



David J. Balevic
Manager – Combustion Design Engineering

GE Power Generation

Gas Turbine Operation
General Electric Company
PO Box 648
300 Garlington Road, FD-4
Greenville, SC 29602-0648

Phone: (864)254-3402 or 8*288-3402
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May 21, 2002

Mr. Scott Churbock
Environmental Manager
Enron North America
1400 Smith Street
Houston, TX 77002

Subject: Water Injection for NO_x Abatement

Dear Sir,

Industrial gas turbines must provide power generation to maintain reliable electric supply within the US and elsewhere. In addition to reliable operation, which provides grid stability, industrial gas turbine emissions need to be minimized to reduce the environmental impact of operation. GE, through its research and development efforts, has maintained a leadership position in industrial gas turbine emissions and operational reliability, maintainability, and availability. To reduce NO_x in GE's Dry Low NO_x combustion systems, water injection is used to suppress combustion system flame temperature while firing liquid fuel. The magnitude of flame temperature suppression is proportional to the rate of water injection and NO_x reduction. Over suppression of the flame temperature by increasing the water injection rate has been demonstrated to produce the following consequences:

- Elevated combustion dynamics resulting in premature combustion hardware failure, collateral damage to the hot gas path section of the gas turbine, and forced outages measured in weeks.
- Reduced flame stability at extreme ambient conditions resulting in increased unit trips.
- Less reliable, available gas turbines resulting in lost customer revenue and increased maintenance costs.
- Reduced gas turbine efficiency at base load resulting in increased emissions on a lb/MW basis.
- Out of compliance CO and VOC at part load.

GE's water injection schedule used to achieve 42 ppm NO_x for liquid fuel is the optimal water injection rate to maintain reliable equipment operation and minimum total plant emissions (NO_x, CO, VOC).

For these reasons, GE's industrial gas turbine warranty will not cover damage to the gas turbine resulting from operation outside of GE's defined water injection schedule. State permits mandating that owners of GE gas turbines operate outside of GE's defined water injection schedule which achieves 42 ppm NO_x, risk increased gas turbine forced outages that could reduce grid stability. GE cannot support operation of large industrial gas turbines outside the design and operating envelope due to the damages that have been demonstrated to result from such operation.

Sincerely,

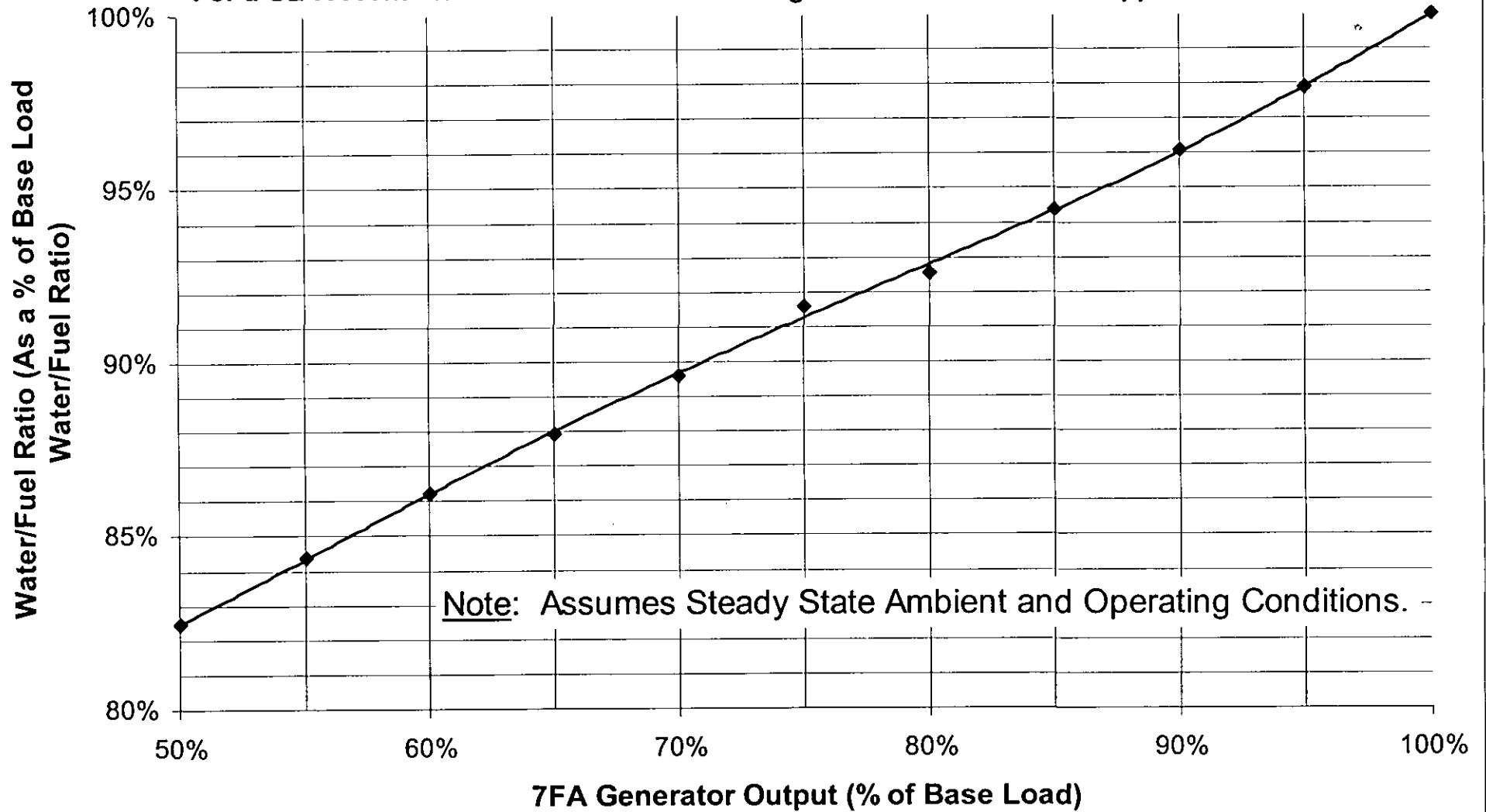
David Balevic
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Manager - Combustion Design Engineering

