
- **\$3-\$5 million in goods and services each year of operation**

TAX REVENUES

In excess of \$3 million per year

CLEAN, LOW COST POWER

PANDA LEESBURG POWER PARTNERS PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Lake County, Florida

Facility Description:

2 on 1 configuration of Four GE 7FA
Combustion Turbines and Two GE steam
Turbines

(Combustion Turbine production slots
have already been secured)

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to several FPC transmission
lines which tie into the Central Florida
Switching Station

Fuel:

Will interconnect to either or both of the
existing Florida Gas Transmission system and
the proposed Buccaneer System.

Water Supply:

Mix of City of Leesburg effluent and untreated
Floridan water supplied by City. As City's
volume of effluent increases, use of Floridan
water will be decreased.

Financing:

Financial closing anticipated September 2001

Commercial Operation:

Spring 2003

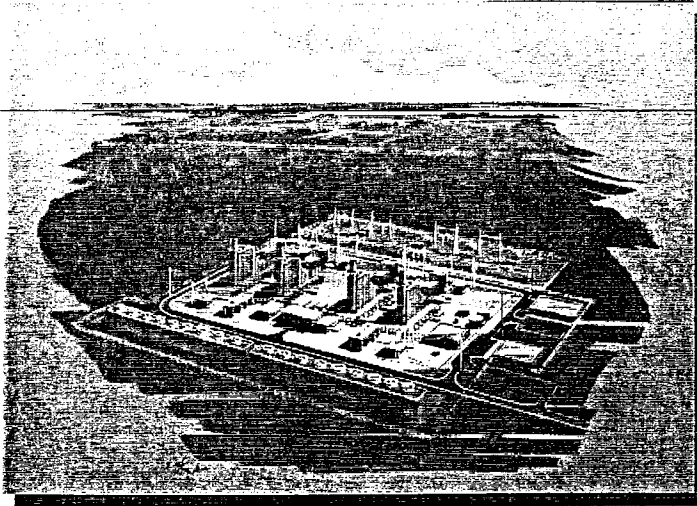
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Florida. Construction is scheduled to begin in the fall of 2001 with commercial operation expected in the spring of 2003.

Panda Leesburg Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Services Offered:

- Firm Capacity
(Planned/Unplanned)
- Non-firm energy
- Responsive reserves
- Spinning reserves
- Planning reserves
- Load following/load regulation
- Voltage and VAR support
- Back-up service
- Emergency energy

PANDA LEESBURG POWER PARTNERSHIP PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Lake County, Florida

Facility Description:

2 on 1 configuration of Four GE 7FA
Combustion Turbines and Two GE steam
Turbines

*(Combustion Turbine production slots
have already been secured)*

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to several FPC transmission
lines which tie into the Central Florida
Switching Station

Fuel:

Will interconnect to either or both of the
existing Florida Gas Transmission system
and the proposed Buccaneer System.

Water Supply:

Mix of City of Leesburg effluent and
untreated Floridan water supplied by City.
As City's volume of effluent increases, use of
Floridan water will be decreased.

Financing:

Financial closing anticipated September
2001

Commercial Operation:

Spring 2003

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Florida. Construction is scheduled to begin in the fall of 2001 with commercial operation expected in the spring of 2003.

Panda Leesburg Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Benefits to the Community

JOBS

- 350 peak construction; \$35 million payroll
- 46 permanent on-site; \$2.5 million annual payroll

LOCAL PURCHASES

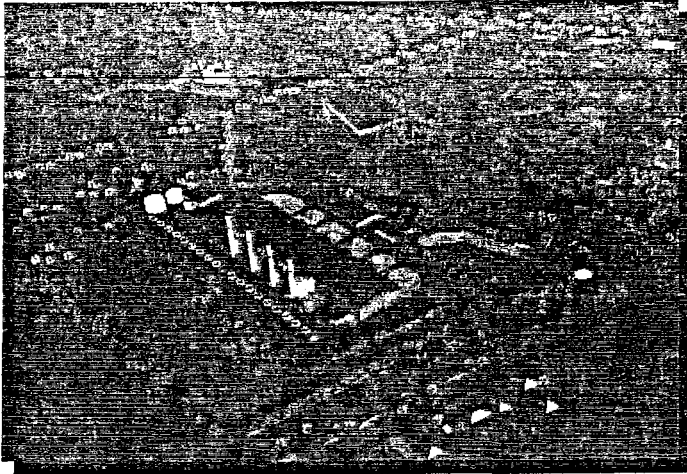
- \$10-\$14 million in goods and services during construction
- \$3-\$5 million in goods and services each year of operation

TAX REVENUES

In excess of \$3 million per year

CLEAN, LOW COST POWER

PANDA PERKIOMEN POWER PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Upper Hanover Township, Montgomery
County, PA

Facility Description:

2 on 1 configuration of four GE 7FA
Combustion Turbines and two GE Steam
Turbines

(Combustion Turbine production slots
have already been secured)

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to GPU's 500 kV
transmission line which ties into the
Hosensack Switching Station

Fuel:

Will interconnect with Texas Eastern's large
diameter system which is approximately one
mile from the site

Water Supply:

City of Allentown treated effluent

Financing:

Financial closing anticipated May 2001

Commercial Operation:

500 MW, December 2002

500 MW, February 2003

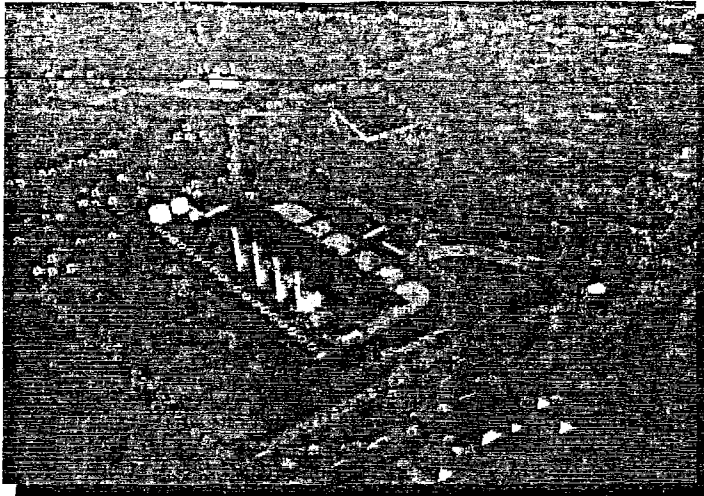
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Pennsylvania. Construction is scheduled to begin June 2001 with commercial operation date of December 2002.

Panda Perkiomen Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Services Offered:

- Firm Capacity
(Planned/Unplanned)
- Non-firm energy
- Responsive reserves
- Spinning reserves
- Planning reserves
- Load following/load regulation
- Voltage and VAR support
- Back-up service
- Emergency energy

PANDA PERKIOMEN POWER PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Upper Hanover Township, Montgomery
County, PA

Facility Description:

2 on 1 configuration of four GE 7FA
Combustion Turbines and two GE Steam
Turbines

(Combustion Turbine production slots
have already been secured)

Construction Contractor:

To Be Determined

Transmission:

Located adjacent to GPU's 500 kV
transmission line which ties into the
Hosensack Switching Station

Fuel:

Will interconnect with Texas Eastern's large
diameter system which is approximately one
mile from the site

Water Supply:

City of Allentown treated effluent

Financing:

Financial closing anticipated May 2001

Commercial Operation:

500 MW, December 2002

500 MW, February 2003

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in Pennsylvania. Construction is scheduled to begin June 2001 with commercial operation date of December 2002.

Panda Perkiomen Power is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Benefits to the Community

JOBS

- 550 peak construction; \$35 million payroll
- 46 permanent on-site; \$2.3 million annual payroll

LOCAL PURCHASES

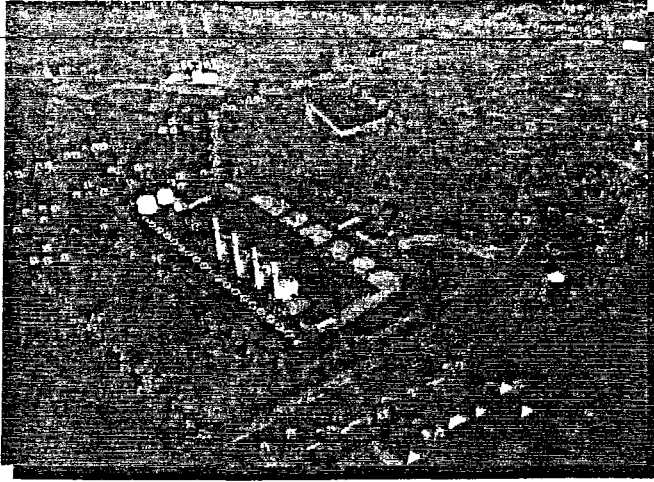
- \$10-\$14 million in goods and services during construction
- \$3-\$5 million in goods and services each year of operation

TAX REVENUES

Local taxes of approximately
\$500,000

CLEAN, LOW COST POWER

PANDA CULLODEN PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Cabell County, West Virginia

Facility Configuration:

*2 on 1 configuration with four
Combustion Turbines and two Steam
Turbines*

Construction Contractor:

To Be Determined

Transmission:

*Located adjacent to AEP's 765 kV
Culloden Switching Station*

Fuel:

*To be interconnected with Columbia Gas
and/or Tennessee pipelines*

Water Supply:

Raw water from the Kanawha River

Financial Closing:

May 2002

Commercial Operations:

February 2004

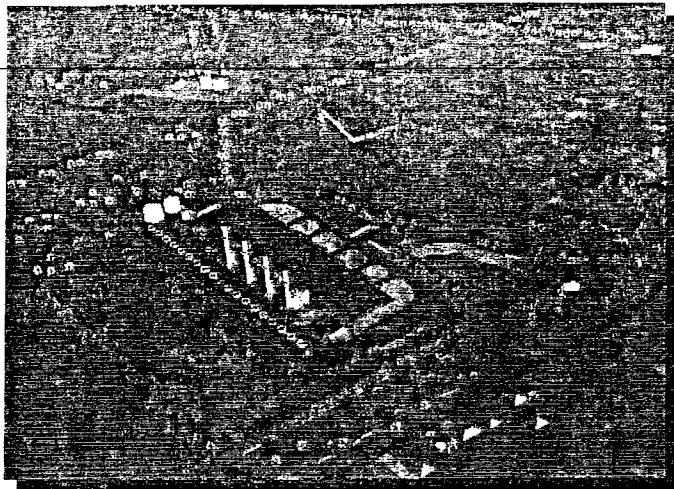
With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in ECAR. Construction is scheduled to begin June 2002 with a commercial operation of February 2004.

Panda Culloden is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Services Offered:

- **Firm Capacity/Energy
(Planned/Unplanned)**
- **Non-firm energy**
- **Load following/load regulation**
- **Static/Dynamic scheduling**
- **Responsive reserves**
- **Spinning reserves**
- **Planning reserves**
- **Voltage and VAR support**
- **Back-up service**
- **Emergency energy**

PANDA CULLODEN PROJECT



1000 MW Natural Gas Fired Combined Cycle Facility

Location:

Cabell County, West Virginia

Facility Configuration:

*2 on 1 configuration with four
Combustion Turbines and two Steam
Turbines*

Construction Contractor:

To Be Determined

Transmission:

*Located adjacent to AEP's 765 kV
Culloden Switching Station*

Fuel:

*To be interconnected with Columbia Gas
and/or Tennessee pipelines*

Water Supply:

Raw water from the Kanawha River

Financial Closing:

May 2002

Commercial Operations:

February 2004

With the use of natural gas and state-of-the-art technology, this project will be one of the cleanest and most efficient power facilities in ECAR. Construction is scheduled to begin June 2002 with a commercial operation of February 2004.

Panda Culloden is a wholly owned subsidiary of Panda Energy International, Inc. Panda has become one of nation's leading developers of gas fired merchant plants. Panda's project team has expertise in all areas of development.

Benefits To Community

JOBS

- **500 peak construction; \$50 MM payroll**
- **46 Permanent on-site; \$2.3 MM annual payroll**

LOCAL PURCHASES

- **\$10-\$14 million in goods and services during construction**
- **\$3-\$5 million in goods and services each year of operation**

TAX REVENUES

Could add millions of dollars to the local community & school each year

CLEAN, LOW COST POWER



March 27, 2000

Mr. Michael D. Rib
Director, Resource Planning
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Subject: Florida Power Corporation's Request For Proposals
Dated January 26, 2000

Dear Mr. Rib:

Texaco Power and Gasification Global Inc. and TECO Power Services Corporation are pleased to submit the enclosed proposal in response to Florida Power Corporation's Request for Proposals dated January 26, 2000. Our proposal offers a clean, efficient, highly reliable source of power at very attractive prices. The clean fuel being utilized by the Eagle Energy Project allows Florida Power Corporation greater flexibility within its power portfolio by reducing the company's reliability on natural gas and its inherent price volatility.

Texaco and TECO Power Services have a vested interest in responding to your request for proposal with a clean low cost, highly reliable solution. We have extensive experience in designing, developing, financing, constructing, owning, and operating integrated gasification combined cycle facilities and marketing the power therefrom. In addition, we would welcome Florida Power Corporation's participation in the Eagle Energy Project as an equity participant and have offered an ownership interest as an option in our attached proposal.

Texaco and TECO Power Services appreciate Florida Power Corporation's review and consideration of this proposal. We are open for discussion on how we can best integrate this project into Florida Power Corporation's operating plan. Please direct any and all inquiries regarding this proposal to Ms. Becky Alex at TECO Power Services Corporation, 702 N. Franklin Street, Tampa, Florida 33602, telephone (813) 228-1107, facsimile (813) 228-1308, e-mail rtalex@tecoenergy.com.

Sincerely,

A handwritten signature in black ink, appearing to read "M.R. Schuyter", written over a horizontal line.

Michael R. Schuyter
Vice President
Marketing and Development

Attachment B

Proposal Summary Form

Company/Respondent: Texaco Power and Gasification Global, Inc. and TECO Power Services Corporation

Respondent Contact Name: Rebecca T. Alex

Mailing Address: 702 N. Franklin Street, Tampa, Florida 33602

Telephone: (813) 228-1107

Facsimile: (813) 228-1308

General Description of the Proposed Project: An integrated gasification combined cycle project fired with synthesis gas designed to provide a nominal 809 MW of capacity using three GE 7F gas turbines and one steam turbine. The synthesis gas will be provided by three gasifiers fueled by petroleum coke.

Power Generation Technology: Integrated Gasification Combined Cycle

Unit Name: Eagle Energy Project

Project Location: Hines Energy Complex

Contract Term: 25 years

Unit Summer MW Rating: 809 MW

Unit Winter MW Rating: 809 MW

Unit Fuel Type(s): Primary: Synthesis gas
Backup: No. 2 Fuel Oil

Proposed Capacity (MW) Delivered to FPC: 500 MW to 809 MW

Proposed delivery point to FPC: Hines Energy Complex

Other Parties with an Interest in the Proposal: None

Certification: Respondent hereby certifies that all of the statements and representations made in this proposal, including all attachments, are true to the best of Respondent's knowledge and belief. Respondent agrees to be bound by its representations and the terms and conditions of the Request for Proposals. This proposal shall remain in effect until at least October 1, 2000 in the event that the Project is selected for the short-list bidder evaluation. Texaco and TPS reserve the right to withdraw this proposal should the Project not be selected for further consideration as a short-listed bidder.

Signed: Michael R. Schuyler

Name: Michael R. Schuyler

Title: Vice President Marketing and Development

Date: 3/27/00



Mike

The 1999 TEXACO 10-K's were not available as yet. We will forward those ASAP.

The 1999 4th Quarter 10-Q for Teco Energy is not available as yet, either. We make provide the 1999 10-Q's through the 3rd Quarter 1999. We will forward the 10-K's (10 copies) for 1999 ASAP.

Any Questions, please contact Becky Alex or myself.

Thanks

Ray King

228-4176



March 27, 2000

Mr. Michael D. Rib
Director, Resource Planning
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Subject: Florida Power Corporation's Request For Proposals
Dated January 26, 2000

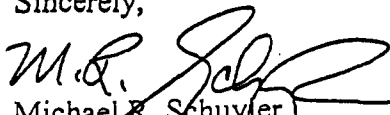
Dear Mr. Rib:

Texaco Power and Gasification Global Inc. and TECO Power Services Corporation are pleased to submit the enclosed proposal in response to Florida Power Corporation's Request for Proposals dated January 26, 2000. Our proposal offers a clean, efficient, highly reliable source of power at very attractive prices. The clean fuel being utilized by the Eagle Energy Project allows Florida Power Corporation greater flexibility within its power portfolio by reducing the company's reliability on natural gas and its inherent price volatility.

Texaco and TECO Power Services have a vested interest in responding to your request for proposal with a clean low cost, highly reliable solution. We have extensive experience in designing, developing, financing, constructing, owning, and operating integrated gasification combined cycle facilities and marketing the power therefrom. In addition, we would welcome Florida Power Corporation's participation in the Eagle Energy Project as an equity participant and have offered an ownership interest as an option in our attached proposal.

Texaco and TECO Power Services appreciate Florida Power Corporation's review and consideration of this proposal. We are open for discussion on how we can best integrate this project into Florida Power Corporation's operating plan. Please direct any and all inquiries regarding this proposal to Ms. Becky Alex at TECO Power Services Corporation, 702 N. Franklin Street, Tampa, Florida 33602, telephone (813) 228-1107, facsimile (813) 228-1308, e-mail rtalex@tecoenergy.com.

Sincerely,


Michael R. Schuyler
Vice President
Marketing and Development

Attachment B

Proposal Summary Form

Company/Respondent: Texaco Power and Gasification Global, Inc. and TECO Power Services Corporation

Respondent Contact Name: Rebecca T. Alex

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Telephone: (813) 228-1107

Facsimile: (813) 228-1308

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Power Generation Technology: Integrated Gasification Combined Cycle

Unit Name: Eagle Energy Project

Project Location: Hines Energy Complex

Contract Term: 25 years

Unit Summer MW Rating: 809 MW

Unit Winter MW Rating: 809 MW

Unit Fuel Type(s): Primary: Synthesis gas
Backup: No. 2 Fuel Oil

Proposed Capacity (MW) Delivered to FPC: 500 MW to 809 MW

Proposed delivery point to FPC: Hines Energy Complex

Other Parties with an Interest in the Proposal: None

Certification: Respondent hereby certifies that all of the statements and representations made in this proposal, including all attachments, are true to the best of Respondent's knowledge and belief. Respondent agrees to be bound by its representations and the terms and conditions of the Request for Proposals. This proposal shall remain in effect until at least October 1, 2000 in the event that the Project is selected for the short-list bidder evaluation. Texaco and TPS reserve the right to withdraw this proposal should the Project not be selected for further consideration as a short-listed bidder.

Signed: *M.R. Schuyler*

Name: Michael R. Schuyler

Title: Vice President Marketing and Development

Date: 3/27/00



EXECUTIVE SUMMARY

Texaco Power and Gasification Global Inc. ("Texaco") and TECO Power Services Corporation ("TPS") present this non-binding proposal (the "Proposal") in response to Florida Power Corporation's ("FPC") Request for Proposals dated January 26, 2000 (the "RFP"). The Eagle Energy Project consists of a power block and a gasification facility (also referred to herein as the "Project"). We have modeled a configuration for the power block which can meet FPC's energy demand in a clean, efficient and highly reliable manner using three General Electric 7FA combustion turbines equipped with triple pressure heat recovery steam generators (HRSGs) with reheat and a nominal 410 MW steam turbine generator. The three-on-one combined-cycle power block would have a net electrical generation capacity of 809 MW (the "Power Block"). The gasification facility would consist of three gasifiers and an air separation unit that would produce the synthesis gas needed to operate the combustion turbines and steam turbine (the "Gasification Facility"). Surplus electricity would be exported to the local grid via connection to FPC's transmission system. (The Power Block and the Gasification Facility are collectively referred to herein as the "Eagle Energy Project" and the "Project".)

The Eagle Energy Project would be located at the Hines Energy Complex on land owned by FPC to be leased or bought by Eagle Energy, a joint venture to be formed by Texaco and TPS. Texaco and TPS propose to sell power to FPC at a competitive rate that includes a fixed capacity charge, and an energy charge per kWh. The price is attractive when compared to alternative power procurement options and recognizes the need for fuel diversity. The power price is based on project development and capital cost, and annual variable cost recovery. Pricing is discussed in detail in Tables 1 and 2 in Section 5 of this Proposal.

Texaco and TPS intend to own the Project in a single purpose joint venture structure ("Eagle Energy") that will develop, construct, finance, operate and maintain the facility and market the power therefrom. Both Texaco and TPS have unique expertise and considerable experience in developing, constructing, financing and operating integrated gasification combined cycle projects of the type contemplated in this proposal, and the synergies between our companies make us the best option for supplying FPC's energy needs. At the end of the term of the business deal with FPC, i.e., 25 years, Eagle Energy would be willing to offer FPC a right of first refusal to purchase the Project assets upon mutually agreeable terms.

Texaco and TPS each plan to own 50% of the joint venture. These are the desired levels of ownership of both companies, although Texaco and TPS would be willing to consider an equity investment in the total project by FPC as discussed in Section 1.5 of this Proposal.



SECTION 1 GENERAL PROPOSAL INFORMATION

1.1 PREVIOUS EXPERIENCE

A. TEXACO POWER AND GASIFICATION GLOBAL, INC.

Portfolio: Texaco Power & Gasification currently has equity interests in power plants that can or will generate over 6,100 megawatts. Nine operating plants generating 1,059 MW; seven projects under construction representing 1,767 MW; and seven plants in advanced development representing 2,195 MW. Additionally, Texaco has developed and operates in-house plants at its refineries generating 1,170 MW in the U.S., Panama, Netherlands, U.K., Kuwait, Australia and Asia. Net equity capacity in these projects is 2,590 MW. Texaco has also licensed its proprietary Integrated Gasification Combined-Cycle (IGCC) technology into power projects, which will generate more than 3,000 MW.

Focus: Texaco Power & Gasification develops, owns and operates cogeneration, independent power and IGCC projects for the electric power, refining and chemical industries worldwide. This division of Texaco Inc. leverages its expertise in fuels management, project development and plant operations to successfully execute at each link of the "energy chain," with the objective of generating a substantial portion of the company's earnings by 2003.

Corporate History: Texaco Power & Gasification is a division of Texaco Inc. created in 1999 to execute the company's strategy in the power generation business and capitalize on opportunities for utilizing its proprietary gasification technology. It continues the activities of predecessor business units that were involved in power, natural resources, synthesis gas and natural gas marketing activities. Texaco has over 50 years experience in both gasification technology and power generation.

Texaco is the world leader in the commercial application of gasification technology, with 68 Texaco-owned or licensed gasification plants operating or in various stages of engineering and construction worldwide. The company is developing, with licensees and partners, gasification projects that will generate more than 6,000 MW of power.

Texaco's proprietary technology produces a clean synthesis gas (syngas) from a wide variety of feedstocks, including high-sulfur coal, petroleum coke, heavy oil, Orimulsion® and other hydrocarbons. The syngas then is fed to combined-cycle turbines to generate electricity. Texaco's gasification technology, which is marketed as Texaco Gasification Power Systems, is among the cleanest commercial technologies for new baseload plants. With growing environmental regulations, operators of industrial facilities throughout the world have increasingly explored the potential benefits of this technology.

Texaco licensed its IGCC technology to three Italian refineries – ISAB SpA (512



MW), Sarlux SpA (545 MW) and Anonima Petroli Italiana (API) (284 MW). These Italian plants were financed in the fourth quarter of 1996 on non-recourse bases. Texaco acquired a 24% equity interest in the 284-MW API project in September 1997. All three of these plants will start-up in the year 2000.

Additionally, Texaco is a development partner with Total S.A. and Electricite de France (EDF) in the 365 MW Projet IGCC Normandie project to be located at Gonfreville, France, which presently is in the advanced development stage, with start-up anticipated in 2003. Texaco's IGCC technology was recently selected for use in the 824 MW Repsol/Iberdola IGCC project to be located at the Petronor refinery in Muskiz, Spain, with start-up planned for 2004.

Domestically, Texaco Power and Gasification has operating responsibility for nine joint-venture power-generation plants in the western U.S. For power generation, these plants utilize frame machines, as well as aero-derivative units. The eight frame 7 machines have been in operation for over ten years and have compiled availability and reliability records of 95.6%+ and 99.5%+, respectively, against industry averages of 94.4% availability and 99.2% reliability. Texaco-managed facilities have a similar record for the operation of their seven frame 6 machines. Availability for these units averages 95%+, and reliability averages 99%+. TP&G also manages a fleet of six LM 2500 aero units, which have an average availability of 96.3% and an average reliability of 99.2%. These performance numbers compare to industry averages of 93% and 98%, respectively, for availability and reliability.

A recent highlight of Texaco's IPP portfolio is the company's involvement in the 700-MW Tri Energy IGCC plant in Ratchburi, Thailand. Texaco and Banpu Public each own 37.5% equity interest in the project, with Edison Mission Energy owning the remaining 25%. The developers signed a 20-year power-purchase agreement in May 1997 with the Electricity Generating Authority of Thailand. The project achieved financial closing in June 1998, the first major financial closing achieved in Thailand's power industry following the onset of the Asian financial crisis in mid-1997. The plant currently is under construction and on-schedule for operational start-up in 2000.

Affiliates: Texaco Natural Gas Inc., a subsidiary of Texaco Inc., is a major supplier of natural gas to large end-users and supplies fuel to Texaco's cogeneration projects in the U.S.

Texaco North America Production buys the steam produced by several of Texaco cogeneration plants in Kern County, California, for enhanced oil recovery operations.



Caltex, a 50-50 joint venture between Texaco and Chevron, owns and operates refineries in Africa, Asia and Australia. The company and its subsidiaries also supply refined products in Australia, Asia and East and South Africa. Caltex will have an equity interest in the San Pascual Cogeneration project in the Philippines to support its base business. Amoseas, also a 50/50 joint venture with Chevron, is responsible for power projects in Indonesia.

Number of Employees: Texaco Power & Gasification employs 289 people, with approximately 60% classified as professionals. About 7.6% are located abroad.

Country Involvements: Angola, Australia, Bahrain, Brazil, China, Colombia, Denmark, France, Honduras, India, Indonesia, Italy, Japan, Kazakstan, Kenya, Korea, Kuwait, Mexico, Namibia, Netherlands, Nigeria, Pakistan, Panama, Philippines, Poland, Singapore, South Africa, Spain, Thailand, Trinidad & Tobago, United Kingdom, United States, Venezuela, and Vietnam.

Texaco has a presence in 150 countries worldwide and, with its affiliates, have fuel producing and refinery operations in 16 countries. Texaco Power & Gasification looks for synergistic opportunities for integrated projects.

Partnerships: Texaco has worked in partnership with major suppliers, developers and utilities in developing virtually all its power and gasification projects. Texaco looks for partners with aligned interests, in-country presence, and financial expertise and/or development experience on other projects.

Texaco brings to a partnership expertise in project development and financing, operations and maintenance, fuel supply management, contracts and legal structures, engineering and technical support, and environmental and regulatory compliance.

Power Marketing: Texaco is developing plans to participate in emerging deregulated markets worldwide. Texaco expects to work with outside power marketers in this business.

Projects: Names, locations, sizes, fuels, technologies, power purchasers, steam buyers, lead lenders, costs, on-line dates, partners and ownership percentages, where available, are as follows:

In operation-

- Kern River Cogeneration Co.; Kern County, Calif.; 300 MW; gas; Southern California Edison (SoCal Ed); Texaco Exploration & Production; Long Term Credit Bank of Japan; \$128.5-million; 1985; Texaco Power & Gasification 50%, Edison Mission Energy 50%.
- Sycamore Cogeneration Co.; Kern County, Calif.; 300 MW; gas; SoCal Ed; Texaco Exploration & Production; Long Term Credit Bank of Japan; \$147.4-million; 1988; Texaco Power & Gasification 50%, Edison Mission Energy 50%.



- March Point Cogeneration Co.; Anacortes, Wash.; 140 MW; gas and refinery gas; Puget Sound Power & Light; Texaco Refining & Marketing; Credit Lyonnais; \$132-million; 1991; Texaco Power & Gasification 50%, Edison Mission Energy 50%.
- Nevada Cogeneration Associates No. 1; Las Vegas, Nev.; 85 MW; gas; Nevada Power; Georgia Pacific; Swiss Bank, Bank of California; \$92.5-million; 1992; Bonneville Pacific 50%, Texaco Power & Gasification 50%.
- Nevada Cogeneration Associates No. 2; Las Vegas, Nev.; 85 MW; gas; Nevada Power; Pacific Coast Building Products; Swiss Bank, Bank of California; \$92.5-million; 1992; Dynegey Power 50%, Texaco Power & Gasification 50%.
- Mid-Set Cogeneration Co.; Kern County, Calif.; 38 MW; gas; Pacific Gas & Electric (PG&E); Texaco Exploration & Production and Santa Fe Energy; Commerz Bank Aktiengesellschaft; \$21.5-million; 1989; Texaco Power & Gasification 50%, Edison Mission Energy 50%.
- Coalinga Cogeneration Co.; Coalinga, Calif.; 38 MW; gas; PG&E; Santa Fe Energy and Whittier Oil; Commerz Bank Aktiengesellschaft; \$31.1-million; 1991; Texaco Power & Gasification 50%, Edison Mission Energy 50%.
- Salinas River Cogeneration Co.; San Ardo, Calif.; 36 MW; gas; PG&E; Mobil Oil Corp.; Commerz Bank Aktiengesellschaft; \$29.7-million; 1991; Texaco Power & Gasification 50%, Edison Mission Energy 50%.
- Sargent Canyon Cogeneration Co.; San Ardo, Calif.; 36 MW; gas; PG&E; Mobil Oil Corp.; Commerz Bank Aktiengesellschaft; \$29.7-million; 1991; Texaco Power & Gasification 50%, Edison Mission Energy 50%.

Under construction-

- Tri Energy Company; Ratchaburi, Thailand; 700 MW; gas; combined-cycle; Electricity Generating Authority of Thailand; U.S. Overseas Private Investment Corp. providing \$200-million, remainder via bank project financing; \$390-million; 2000; Texaco Power & Gasification 37.5%, Banpu Public 37.5%, Edison Mission Energy 25%.
- API Energia SpA; Ancona, Italy; 276 MW; visbreaker tar; integrated gasification combined-cycle; ENEL; steam sales to API refinery; ABN AMRO, Banca Nazionale del Lavoro, Chase Manhattan, Istituto Bancario San Paulo di Torino, Mediocredito Central, NatWest, UBS, European Investment Bank; \$680-million; 2000; Anonima Petroli Italiana 51%, ABB 25%, Texaco Power & Gasification 24%.
- Motiva IGCC; Delaware City, Del.; 160 MW; integrated gasification combined-cycle; 25% of power to Delmarva Power at market rates, with remainder used by Motiva refinery; Motiva Refinery buying steam; 2000; Motiva 100% (Texaco has a 32.5% equity interest in Motiva).
- North Duri EOR; North Duri, Sumatra, Indonesia; 300 MW; gas; simple-cycle cogeneration; Texaco affiliate CPI; \$200-million; 2000; Texaco Power & Gasification 47.5%; Chevron 47.5%, Nusigalih Nusantara 5%.
- Darajat Geothermal, Unit 2; West Java, Indonesia; 70 MW; geothermal; PLN; \$145-million; 2000; Texaco Power & Gasification 45%, Chevron 45%, P.T. Prasarana Nusantara Jaya 10%.



In advanced development-

- Sunrise Cogeneration EOR; Midway Sunset Oilfield, Fellows, California; 320 MW, and 1.8 million pounds per hour steam; gas; simple-cycle cogeneration; merchant power; \$205-million; 2001; Texaco Power & Gasification 100%.

- Projet IGCC Normandie; Normandy, France; 365 MW; integrated gasification combined-cycle; power sold to Electricite de France (EdF); Total S.A. Gonfreville refinery buying hydrogen and steam; 2003; Total 40%, Electricite de France (EDF) 33%, Texaco 27%.

- San Pascual Cogeneration Co.; Batangas, Philippines; 304 MW; gas; combined-cycle cogeneration; National Power Corp.; steam to Texaco affiliate Caltex Philippines Refinery; \$442-million; 2004; Texaco Power & Gasification, Edison Mission Energy, Caltex.

- NEREFCO Cogeneration; Rotterdam, the Netherlands; 80 MW; gas; simple-cycle cogeneration; local grid; steam and heat to Texaco affiliate NEREFCO; \$50-million; 2002; Texaco 50%, Eneco 50%.

- Darajat Geothermal, Unit 3; West Java, Indonesia; 70 MW; geothermal; PLN; \$45-million; 2002; Texaco Power & Gasification 39.5%, Chevron 39.5%, P.T.Prasarana Nusantara Jaya 21%.

Financial Information: Not disclosed.

Business Relationships: Texaco Power & Gasification draws on expertise from other Texaco business units in areas such as project financing, regulatory and legislative matters, fuels acquisition and management.

Contacts:

- James C. Houck, President, Texaco Power & Gasification, 2000 Westchester Ave., White Plains, N.Y., 10650; fax, (914) 253-7744; website, www.texaco.com.

- J.Roger Howard, Vice President, Worldwide Power, Texaco Power & Gasification, 1111 Bagby, Houston, Tex., 77002; phone, (713) 752-6934; fax, (713) 752-6829; website, www.texaco.com.

- James S. Falsetti, Vice President, Worldwide Gasification, Texaco Power & Gasification, 2000 Westchester Ave., White Plains, N.Y., 10650; phone, (914) 253-4447; fax, (914) 253-7744; website, www.texaco.com.



B. TECO POWER SERVICES OVERVIEW

TECO Power Services Corporation ("TPS"), formed in 1987 and headquartered in Tampa, Florida is a wholly-owned subsidiary of TECO Energy, Inc. and is affiliated with Tampa Electric Company, an investor-owned utility serving Tampa, Florida, and the surrounding areas. TPS is engaged in the development, ownership and operation of cogeneration and independent power projects. TPS is also the holding company for TECO EnergySource, Incorporated, a power marketing firm authorized by the U.S. Federal Energy Regulatory Commission to sell power at market-based rates. The capabilities of EnergySource allow the marketing and trading of power to be part of the TPS solution to our customer's energy needs.

TPS consists of a dedicated group of professionals and technicians with extensive experience in power generation design, construction, operations and maintenance, environmental permitting and compliance, fuel procurement, power resource planning, project development, finance and transmission and distribution system ownership and operation. In addition to those employed exclusively in the operation and maintenance of the TPS power generation facilities, other TPS personnel support projects in operation, direct the technical activities of projects under construction, develop and analyze new project opportunities, and perform the energy marketing activities associated with TECO EnergySource.