Donald M. Hoffmann
Donald Hoffmann
Gas Turbine Product Line Leader

Water/Fuel Ratio vs Load

Assuming a NO_x Target of 42ppmvd @ 15 vol.% O₂

For a GE 7FA With 9/42 DLN Combustor Burning Distillate Fuel With <150 ppmw FBN





GE Energy and Environmental Research Corporation

ATTACHMENT A

SUMMARY OF TECHNICAL EDITS

FLORIDA POWER AND LIGHT COMPANY
MARTIN STATION POWER PLANT

Initial Compliance Demonstration for
Air Emissions Permit Limits on Units 8A and 8B
Combustion Turbine in the Simple Cycle Mode
Distillate Oil

Prepared for:

General Electric Company
1 River Road
Building 2, Room 506
Schenectady, New York 12345

Prepared by:

GE - Energy and Environmental Research Corporation
1001 Aviation Parkway
Morrisville, NC 27560
(919) 460-1060

Issued on July 31, 2001
Attachment prepared January 9, 2002

RECEIVED

JUL 11 2002

J. Torosian

RECEIVED

MAY 06 2002

BUREAU OF AIR REGULATION



GE Energy and Environmental Research Corporation

Table 4-5. Emission Summary Table for FP&L, Indiantown, FL - Unit 8A
Approximately 100% Base Load Conditions on Distillate Oil -CEMS PARAMETERS.

Test Identification					
Test Period	--	1	2	3	Average
Test Condition	load level, %	100	100	100	
Sampling Location	--	stack	stack	stack	
Date	--	05-Jun-01	05-Jun-01	05-Jun-01	
Test Time (start-stop)	--	1235-1335	1435-1540	1855-1955	
Ambient Conditions					
Barometric Pressure	In. Hg	29.80	29.80	29.80	29.80
Ambient Temperature	°F	91	92	87	90.0
Wet Bulb Temperature	°F	82	80	78	80.0
Absolute Humidity	lb water/lb dry air	0.02166	0.01945	0.01869	0.01993
Turbine Operating Conditions					
Turbine Exhaust Temperature, TTXM	°F	1121.9	1117.5	1110.7	1116.7
Fuel Flow, FQLM1	lb/sec	25.47	25.76	26.28	25.84
Compressor Inlet Temperature, CTIM	°F	85.7	80.9	73.5	80.0
Specific Humidity, CMHUM	lb/lb	0.01796	0.01785	0.01695	0.01758
Inlet Guide Vane Angle, CSGV	degrees	88.0	88.0	88.0	88.0
Generator Output, DWATT	MW	171.8	175.4	179.9	175.7
Compressor Discharge Pressure, CPD	psig	212.7	215.2	218.9	215.6
Water Injection Flow, WQ	lb/sec	31.4	31.8	32.6	31.9
Ratio, Act. NOx Water to Fuel, WXJ	--	1.23	1.23	1.24	1.23
Ratio, Req. NOx Water to Fuel, WXC	--	1.21	1.20	1.21	1.21
Exhaust Gas Conditions					
Volumetric Flow, M-19, F _d	dscfm	692,590	698,910	712,120	701,210
Volumetric Flow, M-19, F _c	dscfm	684,890	691,680	703,350	693,310
Moisture	%V	10.2	12.3	12.3	11.6
O ₂	%	12.6	12.6	12.6	12.6
CO ₂	%	6.2	6.3	6.3	6.3
F _o Factor	--	1.332	1.333	1.333	1.332
NO _x	ppmvd	50.2	51.6	51.6	51.1
Exhaust Emissions					
Sulfur Dioxide	% by Vol, dry @15%O ₂	0.0007	0.0007	0.0007	0.0007
VOC	ppmw lb/hr	0.8 0.03	0.5 0.02	0.1 0.003	0.5 0.02
CO	ppmvd lb/hr	0.3 1.0	0.6 2.0	0.8 2.6	0.6 1.9
NO _x	ppmvd @ 15% O ₂ lb/hr	35.6 248.8	36.5 258.1	36.5 263.1	36.2 258.4

Revised



Enron North America Corp.

P.O. Box 1188
Houston, TX 77251-1188

VIA OVERNIGHT MAIL

March 28, 2002

Mr. Al Linero
New Source Review
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

RECEIVED

MAR 29 2002

BUREAU OF AIR REGULATION

Re: Extension Request for The Midway Energy Center
Permit Number PSD-FL-305

Dear Mr. Linero:

On behalf of the Midway Development Company, L.L.C. ("MDC"), Enron North America is submitting this letter as a formal request to extend the above referenced permit's construction commencement and completion dates, in accordance with permit conditions II.6, II.9. and Rule 62-4.080 F.A.C. This request is being made for additional time to allow for the procurement of equipment, completion of engineering activities, and construction of this facility. No request is being made for relief of any of the other existing permit conditions. Furthermore, MDC will complete the construction of this facility in full compliance with the permit conditions as well as all applicable federal, state and local rules and regulations. Based on our recent discussion, I understand that this request will be administered as an administrative modification. Therefore, enclosed is a fifty-dollar (\$50.00) check for the modification fee.

Specifically, MDC requests the following changes be made:

Section II, Item 6

Summary of change:

Extend the construction commencement date by an additional 18 months to February 14, 2004.

Revised Text:

PSD Approval to Construct Expiration: Approval to construct shall become invalid if construction is not commenced within ~~18~~ **36** months after receipt of such approval, or if construction is discontinued for a period of ~~18~~ **36** months or more, or if construction is

not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

Section II, Item 8

Summary of change:

Extend the construction completion dates by an additional 18 months from the date of the extension of the construction commencement requirement date (proposed Item 6).

Revised Text:

Completion of Construction: The permit expiration date is ~~June 30, 2003~~ **February 14, 2006**. Physical construction shall be complete by ~~December 3, 2002~~ **August 14, 2005**. The additional time provides for testing, submittal of results, and submittal of the Title V permit to the Department.

Should you have any questions or require any additional information regarding this request please contact me at 713/345-4623.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Scott Churbock". The signature is written in a cursive style with a large initial "S".

Scott Churbock
Environmental Manager

Enclosure

MIDWAY ENERGY CENTER
MEETING AGENDA REGARDING
AIR PERMIT EXTENSION REQUEST
MAY 29, 2002

- I. Permit Extension Request, March 28, 2002**
 - a. Start of Construction: 18 month extension**
 - b. Construction Completion: 18 month from Start of Construction**

- II. DEP Response, April 26, 2002, Issues:**
 - a. Natural gas availability and the necessity of fuel oil back up**
 - i. New natural gas supply sources**
 - ii. Other similar projects without fuel oil back up**
 - b. Current technology capabilities for NOx emission controls while firing fuel oil.**
 - i. Water injection rates**
 - ii. Manufacturer limitations**
 - c. Remaining site activities**
 - d. Statement of facility compliance**

- III. Moving Forward**
 - a. Utilization of fuel oil back up.**
 - b. Timing of extension**



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May 21, 2002

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1400 Smith Street
Houston, TX 77002