TPS' first power generation project was the Hardee Power Station, a 295 Mw combined cycle facility in Hardee County, Florida. TPS guided this project from its inception in February 1988 to its successful completion in December 1992 and owns 100% of the facility. TPS Operations Company, a TPS subsidiary, operates the facility. Hardee Power Station has demonstrated an availability of over 95% each year since its commercial operation.

TPS' second project resulted in what is now Tampa Electric's 250 MW coal gasification project. In 1989, TPS and a partner were awarded \$120 million from the U.S. Department of Energy ("DOE") for the development of a project using clean coal technology. The project has since been resized to 250 Mw using integrated coal gasification technology supplied by Texaco. The project was transferred to Tampa Electric Company, for which the project provided significant savings over alternative generation strategies. TPS continued to manage the technical side of this complex project through its commercial operation in the fall of 1996 and early operation phases.

TPS' first international project was the Alborada Power Station, a 78 Mw simple-cycle facility in Escuintla, Guatemala. Teamed with prominent business interests in Guatemala, TPS won a competitive bid to build, own and operate this new facility. A 15-year contract was executed with Empresa Eléctrica de Guatemala, S.A. (EEGSA) in January, 1995. The facility entered commercial operation in September 1995. This project has not



only met the country's emergency need for power, but has been providing an economical and flexible source of power to meet Guatemala's long-term power needs.

Also in Guatemala and in commercial operation is the San José Power Station, a 120 Mw pulverized coal-fired power plant, located near the town of Masagua, Guatemala. The San José Power Station, the first coal unit in Central America, is a base-load facility providing power to EEGSA under a 15-year power purchase agreement signed in November 1996. Construction commenced in mid-1997 and commercial operation in January 2000. TPS is 100% owner of the San José Power Station.

In 1998, TECO Power Services established its first international electric distribution business activity with the acquisition of the Guatemalan electric distribution company EEGSA. TECO Power Services along with its partners, the Spanish utility Iberdrola and Electricidade de Portugal, acquired an 80% ownership interest in Guatemala's largest distribution utility. As the largest electric utility in Central America, EEGSA serves more than 550,000 customers, and demand is growing at the rate of approximately 8% annually. EEGSA serves the major metropolitan market area of Guatemala City.

With these projects serving as a foundation, TPS has continued to expand its energy presence both domestically and internationally. For example, an extension of TECO Power Services' development activities is accomplished through the partnership it has formed with Mosbacher Power Partners, an independent power company headquartered in Houston and headed by former U.S. Secretary of Commerce Robert Mosbacher, known as TM Power Ventures L.L.C. (TMPV).

Through this partnership, TPS and Mosbacher develop power projects in markets that are complementary to those markets pursued by TPS. TPS provides capital, technical expertise, support for development costs and other business strengths to the joint venture. TMPV is managed by a board structure comprised of senior management from both TPS and Mosbacher.

Furthermore, in February 1999, TECO Power Services expanded its presence in Central America by becoming a major investment partner in Energía Global International, Ltd. (EGI). The transaction provided TPS with an immediate stake in four power projects in operation or under construction in Costa Rica and Guatemala, and an electric distribution company in El Salvador. In addition, the companies will cooperate in the development of future projects throughout Central America. EGI is a strategically-focused energy development firm based in Bermuda, with offices in Wakefield, Massachusetts, and San José, Costa Rica. The company develops, owns, and operates electric generation facilities with particular emphasis on renewable power (hydro, wind, biomass, and geothermal), and cogeneration. Also, the company has ownership interests in an electric distribution utility in Central America. EGI is a privately-held energy company whose co-founder and senior advisor is José Maria Figueres, former president of Costa Rica. EGI's chairman and CEO is Robert L. Pratt, formerly director of international trade at Thermo Electron Corporation,



where he was involved in the international marketing of cogeneration and industrial energy conservation products.

Throughout the remainder of 1999, TPS worked to further focus its strategy throughout the Americas. This effort culminated with the investment in two generation projects in the United States. The 312 Mw Commonwealth Chesapeake Power Station in Virginia and the 60 Mw Hamakua Energy Project in Hawaii. The generating facility in Virginia will be a combustion turbine peaking plant using low-sulfur fuel oil. The facility will be strategically located within the Pennsylvania-New Jersey-Maryland Interconnection power pool system (PJM), and power will be sold into the PJM wholesale market. The plant is scheduled to be brought on-line in two phases. Current targets call for 135 Mw to be placed in service by June 2000 to provide needed energy and capacity for next summer's peak, with the remaining capacity to be operational by June 2001. Plant construction is currently underway.

In addition, TPS acquired a 50% interest in the Hamakua Energy Project with J.A. Jones Ventures holding the remaining 50%. The facility is under construction and will use two LM2500 combustion turbines operating in combined-cycle on low-sulfur naphtha fuel. The in-service date for the first phase is July 2000 with the balance scheduled to come on-line in November 2000.

Also, TPS has begun construction on a 75 Mw expansion of the Hardee Power Station scheduled to be in-service in May 2000. All three of these projects will enhance TPS' domestic operations and have the potential to contribute to the company's earnings.

Over the years, TPS has gained experience with many technologies: simple-cycle and combined-cycle facilities, coal-fired boilers, oil-fired boilers, integrated gasification combined cycle (IGCC), and onsite facilities for liquefied natural gas, as well as the new opportunities provided through power marketing. TPS continues to explore opportunities within the U.S., Central America, Mexico and Canada. TPS' approach to developing projects is to work hand-in-hand with its customers to provide the most economical and reliable energy solution. This is applied to all aspects of its business from the initial design stages through ongoing, day-to-day management of all business activities.

Industrial and Labor Relations

TPS has experience in both union and nonunion facility management. The Hardee Power Station, Alborada Power Station, Pasco Cogen, and San José Power Station projects are nonunion in nature. Employee relations and personnel management experience in these facilities has been positive as indicated by good employee morale, promotion to management positions from within the plant organization, and low employee turnover. Employee compensation systems support goal alignment with the project through performance-based employee incentive structures.



Personnel in TPS have expertise in managing union workforces through experience gained in affiliated power generation facilities. Extensive experience with IBEW and OPEIU union contract negotiations and contract administration is resident in TPS operations management personnel.

Environmental

TPS also has the capabilities and experience in the environmental management, permitting, and compliance of domestic and international power projects. The Hardee Power Station, Alborada Power Station, and San José Power Station project permits were obtained in the U.S. and Guatemala by TPS. Ongoing environmental reporting and monitoring is provided under TPS environmental management.

Experience in Deregulated Environments

TPS has business and operating experience in deregulated power markets through the following projects:

- The Hardee Power Station project was the result of a competitive bid process for wholesale energy by a Florida utility.
- The Alborada Power Station project was the result of a competitive bid process by the electric utility in the country of Guatemala. Energy from the facility is sold on a long-term wholesale basis to this utility.
- The San José Power Station energy is sold on a long-term wholesale basis to the same Guatemalan electric utility.

The electric sector in Guatemala has been privatized and operates under an open market structure. The TPS projects in Guatemala are independent generators operating under contract to the electric distribution company.



Comprehensive TPS Project List

International Generation	Size	Fuel Type	Location	TPS Investment Interest
Alborada Power Station	78 MW	Oil	Guatemala	96%
Energy Center Kladno**	344 MW	Coal	Czech Republic	26.7%
Matanzas*	14 MW	Hydro	Guatemala	65%
Don Pedro*	16 MW	Hydro	Costa Rica	64%
Río Volcan*	17 MW	Hydro	Costa Rica	56%
San José Power Station	120 MW	Pulverized Coal	Guatemala	100%
Tierras Morenas*	24 MW	Wind	Costa Rica	51%

Domestic Generation	Size	Fuel Type	Location	Consortium Interest
Hardee Power Station	295 MW	Natural Gas	Florida	100%
Hardee Expansion	75 MW	Natural Gas	Florida	100%
Pasco Cogen Partnership	109 MW	Natural Gas	Florida	Limited
Polk Power Station	250 MW	IGCC	Florida	Tampa Electric Co.
Linden Cogen Partnership**	30 MW	Natural Gas	New Jersey	Limited
Blackhawk Cogen Partnership**	230 MW	Natural Gas	Texas	Limited
Commonwealth Chesapeake**	312 MW	Low Sulfur Oil	Virginia	95%
Hamakua Energy Project	60 MW	Naptha	Hawaii	50%

Transmission/Distribution	Number Customers	Location	Consortium Interest
EEGSA Electric Distribution Utility	550,000	Guatemala	80%
CLESA Electric Distribution Utility*	190,000	El Salvador	80%

* Represents projects that TPS is involved in through Energia Global International partnership.

** Represents projects that TPS is involved in through the TMPV partnership.



TECO ENERGY, INC. OVERVIEW

TECO Energy, Inc. is an energy holding company with important diversified energy-related activities. The business activities of the company began with Tampa Electric Company, an electric utility, which was incorporated in 1899. Diversified activities beyond the electric utility business began in the 1960's. TECO Energy was formed as a holding company in 1981 to more formally recognize the diversified businesses in which it is involved. TECO Energy is principally involved in the electric utility generation, transmission, and distribution and retail gas distribution business through its wholly-owned subsidiaries Tampa Electric Company, TECO Power Services and Peoples Gas. Additionally, TECO Energy is involved in several diversified businesses through its wholly-owned subsidiary TECO Diversified, Inc. This subsidiary is involved in bulk commodity transporting, coal mining, real estate development and coalbed methane extraction. TECO Energy also is the parent of TECO Investments, Inc., and TECO Finance, Inc..

TECO Energy in 1999 had assets of \$4.7 billion and net income of \$186 million. TECO Energy's debt is rated AA-/A1/AA- by Standard & Poor's, Moody's, and Duff & Phelps, respectively, which are among the highest ratings of any utility holding company in the United States. TECO Energy's common stock is listed on the New York Stock Exchange (symbol TE). TECO Energy provides financial resources as well as experienced personnel to all of its subsidiaries as required.



TECO POWER SERVICES CORPORATIONFinancial Highlights (\$U.S.)

Year ended Dec. 31,	1999	1998	1997	1996	1995	1994
Revenues (millions)	\$109.5	\$98.7	\$93.0	\$88.1	\$75.4	\$59.8
Net Income (millions)	\$14.6	\$9.7	\$9.6	\$10.0	\$6.8	\$5.1
Cash and short-term investments	\$15.3	\$12.2	\$6.9	\$7.4	\$5.5	\$12.8

TECO ENERGY, INC. OVERVIEWFinancial Highlights (\$U.S.)

Year ended Dec. 31,	1999	1998	1997	1996	1995	1994
Revenues (millions)	\$1,983	\$1,958	\$1,862	\$1,775	\$1,659	\$1,615
Net Income (millions)	\$186	\$222	\$217	\$201	\$186	\$168
Return on average common equity	14.5%	14.4%	14.3%	15.7%	15.5%	13.4%
Cash and short-term investments	\$98	\$16	\$11	\$ 16	\$ 46	\$140
Available credit lines (millions)	\$255	\$255	\$485	\$370	\$368	\$288
Earnings per share	\$1.42	\$1.68	\$1.66	\$1.68	\$1.60	\$1.45
Dividends paid per common share	\$1.285	\$1.225	\$1.165	\$1.105	\$1.0475	\$0.9975
Year-end stock price per common share	\$18.562	\$28.188	\$28.125	\$24.125	\$25.625	\$20.25
Shares Outstanding (millions)	131.0	131.7	130.8	129.3	128.6	128.1



TAMPA ELECTRIC COMPANY

Tampa Electric Company, which has been in business since 1899, has constructed, owns and operates over 3,600 Mw of generating capacity and over 12,000 miles of transmission and distribution lines in west central Florida. Recently completed is a 250 Mw Integrated Gasification Combined Cycle (IGCC) plant using coal as a feedstock. Tampa Electric has a long history in Florida of sound utility operation and maintenance of a wide spectrum of generation equipment. The following briefly describes four of the Tampa Electric stations and its transmission and distribution facilities.

Polk Power Station

Polk Power Station, 50 miles southeast of Tampa, Florida is the site for Tampa Electric's future generation requirements. The first facility is a 250 Mw IGCC unit, completed in the fall of 1996. This project is the result of a \$120 million grant from the U.S. Department of Energy ("DOE") for the development of projects utilizing clean coal technology. This IGCC facility consists of a coal gasification facility utilizing the Texaco gasification process and a GE 107F combined-cycle utilizing the GE Frame 7F gas turbine. This facility is 10-12% more efficient than a conventional coal-fired plant.

Big Bend Station

Big Bend, 12 miles south of Tampa, Florida, consists of four units all firing coal, as well as 3 gas turbines firing distillate oil. The steam generators for units 1, 2, and 3 are by Riley Stoker. The steam generator for unit 4 is by Combustion Engineering (now ABB). Steam conditions are 2400 psig, 1000° F with 1000° F reheat. The turbine generators for units 1 and 2 are by Westinghouse and those for units 3 and 4 are by General Electric. All units are once-through seawater-cooled. All four units have precipitators for particulate control. Additionally, all units have a flue gas desulfurization system producing wallboard quality gypsum.

Gannon Station

Gannon Station, 6 miles south of Tampa, Florida, consists of six units all currently firing coal, as well as one gas turbine firing distillate oil. Units 1 through 4 fired oil during the years 1975 to 1985. The steam generators for units 1 through 4 are by Babcock & Wilcox Company and the turbine generators are by General Electric, Allis Chalmers, and Westinghouse. The steam generators for units 5 and 6 are by Riley Stoker and the turbine generators are by Westinghouse. Steam conditions vary from 1,525 psig for unit 1 to 2400 psig for unit 6 (all at 1000° F with 1000° F reheat). All units are once-through seawater-cooled. All units have precipitators for particulate control.



Hookers Point

Hookers Point Station is the oldest of Tampa Electric Company's stations. It is located just southeast of the Tampa business district. The station consists of 6 boilers firing oil and 5 steam turbines.

Transmission & Distribution Experience

At the end of 1998 Tampa Electric had almost 1,276 miles of installed transmission lines, including 807 miles of 69 kV, 56 miles of 138 kV and 414 miles of 230 kV. In addition, Tampa Electric had over 9,500 miles of overhead and underground distribution lines and 219 active distribution substations in its service area at the end of 1998.

TPS AND TAMPA ELECTRIC COMPANY INSTALLATIONS

<u>Unit</u>	<u>Net Capability (MW)</u>	<u>In-service Date</u>	<u>Primary Fuel</u>	<u>Type</u>
<u>TPS</u>				
Alborada Power Station	78	1995	Oil	CT
Hardee Power Station	295	1993	Gas	CC/CT
San José	120	2000	Coal	ST
Don Pedro***	16	1997	Water	Hydro
Río Volcán***	17	1998	Water	Hydro
Tierras Morenas***	24	1999	Wind	WT
Energy Center Kladno Generating	344	2000	Coal/Natural Gas	CFB/CT
<u>Under Construction</u>				
Commonwealth Chesapeake	312	2000	Oil	CT
Hamakua Energy Project	60	2000	Naptha	CT
Hardee Expansion	75	2000	Natural Gas	CT
Matanzas***	14	2001	Water	Hydro
<u>Tampa Electric</u>				
Big Bend 1	431	1970	Coal	ST
Big Bend 2	431	1973	Coal	ST
Big Bend 3	439	1976	Coal	ST
Big Bend 4	444	1985	Coal	ST
Big Bend CT 1	17	1969	Oil	CT
Big Bend CT 2	85	1974	Oil	CT
Big Bend CT 3	85	1974	Oil	CT
Dinner Lake**	11	1966	Gas	ST
Gannon 1	119	1957	Coal*	ST
Gannon 2	118	1958	Coal*	ST
Gannon 3	155	1960	Coal*	ST
Gannon 4	189	1963	Coal*	ST
Gannon 5	232	1965	Coal	ST
Gannon 6	392	1967	Coal	ST
Gannon CT	17	1969	Oil	CT
Hookers Point 1	34	1948	Oil	ST



Hookers Point 2	34	1950	Oil	ST
Hookers Point 3	34	1950	Oil	ST
Hookers Point 4	43	1953	Oil	ST
Hookers Point 5	67	1955	Oil	ST
Phillips 1	17	1983	Oil	DE
Phillips 2	17	1983	Oil	DE
Polk Power Station	250	1996	Coal	IGCC
Total	=	4,896		

* These units fired oil from 1975 to 1985

* ** Ownership via EGI

** Dinner Lake was placed on long-term reserve standby March 1, 1994

CT Combustion Turbine

CFB Circulating Fluidized-Bed

CC Combined Cycle

DE Diesel

IGCC Integrated Coal Gasification Combined Cycle

WT Wind Turbine



1.2 FINANCIAL INFORMATION AND LITIGATION ACTIVITY

A. A copy of Texaco's and TPS' annual reports and Form 10-Ks for the past three years are attached hereto as Exhibit 1.

B. Texaco's Dun and Bradstreet identification number: 00-134-5164
Texaco's Standard & Poor's Credit Rating: A+
Texaco's Moody's Credit Rating: A1

TECO Energy's Dun and Bradstreet identification number: 04-829-5869
TECO Energy's Standard & Poor's Credit Rating: AA-
TECO Energy's Moody's Credit Rating: A1

C. Texaco's ten-year summary of litigation:

Mid-Set Cogeneration Company vs. Pacific Gas & Electric Company -- Kern County Superior Court, California Court of Appeals, 1993-1994.

Nevada Cogeneration Associates #1 and #2 vs. Nevada Power Company -- American Arbitration Association, Las Vegas, Nevada, 1995-1998.

March Point Cogeneration Company vs. Puget Sound Power & Light Company -- U.S. District Court, Seattle, Washington, Ninth Circuit Court of Appeals, 1995-present.

U.S. Department of Justice vs. Nevada Cogeneration Associates #1 and #2 -- U.S. District Court, Las Vegas, Nevada, 1999.

TPS' ten-year summary of litigation:

TPS has no litigation activity to report, which is relevant to FPC's request.

1.3 NOTICE TO BE PUBLISHED

A copy of the notice to be published per Section III.D.2 of the RFP is attached hereto as Exhibit 2.

1.4 PROPOSED CONTRACT TERMS AND CONDITIONS

The agreements contemplated in this Proposal to be entered into between Eagle Energy and Florida Power Corporation would be a Power Purchase Agreement and a Land Lease and Utility Services Agreement both of which would be concomitant with a minimum term of 25 years and would contain covenants, representations and warranties, and other



mutually agreeable terms which are reasonable and customary for power projects in the United States similar to the nature of the Project. For your reference, the basic principles anticipated to be contained in each of the major agreements are set forth below.

Power Purchase Agreement - Principal Terms and Conditions

- The Eagle Energy Project would provide FPC with 500 to 809 MW dedicated to FPC's use subject to dispatch.
- **Capacity Pricing:** A detailed capacity pricing schedule for the term of this Agreement is attached in Table 1 of Section 5 of this Proposal.
- **Energy Pricing:** A detailed energy pricing schedule for the term of this Agreement is attached in Table 2 of Section 5 of this Proposal.
- The Eagle Energy Project would make necessary interconnections to FPC's existing electrical system at the Hines Energy Complex and would incur all costs for such transmission interconnection, and up to \$7 million for transmission upgrades necessary to facilitate the interconnection.
- **Dispatch Requirements:** Due to the low variable cost associated with the Project's energy, it is anticipated that the Project will be base loaded, and any excess energy not called upon by FPC will be sold into the wholesale energy market. To facilitate these sales, a one day in advance projection of FPC's anticipated "energy take" schedule would be required.
- The Commercial Operation Date for the Project is March 31, 2004.
- Liquidated damages for failure to meet availability guarantees, shown in Table 4 of Section 5 of this proposal, are described in Section 1.7 of the Proposal.
- The Project retains the right to market all capacity and associated energy from the Project which is not contracted by FPC.
- The Project retains the right to market excess energy, not scheduled for use by FPC.

Land Leases and Utilities Sales Agreement - Principal Terms and Conditions

- Eagle Energy to lease and/or purchase the Project site from FPC for the amount of \$1,500,000 (one million and five hundred thousand dollars) per year, including the supply of water to the Project as described below.
- FPC will agree to provide water as follows:
 - Quantity: Consumptive Water - 7500 gallons per minute net consumption based on cooling tower design.
 - Quality: The quality of the water provided by FPC shall meet mutually agreeable specifications to be determined in the definitive agreements.
 - Delivery Point: FPC shall deliver the requisite quantity of water to the boundary limits of the Eagle Energy Project.



- FPC will agree to handle Eagle Energy Project's discharge/runoff water as follows:
Quality: The quality of the discharge/runoff water delivered to the Hines Energy Complex by Eagle Energy shall meet mutually agreed to specifications.
Delivery Point: Eagle Energy shall deliver the Project's discharge water to the boundary limits of the Eagle Energy Project site.

All final agreements are subject to approval by Texaco and TPS's Boards of Directors (which may be withheld at their sole discretion) and the ability of Eagle Energy to obtain the necessary land use rights and permits for the Project and non-recourse financing. This Proposal is not intended by Texaco and TPS to constitute an offer or acceptance of any provision hereof, nor will the Proposal and included materials give rise to any obligation of Texaco or TPS or any of their affiliates. The terms and conditions set forth in our Proposal will remain open until October 1, 2000 in the event that the Project is selected for the short-list bidder evaluation. Texaco and TPS reserve the right to withdraw this Proposal should the Project not be selected for further consideration as a short-listed bidder.

1.5 CONTRACTUAL FLEXIBILITY

FPC's Early Termination Right: The Project would be willing to offer FPC the right to terminate the Power Purchase Agreement prior to its expiration provided that FPC, TPS and Texaco can reach mutually agreeable terms and conditions for termination.

Supplemental Capacity Call Option: The Project is not currently able to offer FPC a call option for supplemental capacity. However, the Project is offering in this Proposal the ability for FPC to purchase up to 809 MW of firm capacity.

Equity Participation: The Project would be willing to offer FPC the opportunity to invest in up to 20 percent of the Project at any time prior to and including Commercial Operation.

1.6 SECURITY INSTRUMENTS

Eagle Energy does not intend to procure a performance bond and will opt to maintain lower priced power by relying on the superior credit ratings of both project sponsors.



1.7 LIQUIDATED DAMAGES

Failure to Perform: If the actual availability of the Project in any contract year is less than the guaranteed availability shown in Table 4 of Section 5 of this proposal, for that contract year, the Project will reduce the monthly capacity charge by one-half of one percent (.5%) for each percentage point, that the actual availability was less than the guaranteed availability, with portions of a percentage point prorated. The actual availability shall be calculated based on a contract year. Liquidated damages for failure to perform for any contract year shall not exceed 10% of the annual capacity charge. Notwithstanding anything to the contrary in the foregoing, the Project shall not be liable for Liquidated Damages resulting from events of Force Majeure such as but not limited to acts of God, failure of Transmission System, failure of FPC to provide necessary water for operation, etc.

Schedule Delay: The Project would be willing to negotiate reasonable liquidated damages for failure to achieve Commercial Operation on terms and conditions customary for this type of project.

1.8/1.9 CAPACITY

The capacity offered in this Proposal is being offered to FPC on a firm basis and has not been offered in any other RFP and is not in any way obligated to other parties. However, the Project reserves the right to conditionally offer this capacity to others during the evaluation period. Capacity contracted from the Project by FPC would be reserved for the use of FPC and would not be offered to any other parties either on a firm basis or as part of a "financially firm" portfolio of resources.

1.10 POWER SHORTFALLS

Please see Section 1.7 above on liquidated damages for failure to perform.



SECTION 2 SPECIFIC SUPPLY RESOURCE INFORMATION

2.1A Project Name and Location

The project is named the Eagle Energy Project and the proposed location is the Hines Energy Complex.

2.1B Schedule for Licensing, Permitting and Construction

- All licensing activities for the Project should be completed before August, 2000.
- Finalization of transmission and interconnection agreements should be completed by December, 2000.
- Finalization of the Project's fuel supply contracts should be completed by June, 2001.
- All permitting should be completed no later than February, 2002.
- The projected date for Commercial Operation is March 31, 2004.

2.1C Description of Major Components

The power block will consist of three 7FA combustion turbines and one steam turbine in a combined cycle configuration, using synthesis gas "syngas" as the primary fuel. The syngas produced using the Texaco Gasification Power Systems (TGPS) technology will be utilized in an Integrated Gasification Combined Cycle (IGCC) configuration. The major systems of the plant will consist of a petroleum coke handling, grinding and slurry preparation section, gasification, coarse and fine slag handling, black water flash, low temperature gas cooling, acid gas removal, syngas expansion and heating, and the power block. Additional plant systems will include an air separation unit, a sulfuric acid plant, and various utility systems such as water treatment, plant air and flare systems.

2.1D Schedule of Fixed Price Components

Please see Table 1 attached hereto in Section 5.

2.1E Schedule of Variable Price Components

Please see Table 2 attached hereto in Section 5.

2.1F Seasonal Unit Ratings

Please see Table 3 attached hereto in Section 5.



2.1G Generator Capability Curve

Please see Exhibit 3 to this Proposal.

2.1H Guaranteed Availability

Please see Table 4 attached hereto in Section 5.

2.1I Equivalent Forced Outage Rates

Please see Table 5 attached hereto in Section 5.

2.1J Planned Maintenance Requirements

Please see Table 6 attached hereto in Section 5.

2.1K Fuel Supply Plan

Petroleum coke would be used as the primary fuel with No. 2 fuel oil as back-up fuel for the combustion turbines.

Petroleum coke would be purchased from several oil refineries producing coke in the Gulf of Mexico and Caribbean region. The project would be designed to utilize the highest sulfur content petroleum coke produced by current coker designs. This high sulfur fuel is finding only limited use in the market, thereby increasing availability and depressing prices. Long term supply contracts would be used to secure supplies and stabilize prices.

Ships or barges would be used to transport the petroleum coke from a refinery to a terminal facility in Tampa Bay. Ground storage at the terminal would have a capacity of about 75,000 tons to accommodate short-term surges in coke deliveries.

Truck transportation from the terminal into the power block storage is considered the primary land transportation option. Operations of this type have proven to provide efficient, low cost, transportation for the transportation distance considered. Rail transport would be considered and evaluated based on the economics of the railroad's proposal.

Coke storage at the power block would use concrete silos. Up to 10,000 tons could be stored on site.

No. 2 fuel oil would be the back-up fuel. The power block would be permitted to run approximately 10% of the year on No. 2 fuel oil. The Project site would have storage capacity to hold a 5-day supply.



2.1L Scheduling Requirements

Due to the low variable cost associated with the Project's energy, it is anticipated that this unit will be base loaded, with the Project selling energy into the wholesale market during those times FPC is not calling on its total energy allocation. To facilitate these sales, a one day in advance projection of FPC's anticipated "energy take" schedule would be required.

2.1M Maximum and Minimum Operating Levels

Due to the anticipated base loading of the Project, as described in Section 2.1L above, the information on maximum and minimum operating levels is not pertinent to this response and is therefore not included.

2.1N Maximum or Minimum Energy Take

There is no maximum or minimum energy take requirement associated with this Proposal.

2.1O Water Supply

This Proposal assumes that the Project would be constructed at the Hines Energy Complex and utilize the facility's water resources as described in "Land Lease and Utilities Sales Agreement, Principal Terms and Conditions" of Section 1.4 of this Proposal.

2.1P Environmental

The licensing of power plants and associated facilities in Florida requires compliance with federal, state, and local laws, regulations, and ordinances. The primary state law governing the licensing of this project is the Florida Electrical Power Plant Siting Act (PPSA).

The PPSA establishes the state's policy toward balancing the needs for increased electrical power generation with the effects on human health, the environment and ecology of the lands and waters within the state. In the site certification process, the Florida Department of Environmental Protection (FDEP) acts as the central coordinator. Certification proceeds with the submittal of a Site Certification Application (SCA) to FDEP by the applicant and culminates with approval by the Governor and Cabinet. Since the project will be located at the Hines Energy Complex, which has been previously certified for an ultimate site capacity, the Project would anticipate that the PPSA requirements will be fulfilled through the supplemental application process.



In addition to the PPSA process, the project will be required to comply with two federal permitting programs which have been delegated to the State of Florida: Federal Prevention of Significant Deterioration (PSD) and National Pollutant Discharge Elimination

2.1Q QF Status

The Project would not seek a QF status.

2.1R Project Energy or Capacity Sales

The net output for the Eagle Energy Project is 809 MW. Eagle Energy intends to enter into firm power purchase agreements for the output from this facility which FPC elects not to take with other qualified Florida buyers.

2.1S Limitations on Project's Output

In response to this RFP, Texaco and TPS have set no limitations, other than those described in Section 2.1L above, on the availability and use of the Project's output by FPC.



**SECTION 3
SYSTEM SUPPLY RESOURCE INFORMATION**

This section of FPC's RFP is not applicable to our Proposal.



SECTION 4 SUPPLEMENTAL TRANSMISSION INFORMATION

4.1 Transmission Information Requirements

This Proposal assumes the Project would be located at the Hines Energy Complex and would pay for all interconnection costs and transmission upgrades required for the interconnection up to a \$ 7 Million limit as discussed below. These costs are factored into our bid prices. Other costs associated with transmitting power out of FPC's system would likewise be incurred by the Project in the event that FPC does not elect to purchase the full 809 MW output from this facility.

Texaco and TPS have estimated interconnect costs, including the generator step up transformer, to be approximately \$7.2 Million. In addition, Texaco and TPS have estimated the transmission upgrades associated with this interconnect to be less than \$7 Million. Should the cost for transmission upgrades resulting from the Project interconnecting to FPC system at the Hines Energy Complex exceed \$7 Million by more than 10%, Texaco and TPS reserve the right to withdraw this Proposal or resubmit the Proposal with an adjusted pricing structure.

Please see Attachment E for the information requested in the "Florida Power Corporation Generation Interconnection Study Data Request Form".

4.2 FPC Transmission Planning

Texaco and TPS are in the process of commissioning a "Transmission Interconnect Feasibility Study" with FPC to evaluate the impacts of locating the Project at the Hines Energy Complex.

4.3 Schedule of Transmission Costs

Please see our response to Section 4.1 above.

4.4 Transmission Arrangements

This Proposal assumes the Project would be located at the Hines Energy Complex and would therefore not require firm transmission wheeling service to supply firm capacity and associated energy to FPC.



4.5 Risk of Curtailment or Interruption of Transmission Service

This Proposal assumes the Project would be located at the Hines Energy Complex, consequently, ~~Eagle Energy does not anticipate transmission service interruptions or curtailments that would impact FPC's ability to call on this unit.~~ Therefore, in the unlikely event that this should occur, Eagle Energy does not offer liquidated damages as part of this Proposal for such an occurrence.



**SECTION 5
DATA TABLES**



Table 1. Fixed Capacity Price Structure- (\$/kW-month) for Capacity Purchase

Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index	NA	0.00	0.00	NA	0.00		
Summer Price	22.57	0.00	0.00	22.57	0.00	Summer Price	29.19	0.00	0.00	29.19	0.00		
Escal. / Index	NA	0%	0%	NA	0.00	Escal. / Index	NA	0%	0%	NA	0.00		
Season	Year: 2013	Capacity	O & M	Other	All-In	Fuel Transportation	Season	Year: 2026	Capacity	O & M	Other	All-In	Fuel Transportation
Winter Price	23.02	0.00	0.00	23.02	0.00	Winter Price	29.78	0.00	0.00	29.78	0.00		
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index	NA	0.00	0.00	NA	0.00		
Shoulder Price	23.02	0.00	0.00	23.02	0.00	Shoulder Price	29.78	0.00	0.00	29.78	0.00		
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index	NA	0.00	0.00	NA	0.00		
Summer Price	23.02	0.00	0.00	23.02	0.00	Summer Price	29.78	0.00	0.00	29.78	0.00		
Escal. / Index	NA	0%	0%	NA	0.00	Escal. / Index	NA	0%	0%	NA	0.00		
Season	Year: 2014	Capacity	O & M	Other	All-In	Fuel Transportation	Season	Year: 2027	Capacity	O & M	Other	All-In	Fuel Transportation
Winter Price	23.48	0.00	0.00	23.48	0.00	Winter Price	30.37	0.00	0.00	30.37	0.00		
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index	NA	0.00	0.00	NA	0.00		
Shoulder Price	23.48	0.00	0.00	23.48	0.00	Shoulder Price	30.37	0.00	0.00	30.37	0.00		
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index	NA	0.00	0.00	NA	0.00		
Summer Price	23.48	0.00	0.00	23.48	0.00	Summer Price	30.37	0.00	0.00	30.37	0.00		
Escal. / Index	NA	0%	0%	NA	0.00	Escal. / Index	NA	0%	0%	NA	0.00		
Season	Year: 2015	Capacity	O & M	Other	All-In	Fuel Transportation	Season	Year: 2028	Capacity	O & M	Other	All-In	Fuel Transportation
Winter Price	23.95	0.00	0.00	23.95	0.00	Winter Price							
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index							
Shoulder Price	23.95	0.00	0.00	23.95	0.00	Shoulder Price							
Escal. / Index	NA	0.00	0.00	NA	0.00	Escal. / Index							
Summer Price	23.95	0.00	0.00	23.95	0.00	Summer Price							
Escal. / Index	NA	0%	0%	NA	0.00	Escal. / Index							

Table 2. Variable Price Structure, Primary Fuel- (units below)

Shoulder	Price	0.00	4.22	0.00	0.00	4.22	N/A	Shoulder	Price	0.00	5.46	0.00	0.00	5.46	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Summer	Price	0.00	4.22	0.00	0.00	4.22	N/A	Summer	Price	0.00	5.46	0.00	0.00	5.46	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Season	Year: 2014	Emissions		All-In Price (\$/MWh)	Fuel Transportation (units)	Season	Year: 2027	Emissions		All-In Price (\$/MWh)	Fuel Transportation (units)				
	Fuel:	O&M (\$/MWh)	Commodity (\$/MWh)				SO2 (\$/ton)	Other (\$/MWh)	Fuel:			O&M (\$/MWh)	Commodity (\$/MWh)	SO2 (\$/ton)	Other (\$/MWh)
Winter	Price	0.00	4.30	0.00	0.00	4.30	N/A	Winter	Price	0.00	5.57	0.00	0.00	5.57	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Shoulder	Price	0.00	4.30	0.00	0.00	4.30	N/A	Shoulder	Price	0.00	5.57	0.00	0.00	5.57	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Summer	Price	0.00	4.30	0.00	0.00	4.30	N/A	Summer	Price	0.00	5.57	0.00	0.00	5.57	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Season	Year: 2015	Emissions		All-In Price (\$/MWh)	Fuel Transportation (units)	Season	Year: 2028	Emissions		All-In Price (\$/MWh)	Fuel Transportation (units)				
	Fuel:	O&M (\$/MWh)	Commodity (\$/MWh)				SO2 (\$/ton)	Other (\$/MWh)	Fuel:			O&M (\$/MWh)	Commodity (\$/MWh)	SO2 (\$/ton)	Other (\$/MWh)
Winter	Price	0.00	4.39	0.00	0.00	4.39	N/A	Winter	Price	0.00	5.68	0.00	0.00	5.68	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Shoulder	Price	0.00	4.39	0.00	0.00	4.39	N/A	Shoulder	Price	0.00	5.68	0.00	0.00	5.68	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A
Summer	Price	0.00	4.39	0.00	0.00	4.39	N/A	Summer	Price	0.00	5.68	0.00	0.00	5.68	N/A
	Escal / Index	0%	NA	0%	0%	NA	N/A		Escal / Index	0%	NA	0%	0%	NA	N/A

Table 3. Resource Capacity Rating- (units below)

		40°F	59°F	90°F
Guaranteed Contract Rating	MW	809	809	809
	MVAR	500	500	500
	MVA	951	951	951
Maximum Unit Rating	MW	995	995	995
	MVAR	616	616	616
	MVA	1170	1170	1170

Note: Values assume 0.85 power factor which will be further defined during detailed engineering.

Table 4. Guaranteed Availability

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Annual Average		92.9%	94.2%	94.3%	95.3%	93.6%	92.5%	93.6%	95.3%	95.2%	95.2%	93.6%	92.5%
Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Annual Availability	93.6%	95.3%	95.2%	95.2%	93.6%	92.5%	93.6%	95.3%	95.2%	95.2%	93.6%	92.5%	93.6%

Note: Maintenance Estimates are shown in Table 4, actual timing of maintenance events within a contract year would be coordinated to occur during periods when power demand is expected to be lower.

Table 5. Equivalent Forced Outage Rate

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Winter (Dec-Feb)	On-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Shoulder (Mar-May;Oct-Nov)	On-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Summer (June - Sept)	On-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak		3.0%	2.0%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Winter (Dec-Feb)	On-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Shoulder (Mar-May;Oct-Nov)	On-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Summer (June - Sept)	On-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
	Off-Peak	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Table 6. Planned Maintenance Requirements - (Number of Outages/Year, Total Hours/Year)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number/Year		21	21	21	21	21	21	21	21	21	21	21	21
Maint Hrs/Yr		632	648	792	720	1128	1128	1128	720	720	720	1128	1128
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Number/Year	21	21	21	21	21	21	21	21	21	21	21	21	21
Maint Hrs/Yr	1128	720	720	720	1128	1128	1128	720	720	720	1128	1128	1128

Note: Outages shown represent shut down of one GT per outage, only one full plant shutdown per year is contemplated as shown below.

Full Plant Shutdown Maintenance (Events are included in above table)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number/Year		1	1	1	1	1	1	1	1	1	1	1	1
Maint Hrs/Yr		72	72	72	72	72	240	72	72	72	72	72	240
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Number/Year	1	1	1	1	1	1	1	1	1	1	1	1	1
Maint Hrs/Yr	72	72	72	72	72	240	72	72	72	72	72	240	72

Table 7. Operational Parameters- (units below)

Minimum run time per dispatch call	0	Hours
Minimum down time between calls	0	Hours
Startup Energy	N/A	MMBtu
Ramp Rate	N/A	MW / minute
Ramp Rate	N/A	minutes to full load
Number of Hot Starts per year	N/A	Maximum
Number of Hot Starts per year	N/A	Included in bid proce
Cost of Each Hot Start Beyond Those Included	N/A	Dollars
Number of Cold Starts per year	N/A	Maximum
Number of Cold Starts per year	N/A	Included in bid proce
Cost of Each Cold Start Beyond Those Included	N/A	Dollars
Quick Start Capability- Minutes to 1st MW	N/A	Minutes
Quick Start Capability- MW in ten minutes	N/A	MW
Start up time from cold start	N/A	Minutes
Start up cost from cold start	N/A	\$
Start up time from hot start	N/A	Minutes
Start up costs from hot start	N/A	\$

Table 8a. Capacity States on Primary Fuel (units below)

Fuel:	40°F	59°F	90°F
Min Plant Output (Net MW)	485	485	485
Associated Net Heat Rate (Btu/kWh)	8,982	8,982	8,982
1st Breakpt Plant Output (Net MW)	Not Applicable		
Associated Net Heat Rate (Btu/kWh)			
2nd Breakpt Plant Output (Net MW)			
Associated Net Heat Rate (Btu/kWh)			
Expected Max Output (Net MW)	809	809	809
Associated Net Heat Rate (Btu/kWh)	8,982	8,982	8,982
Overcapacity Plant Output (Net MW)	Not Applicable		
Associated Net Heat Rate (Btu/kWh)			

Table 8b. Capacity States on Secondary Fuel (units below)

Fuel:	40°F	59°F	90°F
Min Plant Output (Net MW)	Not Applicable		
Associated Net Heat Rate (Btu/kWh)			
1st Breakpt Plant Output (Net MW)			
Associated Net Heat Rate (Btu/kWh)			
2nd Breakpt Plant Output (Net MW)			
Associated Net Heat Rate (Btu/kWh)			
Expected Max Output (Net MW)			
Associated Net Heat Rate (Btu/kWh)			
Overcapacity Plant Output (Net MW)			
Associated Net Heat Rate (Btu/kWh)			

Table 9. Fuel Supply Requirements

		Units
Primary (Syngas) Maximum Flow rate	392.48	MMSCFD
Primary (Syngas) Pressure Requirement	335	PSIG
Primary Fuel Metering Requirement	Not Applicable	
Primary Fuel Storage Capacity	Not Applicable	
Secondary Fuel Maximum Flow rate	610	GPM
Secondary Fuel Pressure Requirement	50	PSIG
Secondary Fuel Metering Requirement	Not Applicable	
Secondary Fuel Storage Capacity	1464000	GALS

Table 10. Water Requirements

Units

Cooling	see consumptive use	GPM
Consumptive Use Preliminary Estimate	7,500	GPM
Other	Not Applicable	

Table 11. System Reliability Parameters

	Actual					Forecast				
	1995	1996	1997	1998	1999	2003	2004	2005	2006	2007
Called Capacity						809	809	809	809	809
Contracted System Firm Capacity						NA	NA	NA	NA	NA
Purchases										
Contracted System Firm Capacity						NA	NA	NA	NA	NA
Sales						NA	NA	NA	NA	NA
Load Control Capability										
Seasonal Peak Requirements before Direct Load Control						NA	NA	NA	NA	NA
Firm Peak Requirements after Direct Load Control						NA	NA	NA	NA	NA
Capacity Margin before Direct Load Control						NA	NA	NA	NA	NA
Firm Reserve Margin after Direct Load Control						NA	NA	NA	NA	NA

Attachment E

Florida Power Corporation Generation Interconnection Study Data Request Form

SECTION I – Generation Site Data

A) Contact Person - Provide name and address of person completing this form

- (*1. Name: Rebecca T. Alex
- (*2. Address: 702 North Franklin Street
- (*3. City/State/Zip: Tampa, Florida 33602
- (*4. Telephone: (813) 228-1107
- (*5. Date: March 27, 2000

B) Site Location

- (*1. County: Polk County
- (*2. Section / Township / Range: FPC's Hines Energy Complex.
- (*3. Site Drawing: Include a site drawing indicating county, section, township, and range. In addition, for a Generation Interconnection Study, a preliminary equipment layout on the site, suitable for site plan permitting, is required.

The land requirements for the Project are approximately 30 Acres. A detailed site plan will be provided, if required, at a later date.

C) Proposed Load Requirements for Site

- (*1. Required Date: March 1, 2002
- (*2. Nature of Load (Station Service, Start-up Power, Etc.) Construction Power
- (*3. Connected kVA Load: 219,000 kVA
- (*4. Peak Demand kVA Load: 219,000 kVA



(*5. Expected Power Factor: .85 pf

(*6. Service Voltage: 13.8 kV

(*7. Anticipated Future Load Requirements (please describe): The above load is estimated during construction and commissioning of the Eagle Energy Project.

D) Other Site Information

(*1. Net Generation Output (MVA) for Site @ 59°F Outdoor Ambient: 1170 MVA

(*2. Net Generation Output (MVA) for Site @ 90°F Outdoor Ambient: 1170 MVA

(*3. Proposed Interconnections with Other Systems (please describe): The Eagle Energy Project will connect the FPC transmission system at the Hines Energy Complex. No interconnects with other parties are anticipated.

E) In-Service Dates

(*1. Required connection to grid for generator testing: September, 2003

(*2. Commercial in-service date: March 31, 2004



SECTION II – Individual Generator Data

A) Unit Identification

- (*) 1. Plant Name and Unit Number: Eagle Energy Project Unit #1
- 2. Manufacturer: General Electric Combustion Turbines
- 3. Generator Serial Number: Not Known
- 4. Turbine Serial Number: Not Known

B) Ratings and Capabilities

- 1. Nameplate kV Rating (nominal design voltage): 18 kV
- 2. MVA Rating: Each GE Combustion Turbine is rated at 230 MVA, the steam turbine will be rated at approximately 382 MVA.
- (*) 3. Gross MW Rating @ 59°F Outdoor Ambient: 995 MW
- (*) 4. Net MW Rating @ 59°F Outdoor Ambient: 809 MW Net to Grid
- (*) 5. Gross MW Rating @ 90°F Outdoor Ambient: 995 MW
- (*) 6. Net MW Rating @ 90°F Outdoor Ambient: 809 MW Net to Grid
- 7. Rated Power Factor: .85 pf
- 8. Rated Speed: Not Known
- 9. Rated Turbine Capability: Not Known
- 10. Field Voltage at Rated Load: Not Known
- 11. Field Current at Rated Load: Not Known
- 12. No-load Field Voltage at Generator Rated Voltage: Not Known
- 13. Air Gap Field Voltage at Generator Rated Voltage: Not Known
- 14. Field Resistance: Not Known



For Item C) through J) Please see the documents attached to this Attachment E.



Power Technologies, Inc.

EAGLE POWER PROJECT

3 Combustion Turbine
Generators

GENROU

Round Rotor Generator Model (Quadratic Saturation)

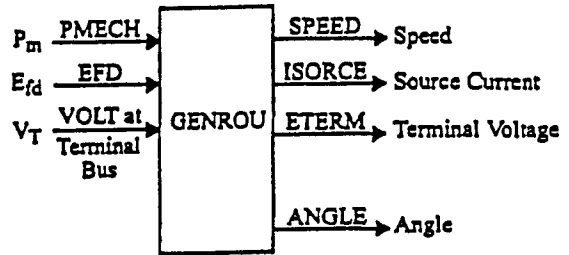
This model is located at system bus # _____ IBUS,
machine # _____ I.

This model uses CONs starting with # _____ J,
and STATES starting with # _____ K,

The machine MVA is 230 for each of 1
units = 230 MBASE.

*3 separate
units/654 T/s*

ZSORCE for this machine is .004 + j.224 on
the above MBASE



CONs	#	Value	Description
J		3.8	T'do (>0) (sec)
J+1		.033	T"do (>0) (sec)
J+2		0.44	T'qo (>0) (sec)
J+3		0.07	T"qo (>0) (sec)
J+4		4.8	Inertia, H
J+5		0	Speed damping, D
J+6		2.105	Xd
J+7		2.047	Xq
J+8		0.317	X'd
J+9		2.478	X'q
J+10		0.224	X" d = X" q
J+11		0.185	Xl
J+12		0.14	S(1.0)
J+13		0.48	S(1.2)

STATES	#	Description
K		E'q
K+1		E'd
K+2		ψkd
K+3		ψkq
K+4		Δ speed (pu)
K+5		Angle (radians)

X_d, X_q, X'_d, X'_q, X"_d, X"_q, X_l, H, and D are in pu,
machine MVA base.

X"_q must be equal to X"_d.

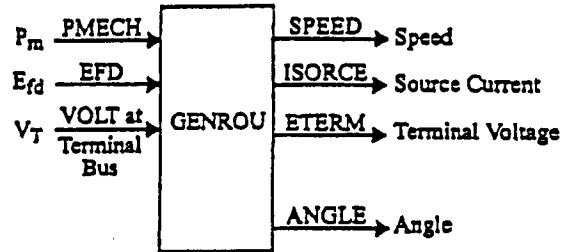
IBUS, 'GENROU', I, T'_{do}, T"_{do}, T'_{qo}, T"_{qo}, H, D, X_d, X_q, X'_d, X'_q, X"_d, X_l, S(1.0), S(1.2)

Power Technologies, Inc.

EAGLE POWER PROJECT

Steam Turbine Governor GENROU
& Expander Turbine
Governor Round Rotor Generator Model (Quadratic Saturation)

This model is located at system bus # _____ IBUS,
machine # _____ I.
This model uses CONs starting with # _____ J,
and STATEs starting with # _____ K.
The machine MVA is 480 for each of 1
units = 480 MBASE.
ZSORCE for this machine is .004 + j.214 on
the above MBASE



CONs	#	Value	Description
J		<u>4.63</u>	$T'_{do} (>0)$ (sec)
J+1		<u>.533</u>	$T''_{do} (>0)$ (sec)
J+2		<u>.35</u>	$T'_{qo} (>0)$ (sec)
J+3		<u>.077</u>	$T''_{qo} (>0)$ (sec)
J+4		<u>350</u>	Inertia, H
J+5		<u>0</u>	Speed damping, D
J+6		<u>1.869</u>	X_d
J+7		<u>1.798</u>	X_q
J+8		<u>.305</u>	X'_d
J+9		<u>.53</u>	X'_q
J+10		<u>.214</u>	$X''_d = X''_q$
J+11		<u>.173</u>	X_l
J+12		<u>.06</u>	S(1.0)
J+13		<u>.27</u>	S(1.2)

STATEs	#	Description
K		E'_q
K+1		E'_d
K+2		ψ_{kd}
K+3		ψ_{kq}
K+4		Δ speed (pu)
K+5		Angle (radians)

$X_d, X_q, X'_d, X'_q, X''_d, X''_q, X_l, H,$ and D are in pu,
machine MVA base.

X''_q must be equal to X''_d .

IBUS, 'GENROU', I, $T'_{do}, T''_{do}, T'_{qo}, T''_{qo}, H, D, X_d, X_q, X'_d, X'_q, X''_d, X_l, S(1.0), S(1.2)$

Power Technologies, Inc.

EAGLE POWER PROJECT

Steam Turbine Governor IEEEGI
& Expander Turbine
Governor IEEE Type 1 Speed-Governing Model

This model is located at system bus # _____ IBUS,
machine # _____ L.
This model may be located at
system bus # _____ JBUS,
machine # _____ M.
This model uses CONs starting with # _____ J,
and STATEs starting with # _____ K,
and VARs starting with # _____ L.

Note: JBUS and JM are set to zero for noncross compound.



CONs	#	Value	Description
J		20	K
J+1		0.25	T ₁ (sec)
J+2		0.0	T ₂ (sec)
J+3		0.1	T ₃ (>0) (sec)
J+4		0.1	U ₀ (pu/sec)
J+5		-1.0	U _c (<0.) (pu/sec)
J+6		1.0	P _{MAX} (pu on machine MVA rating)
J+7		-0.2	P _{MIN} (pu on machine MVA rating)
J+8		0.1	T ₄ (sec)
J+9		0.5	K ₁
J+10		0.0	K ₂
J+11		5.0	T ₅ (sec)
J+12		0.2	K ₃
J+13		0.0	K ₄
J+14		0.1	T ₆ (sec)
J+15		0.3	K ₅
J+16		0.0	K ₆
J+17		0.0	T ₇ (sec)
J+18		0.0	K ₇
J+19		0.0	K ₈

STATEs	#	Description
K		First governor integrator
K+1		Governor output
K+2		First turbine integrator
K+3		Second turbine integrator
K+4		Third turbine integrator
K+5		Fourth turbine integrator

VARs	#	Description
L		Reference
L+1		Internal memory

IBUS, 'IEEEGI', L, JBUS, M, K, T₁, T₂, T₃, U₀, U_c, P_{MAX}, P_{MIN}, T₄, K₁, K₂, T₅, K₃, K₄, T₆, K₅, K₆, T₇, K₇, K₈/

Power Technologies, Inc.

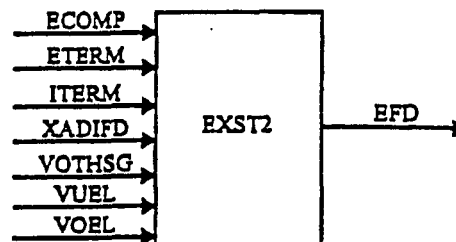
EAGLE POWER PROJECT

All 4 Exciter Systems

EXST2

IEEE Type ST2 Excitation System

This model is located at system bus # _____ IBUS,
machine # _____ I.
This model uses CONs starting with # _____ J,
and STATEs starting with # _____ K,
and VAR # _____ L.



CONs	#	Value	Description
J		0.0	T_R (sec)
J+1		120	K_A
J+2		0.15	T_A (sec)
J+3		4.0	V_{RMAX}
J+4		-4.0	V_{RMIN}
J+5		1.0	K_B
J+6		0.5	$T_B (>0)$ (sec)
J+7		0.02	K_F
J+8		0.6	$T_F (>0)$ (sec)
J+9		1.19	K_P
J+10		2.71	K_I or zero
J+11		0.7	K_C
J+12		4.5	EFD_{MAX}

STATEs	#	Description
K		Sensed V_T
K+1		Regulator output, V_R
K+2		Exciter output, EFD
K+3		Rate feedback integral

VAR	#	Description
L		K_I

IBUS, 'EXST2', I, T_R , K_A , T_A , V_{RMAX} , V_{RMIN} , K_B , T_B , K_F , T_F , K_P , K_I , K_C , EFD_{MAX}

Power Technologies, Inc.

EAGLE POWER PROJECT

Combustion Turbine
Governors

GAST2A

Gas Turbine Model

This model is located at system bus # _____ IBUS,
machine # _____ I.
This model uses CONs starting with # _____ J,
and STATES starting with # _____ K,
and VARs starting with # _____ L.



CONs	#	Value	Description
J		17.1	W - governor gain (1/droop) (on turbine rating)
J+1		0.7	X (sec) governor lead time constant
J+2		1.0	Y (sec) (>0.) governor lag time constant
J+3		1	Z - governor mode: 1 - Droop 0 - ISO
J+4		.02	ETD (sec)
J+5		.05	TCD (sec)
J+6		210	TRATE turbine rating (MW)
J+7		0.0	T (sec)
J+8		1.50	MAX (pu) limit (on turbine rating)
J+9		-1.5	MIN (pu) limit (on turbine rating)
J+10		.01	ECR (sec)
J+11		0.77	K ₃
J+12		1.0	a (>0.) valve positioner
J+13		.05	b (sec) (>0.) valve positioner
J+14		1.0	c valve positioner
J+15		0.4	τ _f (sec) (>0.)
J+16		0.0	K _f
J+17		0.2	K ₅
J+18		0.8	K ₄
J+19		1.5	T ₃ (sec) (>0.)
J+20		2.5	T ₄ (sec) (>0.)
J+21		1500	τ ₂ (sec) (>0.)
J+22		3.3	T ₅ (sec) (>0.)
J+23		740	a _{fl}

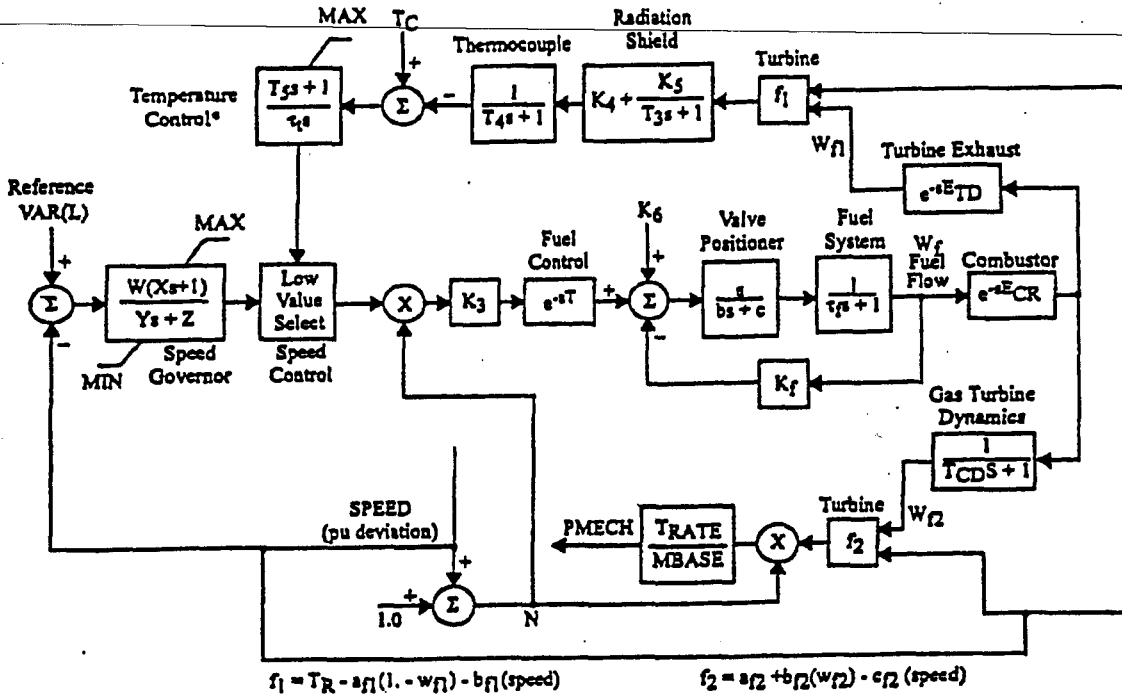
CONs	#	Value	Description
J+24		1300	b _{fl}
J+25		-376	a _{fl}
J+26		1.376	b _{fl}
J+27		0.5	c _{fl}
J+28		1138	Rated temperature, T _R (°F)
J+29		0.23	Minimum fuel flow, K ₆ (pu)
J+30		1138	Temperature control, T _C (°F)

STATEs	#	Description
K		Speed governor
K+1		Valve positioner
K+2		Fuel system
K+3		Radiation shield
K+4		Thermocouple
K+5		Temperature control
K+6		Gas turbine dynamics
K+7		Combustor
K+8		Combustor
K+9		Turbine/exhaust
K+10		Turbine/exhaust
K+11		Fuel controller delay
K+12		Fuel controller delay

VARs	#	Description
L		Governor reference
L+1		Temperature reference flag
L+2		Low value select output
L+3		Output of temperature control

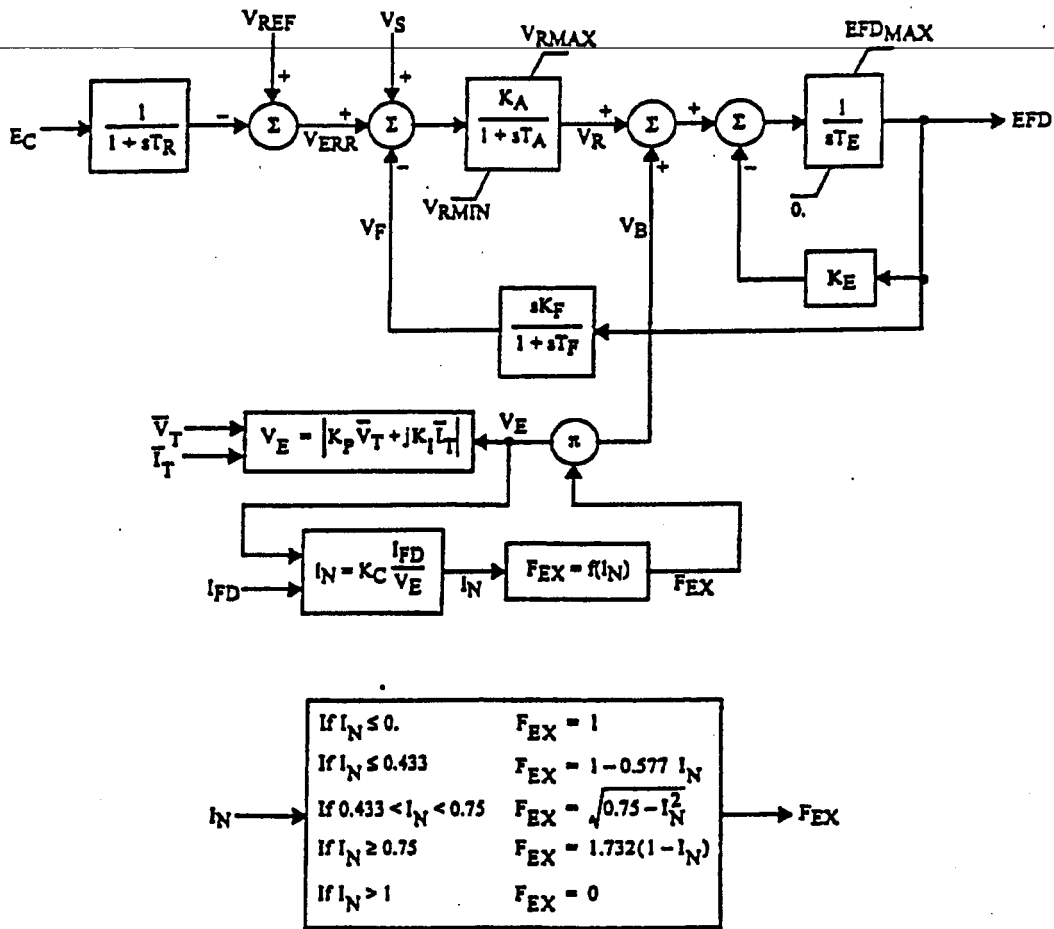
IBUS, 'GAST2A', I, W, X, Y, Z, ETD, TCD, TRATE, T, MAX, MIN, ECR, K₃, a, b, c, τ_f, K_f, K₅, K₄, T₃, T₄, τ₂, T₅, a_{fl}, b_{fl}, a_{fl}, b_{fl}, c_{fl}, T_R, K₆, T_C

EAGLE POWER PROJECT

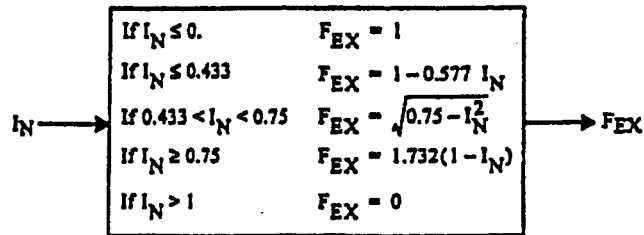


*Temperature control output is set to output of speed governor when temperature control input changes from positive to negative.

EAGLE POWER PROJECT



$V_S = V_{OTHSG} + V_{UEL} + V_{OEL}$



EAGLE POWER PROJECT

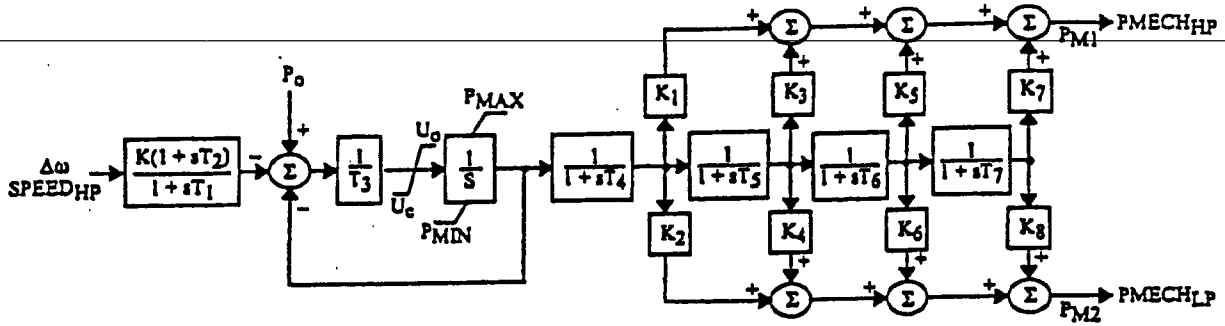


EXHIBIT 1
TEXACO'S AND TPS' ANNUAL REPORTS AND FORM 10-Ks

(Included with Proposal, except for Texaco's 1999 10-K's which are not available at this time. These will be provided as soon as they are available.)



**EXHIBIT 2
NOTICE TO BE PUBLISHED**

TECO Power Services Corporation
702 N. Franklin Street
Tampa, Florida 33602

And

Texaco Power and Gasification Global, Inc.
2000 Westchester Avenue
White Plains, New York 10650

Have responded to a Request for Proposals (RFP), dated January 26, 2000, from:

Florida Power Corporation
263 13th Avenue South
St. Petersburg, Florida 33701

On March 27, 2000, TECO Power Services Corporation and Texaco Power and Gasification Global, Inc. submitted a proposal to build an electric power plant in response to Florida Power Corporation's January 26, 2000 Request for Proposals. The proposed power plant will be a thermal facility to be located at the Hines Energy Complex in Polk County on land owned by Florida Power Corporation to be leased by the project participants. The project configuration is anticipated to meet Florida Power Corporation's energy demand in a clean, efficient, and highly reliable manner.

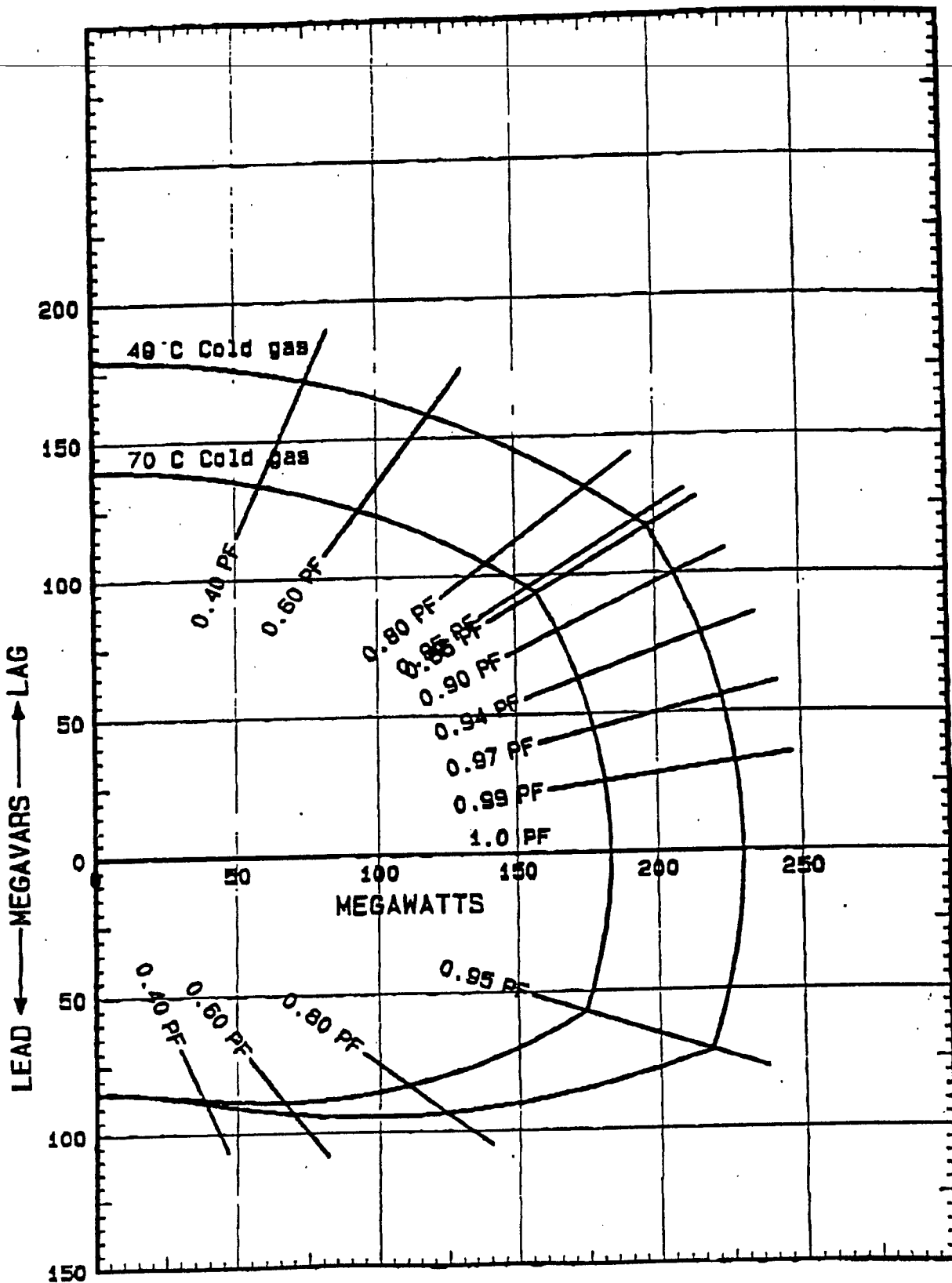


**EXHIBIT 3
GENERATOR CAPABILITY**



ESTIMATED REACTIVE CAPABILITY CURVES

229420 KVA - 3600 RPM - 1800 VOLTS - 0.86 PF
375 FLD VOLTS - 40 C COLD GAS - 45 PSIG H2



CURVE NO. F31710-2
DATE 6-MAY-93



By Facsimile and Federal Express

April 5, 2000

Mr. Sam Doaks
Panda Energy International, Inc.
4100 Spring Valley Road, Suite 1001
Dallas, TX 75244

Re: Florida Power Corporation Request for Proposals

Dear Mr. Doaks:

Thank you for your company's interest in meeting Florida Power Corporation's (FPC) supply-side generating resource needs. Upon an initial review, it appears that Panda Energy International's (Panda) March 24, 2000 proposal does not contain certain information required by FPC's January 26, 2000 Request for Proposals (RFP). A detailed list of the omitted information is provided in Attachment 1 to this letter. Please provide the information requested in Attachment 1 to me by 5:00 p.m. EST, Wednesday, April 12, 2000.

FPC appreciates your prompt attention to this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

Michael D. Rib
Director Resource Planning

MDR/bhl

Enclosure

2.5.1.1

Glenn
Goodwin
Sasso
Rib

Attachment 1

Please provide the information requested below, which was required to be submitted in response to Florida Power Corporation's (FPC) January 26, 2000 Request for Proposals (RFP), but which does not appear to be included in Panda Energy International, Inc.'s (Panda) March 24, 2000 proposal. Please provide this information to Michael D. Rib by 5:00 p.m. EST, Wednesday, April 12, 2000.