Subject: Water Injection for NO_x Abatement

Dear Sir,

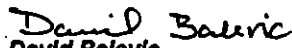
Industrial gas turbines must provide power generation to maintain reliable electric supply within the US and elsewhere. In addition to reliable operation, which provides grid stability, industrial gas turbine emissions need to be minimized to reduce the environmental impact of operation. GE, through its research and development efforts, has maintained a leadership position in industrial gas turbine emissions and operational reliability, maintainability, and availability. To reduce NO_x in GE's Dry Low NO_x combustion systems, water injection is used to suppress combustion system flame temperature while firing liquid fuel. The magnitude of flame temperature suppression is proportional to the rate of water injection and NO_x reduction. Over suppression of the flame temperature by increasing the water injection rate has been demonstrated to produce the following consequences:

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Donald Hoffmann
Gas Turbine Product Line Leader

OpCo Business Segments

Transportation Services

- Over 15,000 miles of pipeline
- 8 Bcf/d of capacity
- \$2.7 B book value assets
- 5,200 employees

Power Distribution

- 75,000 miles of distribution
- 2,100 miles of transmission
- Over 1,900 MW generation
- 2.5 million customers
- \$4.4 B book value assets
- 5,000 employees

Generation and Production

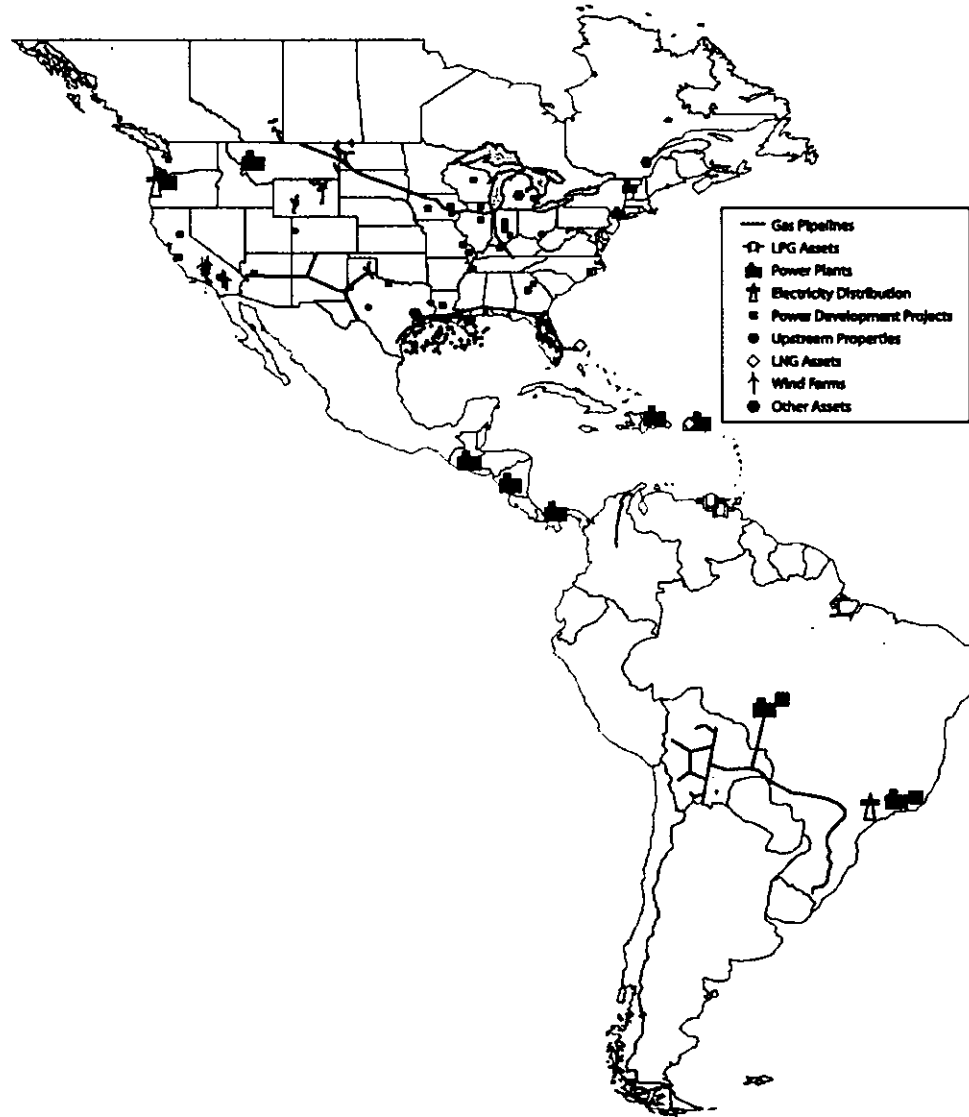
- 4,800 MW generation
- Over 20,000 MW potential capacity
- 100 MMcfe/d of production
- Over 360 Bcfe of proved and probable reserves
- 1,000 miles of pipeline with 2.0 Bcf/d capacity
- \$3.7 B book value assets
- 1,700 employees