1. Please provide a copy of the notice that Panda must publish in accordance with Florida Public Service Commission (FPSC) Rule 25-22.082(5), F.A.C. (RFP, Attachment C, Section 1, item 3).
2. Please identify emission allowances and other regulatory allowances, fees, and taxes in its proposal (RFP, page 6).
3. Please identify provisions that would allow FPC to dispatch the proposed unit (RFP, page 6).
4. Please provide any terms of default associated with Panda's milestone schedule (RFP, page 6).
5. Please clearly delineate all costs for generation up to and including the step up transformers (RFP, page 8).
6. Please include any proposed liquidated damages provisions (RFP, page 10, Attachment C, Section 1, item 7).
7. Please include any performance guarantees and financial credit allowances (RFP, page 10).
8. Please include an audited financial statement for the year ending December 31, 1999. (RFP, Attachment C, Section 1, item 2a).
9. Please provide the required 10-year summary of litigation activity. (RFP, Attachment C, Section 1, item 2c).
10. Please provide a complete schedule of contract terms. (RFP, Attachment C, Section 1, item 5).
11. Please identify the security or credit instrument(s) that will back up Panda's performance. (RFP, Attachment C, Section 1, item 6).
12. Please identify Panda's plan(s) to rectify any shortfalls in power. (RFP, Attachment C, Section 1, item 10).

13. Please describe the environmental impact of Panda's proposed Leesburg plant and its compliance with applicable environmental laws and regulations. (RFP, Attachment C, Section 2, item 1p).

14. Please provide criteria for curtailment or interruption. (RFP, Attachment C, Section 3, item 1q).
15. Please provide Panda's responses to Attachment C of the RFP in the format requested by the RFP. (RFP, Section IIIA.4.)
16. Please provide Panda's Dun & Bradstreet Identification number credit rating for senior debt securities. (RFP, Attachment C, item 1.2.b)
17. Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing. (RFP, Attachment C, Section 2, item 1.d and 1.e)
18. Attachment C.2.1.f: Please explain how unit performance degradation is accounted for over time. (RFP, Attachment C, Section 2, item 1.f)

Telecom Message

Date: 4/6/00
Time: 6:00pm

Initiated By: Sam Doaks, Panda Energy
(972)455-3842

To: Michael Rib, Florida Power
Rebecca Jensen, Florida Power

Mr. Doaks called in response to the first letter from Florida Power dated April 7th, requesting responses to threshold questions related to Panda Energy's proposal. He raised specific questions about Items 1,4,5,6,7,8,9,10,11,12 and 14 in Attachment 1 relating to information that he thought had been submitted with the proposal. He came to realize that pages 4 and 5 in proposal "Attachment C" had not been included with the original printed proposals and needed to be printed from a disk that was sent with the package.

In addition, Mr. Doakes asked if he did not provide the information requested in Item #5 (price of equipment), would his proposal be considered non-responsive? He was told that FPC would need to consider Panda's proposal in its entirety and determine specifically whether or not this would be a responsiveness issue, based on FPC's ability to evaluate the offering.

Based on this new information, FPC agreed to review the list and eliminate any questions which were no longer required. Notes pertaining to Mr. Doaks' comments are included in the mark-up of the original attachment which is included with this file memo. FPC agreed to follow up with a revised letter which was sent out on April 7th.

No other issues were discussed and the teleconference was concluded.

Michael Rib

Attachment

2.5.1.1

Glenn
Goodwin
Sasso
Taylor
Reb

Jensen

Attachment 1

Notes from a conversation with Sam Doaks at 5:15pm on 4/6/00 to discuss these questions. Present for FPC were M. D. Rib and R. L. Jensen. Mr. Doaks pointed out that FPC must not have seen pages 4 and 5 of Attachment C in the proposal. It was not printed, but was on the diskette (see attached). FPC agreed to review these additional pages and revise the list of questions, as possible based on this new information.

Please provide the information requested below, which was required to be submitted in response to Florida Power Corporation's (FPC) January 26, 2000 Request for Proposals (RFP), but which does not appear to be included in Panda Energy International, Inc.'s (Panda) March 24, 2000 proposal. Please provide this information to Michael D. Rib by 5:00p.m. EST, Wednesday, April 12, 2000.

1. Please provide a copy of the notice that Panda must publish in accordance with Florida Public Service Commission (FPSC) Rule 25-22.082(5), F.A.C. (RFP, Attachment C, Section 1, item 3). *Panda submitted copies of former newspaper articles to suit this purpose. We can ask for a specific notice if we feel it is necessary.*
2. Please identify emission allowances and other regulatory allowances, fees, and taxes in its proposal (RFP, page 6).
3. Please identify provisions that would allow FPC to dispatch the proposed unit (RFP, page 6).
4. Please provide any terms of default associated with Panda's milestone schedule (RFP, page 6). *See pages 4-5 of Attachment C.*
5. Please clearly delineate all costs for generation up to and including the step up transformers (RFP, page 8). *Proprietary per Panda. Will have a problem with this. FPC requested this response in writing.*
6. Please include any proposed liquidated damages provisions (RFP, page 10, Attachment C, Section 1, item 7). *See pages 4-5 of Attachment C.*
7. Please include any performance guarantees and financial credit allowances (RFP, page 10). *See pages 4-5 of Attachment C.*
8. Please include an audited financial statement for the year ending December 31, 1999. (RFP, Attachment C, Section 1, item 2a). *1999 is not yet available. They will provide 1999 Qtrs 1-3 if FPC desires. FPC to respond on this.*
9. Please provide the required 10-year summary of litigation activity. (RFP, Attachment C, Section 1, item 2c). *See pages 4-5 of Attachment C.*

10. Please provide a complete schedule of contract terms. (RFP, Attachment C, Section 1, item 5). *See pages 4-5 of Attachment C.*
11. Please identify the security or credit instrument(s) that will back up Panda's performance. (RFP, Attachment C, Section 1, item 6). *See pages 4-5 of Attachment C.*
12. Please identify Panda's plan(s) to rectify any shortfalls in power. (RFP, Attachment C, Section 1, item 10). *See pages 4-5 of Attachment C.*
13. Please describe the environmental impact of Panda's proposed Leesburg plant and its compliance with applicable environmental laws and regulations. (RFP, Attachment C, Section 2, item 1p).
14. Please provide criteria for curtailment or interruption. (RFP, Attachment C, Section 3, item 1q). *See pages 4-5 of Attachment C.*
15. Please provide Panda's responses to Attachment C of the RFP in the format requested by the RFP. (RFP, Section IIIA.4.)
16. Please provide Panda's Dun & Bradstreet Identification number credit rating for senior debt securities. (RFP, Attachment C, item 1.2.b)
17. Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing. (RFP, Attachment C, Section 2, item 1.d and 1.e)
18. Attachment C.2.1.f: Please explain how unit performance degradation is accounted for over time. (RFP, Attachment C, Section 2, item 1.f)



By Facsimile and Federal Express

April 7, 2000

Mr. Sam Doaks
Panda Energy International, Inc.
4100 Spring Valley Road, Suite 1001
Dallas, TX 75244

Re: Florida Power Corporation Request for Proposals

Dear Mr. Doaks:

Thank you for your company's interest in meeting Florida Power Corporation's (FPC) supply-side generating resource needs. Upon an initial review, it appears that Panda Energy International's (Panda) March 24, 2000 proposal does not contain certain information required by FPC's January 26, 2000 Request for Proposals (RFP). A detailed list of the omitted information is provided in Attachment 1 (Rev. 1) to this letter. This request, which was originally sent on April 5, 2000, has been adjusted based on our conversation yesterday evening in which we identified and located two pages missing from the original hard copy proposals. While the remaining questions on the list are unchanged, we will accept the information requested in Attachment 1 (Rev. 1) by 5:00 p.m. EST, Friday, April 14, 2000.

FPC appreciates your prompt attention to this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

Michael D. Rib
Director Resource Planning

MDR/bhl

Enclosure

2.5.1.1

Glenn
Goodwin
Sasso
Rib

Attachment 1 (Rev. 1)

Please provide the information requested below, which was required to be submitted in response to Florida Power Corporation's (FPC) January 26, 2000 Request for Proposals (RFP), but which does not appear to be included in Panda Energy International, Inc.'s (Panda) March 24, 2000 proposal. Please provide this information to Michael D. Rib by 5:00 p.m. EST, Friday, April 14, 2000. (Several questions, which were originally sent on April 5, 2000, have been removed from the original list as a result of a conversation with Mr. Doaks on April 6, 2000 identifying and locating two pages that were missing from Panda's originally submitted hard copy proposals. This revised list has precedence.)

1. Please provide a copy of the notice that Panda must publish in accordance with Florida Public Service Commission (FPSC) Rule 25-22.082(5), F.A.C. (RFP, Attachment C, Section 1, item 3). This notice must be submitted as required in the FPSC Rules cited.
2. Please identify emission allowances and other regulatory allowances, fees, and taxes in its proposal (RFP, page 6).
3. Please identify provisions that would allow FPC to dispatch the proposed unit (RFP, page 6).
4. Please clearly delineate all costs for generation up to and including the step up transformers (RFP, page 8).
5. Please include an audited financial statement for the year ending December 31, 1999. (RFP, Attachment C, Section 1, item 2a).
6. Please provide the required 10-year summary of litigation activity. (RFP, Attachment C, Section 1, item 2c).
7. Please describe the environmental impact of Panda's proposed Leesburg plant and its compliance with applicable environmental laws and regulations (RFP, Attachment C, Section 2, item 1p).
8. Please provide Panda's responses to Attachment C of the RFP in the format requested by the RFP. (RFP, Section IIIA.4.)
9. Please provide Panda's Dun & Bradstreet Identification number credit rating for senior debt securities. (RFP, Attachment C, item 1.2.b)
10. Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing. (RFP, Attachment C, Section 2, item 1.d and 1.e)
11. Attachment C.2.1.f: Please explain how unit performance degradation is accounted for over time. (RFP, Attachment C, Section 2, item 1.f)

**PANDA ENERGY
INTERNATIONAL, INC.**



The Global Power Company

April 17, 2000

Mr. Michael Rib
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Via Facsimile: 727-826-4333
Via Federal Express

Dear Michael:

Re: Florida Power Corporation's Request for Proposals

I have attached our explanations to the questions on your "Attachment 1 (Rev. 1)." This attachment contained a total of eleven questions. In addition, I have attached our explanations to the questions on your new "Attachment 1." This attachment contained a total of fourteen questions. This information is being faxed, and it is also being placed by Federal Express overnight mail to you attention.

I am looking forward to meeting with you on Wednesday, April 19, 2000, at 1:30 p.m., at your 13th Avenue offices, to discuss our proposal.

Thank you for your interest.

Sincerely,

Sam H. Doaks, Sr.
Manager, Power Marketing

Enclosures

Attachment 1 (Rev. 1)

Please provide the information requested below, which was required to be submitted in response to Florida Power Corporation's (FPC) January 26, 2000 Request for Proposals (RFP), but which does not appear to be included in Panda Energy International, Inc.'s (Panda) March 24, 2000 proposal. Please provide this information to Michael D. Rib by 5:00 p.m. EST, Friday, April 14, 2000. (Several questions, which were originally sent on April 5, 2000, have been removed from the original list as a result of a conversation with Mr. Doaks on April 6, 2000 identifying and locating two pages that were missing from Panda's originally submitted hard copy proposals. This revised list has precedence.)

1. *Please provide a copy of the notice that Panda must publish in accordance with Florida Public Service Commission (FPSC) Rule 25-22.082(5), F.A.C. (RFP, Attachment C, Section 1, item 3). This notice must be submitted as required in the FPSC Rules cited.*

A copy of the above referenced notice is attached. This notice was published in the Leesburg newspaper on April 14, 2000.

2. *Please identify emission allowances and other regulatory allowances, fees, and taxes in its proposal (RFP, page 6).*

Panda is in the process of applying for its license under the requirements of the Florida Power Plant Siting Act. The application is expected to be filed in May or June of 2000. The Florida Department of Environmental Protection will issue air and other permits which will set various limits on operating parameters including air emissions and other regulatory allowances.

In addition, all current regulatory allowances, fees, taxes and other costs, including emission allowances, associated with the generation and delivery of the contracted power to the Delivery Point, required by federal, state and local authorities will be assumed by Panda.

3. *Please identify provisions that would allow FPC to dispatch the proposed unit (RFP, page 6).*

As previously stated, Panda is agreeable to allowing FPC to control its purchased contract amount from the plant via dynamic schedules or pseudo schedules. In addition, Panda is interested in discussing the mutual benefit of FPC providing AGC for the entire plant.

4. *Please clearly delineate all costs for generation up to and including the step up transformers (RFP, page 8).*

We can not comply with this request. Panda considers equipment costs, development costs and other costs associated with the development of its projects proprietary and part of its competitive advantage.

5. *Please include an audited financial statement for the year ending December 31, 1999. (RFP, Attachment C, Section 1, item 2a).*

In our original proposal we included the three most recent audited financial statements. These were for years 1998, 1997 and 1996. Panda's 1999 audited financial statement has not been completed. I can make available an unaudited financial statement for the period of January 1, 1999 through September 30, 1999.

6. *Please provide the required 10-year summary of litigation activity. (RFP, Attachment C, Section 1, item 2c).*

In the course of the Company's business its affiliates may encounter situations relating to their normal operations that relate to contract disputes (and resolutions) some of which may involve various causes of action prosecuted by or against such affiliates. Certain of these actions, as disclosed in the public filings of certain affiliates include:

Panda Rosemary, L.P. is currently engaged in litigation involving the transfer by its steam host at its North Carolina operations of the underlying contract to a purchaser of the host's facility, without compliance with the terms of such contract. Panda Rosemary, L.P. continues to provide steam and chilled water to this host during the pendency of this litigation

7. *Please describe the environmental impact of Panda's proposed Leesburg plant and its compliance with applicable environmental laws and regulations (RFP, Attachment C, Section 2, item 1p).*

The Panda Leesburg Project is consistent with the overall goals of the Florida Energy Efficiency and Conservation Act ("FEECA"), Sections 366.80-.85 and 403.519, Florida Statutes, because the Project contributes directly and significantly to the increased efficiency and cost-effectiveness of electricity production and natural gas use. The Project does so by using state-of-the-art generation technology. Compared to other fossil fuel power plants in Florida, the Project will produce very low emissions of sulfur dioxide (SO₂), low emissions of nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), and particulate matter, and no emissions of heavy metals. Overall, the Project will have the most benign environmental profile of any technology commercially available and economically feasible for meeting Florida's future power requirements. As such, the Project is projected to result in substantial increases in the efficient use of all fuel types in the FRCC. It is projected that the Project will annually reduce fuel consumption in Florida by

approximately 16,800,000 MMBtu per year, with most of this reduction resulting from reduced usage of heavy fuel oil. To the extent that the Project displaces oil-fired generation, it will contribute to the express statutory goal of conserving expensive resources, especially petroleum fuels, Sections 366.91 and 366.82(2), Florida Statutes

8. *Please provide Panda's responses to Attachment C of the RFP in the format requested by the RFP. (RFP, Section IIIA.4.)*

As we discussed verbally and via email prior to the proposal submittal deadline, Panda's proposal is somewhat of a hybrid of a system sale and a unit sale. It was our understanding that we should make our best efforts to answer all of the questions that were applicable from both sections. We attempted to do that in the Attachment C contained in our original proposal.

9. *Please provide Panda's Dun & Bradstreet Identification number credit rating for senior debt securities. (RFP, Attachment C, item 1.2.b)*

Panda's Dun & Bradstreet Identification number is 12-235-5001

10. *Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing. (RFP, Attachment C, Section 2, item 1.d and 1.e)*

The proposed pricing in Panda's original proposal is for guaranteed capacity, heat rate, VOM and fuel transportation costs, with indexed gas pricing.

11. *Attachment C.2.1.f: Please explain how unit performance degradation is accounted for over time. (RFP, Attachment C, Section 2, item 1.f)*

The Panda Leesburg project will be a 1,000 Mw (plus duct firing) power plant. Panda is proposing to sell less than half of the plants output under long-term contract (2 to 5 years). Panda proposes to guarantee its long-term contracts via the uncommitted generation with no degradation to its long-term customers.



By Facsimile and Federal Express

April 5, 2000

Ms. Becky Alex
TECO Power Services Corporation
702 N. Franklin Street
Tampa, FL 33602

Re: Florida Power Corporation Request for Proposals

Dear Ms. Alex:

Thank you for your company's interest in meeting Florida Power Corporation's (FPC) supply-side generating resource needs. Upon an initial review, it appears that TECO Power Services Corporation's and Texaco Power and Gasification Global Inc.'s joint proposal (the "Eagle Energy Project") does not contain certain information required by FPC's January 26, 2000 Request for Proposals (RFP). A detailed list of the information omitted from your proposal is provided in Attachment 1 to this letter. Please provide the information requested in Attachment 1 to me by 5:00 p.m. EST, Wednesday, April 12, 2000.

FPC appreciates your prompt attention to this matter. Please do not hesitate to contact me if you have any questions.

Sincerely,

Michael D. Rib
Director Resource Planning

MDR/bhl

Enclosure

2.5.2.1

Glenn
Archer
Sasso
Rib

Attachment 1

Please provide the information requested below, which was required to be submitted in response to Florida Power Corporation's (FPC) January 26, 2000 Request for Proposals (RFP), but which does not appear to be included in TECO Power Services Corporation's and Texaco Power and Gasification Global Inc.'s March 27, 2000 joint proposal. Please provide this information to Michael D. Rib by 5:00 p.m. EST, Wednesday, April 12, 2000.

1. Please provide unit commitment notification and dispatch scheduling details such as provisions for dispatch by FPC. (RFP, page 6).
2. Please provide a more detailed milestone schedule of key dates. (RFP, page 6).
3. Please clearly delineate all costs for generation up to and including the step up transformers. (RFP, page 8).
4. Please provide all of the required 10-K's. (RFP, Attachment C, Section 1, item 2a).
5. Please provide specific operational data, such as maximum and minimum operating levels, for the proposed plant as required in Attachment C, Section 2, items l and m (and in Tables 7, 8a, and 8b), and in the Section 3 of the RFP.
6. Attachment C, Schedule 2, item p, of the RFP requires the respondent to describe the "anticipated environmental impact" of the proposed plant and to describe how the respondent intends to comply with applicable environmental laws and regulations. TECO references the applicable state and federal laws, but does not provide any description of the anticipated impact or how it intends to comply with those laws. Please provide such a description.
7. Please provide a 3.5" floppy diskette with Data Forms. (RFP, Section III.A.6).
8. Please complete the form set forth in Attachment E to the RFP. Please note that only the asterisked items on the form need to be completed.
9. Please describe the means by which FPC will be entitled to schedule the planned maintenance periods for the plant. (RFP, Attachment C, Section 1.j).
10. Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing. (RFP, Attachment C, Section 2, items 1.d and 1.e)
11. Attachment C.2.1.f: Please explain how unit performance degradation is accounted for over time. (RFP, Attachment C, Section 2, item 1.f)
12. Please provide the unit capabilities on back-up fuel. (RFP, Attachment C, Section 2, item 1.i)



April 17, 2000

Mr. Michael D. Rib
Director, Resource Planning
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Subject: Eagle Energy's Proposal to Florida Power Corporation's Request for Proposals Dated January 26, 2000

Dear Mr. Rib:

We are in receipt of your letter's dated April 5 and April 7, 2000. Attached hereto please find Eagle Energy's responses to both sets of questions contained in your letters.

As we discussed last week, TPS and Texaco would like the opportunity to provide FPC with a presentation of the Eagle Energy Project and answer any additional questions FPC may have at that time. I would like to request a meeting date of April 26, 2000 for this presentation. Please let me know if this date fits into your schedule.

TPS and Texaco would like to thank you for the opportunity to participate in Florida Power Corporation's Request for Proposals. Should you have any additional questions or need further clarification, please do not hesitate to contact me.

Sincerely,

Rebecca T. Alex
Senior Engineer

Attachments (2)

cc: Alma Rodarte, Texaco
William E. Preston, Texaco
Michael Schuyler, TPS

RECEIVED
APR 17 2000
INTEGRATED RESOURCE
PLANNING & FORECASTING

Eagle Energy Project Response to FPC's April 5, 2000 Letter

1. Please provide unit commitment notification and dispatch scheduling details such as provisions for dispatch by FPC.

Due to the low variable cost of the Eagle Energy Project power, we anticipate that this unit would be base loaded by FPC. However, should FPC choose not to base load this unit, a day ahead capacity and energy schedule would be required from FPC to allow Eagle Energy to schedule non-firm energy sales out of FPC's system.

2. Please provide a more detailed milestone schedule of key dates.

Please refer to Question 21 of FPC's April 7, 2000 Letter.

3. Please clearly delineate all costs for generation equipment (*see original fax*) up to and including the step up transformers.

The capital cost of plant is considered proprietary for this licensed technology. The project is currently under non-disclosure agreement preventing us from providing the capital cost details. However published data for similar Texaco Gasification Power Systems plants show the total capital cost to be \$900 - \$1100 / kw of net output depending on site specific facilities required.

4. Please provide all of the required 10-K's.

Texaco's 10-K's have been provided to Florida Power Corporation under separate cover. TECO Energy's will be provided as soon as they are available in addition to the 1st three quarters of 10-Q's for 1999 which were provided with the first response.

5. Please provide specific operational data, such as maximum and minimum operating levels, for the proposed plant as required in Attachment C, Section 2, items l and m (and in Tables 7, 8a and 8b) and in the Section 3 of the RFP.

The Eagle Energy facility will be run as a base load unit and will not be ramped up and down under normal operating conditions with a maximum output of 740 MW. We have adjusted the maximum output from our initial bid in order to reduce total capital requirements and use well proven combustion turbine designs and components. This is our current estimate of the optimum output, however we are still considering efficiency options that may allow us to cost effectively increase output closer to the initial bid.

6. Attachment C, Schedule 2, item p. of the RFP requires the respondent to describe the "anticipated environmental impact" of the proposed plant and to describe how the respondent intends to comply with applicable environmental laws and regulations. TECO references the applicable state and federal laws, but does not provide any description of the anticipated impact or how it intends to comply with those laws. Please provide such a description.

The licensing of power plants and associated facilities in Florida requires compliance with federal, state, and local laws, regulations, and ordinances. The primary state law governing the licensing of this project is the Florida Electrical Power Plant Siting Act (PPSA).

The PPSA establishes the state's policy toward balancing the needs for increased electrical power generation with the effects on human health, the environment and ecology of the lands and waters within the state. In the site certification process, the Florida Department of Environmental Protection (FDEP) acts as the central coordinator. Certification proceeds with the submittal of a Site Certification Application (SCA) to FDEP by the applicant and culminates with approval by the Governor and Cabinet. Since the project will be located at the Hines Energy Complex, which

has been previously certified for an ultimate site capacity, the Project would anticipate that the PPSA requirements will be fulfilled through the supplemental application process.

In addition to the PPSA process, the project will be required to comply with two federal permitting programs which have been delegated to the State of Florida: Federal Prevention of Significant Deterioration (PSD) and National Pollutant Discharge Elimination.

Under the PPSA, projects are required to address the environmental impact. This project will involve gasifying petroleum coke to produce syngas for fuel in the combustion turbines. The anticipated environmental impact may be to the air quality, water quality, noise, land use, and solid/hazardous waste disposal. A description of the potential environmental impact and compliance with laws that govern these areas are described below:

- **Air Quality** – Under the Florida PSD regulations, this project must meet Best Available Control Technology (BACT) for syngas-fired turbines. To meet this requirement, a BACT analysis will be done and the project will use the control measures required to meet the NOx emissions limits.

The air quality impacts from nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), volatile organic compounds (VOC's), and particulate matter less than 10 micrometers in diameter will be evaluated. A modeling analysis will be done on these emissions to demonstrate the overall project's impact on the federal Ambient Air Quality Standards or to the PSD increments from the project.

- **Water Quality** – Surface Water Impacts - Under the Clean Water Act the US EPA has authority to regulate discharges of wastewater and stormwater into any surface water body by issuing a National Pollutant Discharge Elimination System (NPDES) permits and pretreatment standards. Permit requirements will be met by adhering to any periodic testing requirements designated by such a permit or collecting and discharging all wastewater or stormwater to a closed system or one regulated under an existing NPDES permit.

Project Water – The primary water uses for the proposed project include potable water, plant water, emergency firewater, and process water. The project will be designed to:

- Maximize water reuse and recycling,
 - Minimize groundwater withdrawals,
 - Minimize water consumption, and
 - Optimize the water quality of the offsite surface water and groundwater discharges.
- **Noise** – The US EPA and OSHA have noise limitations that may impact the construction and operation of the proposed project. To determine the need for mitigative measures, ambient noise monitoring may be conducted with an evaluation of the impact to the nearest receptors.
 - **Land Use** – The existing land use in the vicinity of the proposed project site is industrial. Land uses are controlled and regulated using a complex system of plans and policies. Since the project will be sited in an existing industrial area, there is no significant impact to land use expected.
 - **Solid/Hazardous Waste Disposal** – The Non-hazardous solid byproducts generated from the project will be transported offsite for sale. A small amount of solids (ie refractory spent catalysts) will be returned to the supplier for recycling.
 - We do not intend to generate any hazardous wastes that would be sent to a permitted land disposal facility.

Eagle Energy Project
Response to FPC's April 5, 2000 Letter

7. Please provide a 3.5" floppy diskette with Data Forms.

Attached hereto is a 3.5" floppy diskette that contains electronic forms for all of the Data Forms for Eagle Energy's response.

8. Please complete the form set forth in Attachment E to the RFP. Please note that only the asterisked items on the form need to be completed.

Attachment E is attached.

9. Please describe the means by which FPC will be entitled to schedule the planned maintenance periods for the plant.

In the Fall of each year, a planned maintenance schedule for the coming year would be established by mutual agreement considering the maintenance required by the equipment and the generation required by FPC. Adjustments would be made to this schedule during the year based on equipment and generation requirements.

10. Please provide a statement identifying the pricing in the bids as guaranteed or forecast pricing.

The pricing provided in Eagle Energy's Proposal is a firm price based upon the terms and conditions set forth in the Proposal.

11. Attachment C.2.1.f. Please explain how unit performance degradation is accounted for over time.

Since the combustion turbines are operated at the shaft limit and not at the compressor limit, performance degradation due to compressor fouling does not occur. Compressor efficiency is reduced however fuel flow is increased to maintain constant electrical output. We have allowed sufficient design margin in the syngas facilities to provide the additional syngas until compressor cleaning is performed.

Please note that the Eagle Energy Project proposal does not "pass through" fuel costs to FPC, consequently, heat rate degradation is at the risk of Eagle Energy.

12. Please provide the unit capabilities on back-up fuel.

The output on No. 2 oil should be similar to the output for any other 7FA CC unit with steam injection. Based on our experience at the Polk Power Plant, the total plant net output should be nearly the same on No. 2 oil as on syngas.

Eagle Energy Project
Attachment E

SECTION I - Generation Site Data

A) Contact Person - Provide name and address of person completing this form

- (*1. Name: Rebecca T. Alex
- (*2. Address: 702 North Franklin Street
- (*3. City/State/Zip: Tampa, Florida 33602
- (*4. Telephone: (813) 228-1107
- (*5. Date: 3/24/00

B) Site Location

- (*1. County: Polk County
- (*2. Section / Township / Range: FPC's Hines Facility Site
- (*3. Site Drawing: Include a site drawing indicating county, section, township, and range. In addition, for a Generation Interconnection Study, a preliminary equipment layout on the site, suitable for site plan permitting, is required.

Land Requirements: 30 Acres
(detailed site layout will be provided at a later date)

C) Proposed Load Requirements for Site

- (*1. Required Date: 3/1/02
- (*2. Nature of Load (Station Service, Start-up Power, Etc.)

The only load requirement for the Project would be during the construction phase. The construction power requirements would be minimal.

- (*3. Connected kVA Load: 0 kVA following commercial operation.

(*4. Peak Demand kVA Load: 0 kVA following commercial operation

(*5. Expected Power Factor: Not applicable

(*6. Service Voltage: 13.8 kV

(*7. Anticipated Future Load Requirements (please describe):

D) Other Site Information

(*1. Net Generation Output (MVA) for Site @ 59°F Outdoor Ambient: 871 MVA

(*2. Net Generation Output (MVA) for Site @ 90°F Outdoor Ambient: 871 MVA

(*3. Proposed Interconnections with Other Systems (please describe): The Eagle Energy Project will connect to the FPC transmission system at the Hines Energy Complex. No interconnections with other parties is anticipated.

E) In-Service Dates

(*1. Required connection to grid for generator testing: September, 2003

(*2. Commercial in-service date: March 31, 2004

SECTION II – Individual Generator Data

PLEASE NOTE: The answers contained in Section II – Individual Generator Data are estimates based on manufacturer data and engineering judgement.

A) Unit Identification

- | | |
|-----------------------------------|--------------------------------------|
| (*) 1. Plant Name and Unit Number | Eagle Energy Project Unit #1 |
| 2. Manufacturer | General Electric Combustion Turbines |
| 3. Generator Serial Number | Not Known |
| 4. Turbine Serial Number | Non Known |

B) Ratings and Capabilities

- | | |
|--|--------|
| 1. Nameplate kV Rating (nominal design voltage) | 18 kV |
| 2. MVA Rating: Each GE Combustion Turbine is rated at 230 MVA, the steam turbine will be rated at approximately 480 MVA. | |
| (*) 3. Gross MW Rating @ 59°F Outdoor Ambient | 964 MW |
| (*) 4. Net MW Rating @ 59°F Outdoor Ambient | 740 MW |
| (*) 5. Gross MW Rating @ 90°F Outdoor Ambient | 964 MW |
| (*) 6. Net MW Rating @ 90°F Outdoor Ambient | 740 MW |
| 7. Rated Power Factor | _____ |
| 8. Rated Speed | _____ |
| 9. Rated Turbine Capability | _____ |
| 10. Field Voltage at Rated Load | _____ |
| 11. Field Current at Rated Load | _____ |
| 12. No-load Field Voltage at Generator Rated Voltage | _____ |
| 13. Air Gap Field Voltage at Generator Rated Voltage | _____ |

14. Field Resistance

_____ ohms @ _____ °C

C) Inertia

(*) 1. WR^2 for Generator and Exciter	Not Available	lb-ft ²
(*) 2. WR^2 for Turbine	Not Available	lb-ft ²
(*) 3. Calculated H Constant (CT)	4.8 sec. @ 230 MVA	
(*) 3. Calculated H Constant (Steam Turbine)	3.5 sec. @ 480 MVA	

D) Losses and Efficiency

1. Open circuit core loss	_____	kW
2. Windage loss	_____	kW
3. H ₂ seal and exciter friction loss	_____	kW
4. Stator I ² R Loss at rated power and voltage	_____ °C _____	kW
5. Rotor I ² R Loss at rated power and voltage	_____ °C _____	kW
6. Stray Load loss	_____	kW
7. Excitation losses	_____	kW

E) Generator Time Constants

1. T' _{do} (Direct axis open circuit transient time constant)	_____	sec
2. T'' _{do} (Direct axis open circuit subtransient time constant)	_____	sec
3. T' _{qo} (Quadature axis open circuit transient time constant)	_____	sec
4. T'' _{qo} (Quadature axis open circuit subtransient time constant)	_____	sec
5. T _{a3} (Short circuit time constant)	_____	sec

F) Generator Impedances (Combustion Turbines)

(*) 1. MVA base for all impedance data	230 MVA
--	---------

(*) 2. kV base for all impedance data 18.0 kV

Parameter	Description	p.u. value
-----------	-------------	------------

(*) 3. X_d	Direct axis synchronous reactance (unsaturated)	2.103
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4. X_q	Quadrature axis synchronous reactance (unsaturated)	
----------	---	--

(*) 5. X'_d	Direct axis transient reactance (unsaturated)	.317
----------------	---	------

6. X'_{ds}	Direct axis transient reactance (saturated)	
--------------	---	--

7. X'_q	Quadrature axis transient reactance (unsaturated)	
-----------	---	--

8. X'_{qs}	Quadrature axis transient reactance (saturated)	
--------------	---	--

(*) 9. X''_d	Direct axis subtransient reactance (unsaturated)	.224
-----------------	--	------

10. X''_q	Quadrature axis subtransient reactance (unsaturated)	
-------------	--	--

11. X_L	Armature leakage reactance	
-----------	----------------------------	--

12. R_1	Positive sequence armature resistance at 75° C	
-----------	--	--

13. R_2	Negative sequence armature resistance at 75° C	
-----------	--	--

14. X_2	Negative sequence armature reactance at rated voltage	
-----------	---	--

15. X_0	Positive sequence armature reactance at 75° C	
-----------	---	--

16. R_{dc}	Direct current armature resistance at 75° C	
--------------	---	--

17. Generator neutral grounding resistance		ohms
--	--	------

(*) 18. Generator neutral grounding reactance	Not Available	ohms
--	---------------	------

Generator Impedances (Steam Turbine)

(*) 1. MVA base for all impedance data 480 MVA

(*) 2. kV base for all impedance data 18.0 kV

Parameter	Description	p.u. value
-----------	-------------	------------

(*) 3. X_d	Direct axis synchronous reactance (unsaturated)	1.869
---------------	---	-------

4.	X_q	Quadrature axis synchronous reactance (unsaturated)		
(* 5.)	X'_d	Direct axis transient reactance (unsaturated)	.305	
<hr/>				
6.	X'_{ds}	Direct axis transient reactance (saturated)		
7.	X'_q	Quadrature axis transient reactance (unsaturated)		
8.	X'_{qs}	Quadrature axis transient reactance (saturated)		
(* 9.)	X''_d	Direct axis subtransient reactance (unsaturated)	.214	
10.	X''_q	Quadrature axis subtransient reactance (unsaturated)		
11.	X_L	Armature leakage reactance		
12.	R_1	Positive sequence armature resistance at 75° C		
13.	R_2	Negative sequence armature resistance at 75° C		
14.	X_2	Negative sequence armature reactance at rated voltage		
15.	X_0	Positive sequence armature resistance at 75° C		
16.	R_{dc}	Direct current armature resistance at 75° C		
17.	Generator neutral grounding resistance			ohms
(* 18.)	Generator neutral grounding reactance		Not Available	ohms

G) Required Characteristic Curves and Diagrams

- (* 1. Real and reactive power capability curves **See Eagle Energy Proposal**
- 2. Saturation curve, full load and no-load
- 3. "V" curves
- 4. Governor overspeed response curve
- 5. One-Line diagram showing generator and substation equipment connections

H) Excitation System Data

- 1. Excitation system type

2. Voltage regulator model name
 3. Excitation system model, supply block diagram and model parameters in IEEE¹ or PSS/E format
-
4. Voltage compensation, supply block diagram and settings if used
 5. Voltage regulator overexcitation limiters, supply block diagram and model parameters in IEEE² format.
 6. Power System Stabilizer (if used), supply Power System Stabilizer block diagram and model parameters in IEEE or PSS/E format

I) Turbine Governor Data

1. Speed/Load governor model name
2. Governor model, supply block diagram and model parameters in IEEE^{3,4} or PSS/E format

J) Generator Step-up Transformer Data

1. Manufacturer
2. Model Type
3. Serial Number
- (*) 4. Rating 3-230 MVA , 1-480 MVA
- (*) 5. High voltage winding, nominal voltage 230 kV
- (*) 6. High voltage winding connection (wye/delta) wye
- (*) 7. Low voltage winding, nominal voltage 18 kV
- (*) 8. Low voltage winding connection (wye/delta) delta

¹ IEEE Standard 421.5-1992 "IEEE Recommended Practice for Excitation System Models for Power System Stability Studies"

² IEEE Committee Report, "Recommended Models for Overexcitation Limiting Devices," IEEE Transactions on Energy Conversion, Vol. 10, No. 4, December 1995

³ IEEE Committee Report, "Dynamic Models for Steam and Hydro Turbine Control Models for System Dynamic Studies," IEEE transactions on Power Apparatus and Systems, Vol. PAS-92, November, 1973

⁴ W.I. Rowen, "simplified Mathematical Representations of Heavy Duty Gas Turbines," Transactions of ASME, Vol.105(1), 1983

9. Transformer resistance			p.u.
(*)10. Transformer reactance	.15 p.u.		
<hr/>			
(*)11. Transformer impedance base values	230 MVA	18 kV	
12. Available tap settings			
HV taps			kV
LV taps			kV
13. Expected tap settings			
HV taps			kV
LV taps			kV



By Facsimile and Federal Express

April 7, 2000

Mr. Sam Doaks
Panda Energy International, Inc.
4100 Spring Valley Road, Suite 1001
Dallas, TX 75244

Re: Florida Power Corporation Request for Proposals

Dear Mr. Doaks:

This is a follow-up to my first letter in which Florida Power Corporation (FPC) requested that Panda Energy International Inc. (Panda) provide certain information required by FPC's January 26, 2000 Request for Proposals (RFP), which did not appear to be included in Panda's March 24, 2000 proposal. Based on an initial review, FPC needs clarification of certain aspects of Panda's proposal. A detailed list of the requested clarifications is provided in Attachment 1 to this letter. Please provide the information requested in Attachment 1 to me by 5:00 p.m. EST, Thursday, April 14, 2000.

FPC appreciates your prompt attention to this matter. Again, thank you for your company's interest in meeting FPC's supply-side generating resource needs. Please do not hesitate to contact me if you have any questions.

Sincerely,

Michael D. Rib
Director Resource Planning

MDR:bhl

Enclosure

2.5.1.1

Glenn
Goodman
Sasso
Rib

Attachment 1

Please provide the information requested below to Michael D. Rib by 5:00 p.m. EST,
Thursday, April 14, 2000.

1. As we indicated in our Request for Proposals (p. 10), we had contemplated combining proposals offering less than 530 MW with other proposals as supply-side alternatives to FPC's next planned generating unit. Your proposal offers 250MW for two years with an option to extend the arrangement for up to three additional years. Based on the proposals that we have received, we have no other proposals that we can combine with Panda's to create an arrangement equivalent to our proposed next planned generating unit. Please advise me by 5 p.m. on April 14, 2000, whether you are prepared to offer additional MW's and/or commit for additional years. If so, please provide all information that would have been required concerning your alternative offer(s) [had you extended the proposal(s) in response to our original RFP] by 5 p.m. on April 21, 2000. If we do not receive an affirmative response to this request by 5 p.m. on April 14, 2000, we will continue our evaluation of your original proposal on the terms you have already provided.
2. Please provide a more detailed schedule, which includes, at a minimum:
 - Notice to Proceed Engineering date;
 - Notice to Proceed Equipment manufacturers date for combustion turbines, steam turbines, and heat recovery steam generators;
 - Mobilization date;
 - HRSRSG ship dates beginning and end dates;
 - Steam turbine ship dates beginning and end;
 - Combustion turbine ship dates beginning and end; and
 - Start up and commissioning schedule, first fire to commercial operation.
3. Please provide the expected construction work schedule and the peak manpower loading and duration.
4. List operating units and commercial operation date for "F" technology for 1X1 and 2X1.
5. Please identify the back up fuel that will be used, the quantity of back up fuel that will be stored on site, and the number of days the plant will be able to operate using the back up fuel stored on site.
6. Please confirm that the point of delivery is Lake County, Florida, Township 20 S, Range 24 E, Section 8.

7. Please discuss whether Panda would agree to FPC's consent and approval of the long term operation and maintenance plan if ownership is ever transferred or O&M outsourced.

8. Please identify and explain the performance requirements and capacity payment penalties if the plant is off-line for extended periods.
9. Please state whether Panda expects to obtain non-recourse financing.
10. Please discuss whether Panda would agree to operation by Automatic Generation Control for load following from FPC's Energy Control Center with mutually agreeable limits on demand fluctuations.
11. Please confirm that FPC will not pay for emissions allowances.
12. Please discuss what the fuel transportation rate will be applied to, assuming that FPC contracts for 250 MW of capacity.
13. Please discuss FPC's relative rights to the 250 MW of capacity, given that the plant is capable of generating 1000 MW. For example, does FPC get the first 250 MW, or 25% of whatever the site can generate at any given time?
14. Please specify whether each of the MWh of energy will be charged at the overcapacity heat rate, or only that energy associated with the increase from 250 MW up to 279 MW.

Telecom Message

Date: 4/10/00
Time: 3:40 pm

Initiated By: Sam Doaks, Panda Energy
(972)455-3842

To: Michael Rib, Florida Power
Rebecca Jensen, Florida Power

2.5.1.1
Glenn
Crockett
Sasso
Taylor
Rib
Jensen

Mr. Doaks called in response to the two letters from Florida Power, both dated April 7th, requesting responses to threshold questions and proposal clarifications. (Note: The threshold question letter was an update from an original letter dated April 5th. The letter was updated to accommodate some missing pages from Panda's original proposal ... see Telecom Message dated 4/6/00 for further information.)

With respect to the "Clarifications" Letter dated April 7, 2000:

- He asked about Item 1 where FPC was asking Panda if they would consider bidding 530 MW and/or a longer period. He was confused as to whether or not FPC would consider the proposal if the bid wasn't changed. He was advised that, as stated, FPC had not received any other bids to match theirs with and that FPC would have to develop an approach to meet the need. We reaffirmed to him that if Panda chooses not to change their bid, we will still consider it, as originally proposed. It was mentioned that we would likely pair it with a peaking unit, or something like that to cover the capacity requirement.
- With respect to Item 1, he mentioned that he didn't understand why they would need to extend their bid, since that wasn't a capacity issue. He was advised that if Panda didn't want to extend their bid, we would consider it as originally proposed.
- With respect to Item 1, he was unsure whether the remainder of the clarification questions needed to be answered if Panda does not offer an amended proposal. He was advised that these questions were relevant to Panda's original bid and would be relevant to any different proposals they might offer. Therefore, the questions need to be answered in all cases.
- With respect to Item 2, Mr. Doaks referred to the detailed project schedule included with the proposal and asked if FPC really needed additional information. He was advised that similar information was being requested from other bidders as well, so part of the purpose is consistency. He was also informed that some of the specific issues requested (e.g. HRSG and CT commitment and delivery dates) had not

been specifically identified in the Panda proposal schedule and were key to the feasibility evaluation being performed by FPC.

- With respect to Item 5, he asked why more information was being requested on backup fuel when their proposal does not include backup fuel. He was informed that this question was also being asked to other bidders and was included for consistency. If there are no plans for backup fuel, he was advised to respond with a statement to that effect.
- With respect to Item 6, he was unsure why FPC was asking for confirmation that the point of delivery was at a point different than the substation identified in the proposal. He was informed that FPC considers the delivery point at the plant's grid interface point which would, in this case, be the high side breakers. This is a technical clarification necessary for consistency with FERC interpretation in the transmission assessment, given that the plant is actually ~5 miles from the substation and that delivery will not actually occur at the FPC substation specified in the proposal.

No other issues were discussed and the teleconference was concluded.

Michael Rib

rfpresponse /goc,openmail

From: rfpresponse /goc,openmail
Sent: Tuesday, April 11, 2000 9:20 AM
To: 'Sam Doaks (E-mail)'
Subject: Clarification Discussions
Importance: High

Mr. Doaks:

In following my previous email transmittal, we are anticipating having responses from your company to our questions/clarifications or before April 17th. After we've had an opportunity to review this information, I suspect that we would benefit from a follow-up conversation which I would like to schedule on the 19th or 20th of April. We could schedule a teleconference or we could arrange to meet in person. Please let me know what you think would work the best for you.

Thanks ... Michael Rib

2.5.1.1

Glenn
Goodwin
Sasso
✓ Rib
Taylor

rfpresponse /goc,openmail

From: SamD /internet/dd.RFC-822=SamD@pandaenergy.com [SamD@pandaenergy.com]
Sent: Tuesday, April 11, 2000 11:45 AM
To: rfpresponse /internet/dd.RFC-822=rfpresponse@fpc.com
Cc: SamD /internet/dd.RFC-822=SamD@pandaenergy.com
Subject: Re: Attachments

Michael,

That is very much of interest to me. I have to travel on Wednesday and Thursday of this week; that extension is very timely.

In response to your second memo, I would very much like to meet with you in person for the follow-up discussion. April 19th would work best, but April 20th will work as well. Please let know.

Thank you very much.
Sam Doaks

>>> <rfpresponse@fpc.com> 04/10/00 05:04PM >>>

I've attached the documents you requested. I am also in a position to extend your response date from April 13th/14th to Monday April 17th if that is of interest to you. Please confirm for me that you have received this message.

Thanks ... Michael Rib

2.5.1.1

Glenn
Goodwin
Sasso
✓ Rib
Taylor

rfpresponse /goc,openmail

From: rfpresponse /goc,openmail
Sent: Wednesday, April 12, 2000 5:46 PM
To: 'Sam Doaks (E-mail)'
Subject: Follow-Up

Sam:

Thank you for your email response. I am trying to target a meeting for us in the morning on April 19th, which was your preference. Please pencil that in while I work to confirm this time slot.

Michael Rib

2.5.1.1

Glenn
Goodwin
Sasso
✓ RB
Taylor

rfpresponse /goc,openmail

From: rfpresponse /goc,openmail
Sent: Thursday, April 13, 2000 4:53 PM
To: 'Sam Doaks (E-mail)'
Subject: Proposal Discussion Meeting

Mr. Doaks:

I am in the process of firming up our schedule for next week. Subject to your availability, I've tentatively scheduled a meeting on Wednesday, April 19th, from 1:30 to 3:30 pm at our offices in downtown St. Petersburg. The purpose of this meeting is to provide you an opportunity to present your proposal to us and to follow up on any questions or clarification we might not have fully understood in your April 17th responses. Please plan on a presentation of one hour or less, leaving sufficient time for discussion afterwards.

Please contact me and let me know if this meets with your approval. I look forward to hearing from you. If, for some reason, I cannot be reached to discuss this meeting, please feel free to contact either Bette Leanes (727.826.4380) or Becky Jensen (727.826.4240).

Thanks ... Michael Rib

2.5.2.1

Glenn
Goodman
Sasso
✓ Rib
Taylor

rfpresponse /goc,openmail

From: SamD /internet/dd.RFC-822=SamD@pandaenergy.com [SamD@pandaenergy.com]
Sent: Friday, April 14, 2000 6:00 PM
To: rfpresponse /internet/dd.RFC-822=rfpresponse@fpc.com
Cc: SamD /internet/dd.RFC-822=SamD@pandaenergy.com; Admin.Dallas.Panda
/internet/dd.RFC-822=Admin.Dallas.Panda@pandaenergy.com; RalphK.Dallas.Panda
/internet/dd.RFC-822=RalphK.Dallas.Panda@pandaenergy.com
Subject: Re: Proposal Discussion Meeting

Michael,

I will be at your office at 1:30 p.m. on April 19th discuss Panda's proposal.

Thank You
Sam Doaks

>>> <rfpresponse@fpc.com> 04/13/00 03:49PM >>>
Mr. Doaks:

I am in the process of firming up our schedule for next week. Subject to your availability, I've tentatively scheduled a meeting on Wednesday, April 19th, from 1:30 to 3:30 pm at our offices in downtown St. Petersburg. The purpose of this meeting is to provide you an opportunity to present your proposal to us and to follow up on any questions or clarification we might not have fully understood in your April 17th responses. Please plan on a presentation of one hour or less, leaving sufficient time for discussion afterwards.

Please contact me and let me know if this meets with your approval. I look forward to hearing from you. If, for some reason, I cannot be reached to discuss this meeting, please feel free to contact either Pette Leanes (727.826.4380) or Becky Jensen (727.826.4240).

Thanks ... Michael Rib

2.5.1.1

Glenn
Goodwin
Sasso
✓ Rib
Taylor

rfpresponse /goc,openmail

From: SamD /internet/dd.RFC-822=SamD@pandaenergy.com [SamD@pandaenergy.com]
Sent: Monday, April 17, 2000 4:51 PM
To: rfpresponse /internet/dd.RFC-822=rfpresponse@fpc.com
Cc: SamD /internet/dd.RFC-822=SamD@pandaenergy.com
Subject: Panda Data Request Responses



Reply Letter
4-17-00l.doc



pattach2a.doc



pattach3a.doc

Mike,

I have attached Panda's responses to FPC's data request

Thank you
Sam H. Doaks, Sr.

2.5.1.1

Glenn
Goodwin
Sasso
✓ Rib
Taylor

Attachment 1

Please provide the information requested below to Michael D. Rib by 5:00 p.m. EST, Thursday, April 14, 2000.

1. *As we indicated in our Request for Proposals (p. 10), we had contemplated combining proposals offering less than 530 MW with other proposals as supply-side alternatives to FPC's next planned generating unit. Your proposal offers 250MW for two years with an option to extend the arrangement for up to three additional years. Based on the proposals that we have received, we have no other proposals that we can combine with Panda's to create an arrangement equivalent to our proposed next planned generating unit. Please advise me by 5 p.m. on April 14, 2000, whether you are prepared to offer additional MW's and/or commit for additional years. If so, please provide all information that would have been required concerning your alternative offer(s) [had you extended the proposal(s) in response to our original RFP] by 5 p.m. on April 21, 2000. If we do not receive an affirmative response to this request by 5 p.m. on April 14, 2000, we will continue our evaluation of your original proposal on the terms you have already provided.*

Panda is willing to consider offering FPC a second block of capacity and energy. If FPC decided to purchase the first and second block of capacity and energy, the total amount would be equal to 500 Mw of base load capacity and energy, with an over-capacity amount equal to 530 Mw. The second block of capacity and energy for the initial term and the optional terms will be priced differently than the 250 Mw initially offered. If both blocks are purchased, we would also look at establishing another (intermediate) break point between the minimum output level of 175 Mw and the new base load amount of 500 Mw. The intermediate break point, heat rate and associated start charges would be related to the operation of the second combustion turbine.

Although most issues in our proposal are subject to negotiations, Panda is not initially inclined to offer fixed capacity terms for a period of more than five years. Panda considers two to five year sales as long-term transactions. However, there could be room to discuss giving FPC the first right to negotiate a new contract after the initial and optional terms.

2. *Please provide a more detailed schedule, which includes, at a minimum:*

(a) Notice to Proceed Engineering date; February 1, 2001

(b) Notice to Proceed Equipment manufacturers date for combustion turbines, steam turbines, Purchase order for the GE combustion turbines and steam turbines was executed on December 20, 1999.

(c) Notice to Proceed for the heat recovery steam generators: **March 1, 2001**

(d) Mobilization date; **August 1, 2001**

~~HRSG ship dates beginning and end dates; **January 15, 2002 to March 15, 2002**~~

(e) Steam turbine ship dates beginning and end; **April 30, 2002 to May 31, 2002**

(f) Combustion turbine ship dates beginning and end; **April 30, 2002 to June 30, 2002**

(g) Start up and commissioning schedule, first fire to commercial operation. **First fire October 15, 2002. Final plant commercial operation for 1070 Mw (includes duct-firing capacity) March 31, 2003**

3. *Please provide the expected construction work schedule and the peak manpower loading and duration.*

Peak work force 800

Average work force 450

4. *List operating units and commercial operation date for "F" technology for 1X1 and 2X1.*

First unit commercial operation 1X1 is January 15, 2003

Second unit commercial operations 2X1 is January 15, 2003

5. *Please identify the back up fuel that will be used, the quantity of back up fuel that will be stored on site, and the number of days the plant will be able to operate using the back up fuel stored on site.*

Panda's Leesburg project is designed to burn one fuel type, natural gas. There are no plans to store or burn an alternate fuel type. However, the Leesburg project will have flexible natural gas delivery from Gulf Stream (primary) and FGT (through the Panda Midway project).

6. *Please confirm that the point of delivery is Lake County, Florida, Township 20 S, Range 24 E, Section 8.*

The delivery point will be at the Panda Leesburg substation, located in Lake County, Florida, Township 20 S, Range 24 E, Section 8, approximately 3 miles southeast of Central Florida substation on the Central Florida-Windermer double circuit 230 Kv line.

7. *Please discuss whether Panda would agree to FPC's consent and approval of the long term operation and maintenance plan if ownership is ever transferred or O&M outsourced.*

Panda performs its O&M with a combination of in-house resources and Long Term Service Agreements. At this point, Panda does not foresee selling this facility or outsourcing the O&M services. We understand FPC's concern and might be persuaded to consider this issue if FPC were making a much longer term purchase from the project. However, with a two-year commitment and annual options to extend for three years, on a new facility, we feel that FPC's exposure is very small.

8. *Please identify and explain the performance requirements and capacity payment penalties if the plant is off-line for extended periods.*

Subject to the "Condition Precedent" in Panda's original proposal and negotiated "Force Majeure" provisions of a power sales agreement, Panda will guarantee a 93.5% annual availability.

Subject to the above stated Conditions Precedent and Force Majeure provision, to the extent that a sufficient number of elements at the plant are unavailable for an extended period of time, and delivery of any or all of FPC's power purchase is affected, Panda will: (a) deliver alternate power to FPC's system or (b) pay FPC the net replacement cost for power that would have been purchased from the project. Such deliveries or payments will be made from the beginning of the outage period until FPC's power schedules, up to the contract amount, are resumed or until the end of the then current delivery term, whichever occurs sooner.

9. *Please state whether Panda expects to obtain non-recourse financing.*

Yes, Panda will obtain non-recourse financing for the Leesburg Project. Additional note: Within the last six months Panda financed two 1,000 Mw power projects in Texas.

10. *Please discuss whether Panda would agree to operation by Automatic Generation Control for load following from FPC's Energy Control Center with mutually agreeable limits on demand fluctuations.*

As previously stated, Panda is agreeable to allowing FPC to control its purchased contract amount from the plant via dynamic schedules or pseudo schedules. In addition, Panda is interested in discussing the mutual benefit of FPC providing AGC for the entire plant.

11. *Please confirm that FPC will not pay for emissions allowances.*

All current regulatory allowances, fees, taxes and other costs, including emission allowances, associated with the generation and delivery of the contracted power to the Delivery Point required by federal, state and local authorities will be assumed by Panda.

12. *Please discuss what the fuel transportation rate will be applied to, assuming that FPC contracts for 250 MW of capacity.*

The fuel transportation rate for a 250 Mw purchase would be applied to the fuel required to generate the contracted power at the applicable contracted heat rate. For example: If FPC scheduled the base load amount (250 Mw) for 24 hours, times 7,100 Btu/kWh heat rate. If FPC generates at a level other than base load the applicable minimum or over-capacity heat rate would be used.

13. *Please discuss FPC's relative rights to the 250 MW of capacity, given that the plant is capable of generating 1000 MW. For example, does FPC get the first 250 MW, or 25% of whatever the site can generate at any given time?*

Panda will not sell more than 50% of its project under long-term contract. The remaining capacity will be used as one level of assurance for delivery of Panda's long-term commitments. If an aggregate of 540 Mw are under long-term contract from our 1,080 Mw plant (includes duct firing capability), has its total capability reduced by 550 Mw, then each of the aggregated customers would be reduced equally if alternate power or replacement power can not be obtained.

14. *Please specify whether each of the MWh of energy will be charged at the over-capacity heat rate, or only that energy associated with the increase from 250 MW up to 279 MW.*

Only the energy above 250 Mw or base load will be subject to the over-capacity heat rate.

rfpresponse /goc,openmail

From: rfpresponse /goc,openmail
Sent: Tuesday, April 18, 2000 11:29 AM
To: 'Sam Doaks (E-mail)'
Subject: Proposal Review Meeting
Importance: High

Confirming our telephone conversation yesterday afternoon (4/17/00):

- We did receive the email and fax versions of your responses to our questions and clarifications. Thanks.
- We are still planning to meet with you tomorrow afternoon to discuss the proposal. Our intent is to focus on the proposal and the questions and clarifications we've exchanged to date to reach a thorough understanding of your offering. I look forward to seeing you here tomorrow.

Directions from Tampa Airport:

Airport Access Road to 275 South (St. Petersburg)
Exit 175 to Downtown St. Petersburg (Landmark - Dome Stadium)
175 Dead-Ends into a traffic light @ 4th Street.
Continue 1 block to 3rd Street and TURN RIGHT (South).
Travel South on 3rd Street for several blocks.
Pass the Salvador Dali Museum on the Left.
Next Building on the Left is Florida Power (Tall Brick Building)
Visitor's Lot Entrance - Just South of the Building

Michael Rib

2.5.2.1

Glenn
Goodwin
Sasso
✓ Rib
Taylor

Meeting Notes
Panda Energy Proposal Clarification
April 19, 2000 @ 1:30P.M.
Bayboro Offices of Florida Power Corporation

Florida Power Corporation

Michael Rib
Jim Rocha
Mark McKeage
Becky Jensen
Ben Crisp (part-time)

Panda Energy

Sam Doaks, Manager, Power Marketing

PHB Hagler Bailly

Alan Taylor (teleconference)

This meeting was held to provide both FPC and Panda the opportunity to reach a clear understanding of the proposal offered by Panda Energy to FPC under FPC's RFP for power in November 2003.

Panda did not have a formal presentation. Mr. Doaks came primarily to answer questions.

General Questions and Discussion

1. FPC asked for clarification of the term "current" in reference to regulatory taxes and fees.

Panda responded that they will cover taxes and fees related to compliance that they are currently aware of. There may be regulatory (law) changes that can't be anticipated that may require adjustments. However, Panda will cover any expenses required to keep the plants in compliance.

2. FPC asked several questions on heat rates and load points to better understand the load versus heat rate characteristic intended in the formula energy price.

Panda responded that if FPC requested just below or just above 250 MW (the Base Rating), the higher heat rates apply. The base heat rate only applies at 250 MW. Panda would prefer this contract to run base loaded. Panda agreed to provide FPC with a curve to help illustrate heat rate response. (Action: Panda)

3. FPC asked about the proposal terms relating to the option to take "extra" capacity.

Panda acknowledged that payment is required for any use above 250 MW, based on FPC's nominated off-take (for as few as 15 minutes), based on calendar month periods. By example, a request for capacity over 250 MW on the last day of the month would incur a full month's charge for the MW's requested. Once a request is made (and delivered) for capacity over the 250 MW Base, FPC would be entitled to call upon that "extra" capacity as often as it wanted to for the remaining portion of the calendar month.

4. FPC asked several questions to better understand Panda Energy's fuel plan.

Panda's proposal and their Response To Clarification (RTC) indicate that the Panda Energy Leesburg plant will be served by the new Gulfstream Pipeline. (Noted: FPC has never seen this lateral on any of the system maps or documentation for Gulfstream.)

Panda advised that they are in the process of negotiating deliveries with Gulfstream. They also explained that they will be able to backfeed gas through the Gulfstream Pipeline from its downstream connection at their proposed Midway Plant, where they will have pipeline feeds from both Gulfstream and Florida Gas Transmission (FGT). That is how they propose to offer high reliability power supply without backup fuel. The interruptible gas estimates in the proposal are intended to reflect Panda's proposed ability to move gas between the Leesburg and Midway plants.

5. FPC requested further clarification of the gas transportation charges in the proposal.

Panda advised that there are no take or pay provisions to FPC for gas transportation in the proposal. Their proposal includes an adder of \$0.82/MWh for each MWh that FPC takes, but FPC has no additional obligation for gas payments. All fixed charges that Panda expects to receive are already in the quoted capacity prices. However, FPC would not have any rights to utilize Panda's gas transportation outside of the power purchases. (This could be negotiated as an option.)

6. Through the course of the meeting, FPC pursued several lines of inquiry related to the proposed availability guarantees and any relationships between contract availability and the availability and/or forced outage rates of the physical generating units. For example, Panda's proposal guarantees 93.5% availability with EFOR at 1.2%. What is the correlation?

Panda's response was that they would achieve the 93.5% availability through delivery of power from Leesburg, Midway or the market. The EFOR is, in essence, an indicator that, when combined with the anticipated maintenance outage rates, roughly equates to the targeted availability in baseload service. Panda stated that it was their intention to provide power to meet the guaranteed rates. They would coordinate with FPC in advance for maintenance requirements that would render power unavailable during the normal maintenance periods (shoulder months).

The power sale is being offered as a "system sale" which means that power availability is not intended to be tied to the performance of any physical unit. Rather, FPC will have access to power from their "system" on a priority basis. According to Mr. Doaks, this is one of the reasons that Panda doesn't plan to commit more than 50% of the facilities to long term contracts. Further, he explained that they intend to deliver power as long as it is available and not play games with withholding power once the guaranteed availability target had been satisfied. Panda agreed to clarify this in a follow-up communication. (Action- Panda)

7. FPC asked about the proposed "Conditions Precedent" on page 4 of the proposal which states that the agreement may be terminated without penalty by Panda if financing is not secured for the Leesburg facilities. Also, "Credit" provisions appear not to be final until financial closing. This concern, as it was explained, is based in FPC's need to assure that the needs of the customers are met.

Panda confirmed that the "Conditions Precedent" would apply, not only to financing ability, but also legal difficulties (e.g. prohibition of merchant plants in Florida).

8. FPC returned to clarification of maintenance outage impacts on availability in the proposal. In Attachment C, Panda would have 500 hours per year to perform maintenance while the information in Table 6 varies from 144 to 480 hours per year.

Panda clarified that each year, they would have a window of up to 500 hours to perform scheduled maintenance. This time slot would be scheduled with FPC in advance, but would not necessarily relate to a specific unit or physical component. The responses in

Table 6 were intended to typify the maintenance cycles for the proposed combined cycle plants.

Review of Panda's 4/17/00 Responses:

FPC's "Minimum Requirements - Attachment 1 (Rev. 1)" dated 4/7/00

Note: FPC's stated "positions" on these memo items were offered with respect to the bidder having responded to the minimum requirements of the RFP.

Item 1: FPC requested a copy of the public announcement.

Panda agreed to provide. (Action: Panda).

FPC Position: OK with copy of the announcement.

Item 2: Items had been previously discussed in the meeting.

FPC Position: OK.

Item 3: FPC attempted to clarify whether Panda was offering to allow real time dispatch of the 250 MW block by offering to connect AGC for the entire plant.

Panda's response provided that power could be dynamically scheduled, but that their desire is still to have day-ahead schedules for the power that is going to be called upon. The considerations for connecting Panda's proposed facilities to FPC's AGC are a matter to be discussed later since they are, in effect, totally outside this proposal.

FPC Position: Proposal understood.

Item 4: FPC again requested the cost data for the facilities in Panda's proposal.

Panda again responded that this information was considered proprietary and would not be able to provide it.

FPC Position: FPC agreed that this would not be an issue for setting the proposal aside, as long as the prices (capacity, energy formula) in the contracts were guaranteed. However, Panda was put on notice that this information might be required at a later date in a regulatory proceeding.

Item 5: FPC agreed to move ahead with the financials that have been provided.

Panda agreed to forward the 9/30/99 unaudited Financial Statement.
(Action: Panda)

FPC Position: FPC will move forward with information provided.

Item 6: FPC restated that litigation history related to power supply contracts was very important and must be provided. FPC needs to understand Panda's relationships with their other customers. A brief statement on the current dispute with Panda-Rosemary's steam host had been provided, but no other information, including mention of the difficulties with FPC on the Panda-Kathleen standard offer contract, had been sent.

Apparently, Panda's attorney didn't feel that the FPC litigation applied to the RFP question that was asked. Also, HR issues didn't seem to apply. Mr. Doaks agreed to

consult with his attorney again. He said he had specifically asked the attorney about FPC.

FPC Position: This item requires a response identifying all related litigation, including the FPC history.

Items 7 through 11: All written responses provided by Panda were deemed acceptable for the purpose of FPC's proposal review.

**Review of Panda's 4/17/00 Responses:
FPC's "Proposal Clarifications - Attachment 1" dated 4/7/00**

Item 1: At FPC's request, Panda agreed to structure an additional 250 MW block offering. FPC was expecting pricing and terms on that additional block by April 21st. Panda anticipated having the pricing to FPC by April 20th. Panda expressed some concern over taking the additional power off the market through October. Panda will address this concern in their response to pricing and terms. FPC suggested that it would be helpful to keep the option open through October 1st to help get through the regulatory process, if that is appropriate.

Item 4: FPC asked for more information on the "F" technology machines that Panda has claimed experience with in their response. Panda explained that the units referred to in their response (i.e. the units starting in January 2003) are planned to be built in Guadeloupe. More information to follow.

Item 8: FPC asked if there would be a cap on damages if Panda doesn't make the 93.5% guaranteed availability? Panda replied that they do not expect to go below 93.5% and would purchase energy in the market place. They further stated that as long as power is available at a price and Panda is, or is in danger of being, below the availability guarantee, Panda will deliver power. They related that they haven't been asked what they would do if they couldn't buy power in the marketplace. Further conversation about the relationship between plant operations, forced outage rates (FOR) and availability was discontinued and FPC concluded that it needed to disregard the quoted FOR's and use the 93.5% availability target at the quoted price. Panda needed to clarify their position on damages if the availability rate is not met.

Item 14: FPC asked for clarification on the formula heat rate for energy taken above the 250 MW base, up to the limit of 279 MW on the supplemental capacity. Panda advised that the formula heat rate only goes up for the portion of the energy take above 250 MW. The remaining 250 MW are at the quoted baseload heat rate.

As a sidebar, Panda asked if FPC had received any other proposals under 250 MW? FPC replied that it had not.

The clarification discussion drew to a close and Mr. Doaks quickly reviewed his follow-up action items prior to conclusion of the meeting:

Panda will:

- Provide a copy of 9/99 unaudited financials
- Provide a copy of the published newspaper notice
- Verify the litigation information requested, and
- Provide pricing for the 500 MW offering.

rfpresponse /goc,openmail

From: SamD /internet/dd.RFC-822=SamD@pandaenergy.com [SamD@pandaenergy.com]
Sent: Thursday, April 20, 2000 4:23 PM
o: rfpresponse /internet/dd.RFC-822=rfpresponse@fpc.com
Cc: SamD /internet/dd.RFC-822=SamD@pandaenergy.com
Subject: Additional Capacity and Energy



Followup Letter
4-20-00.doc



Followup pricing
4-20-00.doc

Mike,

I enjoyed my meeting with you and the rest of the evaluation team yesterday. As promised I have attached the pricing for the second block of power. I have also indicated in the letter that I expect to have two other documents to you by next Tuesday. Have a good holiday.

Sam Doaks

By the way Bonefish was very good.

2.5.1.1

Allen
Goodwin
Sasso
✓ Rib
Taylor

**PANDA ENERGY
INTERNATIONAL, INC.**



The Global Power Company

April 20, 2000

Mr. Michael Rib
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Via Facsimile: 727-826-4333

Via Federal Express

Dear Michael:

Re: Florida Power Corporation's Request for Proposals

As we discussed in your office on Wednesday April 19, 2000, Panda is offering Florida Power Corporation (FPC) a second block of capacity and energy. The second block of capacity and energy consists of a 250 Mw base load piece and an additional 1 Mw over-capacity piece. If FPC elects to purchase both blocks, the total available to you would be 500 Mw base load and 530 Mw over-capacity. The attached sheet has the pricing for the second block of capacity and energy under base load conditions. In addition, we are working to identify the various load break-points that may be crossed from zero to full load with duct-firing and down to minimum load. These break-points are expected to be based on combinations of 1X1 and 2X1 configurations. This is being done to address Jim Rocha's idea of developing a range of heat rate values and load levels. I expect to be in a position to provide this data by Tuesday of next week.

Panda action items: (a) We have asked our Florida public relations group to mail a clipping of our public notice directly to you. The public notice was run in the Lake County Daily Commercial newspaper. (b) You will also find in the overnight package a copy of Panda's unaudited financials for the period of January 1, 1999, through September 30, 1999. (c) I am planning to have the litigation history issued resolved by next Tuesday.

Finally, I realize that you continue to have some concerns regarding the guaranteed availability rate in our proposal. Panda has no intentions of manipulating the allowed forced outage hours and maintenance outage hours for economic reasons. We have been able to successfully address these issues in contract negotiations.

Sincerely,

Sam H. Doaks, Sr.
Manager, Power Marketing

4100 Spring Valley Road, Suite 1001, Dallas, Texas 75244
PHONE - 972/980-7159 FAX - 972/980-6815

**PRICING OF SECOND BLOCK OF CAPACITY AND ENERGY
CONFIDENTIAL**

Contract Capacity: 250 Mw

Contract Term: 2 years beginning November 1, 2003 through October 31, 2005 with three one-year extensions, at FPC's option. Option notification time to be defined.

Initial Delivery Term	Nov 1, 2003 – Oct 31, 2005
First Optional Term	Nov 1, 2005 – Oct 31, 2006
Second Optional Term	Nov 1, 2006 – Oct 31, 2007
Third Optional Term	Nov 1, 2007 – Oct 31, 2008

Energy Type: Energy shall be provided as system firm energy in quantities up to the Contract Capacity.

**Capacity
Payment:**

Initial Delivery Term	\$9.10 per kW-month
First Optional Term	\$9.45 per kW-month
Second Optional Term	\$9.80 per kW-month
Third Optional Term	\$10.15 per kW-month

Note: In any hour that FPC elects to exercise its option to generate above the base load rate, up to the over capacity rate limit, FPC will pay the applicable monthly capacity payment times the over capacity load rate for the entire month.

Pricing Summary:

Delivery Term	1	2	3	4	5
Contract Capacity (Mw)	250	250	250	250	250
Base Load Contract Heat Rate (Btu/KWh)	7,100	7,100	7,100	7,100	7,100
Fixed Capacity Payment (\$/kW-month)	9.10	9.10	9.45	9.80	10.15
VOM Rate (\$/Mwh)	1.50	1.53	1.56	1.59	1.62

**PANDA ENERGY
INTERNATIONAL, INC.**



The Global Power Company

April 25, 2000

Mr. Michael Rib
Florida Power Corporation
263 13th Avenue South
St. Petersburg, FL 33701

Via Facsimile: 727-826-4333

Via Federal Express

Dear Michael:

Re: Florida Power Corporation's Request for Proposals

I have attached the final two action items that I had from our meeting last week. These items are (a) break point, heat rates and plant configurations for various load levels that may be crossed from zero to full load with duct-firing and down to minimum load and, (b) Panda's ten year litigation history.