Low Cost Efficient Operator

Stable Predictable Cash Flows

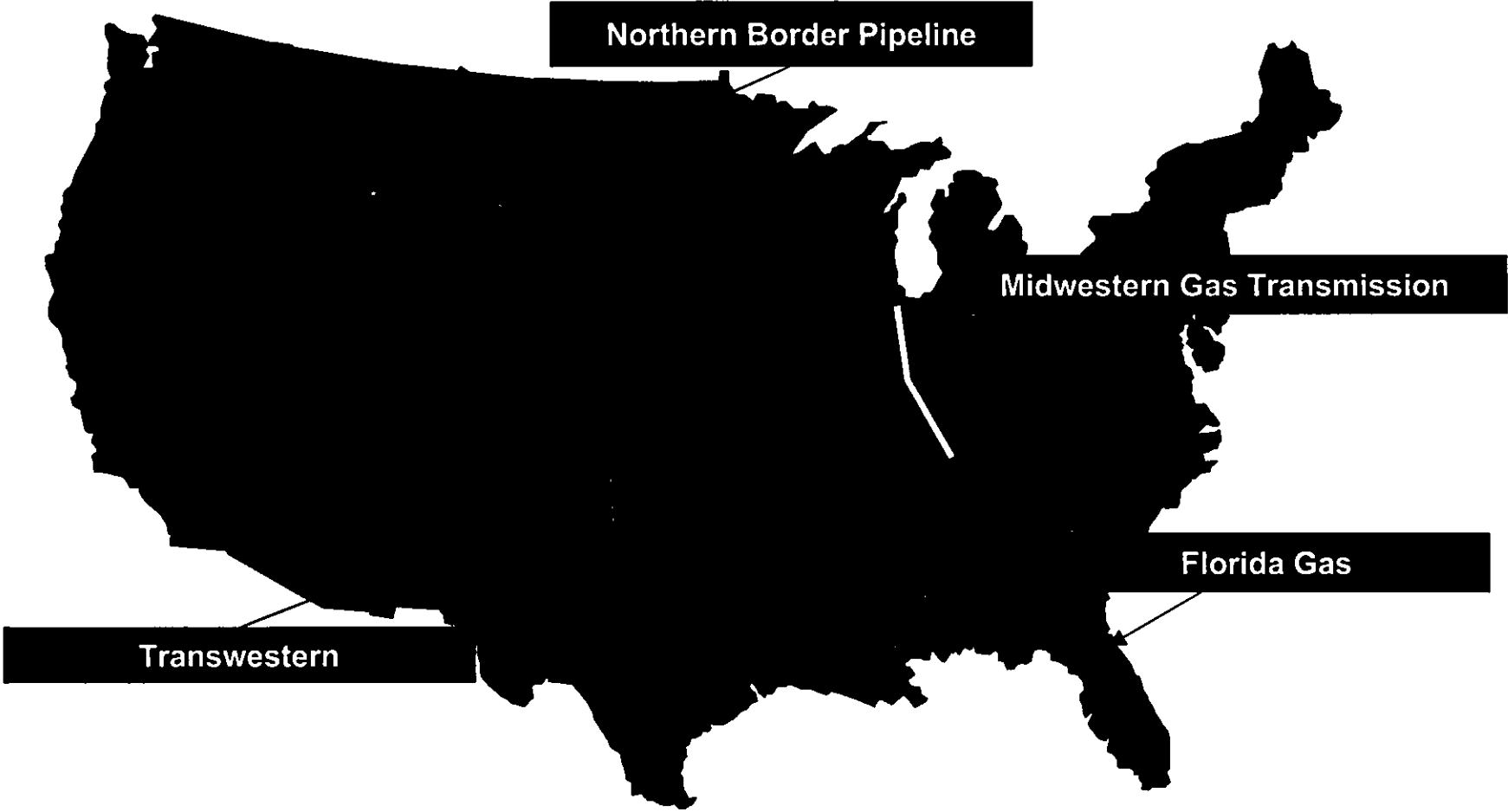
Significant Presence in High Growth Markets