As we were identifying the new generation break points, we discovered an error in our calculation of the heat rate for minimum load. This heat rate was originally submitted in our proposal as 9,486 Btu/kWh at 175 Mw. The heat rate for the 175 Mw load level is 8,700 Btu/kWh.

Sincerely,

Sam H. Doaks, Sr.
Manager, Power Marketing

Enclosures:

Load break points, unit configuration and heat rate for the total capacity and energy offered to FPC by Panda

Contract Capacity & Energy Break Points	Resource Configuration	Contract Heat Rate @ 90°F
Over Capacity Load (Up to 530 Mw)	2 X 1	8,619 Btu/kWh
Base Load (500 Mw)	2 X 1	7,000 Btu/kWh
Minimum Load (350 Mw)	2 X 1	8,700 Btu/kWh
Intermediate Load (300 Mw)	2 X 1	9,055 Btu/kWh
Over Capacity Load (Up to 279 Mw)	1 X 1	8,619 Btu/kWh
Base Load (250 Mw)	1 X 1	7,000 Btu/kWh
Minimum Load (175 Mw)	1 X 1	* 8,700 Btu/kWh

* In the process of identifying heat rates for the new break points, our engineering group discovered an error in the calculation for the minimum load heat rate. The minimum load heat rate should be 8,700 Btu/kWh instead of the 9,486 Btu/kWh originally submitted.

Please provide the required 10-year summary of litigation activity. (RFP, Attachment C, Section 1, item 2c).

In the course of the Company's business its affiliates may encounter situations relating to their normal operations that relate to contract disputes (and resolutions) some of which may involve various causes of action prosecuted by or against such affiliates. Certain of these actions, as disclosed in the public filings of certain affiliates include:

Panda Rosemary, L.P. is currently engaged in litigation involving the transfer by its steam host at its North Carolina operations of the underlying contract to a purchaser of the host's facility, without compliance with the terms of such contract. Panda Rosemary, L.P. continues to provide steam and chilled water to this host during the pendency of this litigation

Another affiliate of the Company was recently served, through its agent, a complaint styled Potomac Electric Power Company v. Panda Brandywine, L.P. in Civil Action No. SOOCV1103 filed in the United States District Court for the District of Maryland, Northern Division. The complaint asks for a declaratory judgment that the project is not being operated as a Qualifying Facility pursuant to PURPA, and claims remedies for breach of contract and certain other matters. This affiliate intends to defend this lawsuit vigorously.

Another affiliate of the Company has, in the past, been involved in litigation with a Florida Utility regarding the terms of a standard offer contract that was subsequently abrogated by the utility. This affiliate was thwarted in all further development of the proposed facility and, in addition to its legal fees, forfeited a letter of credit in the amount of \$750,000 to this utility.

There are no other litigation issues to report.



By Facsimile and Federal Express

April 7, 2000

Ms. Becky Alex
TECO Power Services Corporation
702 N. Franklin Street
Tampa, FL 33602

Re: Florida Power Corporation Request for Proposals

Dear Ms. Alex:

This is a follow-up to my April 5, 2000 letter in which Florida Power Corporation (FPC) requested that TECO Power Services Corporation and Texaco Power and Gasification Global Inc. provide certain information required by FPC's January 26, 2000 Request for Proposals (RFP), which did not appear to be included in the March 27, 2000 Eagle Energy Project proposal. Based on an initial review, FPC needs clarification of certain aspects of the Eagle Energy Project proposal. A detailed list of the requested clarifications is provided in Attachment 1 to this letter. Please provide the information requested in Attachment 1 to me by 5:00 p.m. EST, Friday, April 14, 2000.

FPC appreciates your prompt attention to this matter. Again, thank you for your company's interest in meeting FPC's supply-side generating resource needs. Please do not hesitate to contact me if you have any questions.

Sincerely,

Michael D. Rib
Director Resource Planning

MDR/bhl

Enclosure

2.5.2.1

Glenn
Goodman
Sasso
Rib

Attachment 1

Please provide the information requested below to Michael D. Rib by 5:00p.m. EST, Friday, April 14, 2000.

1. Please verify whether natural gas will be used as back up fuel to the synthetic gas. If so, please specify the MW, HR_{HHV} and turndown capability.
2. Please describe how the slag and any other solid wastes from the gasification and related chemical processes will be disposed of and where it will be disposed.
3. Please state how much slag per year is likely to be generated from the proposed facility.
4. Please verify that the summer and winter ratings are equal and explain why they are equal.
5. Please provide a footprint of the major facilities showing utilization of the 30 acres.
6. Please describe the heat rejection load in terms of source and BTUs/ hr.
7. Please verify whether the proposal is based solely upon utilization of cooling towers for heat rejection.
8. Please verify that 7500GPM/10.8MGD of make up water is needed and explain the bases for this assumption.
9. The RFP gives statistics for availability; however, most are for gas fired plants and not IGCC facilities. Please list all Texaco projects currently operating with Texaco gasification technology that provide power to the grid. List specific projects, size, in-service dates, fuel capability, thermal performance, synthetic gas system reliability, overall power delivery reliability and other information necessary to thoroughly understand the nature and performance of each project.
10. Please provide performance and availability history of the TECO IGCC Polk Power Plant since 1996. Please specify the hours run on coal-derived syngas, petcoke-derived syngas and backup fuel for each year of operation.
11. Please describe the specific experience related to "F" machines for 1X1 IGCC, 2X1 IGCC, and 3X1 IGCC plants. Please specify the MW output for each.
12. Please describe any liquidated damages provisions for failure to meet the March 31, 2004 commercial operation date.

13. Please indicate the expected number of trucks per day carrying petroleum coke and fuel oil, respectively, as required for regular plant operation.
14. Please list all chemicals used in the gasification process, storage facilities, quantities needed on a daily/weekly/ monthly basis, and the method and frequency of delivery to the site.
15. Please indicate whether any of the wastes produced from the process are considered hazardous.
16. Please describe the anticipated quantities and types of solid wastes that will be produced by the gasification process and plant operation. Please indicate whether TECO Power Services and Texaco will be responsible for all costs necessary to meet the Florida Department of Environmental Protection (FDEP) treatment and disposal requirements.
17. Please identify the amount of water needed for each of the processes (e.g., cooling, gasification, gas clean up, etc.). Please describe the quality of water that will be required for each of these processes. Please indicate whether TECO and Texaco will be responsible for any water treatment costs or whether FPC is expected to incur this cost.
18. Hines Energy is designed and certified as a zero discharge site with respect to industrial wastewater discharges. The proposal identifies compliance with an NPDES requirement. Please indicate the volume of such discharge, the constituents of the discharge, and whether TECO and Texaco are willing to meet water quality limits equal to the limits as required by the FDEP. Also, please indicate where the wastewater treatment system will be located.
19. Please describe what specific licensing requirements are included in the statement on page 21 of the proposal that "All licensing activities for the project should be completed before August, 2000." Please provide a detailed schedule with milestones demonstrating how the licensing can be achieved by August 2000. Please indicate whether TECO and/or Texaco have ever licensed a similar facility in Florida on this schedule. Please provide an overall schedule of supplemental site certification activities.
20. The site is currently certified for coal-gasification. Please explain how TECO and Texaco will support the needed modification to the conditions of certification to allow gasification of petroleum coke.

21. Please indicate the date by which TECO and Texaco must begin construction on the plant facilities. Please provide a detailed schedule, which includes, at a minimum:

Notice to Proceed Engineering date;

Notice to Proceed Equipment manufacturers date for combustion turbines, steam turbines, heat recovery steam generators (HSRG), and gasifiers;

Mobilization date;

Gasifier ship dates beginning and end dates;

HRSR ship dates beginning and end dates;

Steam turbine ship dates beginning and end;

Combustion turbine ship dates beginning and end; and

Start up and commissioning schedule, first fire to commercial operation.

22. Please provide the expected construction work schedule and the peak manpower loading and duration.
23. Please list all of the fuels that will be included in the site certification.
24. Please provide an expected level of emissions performance from the combined cycle operation and the gasification and related processes. Please include any fugitive emissions as well as the discrete sources of emissions. Include the criteria pollutants as well as any hazardous air pollutants as defined in the Clean Air Act, as amended.
25. Please provide the expected start-up times for hot and cold equipment.
26. Please explain whether the combustion turbines can be run without the steam turbine available either by dumping steam to the condenser or through the use of bypass dampers.
27. Please state whether the Eagle Energy Project is being developed concurrently in Florida with any other parties at any other potential plant locations.
28. Please discuss whether there are fuel and/or material storage areas planned for the Hines site that would support development or operations of any other facilities. Other than the proposed petcoke handling facility at the port, please discuss whether there are any other off-site fuel and/or material storage facilities that would be used in support of the facility at the Hines site.
29. Please discuss whether the process for this specific facility has been designed. Please discuss whether any material and energy balances have been developed for this specific facility, and if so, please submit for review.
30. Please describe the sulfur and sulfuric acid handling process and facilities, including the storage and transportation requirements of the process at the Hines site.

31. If FPC elected to purchase more than 500 MW, please discuss how such capacity and energy would be priced. Also, please clarify at what time FPC would have to exercise that option.

32. FPC presumes that power "scheduled for use by FPC" is not restricted in any manner in terms of how it is used. If there are restrictions implied, please clarify them.
33. Please indicate whether there are any availability and performance guarantees applicable up to 809 MW of subscription. If so, please describe.
34. Please explain why the maximum ratings are so much higher than the contract ratings. Are there operating conditions that would allow for more than 809 MW of power output to the grid? If so, how regularly would these modes be available?
35. Please describe any industry experience that supports an offering of 1% EFOR across the board.
36. Please explain in as much detail as necessary how the outage cycles will work for these units. Please explain, at a minimum, how often each major sub-process of the plant is shut down, what impact it has on MW output, how much overlapping sub-process maintenance is performed, how often the entire plant output is affected, etc.
37. Please confirm that the construction load is 219,000 kva. Please explain what the station load will be including the syngas processing facility when the plant goes into commercial operation.
38. Please discuss whether TECO and Texaco would agree to FPC's consent and approval of the long term operation and maintenance plan if ownership is ever transferred or O&M outsourced?
39. Please explain whether the allotment for transmission upgrades is designed to accommodate 500 MW or 809 MW or 995 MW?
40. Please explain that if the plant is off-line for extended periods (perhaps months), whether the remaining 90 % of the capacity payment is still payable.
41. Please explain whether TECO and Texaco would agree to periodic (mutually agreeable) demonstrations of performance on back-up fuel.
42. Please confirm whether the capacity and energy prices are fixed with a 2 % escalator?
43. Please verify whether it is correct to add the full outage and partial outage rates to obtain planned maintenance.

44. Please discuss whether TECO and Texaco would agree to operation by Automatic Generation Control for load following from FPC's Energy Control Center with mutually agreeable limits on demand fluctuations.
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45. Please clarify whether the respective parent companies of Texaco Power and Gasification Global Inc. and TECO Power Services Corporations will provide parent guarantees. If so, please provide proposed terms of these parent guarantees.

Eagle Energy Project Response to FPC's April 7, 2000 Letter

1. Please verify whether natural gas will be used as back-up fuel to the synthesis gas. If so, please specify the MW, HRggv and turndown capability.

The Project is configured to use No. 2 fuel oil as the back-up fuel. However we are currently evaluating whether natural gas backup would be more cost effective. We will provide the performance data on natural gas if it is selected, however the difference between natural gas and fuel oil output and performance is minimal.

2. Please describe how the slag and any other solid wastes from the gasification and related chemical processes will be disposed of and where it will be disposed.

Slag is a by-product which is not considered hazardous under federal regulations 40 CFR 1.4(6)4 or 261.4(6)7vi. The slag by-product is sellable as an abrasive roofing material, industrial filler, aggregate for concrete, supplemental fuel to cement kilns, or road base material. This product will be actively marketed and will not be disposed of in a permitted land disposal facility.

3. Please state how much slag per year is likely to be generated from the proposed facility.

Typically, the Project will expect to produce 11,890 lb/hr of slag, which equates to approximately 97,900,000 lb/year.

4. Please verify that the summer and winter ratings are equal and explain why they are equal.

The summer and winter ratings are equal when the combustion turbine is running on syngas. In syngas operation, the mass flow of the fuel and diluent nitrogen is significantly higher than for natural gas operation. The combustion turbine is not compressor limited on syngas and is operated up to the shaft limit. During the low winter operation the guide vanes are throttled and at high ambient they are fully open, resulting in equal summer and winter rating.

5. Please provide a footprint of the major facilities showing utilization of the 30 acres.

A typical footprint is attached. The footprint will be optimized as the design of the plant progresses.

6. Please describe the heat rejection load in terms of source and BTUs/hr.

The heat rejection of the power block is approximately 2380 mmbtu's/hr, the gasification block, including the air separation unit, is approximately 1700 mmbtu's/hr, resulting in a total of 4080 mmbtu's/hr.

The heat rejection loads will be further defined at the completion of the preliminary engineering package and can be provided to FPC at that time.

7. Please verify whether the proposal is based solely upon utilization of cooling towers for heat rejection.

The present configuration utilizes cooling towers. However, the Project envisions the use of FPC's cooling reservoir at the Hines facility in combination with cooling towers for heat rejection.

8. Please verify that 7500GPM/10.8MGD of make up water is needed and explain the bases for this assumption.

The 10.8 MGD represents the amount of water estimated to be evaporated to the atmosphere using a complete cooling tower design for the Project. However, utilizing the combination of a cooling reservoir and cooling towers this evaporation may be reduced.

The Project's present design shows 14.4 MGD makeup to cooling towers and the process, with a blow down rate of 3.6 MGD which equates to the estimated 10.8 MGD of net evaporation quoted.

9. The RFP gives statistics for availability; however, most are for gas fired plants and not IGCC facilities. Please list all Texaco projects currently operating with Texaco gasification technology that provide power to the grid. List specific projects, size, in-service dates, fuel capability, thermal performance, synthesis gas system reliability, overall power delivery reliability and other information necessary to thoroughly understand the nature and performance of each project.

Please refer to pages 4-6 of the Eagle Energy proposal, which describes all of the projects licensed to use the Texaco Gasification technology in which Texaco has an ownership interest. We are currently in the process of obtaining the additional information requested above, and will provide it as soon as it is available.

10. Please provide performance and availability history of the TECO IGCC Polk Power Plant since 1996. Please specify the hours run on coal-derived syngas, petcoke-derived syngas and backup fuel for each year of operation.

Year	Total Hours	CC Available Hours	CC Hours on Syngas	CC Hours on No. 2 Oil
1996	3394	1903	685	1245
1997	8760	5596	3997	1188
1998	8760	7759	5328	1191
1999	8760	8113	5988	1114

Note: The Polk Power Station data represents performance on several coals and coal-coke blends. Polk Power Station was designed for a single specific coal as part of a DOE sponsored "clean coal" program.

The availability of our proposed facility will be significantly higher than the Polk Power Station since it uses multiple quench gasifiers with an installed spare gasification train. The commercial experience with this configuration has a long term demonstrated syngas availability of greater than 98%. The Polk Power Station is a single gasifier train and combustion turbine. There are no installed spare gasification trains.

Since backup fuel is also available to the combustion turbines the plant availability will be based almost entirely on the planned outage schedules of the combustion turbines which will be mutually agreed to with FPC. The multiple combustion turbine trains should allow nearly 100% availability of at least two combustion turbines producing a nominal net output of 500 MW.

11. Please describe the specific experience related to "F" machines for 1X1 IGCC, 2X1 IGCC, and 3X1 IGCC plants. Please specify the MW output for each.

TECO Power Services has extensive experience with the TECO's Polk Power Plant which is a 1X1 with a gross output of 322 MW. This plant uses one 7-F machine with a stand-alone steam turbine. Also, another Texaco gasification based project is currently starting up in Delaware City, Delaware. This plant uses, two 6F combustion turbines with two stand-alone steam turbines. The expected gross output for the Delaware City Project is 240 MW.

Eagle Energy Project
Response to FPC's April 7, 2000 Letter

12. Please describe any liquidated damages provisions for failure to meet the March 31, 2004 commercial operation date.

The Project is willing to offer liquidated damages to FPC in the event the Project does not meet the March 31, 2004 start-up date. However, Eagle Energy has not yet selected a precise form of damages because Eagle Energy would like to discuss with Florida Power Corporation what form would best suit your needs within the reasonable economic parameters of the Project.

13. Please indicate the expected number of trucks per day carrying petroleum coke and fuel oil, respectively, as required for regular plant operation.

With 24-hour full load operation on petroleum coke, an average of 250 truck deliveries per day will be required. Based on expected gasifier availability, the plant would require a truck delivery of No.2 fuel oil every 5 days on average when operating for long durations on No. 2 fuel oil.

14. Please list all chemicals used in the gasification process, storage facilities, quantities needed on a daily/weekly/monthly basis, and the method and frequency of delivery.

The chemicals and catalysts used in the gasification process are listed in Table 1. Most of these chemicals and catalysts are used infrequently. New shipments will be brought in on a monthly or annual basis.

Table 1. Catalysts and Chemicals
 Normal Operating Conditions

	Unit	Annual Requirements
		(1)
Raw Water Treating		
Coagulant	pound	335,683
Polyelectrolyte	pound	83,921
Chlorine	ton	167
Potable Water Treating		
Activated Carbon	pound	869
Sodium Hypochlorite	pound	230
BFW Demineralizer		
NaOH (50%)	ton	1,111
Resin, Strong Cation	cuft	16
Resin, Weak Cation	cuft	75
Resin, Strong Anion	cuft	129
BFW Polisher		
Resin, Strong Cation	cuft	16
Resin, Strong Anion	cuft	129
BFW Treating		
Phosphate/Conditioner	pound	1,759
Oxygen Scavenger	pound	7,952
Condensate Inhibitor	pound	15,893
Process Cond. Polishing		
NaOH (50%)	ton	9
Resin, Strong Cation	cuft	1
Resin, Strong Anion	cuft	7
Cooling Water Treating		
Corrosion Inhibitor	pound	13,379
Dispersant	pound	17,230
Chlorine	ton	80
Chlorine Enhancer	pound	12,338
Acid Gas Removal		
Selexol	pound	145,989
Offsites		
Plant/Inst Air Dryers		
Adsorbent	pound	270
Texaco Gasification		
Flocculant, Cat. (1%)	gal	2,380,521
Flocculant, An. (1%)	gal	79,357
Scale Inhibitor (1%)	gal	270,500
Calcium and soil	ton	17,000
Ammonium lignon sulfonate	gal	41,200
Soda ash	gal	50,000

(1) Basis 365 days/year

15. Please indicate whether any of the wastes produced from the process are considered hazardous.

None of the by-products produced from Texaco's gasification process have been deemed hazardous by the U.S. Governmental Agencies. Any other materials used, such as chemicals, catalysts, etc., will be recycled back to the manufacturers.

16. Please describe the anticipated quantities and types of solid wastes that will be produced by the gasification process and plant operation. Please indicate whether TECO Power Services and Texaco will be responsible for all costs necessary to meet the Florida Department of Environmental Protection (FDEP) treatment and disposal requirements.

The Texaco Gasification process does not produce solid waste but rather by-products, all of which the Project intends to market to various purchasers. (Please refer to answers to questions 2 and 15 above).

17. Please identify the amount of water needed for each of the processes (e.g., cooling, gasification, gas clean up, etc.) Please describe the quality of the water that will be required for each of these processes. Please indicate whether TECO and Texaco will be responsible for any water treatment costs or whether FPC is expected to incur this cost.

We have estimated that the Project will need about 950 GPM of Boiler Feed Water Make-Up and about 9050 GPM of Cooling Water Make-Up. The Cooling Water Make-Up includes 2500 GPM of cooling tower blow down. Most of our water needs would be satisfied by available surface water at the site. TECO and Texaco would be responsible for any water treatment costs. We do not expect FPC to incur any costs associated with water treatment for the Project.

18. Hines Energy is designed and certified as a zero discharge site with respect to industrial wastewater discharges. The proposal identifies compliance with an NFDES requirement. Please indicate the volume of such discharge, the constituents of the discharge, and whether TECO and Texaco are willing to meet water quality limits equal to the limits as required by the FDEP. Also, please indicate where the wastewater treatment system will be located.

The present design of the facility includes cooling towers. However, at the Hines location, if acceptable to FPC, the cooling reservoir would be used in combination with cooling towers. This impact would be to minimize any chemical treatment of the cooling water. Thus, the impact of cooling water or wastewater would be similar to if the plant were operated as a natural gas combined cycle.

A storm water runoff system would be included, with the design developed after an initial site investigation.

19. Please describe what specific licensing requirements are included in the statement on page 21 of the proposal that "All licensing activities for the project should be completed before August, 2000." Please provide a detailed schedule with milestones demonstrating how the licensing can be achieved by August 2000. Please indicate whether TECO and/or Texaco have ever licensed a similar facility in Florida on this schedule. Please provide an overall schedule of supplemental site certification activities.

The licensing activities, referred to on page 21 of the Proposal, include all of the process licenses needed to operate the Project. For example, Eagle Energy obtained a license from Texaco Development Corporation last year to license the Texaco Gasification Process. Eagle Energy is currently in the process of obtaining licenses for the Selexol process and for the sulfur removal process. We anticipate no problem in obtaining these licenses by August of this year, as stated in the Proposal.

20. The site is currently certified for coal-gasification. Please explain how TECO and Texaco will support the needed modification to the conditions of certification to allow gasification of petroleum coke.

TPS and Texaco will submit a request for modification and include pertinent information to the appropriate regulatory agencies. Any differences in air, water, transportation, or waste issues will be addressed in this modification. The agency will modify the current condition of certification to reflect these changes.

21. Please indicate the date by which TECO and Texaco must begin construction on the plant facilities. Please provide a detailed schedule, which includes, at a minimum:

Notice to Proceed Engineering date: January, 2001

Notice to Proceed Equipment manufacturers date for combustion turbines, steam turbines, heat recovery steam generators (HSRG), and gasifiers: June, 2000

Mobilization date: 1st quarter 2002

Gasifier ship dates beginning and end dates: Delivered to site March, 2003

HRSG ship dates beginning and end dates: Delivered to site March, 2003

Steam turbine ship dates beginning and end: Delivered to site March, 2003

Combustion turbine ship dates beginning and end: Delivered to site June, 2003

Start up and commissioning schedule, first fire to commercial operation: Start up, January 1, 2004, Commercial Operation, March 31, 2004.

The dates given above are estimates. A detailed Project schedule is being developed at this time, in the event the Project is short-list, this Project schedule will be provided at that time.

22. Please provide the expected construction work schedule and the peak manpower loading and duration.

We plan to begin working with engineering, procurement and construction contractors shortly to develop this detailed schedule information. In the event the Project is short-listed, we would provide this information at the appropriate time.

23. Please list all of the fuels that will be included in the site certification.

Petroleum coke, No.2 fuel oil and propane would be included in the site certification.

24. Please provide an expected level of emissions performance from the combined cycle operation and the gasification and related processes. Please include any fugitive emissions as well as the discrete sources of emissions. Include the criteria pollutants as well as any hazardous air pollutants as defined in the Clean Air Act, as amended.

Air emissions associated with the proposed facility fall into three broad categories: combustion emissions, process emissions and fugitive emissions. The combustion sources are:

- The advanced CT integral to the IGCC unit;
- The IGCC unit emergency flare;
- The three CTs associated with the CC units

The primary source of emissions from the IGCC unit is combustion of syngas in the advanced combustion turbine. The exhaust gas from the CT will be emitted to the atmosphere via the HRSG stack. Emissions from the HRSG stack are primarily NOx and SO₂, with lesser quantities of CO, VOC, particulate matter less than 10 micrometers, and other trace constituents present in the fuel. Table 2 presents the estimated maximum hourly emission rates for this source. Estimated emissions firing low-sulfur No. 2 distillate fuel oil are also provided in Table 2.

Table 2. Maximum Emissions from the IGCC Unit's CT

Pollutant	Syngas fired	No. 2 Fuel Oil
Particulates, lb/hr		17
SO ₂ , lb/hr	400	
NO _x (ppmvd @15% O ₂)	<10	42
CO		74-84
VOCs, lb/hr		7-7.5

At a minimum, 99% of the sulfur present in the petroleum coke will be removed by Acid Gas Removal system. The sulfur-laden gas produced in the Acid Gas Removal system will be treated on-site and converted to a saleable sulfuric acid by-product.

The emergency flare will operate only during gasifier startup and shutdown, and during infrequent, unanticipated interruptions of the gasifier's operating cycles. On a routine basis, emissions from the flare will result from the pilot flame, which will be negligible.

25. Please provide the expected start-up times for hot and cold equipment.

For the Gasification Unit, a hot startup of the gasifier, assuming a short interruption, customarily takes 2 to 4 hours. Typically for cold starts it takes 2 days to heat up and line out a Gasifier. However, since there is a spare Gasifier, the spare would be preheated to hot conditions before shutdown of a train.

For the Air Separation Unit, if one of the two trains is in a cold state (Cold Box at cryogenic temperatures) would take a few hours to startup and line out the system. If both of the two trains are in a warm state (Cold Box at ambient temperature) it would take up to 3 days. Since the Eagle Energy project design includes 2 complete Air Separation Unit trains only the initial startup should be from a warm state.

26. Please explain whether the combustion turbines can be run without the steam turbine available either by dumping steam to the condenser or through the use of bypass dampers.

The combustion turbines will be able to operate without the steam turbine by by-passing to the surface condenser. However, in this mode the system will operate at reduced output and reduced efficiency. We do not plan to install bypass dampers.

27. Please state whether the Eagle Energy Project is being developed concurrently in Florida with any other parties at any other potential plant locations.

Eagle Energy is exploring other potential plant locations in central Florida for the Project. Texaco and TECO Power Services are the only members of Eagle Energy at this time.

28. Please discuss whether there are fuel and/or material storage areas planned for the Hines site that would support development or operations of any other facilities. Other than the proposed pet coke handling facility at the port, please discuss whether there are any other off-site fuel and/or material storage facilities that would be used in support of the facility at the Hines site. Any fuel or material storage facilities proposed for the Hines site are intended to serve only the IGCC based generation in our proposal. There may be benefits to sharing some of the fuel storage proposed for the Hines site with other generating units at the site. Other than the port facility, there are no off-site facilities that would be needed to support the Project at the Hines site

29. Please discuss whether the process for this specific facility has been designed. Please discuss whether any material and energy balances have been developed for this specific facility, and if so, please submit for review.

The process design for this specific Project is more than fifty percent complete. Because this is a ~~proprietary licensed technology, TECO and Texaco are bound by non-disclosure agreements.~~ However, upon notice of being a short-listed bidder, Eagle Energy would be willing to provide FPC with non-proprietary material balance and performance data..

30. Please describe the sulfur and sulfuric acid handling process and facilities, including the storage and transportation requirements of the process at the Hines site.

The sulfuric acid plant would be a standard design by Monsanto and EnviroChem. The facilities will produce about 1140 tons per day of sulfuric acid requiring 46 truck deliveries of acid to local customers.

The proposed facility would produce high quality sulfuric acid. A storage tank of approximately 3-4 days storage would be constructed (based on detailed design criteria). This would equate to approximately 3500 to 4600 tons of 93%-98% sulfuric acid. The acid would be removed by truck. Elemental sulfur will not be a by-product of the Facility.

31. If FPC elected to purchase more than 500 MW, please discuss how such capacity and energy would be priced. Also, please clarify at what time FPC would have to exercise that option.

In order to provide FPC with a competitively attractive proposal, Eagle Energy elected to price each MW at the lowest price possible. Consequently, any MWs FPC would be interested in purchasing over 500 MW would have the same capacity and energy price as the original MWs. Such pricing is set forth in detail in Tables 1 and 2 attached to the Proposal. Eagle Energy is currently marketing the Project's excess output over 500 MW. FPC would need to exercise its option to purchase any or all MWs over 500 MWs on or before July 1, 2000.

32. FPC presumes that power "scheduled for use by FPC" is not restricted in any manner in terms of how it is used. If there are restrictions implied, please clarify them.

The power "scheduled for use by FPC" is not restricted in terms of whether FPC uses this power for their internal load or for a power sale. However, as stated in response 1) of the April 5, 2000 set of questions, this unit will not be available for FPC's use as a "load following" resource, and FPC will be required to provide Eagle Energy a day ahead capacity and energy schedule should FPC choose not to base load this unit.

33. Please indicate whether there are any availability and performance guarantees applicable up to 809 MW of subscription. If so, please describe.

The availability and performance guarantees given in Section 1.7, Liquidated Damages and Table 4 of Section 5 of Eagle Energy's proposal to FPC are applicable up to 740 MW.

34. Please explain why the maximum ratings are so much higher than the contract ratings. Are there operating conditions that would allow for more than 809 MW of power output to the grid? If so, how regularly would these modes be available.

The plant is being designed to take advantage of the economies of scale. The Project will have three combustion turbines and makes use of the economies of scale and provides maximum power reliability to FPC. Since the combustion turbines are shaft limited on syngas at all ambients we do not expect to exceed the design net power output (currently 740 MW). No supplemental HRSG firing or peaking capability is included in the design.

35. Please describe any industry experience that supports an offering of 1% EFOR across the board.

The 1% EFOR is based on other commercial facilities with configurations that have spare gasifier trains and back-up fuel for the turbines. Some of these facilities include the Tennessee Eastman plant in Kingsport, TN, the Ube plant in Japan, and the El Dorado plant in Kansas.

With the spare gasifier long term syngas availability of greater than 98% has been commercially demonstrated. This high syngas availability together with the backup fuel capability assures that the combustion turbines will always have a source of fuel at consistent pressure and composition. This allows the combustion turbines to achieve this low forced outage factor.

36. Please explain in as much detail as necessary how the outage cycles will work for these units. Please explain, at a minimum, how often each major sub-process of the plant is shut down, what impact it has on MW output, how much overlapping sub-process maintenance is performed, how often the entire plant output is affected, etc.

For the Gasification Section, it typically is recommended that the Gasifier be shutdown for 7 days, every six (6) months, to replace refractory drip points. The Gasifier should also be shutdown every two (2) years for the replacement of the hot face refractory, which can take 20 to 25 days, including cool down and heat up. Since there is a spare gasifier this planned maintenance does not affect syngas availability.

The planned maintenance of each Air Separation Unit train (approximately 7 days per year) is done in conjunction with the planned combustion turbine outages. During this planned maintenance period the output from the 2 operating combustion turbines is reduced by 5-10%.

The acid gas removal and acid plant sections are single train but require minimal planned maintenance (approximately 7 days every 2 years). They will have simultaneous planned outages. These planned outages will occur in conjunction with the planned combustion turbine outages; however the remaining two combustion turbines will operate on backup fuel oil.

The Combustion Turbine downtime is based on the standard GE Recommended Maintenance Schedule. There is no adjustment to the standard natural gas fired maintenance schedule for use of Syngas as fuel.

37. Please confirm that the construction load is 219,000 kva. Please explain what the station load will be including the syngas processing facility when the plant goes into commercial operation.

The construction load will not be 219,000 kva. There will be a nominal load for construction equipment only. The combustion turbines will be started-up on back-up fuel. Only a small amount of power will be required to start the combustion turbines' starter motor. The air separation units, gasification section, acid gas removal section, and sulfuric acid plant will be started with the power generated by the Project's combustion turbines running on back-up fuel.

38. Please discuss whether TECO and Texaco would agree to FPC's consent and approval of the long term operation and maintenance plan if ownership is ever transferred or O&M outsourced?

In the event that the Project is short-listed, TECO and Texaco would be willing to discuss FPC's request.

39. Please explain whether the allotment for transmission upgrades is designed to accommodate 500 MW or 809 MW or 995MW?

The allotment for transmission upgrades given in the Eagle Energy proposal is designed to accommodate 740 MW.

Eagle Energy Project
Response to FPC's April 7, 2000 Letter

40. Please explain that if the plant is off-line for extended periods (perhaps months), whether the remaining 90% of the capacity payment is still payable.

Eagle Energy does not anticipate that the Project would ever be off-line for extended periods. Eagle Energy recognizes that liquidated damages for extended outages is necessary and will address this, however, we think this discussion is premature at this time and would like to defer it to the contract negotiation phase.

41. Please explain whether TECO and Texaco would agree to periodic (mutually agreeable) demonstrations of performance on back-up fuel.

In our preliminary operating plan, we intend to run the Project 108 hours a year on back-up fuel. Additionally, the Project is designed to automatically switch over to No. 2 oil in the event of a syngas interruption. The operating plan will allow for up to 10% operation on No. 2 oil.

42. Please confirm whether the capacity and energy prices are fixed with a 2% escalator.

Yes, the capacity and energy prices are fixed with a 2% escalator.

43. Please verify whether it is correct to add the full outage and partial outage rates to obtain planned maintenance.

The guaranteed availability values given in Table 4 of Section 5 of the Eagle Energy proposal include forced outage and maintenance outage hours.

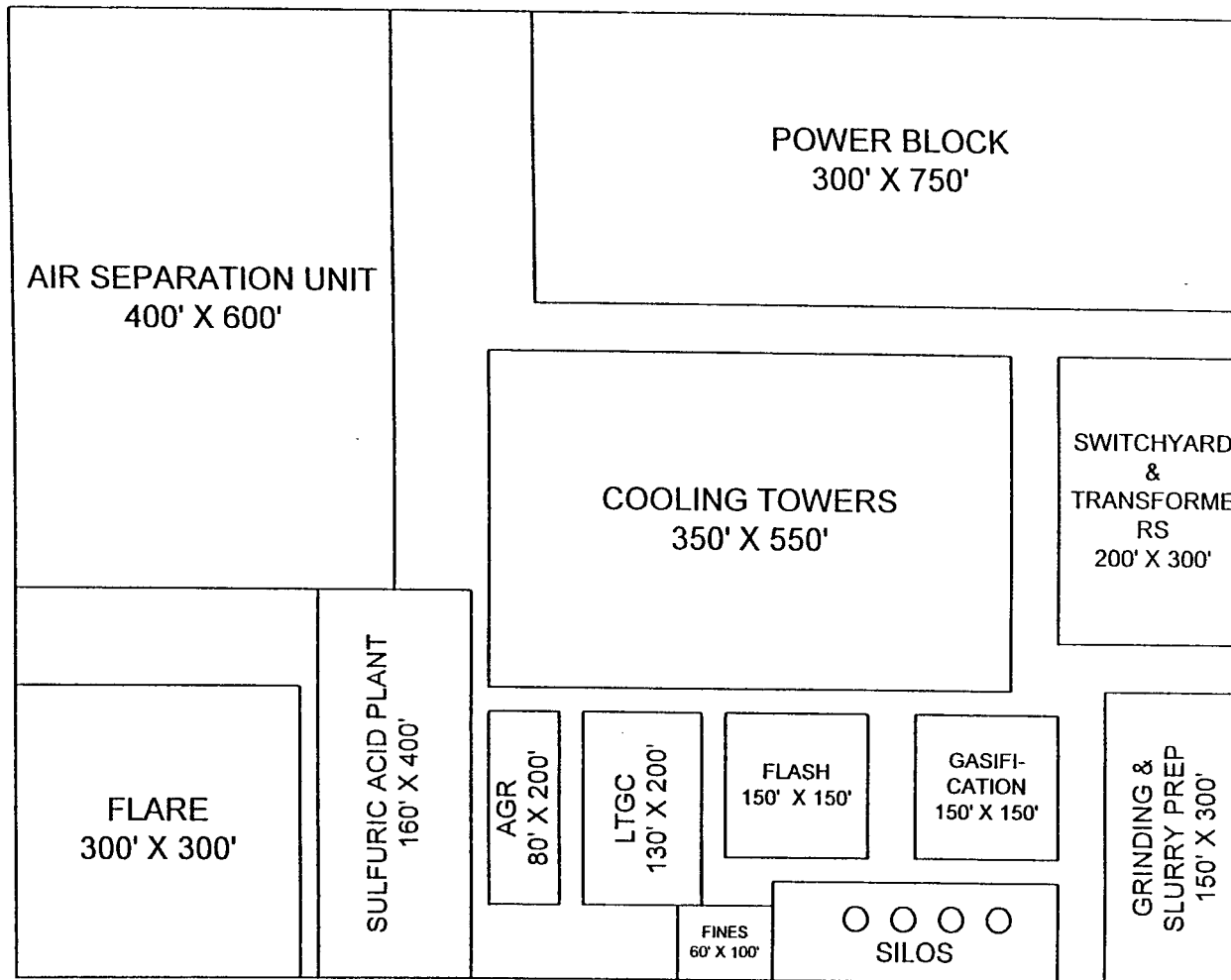
44. Please discuss whether TECO and Texaco would agree to operation by Automatic Generation Control for load following from FPC's Energy Control Center with mutually agreeable limits on demand fluctuations.

TECO and Texaco would consider ramping the Eagle Energy IGCC unit provided that ramp rates and output ranges could be mutually agreed to, and provided that the terms and conditions are such that Eagle Energy does not incur any economic penalties due to operating at reduced capacities.

45. Please clarify whether the respective parent companies of Texaco Power and Gasification Global Inc. and TECO Power Services Corporation will provide parent guarantees. If so, please provide proposed terms of these parent guarantees.

Texaco Inc. and TECO Energy will not provide financial guarantees for the operation of the Project. However Texaco through its Texaco Development subsidiary is providing a performance guarantee for the gasification block of the project. UOP and Monsanto will provide performance guarantees for sulfur block of the project. And, General Electric will provide performance guarantees for the power block of the project.

Energy will be obtaining a world class engineering firm to provide the engineering, procurement and construction services for the project. We anticipate obtaining a plant cost and schedule guarantee from the contractor. We anticipate that Eagle Energy will contract with a highly experienced operator to maintain and operate the Project (potentially Texaco or Teco Power Services), who will provide availability guarantees. In addition, both Texaco Power and Gasification Global Inc. and TECO Power Services have an abundance of expertise designing, constructing, operating and maintaining IGCC projects like the Eagle Energy Project.



TEXACO DEVELOPMENT
CORPORATION
BELLAIRE, TEXAS



NOTES:
1. SCALE 1"=200'

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TEXACO GASIFICATION POWER SYSTEMS
EAGLE ENERGY PROJECT
PLOT PLAN

DRAWN	AIR	DATE	04/10/00	PROJECT	NO.	REV
DESIGNER		DATE				
CHECKED		DATE		DRAWING	NO.	
APPROVED		DATE				0

rfresponse /goc,openmail

From: rfresponse /goc,openmail
Sent: Tuesday, April 18, 2000 1:51 PM
To: 'Becky Alex (E-mail)'
Subject: Proposal Review Meeting
Importance: High

Ms. Alex,

- We did receive the hard copy and email versions of your responses to our questions and clarifications. Thank you.
- We are pleased to confirm our Proposal Review Meeting which we have scheduled on April 26, 2000 from 1:30 to 3:30 pm in Conference Room BB3-4 at our Bayboro Office in downtown St. Petersburg. Our intent is to focus on your proposal and the questions and clarifications we've exchanged to date to reach a thorough understanding of your offering. In the event that attendees in your group are not familiar with our location, please forward the brief directions that follow.
- Directions from Tampa Airport:

Airport Access Road to 275 South (St. Petersburg)
Exit 175 to Downtown St. Petersburg (Landmark - Dome Stadium)
175 Dead-Ends into a traffic light @ 4th Street.
Continue 1 block to 3rd Street and TURN RIGHT (South).
Travel South on 3rd Street for several blocks.
Pass the Salvador Dali Museum on the Left.
Next Building on the Left is Florida Power (Tall Brick Building)
Visitor's Lot Entrance - Just South of the Building

I look forward to meeting with you next week.

Michael Rib

2.5.1.1

Gilenn
Gordon
Sasso
✓ Rib
Taylor

Rib, Michael D. /goc,openmail

To: McKeage, Mark D. /goc,openmail; Rocha, James R. /goc,openmail; Dingle, Dennis /goc,openmail; Pardue, William J. /goc,openmail; Crisp, John B. /goc,openmail
c: Glenn, Robert A. /goc,openmail; Goodwin, Suzanne C. /goc,openmail; Gary Sasso (E-mail)
Subject: Eagle Energy Meeting
Importance: High

Confirming today's meeting with Eagle Energy at 1:30pm. We've moved to Conference Room 1 near the chimney elevator. I've sent Eagle a brief agenda (below) for discussion. This should cover the range of items we've been talking about. See you there!

Thanks ... Mike

**Meeting Discussion Points
Eagle Energy Project Proposal**

April 26, 2000

Introductions

Background from TPS/Texaco

Review of Eagle's Responses to FPC's April 5th Letter

Clarification Review and Discussion

Design and Operational Considerations

- Water Supply Resources
- Heat Rejection Requirements
- Water Treatment and/or Disposal
- Air Emissions
- Material Handling
- Fuel Transportation
- Solid Waste
- Transmission

Contract and Financial Considerations

- In-Service Date
- Supplemental Site Certification Schedule
- Performance Guarantees
- IGCC Performance Experience
- Petcoke Gasification Experience
- "F" Combined Cycles
- Financing Schedule
- Parent Guarantees

Meeting Discussion Points
Eagle Energy Project Proposal

April 26, 2000

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- Financing Schedule
- Parent Guarantees

2.5.2.1

Glenn
Goodwin
Sasso
Taylor
Elb

Wharton

Eagle Energy Project



Presented To

Florida Power Corporation

**April 26, 2000
St. Petersburg, FL**

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Eagle Energy Project

Agenda

- **Introduction**
- **Texaco Gasification Technology**
- **Texaco Project Experience**
- **TECO Power Services Project Experience**
- **Eagle Energy Project Specifics**
- **Summary**

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2.5.2.1

Glenn
Goodwin
Sasso
Taylor
Rib

✓

Wharton

Eagle Energy Project



Texaco Power & Gasification and
TECO Power Services
50-50 Joint Venture

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Eagle Energy Project

Project Goal

To construct and operate a Power Plant that is

- Safe
- Reliable
- Environmentally Sensitive
- Commercially Proven
- Economically Attractive

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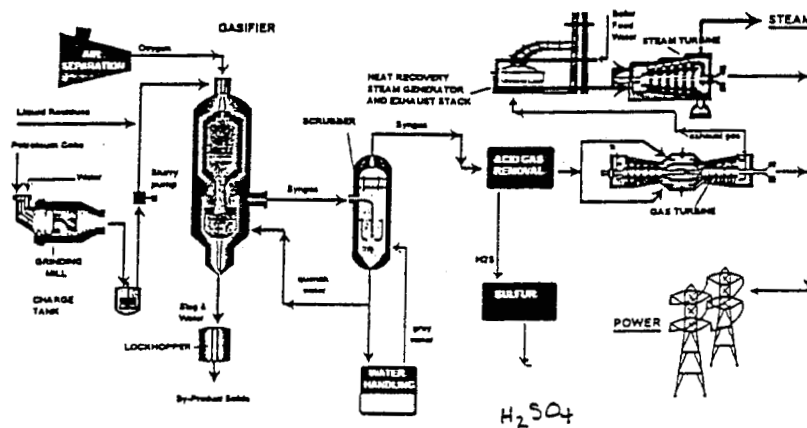
Eagle Energy Project

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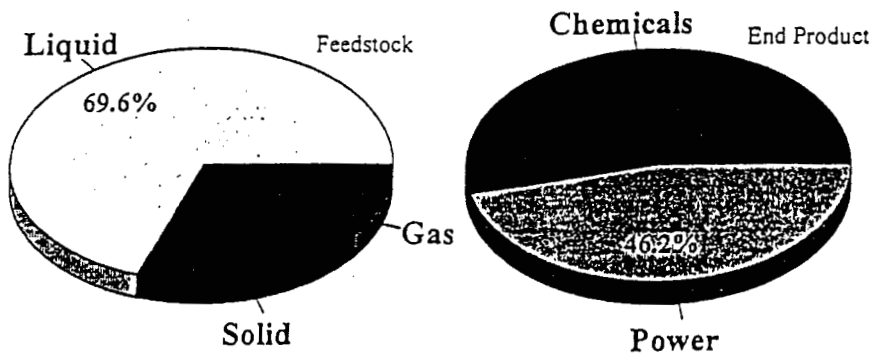
Eagle Energy Project



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Eagle Energy Project

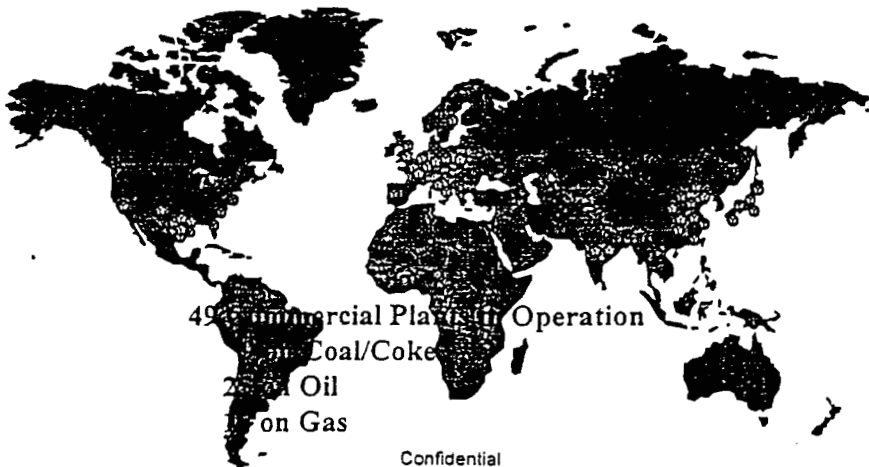
Percent of Syngas Capacity



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Eagle Energy Project

Commercial Units



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Eagle Energy Project

Gasification Projects in Engineering/Construction



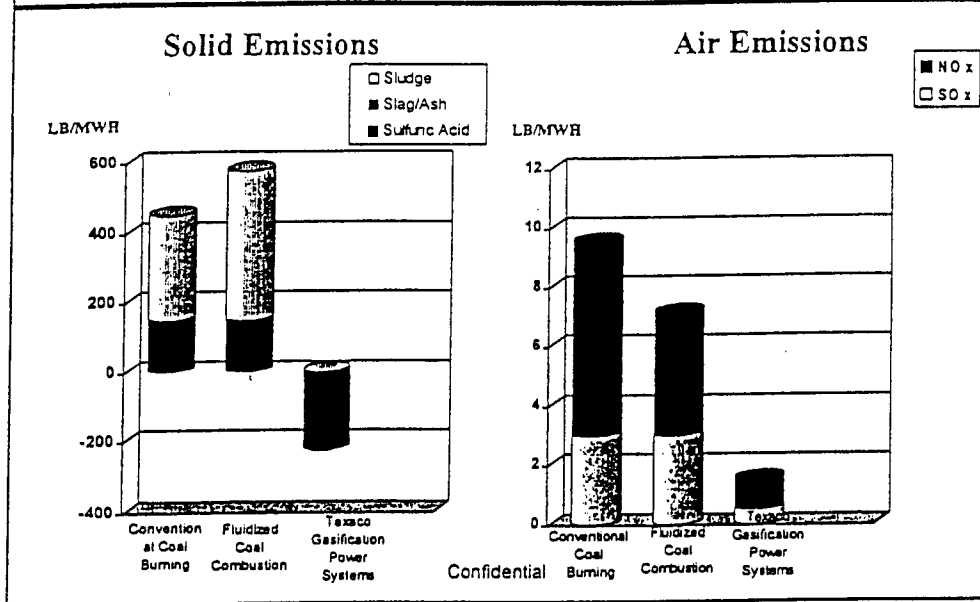
Eagle Energy Project

Recent Gasification To Power

<u>Owner</u>	<u>Net MW</u>	<u>Feed</u>	<u>Startup</u>
Texaco	35	Coke, Waste	1996
Tampa Electric	250	Coal	1996
API Energia	250	Visbreaker Residue	2000
Sarlux	500	Visbreaker Residue	2000
ISAB Energy	500	Asphalt	2000
Motiva	150	Coke	2000

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Eagle Energy Project



Eagle Energy Project

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Eagle Energy Project

Financed Texaco Projects in Operation

Texaco Ownership - Project Financing

Eight Cogen Plants Total 820 MW

Frontier Ownership - Operating Lease Financing

El Dorado 160 MW IGCC 1996

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Eagle Energy Project

Financed Texaco Projects in Development

Texaco Ownership - Project Financing

API Energia	276 MW	IGCC	2000
Tri Energia (Thailand)	700 MW	Cogen	2000
Darajat (Indonesia)	70 MW	Geothermal	2000

Texaco Ownership - Operating Lease Financing

Motiva Delaware City	160 MW	IGCC	2000
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Eagle Energy Project

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Eagle Energy Project

TECO Power Services Project Experience

HARDEE POWER STATION

- 300 MW NG CC + GE Frame 7EA (Simple Cycle)
- Commercial Operation 1/1/93
- Owner / Operator / Fuels Manager - TECO Power Services
- 1999 Availability 96%, CF 40%
- Customers:
 - Seminole Electric Cooperative
 - Tampa Electric Company
- Plant Staff 25
- CT 2B Expansion - 75 MW, 5/15/00

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Eagle Energy Project

TECO Power Services Project Experience

POLK POWER PROJECT

- Development Project in conjunction with Texaco
- 250 MW IGCC
- Coal Blends Feedstock
- Managed Technical Aspects of Project
- Commercial Operation 1996

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Eagle Energy Project

TECO Power Services Project Experience

ALBORADA POWER STATION

- Two 39 MW LM6000 CTs, Inlet Chilled, Simple Cycle, Oil Fired
- Commercial Operation 9/95
- Owner - TECO Power Services, Local Partner
- Operator - GE International Operations / TPS (12/00)
- Customer - Empresa Electrica de Guatemala, S.A.
- 1999 Availability 97%, CF 24%
- Plant Staff 14

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Eagle Energy Project

TECO Power Services Project Experience

SAN JOSE POWER STATION

- 120 MW Coal Fired Steam Plant
- Owners - TPS
- Project Cost \$182 Million
- Construction Management - TECO Power Services
- Operator - TPS Operaciones, Plant Staff 72
- EPC Contractor - Jones / Black & Veatch
- Facilities - Power Plant, Port Coal Handling
- Dock and Coal Handling Operational 6/1/99
- Commercial Operation 1/19/00

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Eagle Energy Project

TECO Power Services Project Experience

COMMONWEALTH CHESAPEAKE

- 312 MW, 7 LM6000 PC, Inlet Chillers, #2 oil
- New Church, VA - Delmarva Peninsula
- Electrical Interconnection - PJM
- Owners - TMPV & Local Partner
- Construction Management & Operator - TPS
- Equipment Supply - Kvaerner Oslo, Norway
- EPC - Brown & Root
- Equipment Supply - ENRON
- Commercial Operation with 3 CTs on 7/1/00, 4 More CTs on 6/1/01

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Eagle Energy Project

TECO Power Services Project Experience

HAMAKUA POWER PROJECT

- 63 MW Combined Cycle, Two GE LM 2500 and HRSGs, 1 Steam Turbine, Naptha
- Honakaa, Hawaii (Big Island)
- Cogen - PPA with HELCO, Steam to Fish Farm
- Owners - TPS and J.A. Jones
- Construction Management - TPS
- Operation - Joint Venture TPS & JAJ
- EPC - Jones / Burns & McDonnell
- Construction Start 8/17/99
- Phase I - 22 MW on 7/17/00
- Phase II- 63 MW on 12/17/00

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TECO Power Services Project Financing Experience

- Hardee Power Station
- Alborada Power Station
- San Jose Power Station
- Hardee Power Station Expansion
- Commonwealth Chesapeake
- Hamakua Power Project

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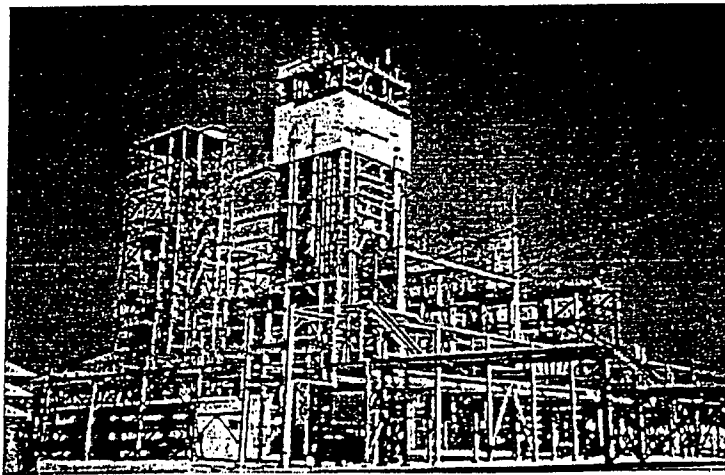
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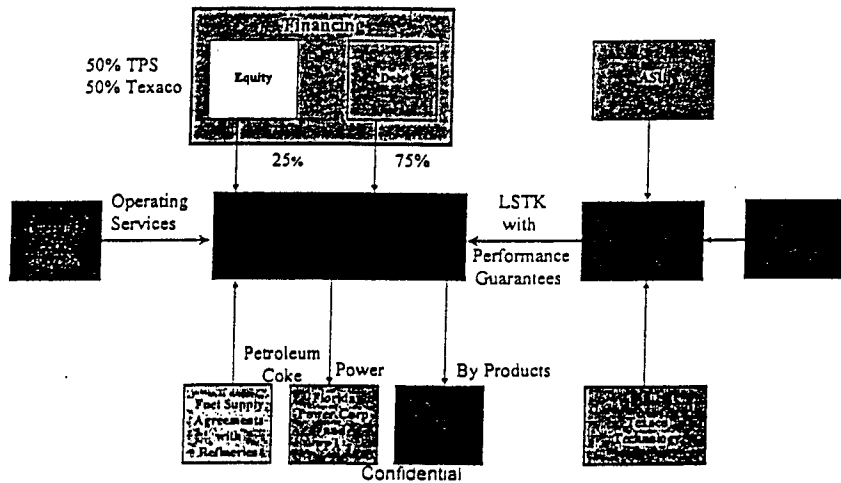
TECO Gasification Structure



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Preliminary Commercial Structure



Eagle Energy Project

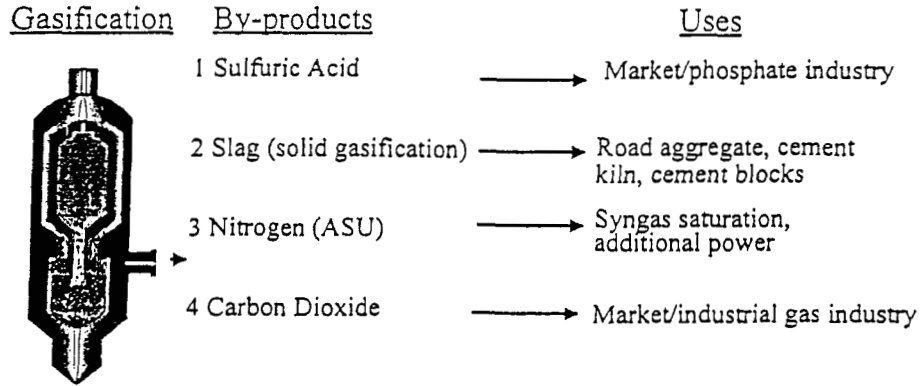
Eagle Energy Major Feed and Power Production

- Feed Stock
 - 6000 STPD Pet Coke consumed
 - Current high sulfur Pet Coke production at 49,240 STPD
 - Future additional production of high sulfur Pet Coke project at 28,840 STPD
- Power Production
 - 750 MW

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Eagle Energy Project

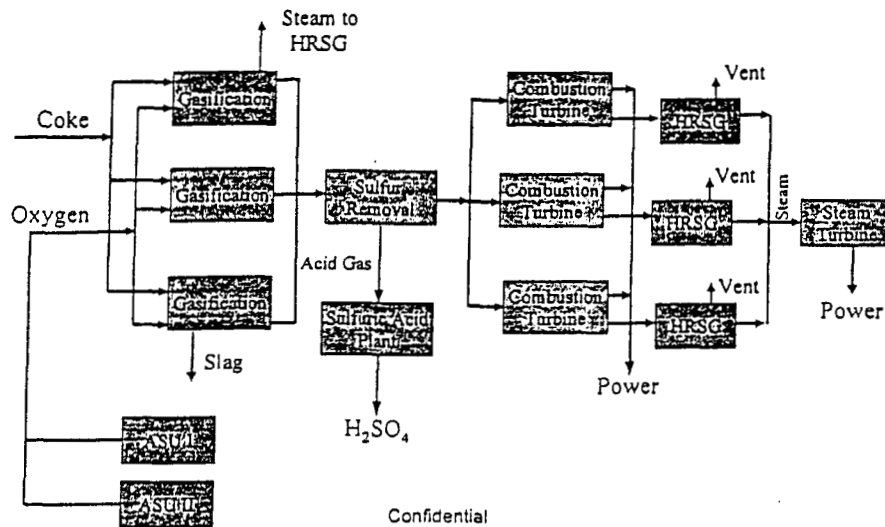
Eagle Energy By-products/Uses



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Eagle Energy Project

Eagle Energy By-products/Uses



Eagle Energy Project

Projected Availability

- Gasification Block
 - Two 50% gasifiers, 1 spare gasifier
 - Two 50% air separation units
 - High availability at 98%
- Power Block
 - Three GE 7F-frame CT, 3 HRSG, 1 Steam Turbine
 - Primary Fuel will be Syngas
 - Backup fuel will be No. 2 fuel oil
 - 94% Availability

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Eagle Energy Project

Power Pricing Structure

- Capacity Pricing
 - \$19.26/KW-Mo. In \$2003
 - Escalated at 2% per year
- Energy Pricing
 - \$3.53/MWH in \$2003
 - Escalated at 2% per year
 - No Fuel Risk

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Eagle Energy Project

Project Schedule

- | | |
|---|-------|
| • Notice to Proceed with Equipment Manufacturers | 06/00 |
| • Begin Environmental Permitting at Hines Complex | 06/00 |
| • Notice to Proceed with Engineering | 01/01 |
| • Gasifiers, HRSG, and Steam Turbine Delivery | 03/03 |
| • Combustion Turbines Delivery | 06/03 |
| • Commercial Start up | 03/04 |

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Eagle Energy Project

Agenda

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Meeting Notes
Eagle Energy Proposal Clarification
April 26, 2000
Bayboro Offices of Florida Power Corporation

Florida Power Corporation

Michael Rib
Ben Crisp
Jeff Pardue
Becky Jensen
Dennis Dingle
Jim Rocha
Mark McKeage

PHB Hagler Bailly

Alan Taylor (by teleconference)

TECO Power Services

Dexter Cook, Director of Development, NA
Ray King, Development Manager, USA
Becky Alex, Sr. Engineer/ Development Manager

Texaco Power & Gasification

William Preston, VP, Project Development, NA
Tony Blando, Finance Director, Project Development, NA
Alma Rodarte PhD, Project Manager
Paul Wallace, Project Manager

This meeting was held to provide FPC and the parties to the Eagle Energy bid the opportunity to reach a clear understanding of the proposal offering to FPC under FPC's RFP for power in November 2003.

Mr. Preston of Texaco Power and Gasification (Texaco) expressed a desire to gauge how serious FPC would be in participating this project. He explained that Texaco and TECO Power Services had been working on development of a petroleum coke based gasification facility project in Central Florida and took "a 90° turn" from where their project was headed to examine the merits of a power application on FPC's site in response to the RFP. He stated that their interest in looking at the RFP stemmed from a preliminary assessment that had indicated the potential for higher revenues and margins from power sales (based on FPC's numbers) than they were seeing from their original chemical project.

Mr. Cook of TECO Power Services (TECO) took the opportunity to share the commitment and long term focus that TECO is placing on the gasification business, based on their experience and desire to expand that element of their business.

Both business leaders echoed their commitment to building a gasification based unit in Central Florida.

Dr. Rodarte presented Eagle Energy Project Overview (reference the attached handouts).

Questions and Clarifications During the Presentation:

- The maximum spec for petcoke sulfur is approximately 8%.
- The estimated availability figures for petcoke are based on Gulf Coast and Caribbean Basin supplies.
- The Air Separation Units are sized at 50% each.
- There is one sulfur removal system.
- There are no SCR's in the design.
- The current GE syngas combustor design does not accommodate natural gas.
- GE guarantees 94% availability on the combustion turbine trains (syngas, distillate).

End of Eagle Energy Project Overview

To begin the Clarifications discussion, FPC offered that while the Company is not ready to answer Mr. Preston's question while the evaluation team is still clarifying and digesting information, FPC is very serious about consideration of the proposed project. FPC further suggested that the Company is not

completely foreign to gasification technology, is aware of the state of technology and knowledgeable enough to make a reasoned assessment of the offer.

FPC directed the discussion to the questions and clarifications in recent correspondence.

Minimum Requirements Letter, April 5th

FPC facilitated a detailed walk-through of the April 5th minimum requirements letter.

Note: FPC comments herein regarding the suitability of TECO's responses to the April 5th letter are only intended to relate to the minimum information required for FPC to consider the proposal.

- Item 1: TECO's written response regarding dispatch is acceptable for review.
 - Item 2: Additional key milestone dates were provided. These responses were deemed acceptable for review.
 - Eagle stated that they believe that filing for supplemental site certification by year-end 2000 should support the planned 2004 in-service date.
 - Texaco stated that financial closing would be anticipated in spring 2002 to coincide with start of construction.
 - Item 3: FPC expressed understanding that Eagle desires to keep the costs confidential. However, they were warned that this information may be required at some point during the regulatory process.
 - Item 4: TECO's response on the 10k submissions were deemed acceptable for review.
 - Item 5: The minimum and maximum operational states outlined in TECO's response were deemed acceptable for review.
 - Item 6: TECO's detailed responses regarding anticipated environmental impacts were deemed acceptable for review.
 - Item 7: The floppy disk had been received before the meeting to resolve this issue.
 - Item 8: Most of the required transmission data has been provided. Generator inertia data is still required. Typical engineering estimates will be acceptable. (Action: Eagle)
 - Item 9: The information about scheduling planned maintenance is still not crystal clear. Parties agreed to leave the item open and perform the assessment of the proposal in a reasonable manner with the information provided.
- Items 10-12: Eagle's responses were deemed acceptable.

That concluded discussion regarding the follow-up on minimum requirements outlined in the April 5th letter.

General Discussion and Clarification Items

1. FPC opened this phase of the discussion addressing hurdles to making the plant work at the Hines site. The first subject area was "water". FPC has certain restrictions in the site certification which prohibit the use of ground water for the first ~ 1000 MW developed at the site. FPC asked for ideas on how this hurdle could be overcome with a gasification plant since this process requires large volumes of water.

Texaco asked why FPC believes that the gasification process requires large amounts of water when Texaco perceives the requirements as equivalent to a combined cycle. FPC referred to the stringent rationing and planning that has been required to accommodate a second unit at Hines with the existing sources of water. Even though the plant is larger (750 MW vs 530 MW), the heat rejection requirements are 3 to 4 times that of FPC's combined cycle projections. Texaco didn't have an explanation of the higher heat rejection rates. They did suggest that new cooling ponds could be considered as an option if they were needed. Further clarification of the heat rejection requirements and attendant water requirements were requested. (Action - Eagle)

TECO offered that they were already trying to locate other water sources in the area. They have been talking to Cargill and IMC Agrico. They agreed to provide more information on potential sources of water to assist in meeting these requirements. (Action - Eagle)

2. FPC asked the Eagle team if they had reviewed the conditions of certification at the site relating to water. The importance of this issue was to make sure that TECO and Texaco understand FPC's boundaries because they would be high hurdles to change.

Texaco advised that this was not an infrequent issue. FPC and Texaco agreed that the anticipated volume of water required to support the Hines 2 combined cycle power block would be an appropriate basis and that the team should assume no groundwater provisions. Further information to be provided to FPC on this issue. (Action - Eagle)

3. FPC raised the issue of "blowdown" from cooling water systems (i.e. ponds, cooling towers, etc.), explaining that the Hines site is treated as a zero discharge site.

Texaco offered that they have some flexibility but that further investigation would be needed. They had not planned on including a wastewater plant, but rather had expected that FPC would provide the required water and accept the required blowdown volumes (3 to 6 MGD). They mentioned that they would need to rethink the cooling tower approach based on the site constraints.

When asked about the "black water" that the gasifiers generate in the quench area, Texaco advised that the black water is continuously recycled and only solids (slag) exit the process.

4. FPC brought forward a few questions on air emissions starting with NO_x. The NO_x estimate in the proposal is less than 10 ppm (on syngas). FPC is expecting the agency to require < 5 ppm for the natural gas fired combined cycle. FPC asked if Eagle has plans for selective catalytic reduction units (SCR's)?

SCR's are not currently included. Texaco offered that they plan to make a case that SCR's are not environmentally efficient on gasification (i.e. syngas) units. They won this argument at TECO's Polk Station in 1994, in Kansas in 1994/95 and in Delaware in 1998/99. The limit for the new Delaware unit is 9 ppm. They don't want to assume that if the battle has been lost for natural gas, that it will also be lost for syngas.

5. FPC asked about particulates, CO and VOC's.

Texaco agreed to get back to FPC and provide the missing values from the emissions tables. They expect the values to be lower than on natural gas.

6. FPC asked about the sulfur emission numbers (e.g. comparable to the Polk plant on coal).

Texaco advised that systems have gotten better since Polk was built. The target at Polk was 98% sulfur removal. They would expect the Hines unit to be at 98 to 99% efficient.

7. FPC asked about sulfur content of the backup fuel and any operating restrictions assumed.

Texaco advised that the back-up fuel assumes standard sulfur content for diesel fuel. They expect to be permitted to operate potentially up to 3000 hours on back-up fuel. They don't want any restrictions on this. The distillate oil is used to bring the gasifier trains and CT's on and off line and they would anticipate a minimum of 1000 hours per CT per year on distillate supporting normal operations.

Texaco offered to take FPC out to some of their sites to see what was being built and how they do (or plan to) run the facilities.

8. FPC asked if Texaco anticipates having hydrogen on site (e.g. for generator cooling).

Texaco advised that their design was not that far along yet. They would tend to use what TECO or FPC uses.

9. FPC asked if there were any large chemical storage requirement for the air separation process.

Texaco responded that there were essentially no chemicals really involved. The unit refrigerates by compressing air.

10. FPC inquired how Eagle plans to move feedstock and other materials (i.e. with trucks?). Specific follow-up questions included:

- What is the estimated total traffic for moving Pet Coke & slag?
- How does Eagle plan to handle local issues? What has been done to address this issue?
- How would petcoke delivery interruptions would be handled.

TECO advised that, at full output, petcoke would be delivered by truck every 6 minutes from their port facility to the site. The port facility would handle "weeks" of inventory. The site would have 2 days of petcoke inventory. Delivery rates would be higher when catching up on inventory levels.

TECO is planning to hire a PR [Public Relations] firm to help with local issues like the trucking. They didn't have the route planned yet, but we would plan on using less traveled routes.

TECO mentioned that there may be a port facility in Tampa becoming available for their use (alluding to Gannon). The development team had not fully explored potential water borne interruptions in supply. They agreed to provide additional information on water borne delivery limitations and potential impacts of hurricanes on their operations. (Action - Eagle)

11. FPC asked for clarification of TECO's response Item 13 in the April 7th letter – addressing the trucking of #2 oil.

Texaco advised that they would maintain 5 days of oil storage on-site, not fill a truck with a 5 day supply of oil.

12. FPC asked for more information about the slag produced in petcoke gasification. Compared with coal feedstock?

Texaco advised that the slag is concentrated; it has a high carbon content, very little sulfur. It has a fair amount of metals. The slag can be sold as fuel, and the project team would make it a high priority to sell it.

TECO advised that the volumes of slag produced are fairly minimal, particularly with petcoke. Generally, a staging area is not required if the operations team loads directly from the gasifier to the slag cooler and into the trucks.

Texaco advised that if the purchasing entity can't take the slag, they would have an alternate area (off-site) to put it. For the purpose of this evaluation, they suggested that FPC assume that all slag leaves the site, including fines. These materials can be sold to coke brokers.

Texaco also explained that, despite the high levels of metals in the slag, it is still relatively inert because the quench process produce microspheres that are like glass capsules. These are typical for coal gasification. Apparently, with petcoke gasification, since the inert material content in the feedstock is so low (i.e. no ash), the operators normally add dirt in with the feedstock to provide enough silica for the encapsulation to occur.

13. FPC inquired about steps mentioned in the proposal that had been taken to initiate a transmission feasibility study. The issue of limited availability of transmission beyond 530 MW was also mentioned.

TECO advised that they had not taken any action with respect to a transmission feasibility study or interconnection study on FPC's system. There had been some work done looking at the project on its original site in Tampa Electric territory. TECO indicated that it hadn't gotten too excited about transmission yet. TECO asked (and FPC confirmed) that the transmission requirements were an item to be addressed if the proposal was short listed.

14. FPC raise the timing issue in terms of commitment dates and in-service dates. FPC indicated that it was still on schedule to arrive at short list recommendation in the May 19th timeframe. FPC also inquired about the potential to come on line 4 months earlier (i.e. meet FPC's need date).

Texaco advised that the FPC project and other development work were on parallel paths and that timing would be significantly dependant on permitting and FPC commitment. If the turbines were committed earlier and other timeframes could be cut down, they thought that it might be possible to be in service earlier. Again, the permitting requirements, which, as already discussed, involve some significant issues with water (and material transportation). When asked about site certification for petcoke, Texaco advised that their team had this experience in other states (i.e. Delaware).

15. FPC raised a series of questions tied to the proposed availability of power supply, what the guarantee was tied to, and what experience the team had to support the guaranteed availability rates proposed.