Major Assets

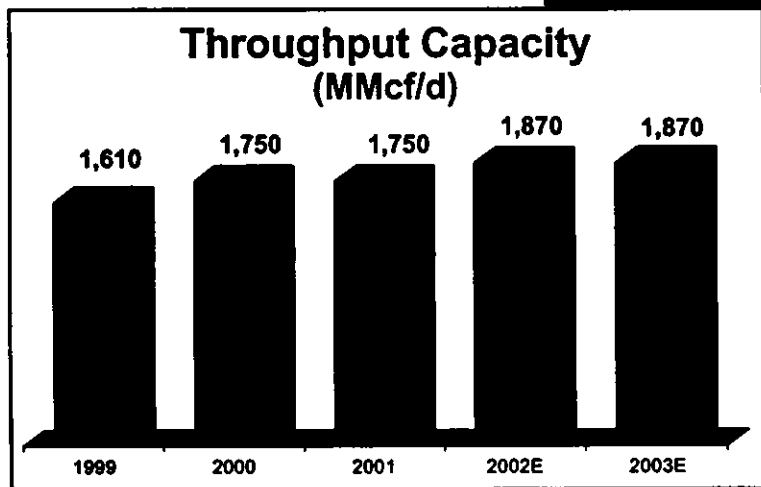
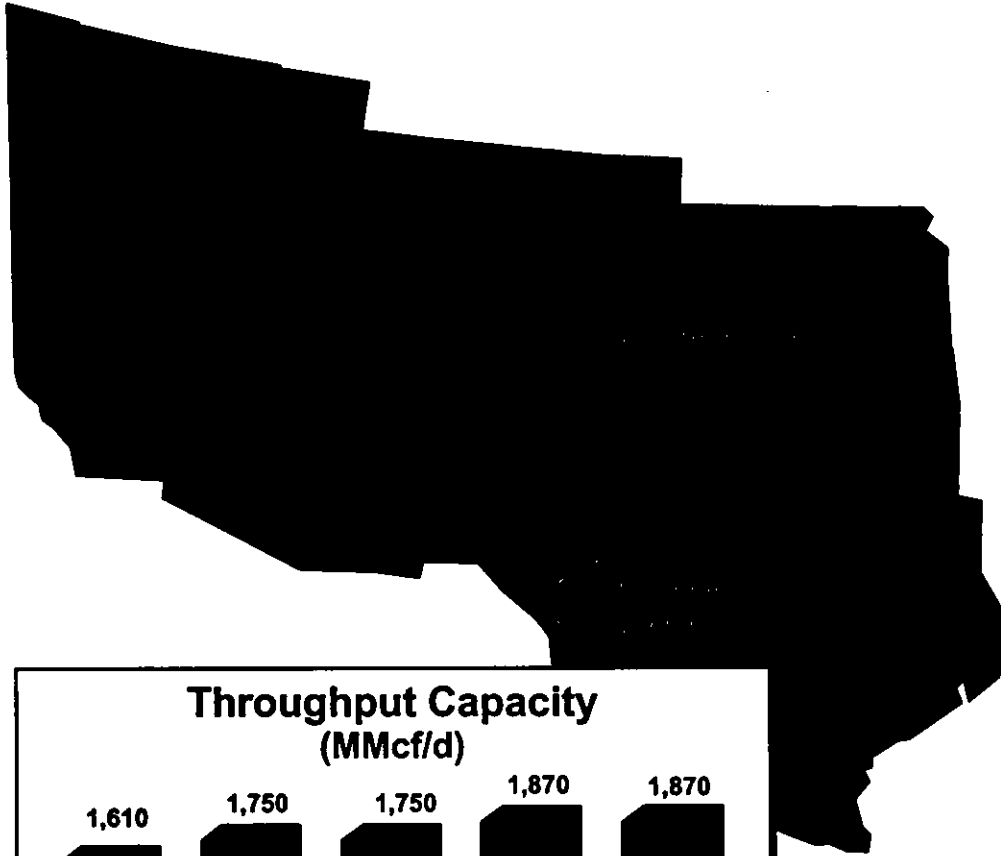