TECO explained that the proposed 94% availability guarantee was based on power output from the proposed unit (i.e. tied to the plant). They do not plan to provide back-up capacity or system back-up or go to the market to purchase power in the event that the plant is unavailable. They expressed confidence that the plant would be capable of meeting the availability guarantees.

Texaco added that many of the features they are planning in the design are intended to improve the availability of the overall plant. In the gasification section, they have an extra gasifier that is intended to allow them to do gasifier maintenance while the plant is on the line. They have two 50% air separation units to reduce lost syngas production if one ASU train goes down. Further, they have the ability to fire any one of the CT's on distillate oil to maintain power output if necessary. If it was deemed appropriate, they would also consider redundant sulfur removal capability.

When asked about the significant operating problems at TECO's Polk Station, Texaco explained that the Polk Station would not be a good point of reference because that station

has hot gas clean-up (required for the DOE support) versus quench which caused a lot more operational and maintenance problems. They also mentioned that the plant doesn't have a spare gasifier which means that TECO is forced to burn distillate oil if the gasifier is down.

When asked about any reference points that would shed light on the potential for high performing petcoke IGCC plants, Texaco referred to an older plant in Ube Japan, a coal-based IGCC plant in Kansas, and a petcoke-based plant under construction in Delaware. Texaco offered to attempt to obtain some historical performance data from the Ube plant to provide FPC with some assurance that these performance levels can be achieved in-service.

16. FPC addressed the relationship between the guaranteed availability and the proposed performance incentives. First, FPC confirmed that Eagle intended to limit the potential penalties for non-performance to 10% of the capacity payments, as stated in the proposal. Second, FPC confirmed that Eagle did not intend to offer parent guarantees (i.e. from TECO Energy or Texaco), as outlined in their response to Item 45 in FPC's April 7th letter.

Texaco affirmed, as outlined in their response to Item 45, that the process and equipment guarantees and the depth of their design and operations experience should provide assurance that the project will perform throughout the contract period. They further emphasized that their investment of hundreds of millions of dollars in the facility should be a strong enough signal of their level of commitment to the success of the project.

When challenged with the assertion that the proposed 10% cap on performance penalties essentially put all of the technology, operational and financial risk of the project on FPC and its customers, there was no response from the Eagle team. They didn't seem to be making a connection between this issue and FPC's request for parent guarantees.

17. FPC inquired about the prospects of obtaining sufficiently secure quantities of petcoke feed stock for a plant this large over the entire 25 year life of the proposed project.

Texaco offered that they were working with many refineries in the Gulf Coast region and in the Caribbean basin who were extremely interested in providing feedstock for this project. They explained that the petcoke gasification process can accommodate a wider range of feedstock quality (e.g. hardness) than direct combustion systems can which allows gasifiers a wider range of potential suppliers. This, in turn allows the refiners to push their cokers harder and still offload the waste coke. Texaco claims a huge potential supply of petcoke for their gasification projects. Their estimates for Venezuela alone are 7500 TPD by 2004. They test feedstock at their pilot plant in Montebello, which can handle very hard grind cokes. They also mentioned that the Ube plant apparently buys a lot of coke on the spot market to take advantage of low price coke opportunities.

18. No further questions remained from the group. FPC and Eagle reviewed the key action items. TECO offered to have responses completed by May 5th.

Action Items:

- Address water issues and alternative sources.
- Provide typical generator inertia data.
- Complete the CO, VOC and particulate emissions estimates.
- Address how hurricane season may impact operations.
- Clarify #13 – 5 day storage for #2 oil.
- Transmission issues will be deferred until shortlist.
- Eagle will look for opportunities to accelerate the schedule.
- Examine supplemental site certification issues for petcoke.
- Provide performance data on petcoke IGCC (e.g Ube)

19. FPC wrapped up by restating that the proposal review team was targeting mid-May for a short list recommendation. At that time, FPC will choose parties, if any, to pursue negotiations with.
 20. Mr. Preston (Texaco) expressed that the mid-May timeframe would work well within their project development plans, in terms of not impacting their original project concept if FPC decides not to pursue the project. He asked that the team be given an opportunity to address any of the critical concerns or issues that FPC is considering before the proposal is knocked out of the running.
-

The meeting was concluded.

To: Michael D. Rib
Florida Power Corporation
Director Resource Planning

From: Rebecca Alex
TECO Power Services
Development Manager

2.5.2.1
Glory
Gooden
Sasso
Rib
Taylor

Follow up to April 26, 2000 Meeting:

1) Eagle Energy Water Needs

Background

An IGCC facility requires a significant volume of cooling water due to its configuration utilizing an air separation unit, an acid gas removal section, and large steam turbine output. Specifically, the Eagle Energy Project will require the following estimate cooling loads;

Gasification	698 MM Btu/hr
Power Block	2380 MM Btu/hr
Total	3078 MM Btu/hr

A typical combined cycle plant configured as a 2X1 7FA design will have approximately a 1252 MM Btu/hr heat rejection requirement. This would be similar to the Hines 2 unit proposed by FPC. The addition of a third combustion turbine, along with the full load season independent output of 197 MW on each of the combustion turbines, and the increased steam turbine output due the steam produced in the gasification section, the Eagle Energy Project will require an increase of cooling for the power block of 90%.

The present cooling pond at the Hines facility has no make-up allowed by wells until the first 950 MW of capacity is installed. It is important that the permit be reviewed to determine first if it is acceptable to pump any or all of the water required for the Eagle Energy Project prior to importing any effluent streams.

Eagle Energy Pond Impacts

The additional heat rejection from the Power Block of 1128 MM Btu/hr results in an additional make-up water requirement of 3.24 MM GPD (based on pure evaporation at 1000btu/lb). Due to the nature of a cooling pond and the sensible heat loss from the ground, this quantity would actually be less. The actual make-up requirement will be determined as soon as the pond design is obtained and the impacts modeled.

The amount of make-up required would be supplied by effluent water from the City of Lakeland which averages 5.67 MM GPD, resulting in 2.43 MM GPD remaining from Lakeland's effluent for other uses. The make-up will go directly to the Hines Energy Facility's cooling pond as required.

Cooling Tower Needs

At present it is planned to use cooling towers for the gasification cooling equipment. If the water analysis at the Hines Energy Facility is found to be acceptable, some or all of this cooling could be provided by the cooling pond.

The 698 MM Btu/hr cooling requirement outlined above results in 2 MM GPD of evaporation (based on 1000 btu/lb). This maximum requirement will be satisfied by make-up from the remaining effluent water from the City of Lakeland (2.43 MM GPD average remaining). In addition, water from the City of Mulberry and the City of Wachula may be utilized (an additional 0.5-1.0 MM GPD). These municipal

waters would also be sent to the pond for storage, and pumped to the cooling towers for makeup as required. Thus, from 1-2 MM GPD of water is still available using the three sources outlined above for recharge.

Additional Well Water Makeup Requirements

Water will be required at a rate of nearly 678 gpm (approximately 1 MM GPD) for gasification makeup and boiler water. ~~Some water will also need to be supplied for potable water, etc. This water source would need to be determined at a later date due to the specific process/human requirements for use.~~

Cooling Tower Discharge

Due to the zero discharge nature of the Hines cooling pond it may be undesirable to discharge cooling tower blowdown into the pond. Therefore, several options are available.

First, cooling tower blowdown can be sent to a reverse osmosis system to reduce the size of this stream. Based on an estimated blowdown of 460 gpm, this would be reduced to 230 gpm of brine, with the remaining 230 gpm of clean water returned back to the cooling towers.

The 230 gpm of brine can then be processed in a brine concentrator system where it is first softened with lime, then evaporated using one of several possible evaporator configurations. The clean water will then be returned back to the cooling tower, thus closing the balance. The brine can be taken offsite for disposal, or potentially, fed into the gasifiers where the solids will be encapsulated in the slag.

Sludge formed in the softening process can be used in the gasification unit as a fluxing agent (25 tpd are presently anticipated to be brought onsite for this reason), or removed offsite for disposal.

If it is acceptable to discharge cooling tower blowdown to the existing pond that would be the most economical solution.

2) Does the project team have any experience in Site Certification modifications, specifically with Coal to Pet Coke solid feeds?

Yes, the project team does have experience with modifying a Site Certification, specifically at the Hardee Power Station. Although the project team does not have specific experience with a coal to pet coke supplemental filing, the project team does have experience with permitting and licensing of IGCC projects with a pet coke feedstock.

3) Complete Table 2 on Page 7 of Eagle Energy's follow-up response to FPC's April 7th request.

Table II. Maximum Emissions from the IGCC Unit's CT

Pollutant	Syngas fired	No. 2 Fuel Oil
Particulates, lb/hr	51	51
SO ₂ , lb/hr	400	1,068
NO _x (ppmvd @15% O ₂)	<10	42
CO, ppmvd	40	25
VOCs, ppmvd	1.4	3.5

4) What provisions are being made to ensure the delivery of Pet Coke in the event of a natural disaster, such as a hurricane.

We will have 30 to 60 days of storage of coke at the Tampa port site. In addition there is going to be 2 days of coke storage at the plant site.

5) Clarification of Question 13 on FPC's April 7th request.

Based on the expected 98% gasifier availability, the plant would require a truck delivery of No.2 fuel oil every 5 days on average when operating for long durations on No. 2 fuel oil.

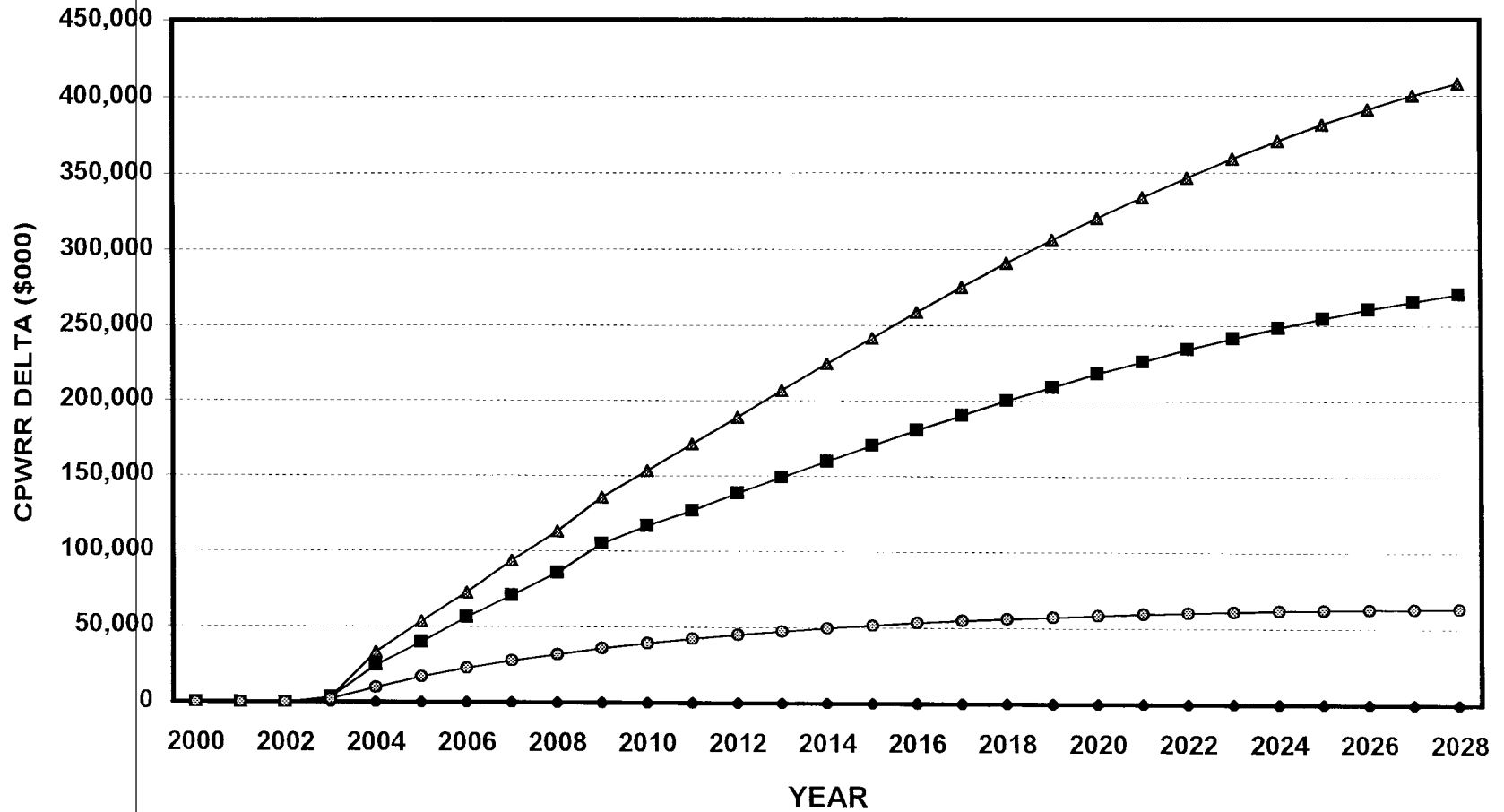
6) Provide inertia data as requested on Attachment E of FPC's RFP.

Steam Generator and Exciter: 306,200 lb-ft²

Combustion Turbine: 368,700 lb-ft²

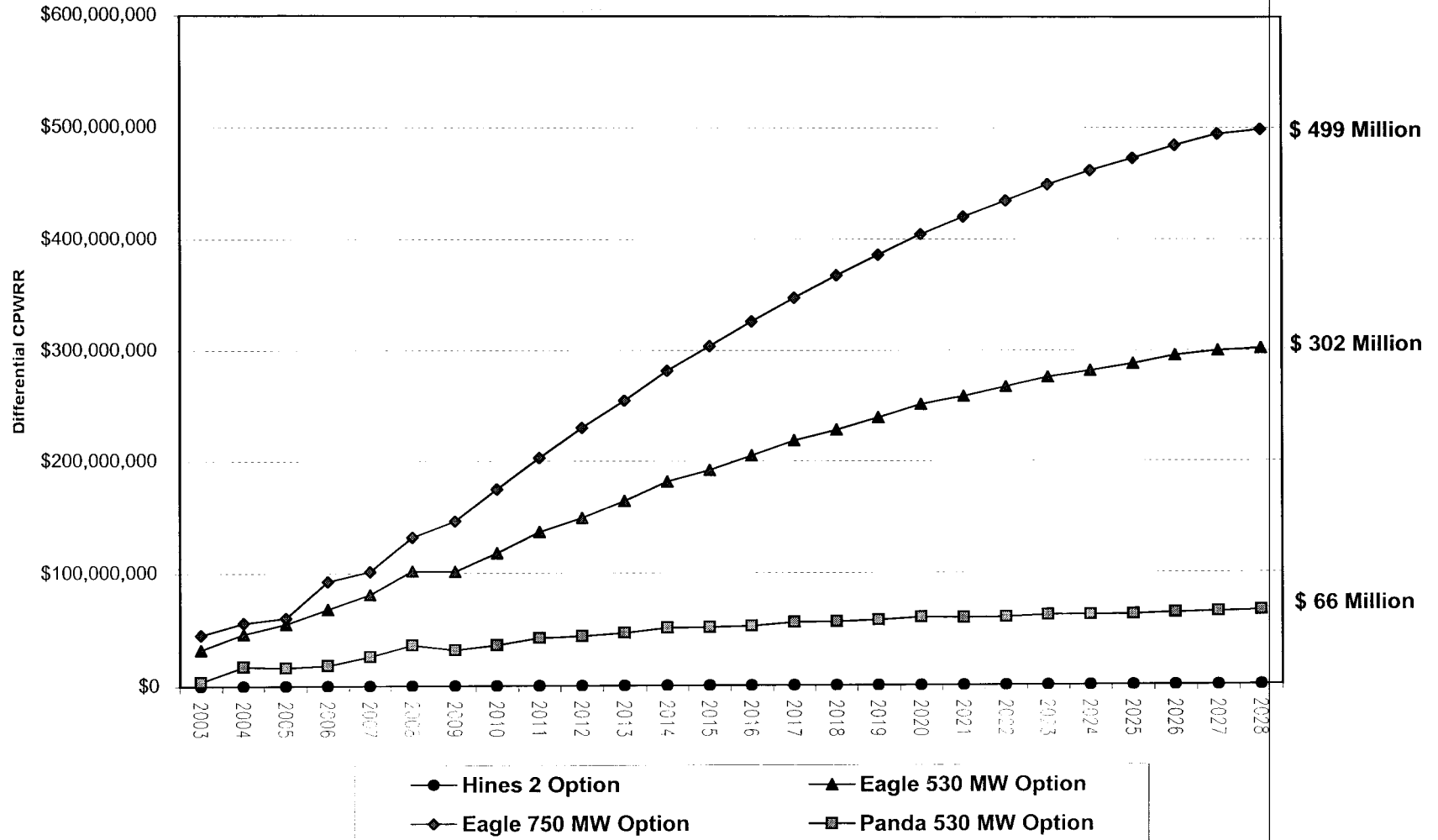
RFP ANALYSIS: INITIAL SCREENING RESULTS

Differential CPWRR of the System



RFP ANALYSIS: SUPPLEMENTAL SCREENING RESULTS

Differential CPWRR for the System



Panda Non-Price Attributes

Attribute Category

Factor	Attribute	Commentary	Significance
Strategic Factors			
Con	Regulatory Risk Factors	Based on the terms of the proposal, the proposed plants are prohibited under existing law.	Critical
Con	Litigation History	Bidder has previous litigation history with FPC involving questionable dealings in contract execution, interpretation and implementation.	Significant
Con	Corporate Strategic Factors	The proposal only covers 2 to 5 years of a long term need. FPC and its customers will be exposed to market prices of capacity and/or replacement generation at the end of term. These have been trending up, which would be consistent with the Bidder's desire to exit this commitment no later than 5 years out.	Significant
Bidders Ability to Perform and Financial Impacts			
Con	Effect of Seller's Financing on FPC	The proposal allows Panda to walk away without recourse as late as 9/2001 if financing is not obtained for any reason. This places significant risk on FPC meeting its need in November 2003. To mitigate FPC's risk if the bidder's financing falls through, FPC would need to keep its self-build option "alive". This would, at a minimum, include continuing with the Need and Supplemental Site Certification approval for a contingent self-build backstop and a \$9.2 Million progress payment to Siemens Westinghouse.	Significant

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Attribute Category

Factor	Attribute	Commentary	Significance
Bidders Ability to Perform and Financial Impacts			
Con	Bidder's Qualifications & Experience	Panda Energy has recently begun an aggressive development program, proposing to grow rapidly from under 500 MW operating today to almost 9000 MW in advanced development. As a new entrant, this is very likely to tax their ability to successfully finance and operate all of these new assets.	Significant
Pro	Potential Impact on FPC Cost of Capital	Minimal impact of imputed debt anticipated due to the short duration of the proposed arrangement and the performance requirements that would be imposed in a contract.	Minimal
Firmness and Reliability			
Con	Backup Fuel Supply	No alternate or backup fuel capability is proposed, which is a potential detriment to FPC reliability. Panda claims backup through Gulfstream backhaul of FGT gas from Midway. This is an unusual and potentially tenuous arrangement.	Significant
Con	Firmness of Fuel Supply	There is some hesitation regarding Panda's assertion that Gulfstream will serve the Leesburg plant, since FPC hasn't seen the plant mentioned in any of the FERC documents related to Gulfstream's application or in their maps or public literature. Being solely dependent on the Gulfstream pipeline, which is a single pipeline, carries an inherently higher risk of interruption than a system of networked parallel pipelines, like FGT.	Significant
Pro	Proven Technology	Using GE 7FA technology.	Moderate
Con	Firmness of Fuel Supply	The Leesburg plant would be dependent not only on firm Gulfstream capacity, but also interruptible Gulfstream and FGT capacity, which is dependent on arrangements made for the proposed Midway facility.	Moderate

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Attribute Category

Factor	Attribute	Commentary	Significance
Firmness and Reliability			
Con	Dual Fuel Capability	Not available in the proposal. Per Panda, the need for backup fuel is mitigated by their reported ability to backhaul gas from FGT at Midway. The logistics of this arrangement are still questionable.	Moderate
Pro	Power Firmness	The proposed redundant plant facilities (i.e. 1,000 MW Panda Leesburg and the 1,000 MW Panda Midway plants) may enable Panda Energy to serve firm contracts more reliably than stand-alone facilities.	Moderate
Environmental Impacts			
Con	Project Location	At present, Gulfstream has not shown Leesburg as being served by the proposed pipeline. The Leesburg location would likely require fairly substantial pipeline lateral construction to interconnect to the proposed Gulfstream route.	Moderate
	Equipment/Process	Not a factor.	
	Project Location	Not a factor in environmental terms.	
	Water Issues	Not anticipated to be an issue.	
Contract Flexibility			
Con	Supplier Performance Assurances	Credit assurances have been offered for performance, subject to a cap of \$15 Million. These assurances could fall seriously short if the Bidder walked away from a non-performance contract dispute. Further assurance would be necessary.	Significant

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Attribute Category

Factor	Attribute	Commentary	Significance
Contract Flexibility			
Con	Supplier Performance Assurances	LDs were not included in the proposal, but Panda assures that guaranteed performance will be met through operations, alternative supply, or LDs. Precisely how this will be applied is still unclear.	Significant
Pro	Supplemental Capacity Call Options	Additional capacity has been offered with the proposal.	Moderate
Con	Early Termination	The proposal offers flexible terms up to five years, but then exposes FPC to market conditions at the end of the term. If the proposal had provided FPC unilateral termination options (like other existing PPA's), it would offer superior optionality.	Moderate
Pro	Pricing Structure	Fixed and Variable price structures are similar to the self-build options and market offerings.	Moderate
Con	Purchase Options	Not offered.	Minimal
FPC System Reliability			
Con	Power Deliverability	It is likely that the generation proposed at Leesburg will create a need for transmission network upgrades (FPC and neighboring systems). Schedule delays and additional costs would likely result, if these upgrades are required.	Significant
Con	Power Deliverability	With a proposed in-service date in early 2003, there is a potential that any required network upgrades would not be available in time.	Significant
Con	Power Deliverability	If network upgrades are required, cost recovery for the upgrades could be uncertain due to the relatively short duration of the proposal.	Significant

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Factor	Attribute	Commentary	Significance
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FPC System Reliability

Pro	Power Deliverability	Panda has made a good faith effort to pursue the study agreements needed to support development of these facilities.	Minimal
Pro	Power Deliverability	The location may be beneficial for serving high growth load in the Central Florida region.	Moderate

Operational Flexibility

Con	Dispatch Flexibility	In the proposal, Panda requested day ahead scheduling of the FPC resource. In subsequent Q&A, Panda has suggested that they would consider connecting to FPC's dispatch center, but would still want power scheduled day ahead.	Significant
Con	Fuel Management or Tolling Options	Fuel management not offered in the proposal. FPC would not be able to capture gas portfolio benefits on the System resulting from lower negotiated rates and delivery flexibility. The full impact of these benefits is difficult to capture in the models.	Significant
Pro	Larger MW Blocks	Initially, the proposal offered only 250 MW for purchase. Upon FPC's request for a greater commitment, Panda proposed an additional 250 MW block that would be available in the same time increments as the original block.	Moderate
Con	Fuel Transportation Flexibility	FPC would have no rights to gas transportation to use at alternative sites.	Moderate
Con	Fuel Transportation Flexibility	The gas transportation rate in the variable energy formula is higher than FPC's negotiated rate with Gulfstream.	Moderate
Pro	Fuel Transportation Flexibility	Proposal allows FPC to pay for gas transportation only when calling for power.	Moderate

Attribute Category**Factor****Attribute****Commentary****Significance**

Operational Flexibility

Operation & Maintenance Plans

Since this is a short term proposal (5 years or less), the operations and maintenance risk should be minimized, given a reasonable package of performance guarantees.

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Eagle Energy Non-Price Attributes

Attribute Category

Factor	Attribute	Commentary	Significance
Strategic Factors			
Con	Regulatory Risk Factors	FPC has not projected a need for 750 MWs in 11/2003. Additionally, given the recent Supreme Court decision, the plant could not be legally sited unless Eagle brings along a coapplicant that has committed the remaining excess capacity.	Critical
Con	Corporate Strategic Factors	There likely will be an adverse public perception associated with developing a high-sulfur fuel project.	Significant
Con	Corporate Strategic Factors	The high fixed cost (nuclear type) base load unit does not fit well in FPC's current generation portfolio which needs more flexible intermediate capacity.	Significant
Con	Regulatory Risk Factors	There is risk inherent in the assessment and certification of this type of high sulfur fuel facility like the proposed unit, especially with the public impact of the transportation plan.	Significant
Pro	Corporate Strategic Factors	The Project presents an opportunity to improve FPC's fuel diversity.	Moderate
Con	Corporate Strategic Factors	The Project would consume a significant portion of the site and its resources.	Moderate
	Litigation History	Not anticipated as a significant factor.	

Bidders Ability to Perform and Financial Impacts

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Attribute Category

Factor	Attribute	Commentary	Significance
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Bidders Ability to Perform and Financial Impacts

Con	Bidder's Qualifications & Experience	TECO has no experience developing or operating the specific design being proposed involving petcoke gasification and multi-train units. It appears that Texaco has only one 35 MW petcoke gasification unit currently in operation.	Significant
Con	Bidder's Qualifications and Experience	TECO's 250 MW Polk IGCC Plant gasifies coal. The operating history of that unit reveals that TECO has been forced extensively to operate on oil or shut down, a predicament that would have significant adverse economic impact on the proposed 750 MW project.	Significant
Con	Debt Covenants & Financing Arrangements	It is anticipated that the proposed financing structure would make it more difficult to negotiate changes in any of the contract terms or physical plant capability. Exposure would be significant for a long term contract with high fixed costs.	Significant
Con	Effect of Seller's Financing on FPC	The proposal allows Eagle to walk away without recourse as late as Spring 2002 if financing is not obtained for any reason. This places significant risk on FPC meeting its need in November 2003. To mitigate FPC's risk if the bidder's financing falls through, FPC would need to keep its self-build option "alive". This would, at a minimum, include continuing with the Need and Supplemental Site Certification approval for a contingent self-build backstop and a \$9.2 Million progress payment to Siemens Westinghouse.	Significant
Con	Potential Impact on FPC Cost of Capital	Significant impact on FPC's cost of capital would be expected. Rating agencies (e.g. Standard & Poor's) will impute a significant amount of debt to FPC associated with the capacity payments for a long-term contract with very high fixed payments. This will be addressed in the economic analysis.	Significant

Attribute Category

Factor	Attribute	Commentary	Significance
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Bidders Ability to Perform and Financial Impacts

Con	Project Schedule	The proposed schedule appears aggressive for the proposed plant technology, especially considering the preliminary status of the plant design. The schedule is also presented at a fairly high level which causes some additional concern that the March '04 in-service date can actually be met. Delivery of major equipment seems late for a March 04 in-service date. Also appears that a lot of the major equipment comes on-site concurrently creating high manpower needs.	Significant
Con	Project Schedule	FPC's need date is November 2003. The proposal doesn't offer power from the proposed facility until March 2004 and no bridge capacity is mentioned.	Significant

Firmness and Reliability

Con	Backup Fuel Supply	Project economics may be adversely affected if oil is needed for extended periods.	Significant
Con	Backup Fuel Supply	In situations where Number 2 oil is in heavy demand, this plant may tax delivery capabilities in the area, making it difficult to operate the plant at full output on oil under these conditions.	Significant
Con	Firmness of Fuel Supply	Eagle's variable energy prices appear very low compared with the market prices of commodity petcoke and transportation costs which could mean that the bidder is assuming significant risk in the fuel supply and which could undermine economic viability.	Significant

Attribute Category

Factor	Attribute	Commentary	Significance
Firmness and Reliability			
Con	Power Firmness	The project proposes firm unit power with a guaranteed availability above 90%. Given the immaturity of the technology and the low performance (capacity factors) achieved at TECO's Polk IGCC, it is unclear whether the availability can be attained.	Significant
Con	Proven Technology	Eagle states that the basic gasification technology is proven. The proposed process specific to this offering, however, has never been proven in-service (e.g. sulfuric acid removal on petcoke, potential SCRs on syngas, etc.).	Significant
Con	Firmness of Fuel Supply	The proposed fuel transportation is almost entirely dependant upon barge and truck delivery. Potential interruptions in such transportation could preclude contract performance. Because the Project is envisioned to have limited on-site storage, it would be particularly susceptible to interruptions in truck traffic.	Moderate
Con	Firmness of Fuel Supply	Supply appears firm, but lack of detail in the supply plan leaves some uncertainty in handling logistics.	Moderate
	Dual Fuel Capability	The ability to swap primary fuels and lower cost is not a factor for this type of facility.	
Environmental Impacts			
Con	Design, Permitting and Compliance Issues	Eagle's claim that they can achieve NOx compliance without SCRs is questionable. Additional equipment and maintenance costs likely would cause price increases.	Significant

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Attribute Category

Factor	Attribute	Commentary	Significance
Environmental Impacts			
Con	Design, Permitting and Compliance Issues	The bidder does not seem to have addressed the potential ambient air impacts of the proposed SO2 emissions on Class I areas (e.g. Chassahowitzka). Additional SO2 mitigation, if required, could raise costs and the proposed price.	Significant
Con	Design, Permitting and Compliance Issues	The proposed facility's transportation needs for petcoke, distillate oil, slag, sulfuric acid and other toxic and/or hazardous chemicals would require over 300 round trip truck trips per day. This could become an issue in Site Certification.	Significant
Con	Design, Permitting and Compliance Issues	On-site slag storage, if required, would be challenging. At a minimum, it would introduce additional cost to provide wastewater treatment for leachate.	Significant
Con	Design, Permitting and Compliance Issues	The Site is not currently certified for petcoke gasification. This could be a contentious change to the certification given potential public reaction to this type of fuel. FPC would be required to actively support and defend these changes.	Significant
Con	Project Location	Some opposition is expected with the proposed volume of new truck traffic (over 300 per day). The site is in an industrial area, but the traffic patterns may impact more populated areas. Eagle has suggested hiring a PR firm to help manage these issues.	Significant
Con	Water Issues	Use of FPC's cooling ponds at Hines would help mitigate the volumetric water requirements but would necessitate an expensive water treatment system earlier than anticipated at the site.	Significant

Attribute Category			
Factor	Attribute	Commentary	Significance
Environmental Impacts			
Con	Water Issues	A large IGCC plant requires a significant amount of water, which is a scarce resource in Central Florida. In the proposal, Eagle put the water supply requirement on FPC. Eagle referred to several potential off-site sources of water for the large volume of water required for this project. In FPC's extensive experience sourcing water in this area, these sources are less likely to supply water than Eagle suggests.	Significant
Con	Water Issues	Certification does not allow groundwater withdrawal until after the first 940 MW. FPC plans to use stormwater cropping for the next unit. However, the proposed IGCC plant would require significantly more water.	Significant
Con	Design, Permitting and Compliance Issues	The proposal anticipates operation of the CTs on distillate for up to 1000 hours per CT (or a total of 3000 hours). This may not be feasible, given current limitations imposed at 1000 hours for 2 CTs.	Potentially Significant
Con	Equipment/Process	The process design, as proposed, has significant impacts as a result of water requirements to support cooling tower operations. A different approach to cooling and heat rejection would be needed.	Potentially Significant
Con	Project Location	The bidders propose siting the IGCC plant at the Hines Site. The IGCC process requires the use and storage of voluminous hazardous chemicals and significant amounts of oil and generates numerous waste streams that must be mitigated via recycling or disposal.	Potentially Significant
Con	Design, Permitting and Compliance Issues	FPC needs unimpeded access to the existing facilities at Hines. As such, given the proposed levels of traffic, another entrance would be needed.	Moderate

Contract Flexibility

Attribute Category

Factor	Attribute	Commentary	Significance
Contract Flexibility			
Con	Early Termination	This was not included in the base proposal. It is likely that a termination clause would be very expensive due to the large financing requirements of this project.	Significant
Con	Pricing Structure	High fixed price contracts are inconsistent with market forces which push towards lower fixed costs and greater flexibility.	Significant
Con	Pricing Structure	Low variable price could be below true variable cost at times, which could eliminate incentives to perform.	Significant
Pro	Pricing Structure	The guaranteed variable price is low, which protects the buyer from volatility (price spikes) in the market.	Significant
Con	Pricing Structure	Fixed escalators in both the fixed and variable price components do not reflect or react to changing market conditions.	Significant
Con	Supplier Performance Assurances	Proposed performance terms, which include a 10% cap on LDs, shift most of the technology and ultimately the performance risk to FPC and its customers.	Significant
Con	Supplier Performance Assurances	No parent guarantees will be offered and supplier performance assurances do not adequately mitigate the significant risks of failure to meet in-service date, equipment failure, and failure to perform.	Significant
Pro	Other Flexibility	Eagle has offered a lease payment for the use of a portion of the Hines Site.	Moderate

Attribute Category

Factor	Attribute	Commentary	Significance
Contract Flexibility			
Pro	Purchase Options	Proposal offered (a) right of first refusal to purchase the Project assets at the end of the 25 year term "upon mutually acceptable terms" and (b) the opportunity for equity participation.	Moderate
Pro	Supplemental Capacity Call Options	Offered the option for additional power purchase up to 750 MW at the inception of the contract.	Minimal
FPC System Reliability			
Con	Power Deliverability	FPC's implicit reservation for additional network capacity for Hines 3 doesn't become effective until late 2005. Therefore, FPC would not be able to confer queuing rights to Eagle for capacity beyond the planned capacity of Hines 2 (i.e. the extra 220 MW of Eagle) until 2005.	Significant
Con	Power Deliverability	The incremental capacity has the potential to trigger the need for the Hines to West Lake Wales 230 kV line, which was originally slated for Hines 3. It is unlikely that the upgrade could be constructed and in-service to meet a March 2004 in-service date.	Significant
Con	Power Deliverability	The proposed capacity above FPC's stated need would be considered merchant capacity and, as such, would be queued behind two other merchant interconnection requests. As a result, the network upgrade issue could be significant if the proposed merchant capacity remains in the queue.	Potentially Significant
Pro	Power Deliverability	The long term nature of the proposed agreement provides more certainty in cost recovery for the cost of any network upgrades that would be needed.	Moderate

Attribute Category

Factor	Attribute	Commentary	Significance
Operational Flexibility			
Con	Dispatch Flexibility	No dispatch flexibility is offered. The baseload nature of the proposed power supply would tend to aggravate low load issues that already exist.	Significant
Pro	Larger MW Blocks	The proposal offers large MW block sizes.	Significant
Con	Fuel Transportation Flexibility	No synergies with FPC's gas portfolio in this proposal.	Moderate
Con	Fuel Management or Tolling Options	No fuel-related synergies with FPC because FPC doesn't use petcoke at other sites.	Minimal
	Operation & Maintenance Plans	It appears that maintenance scheduling could be coordinated in advance to minimize inefficient outage scheduling.	