Transportation Services

North American Interstate Pipelines

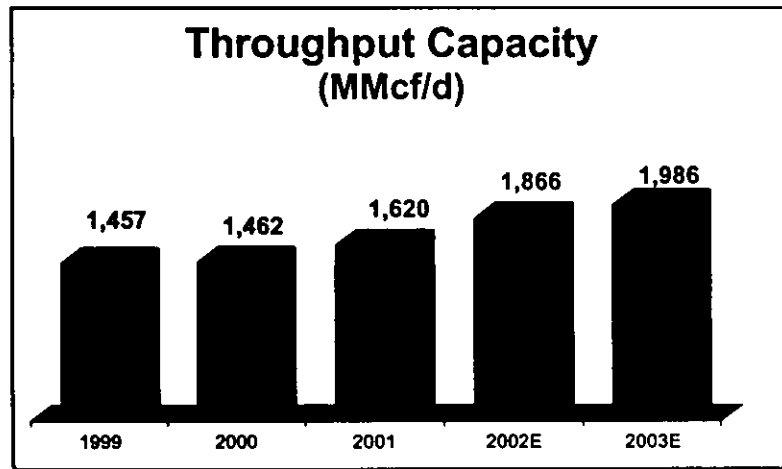
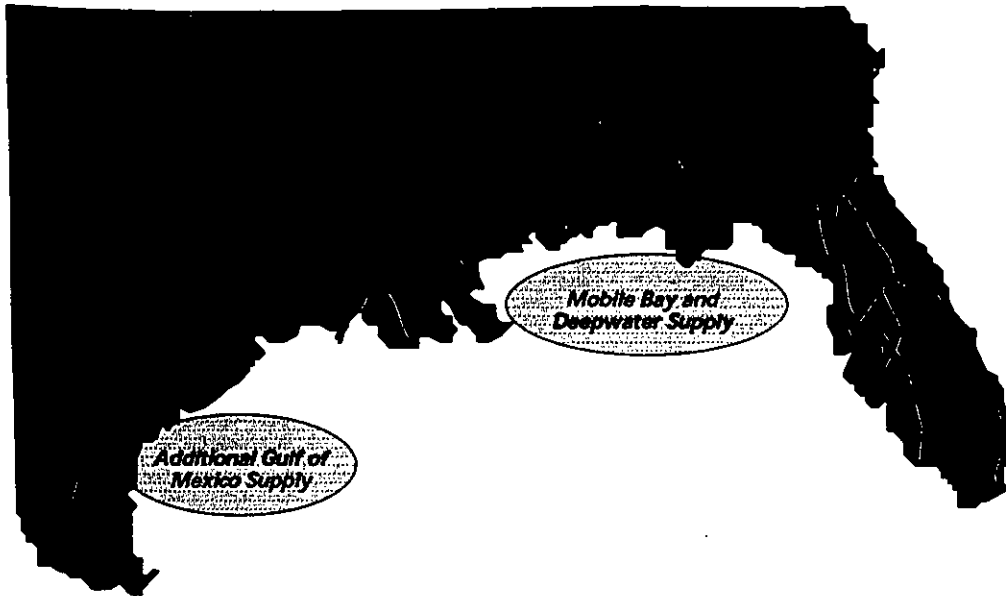


Transwestern Pipeline Company



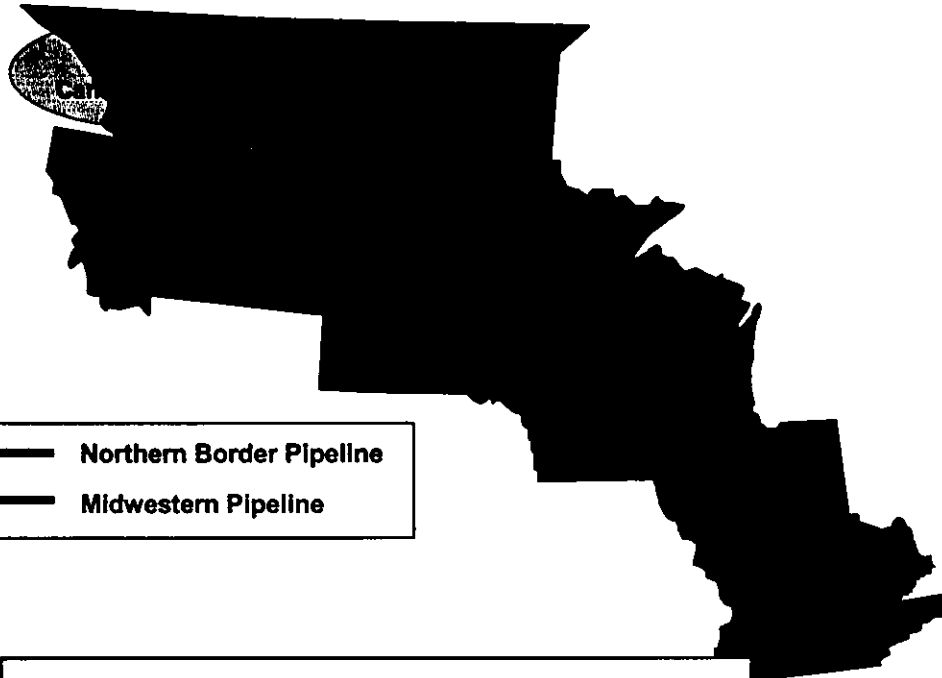
- 2,600 mile pipeline extending from west Texas to the California border with 1.9 Bcf/day of capacity
- Bi-Directional Flow Capabilities Provides Flexibility to Rapidly Adapt to Regional Demand
- Over 80% of Revenues From Demand Charges
- Western Deliveries Subscribed on average 85% Through Dec 2005; Well-Positioned for Recontracting
- No New Rate Case Until November 2006
- Positioned to take advantage of strong demand growth in southwest U.S.
- 100% Owned by Enron

Florida Gas Transmission



- 4,800 mile pipeline extending from south Texas to south Florida with capacity of 1.9 Bcf/day
- Serves Rapidly Growing Peninsular Florida
- Extensive Access to Gas Supply
- Approximately 95% of Revenues From Demand Charges
- 85% of Capacity Contracted Through 2010; 70% Through 2015
- Two major expansions currently underway
- New Rate Case Required October 2003
- Competitive pipeline project, Gulfstream, construction currently underway
- Owned 50% by Enron and 50% by El Paso, operated by Enron

Northern Border Partners



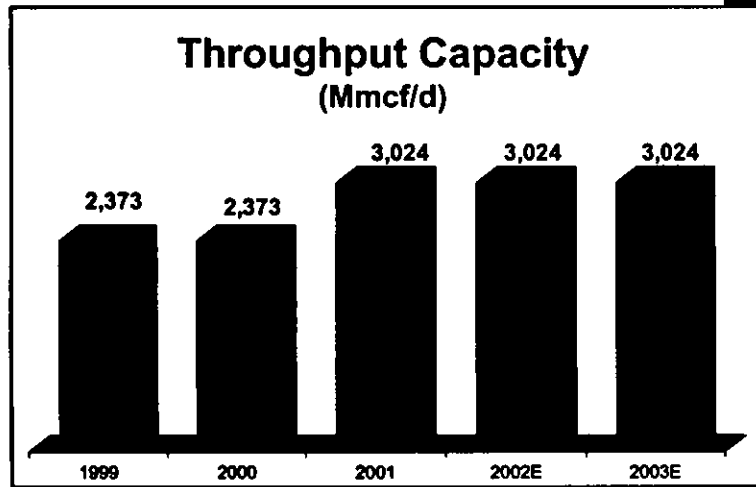
- 1,752 miles of interstate pipelines with capacity of 3.0 Bcf/day
- Enron owns a 1.65% General Partner Interest in NBP, L.P.; is the operator and receives incentive payments

Northern Border Pipeline

- Low-cost link between Canadian reserves and Midwest market
- Fully contracted under long-term agreements; average remaining life of nearly 6 years
- Well-positioned to compete with recent additions to Canadian capacity
- No new rate case until November 2005

Midwestern Gas Transmission

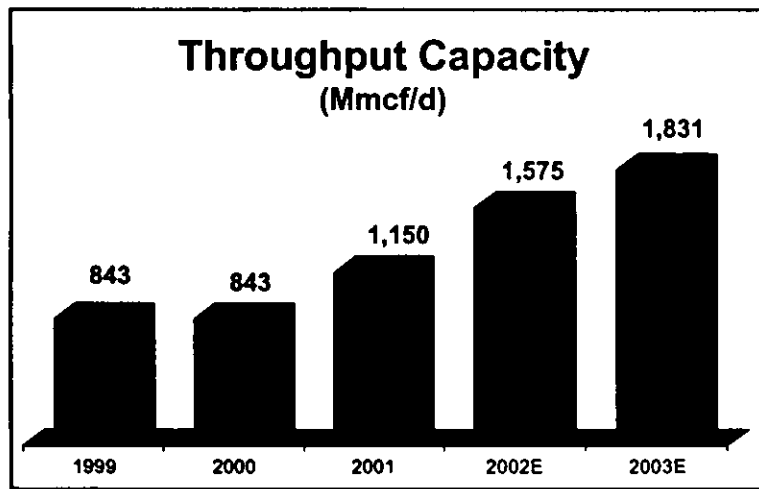
- Strategically located “header” system in Chicago area
- Well positioned to serve new electric generation load



Bolivia-to-Brazil Pipeline System

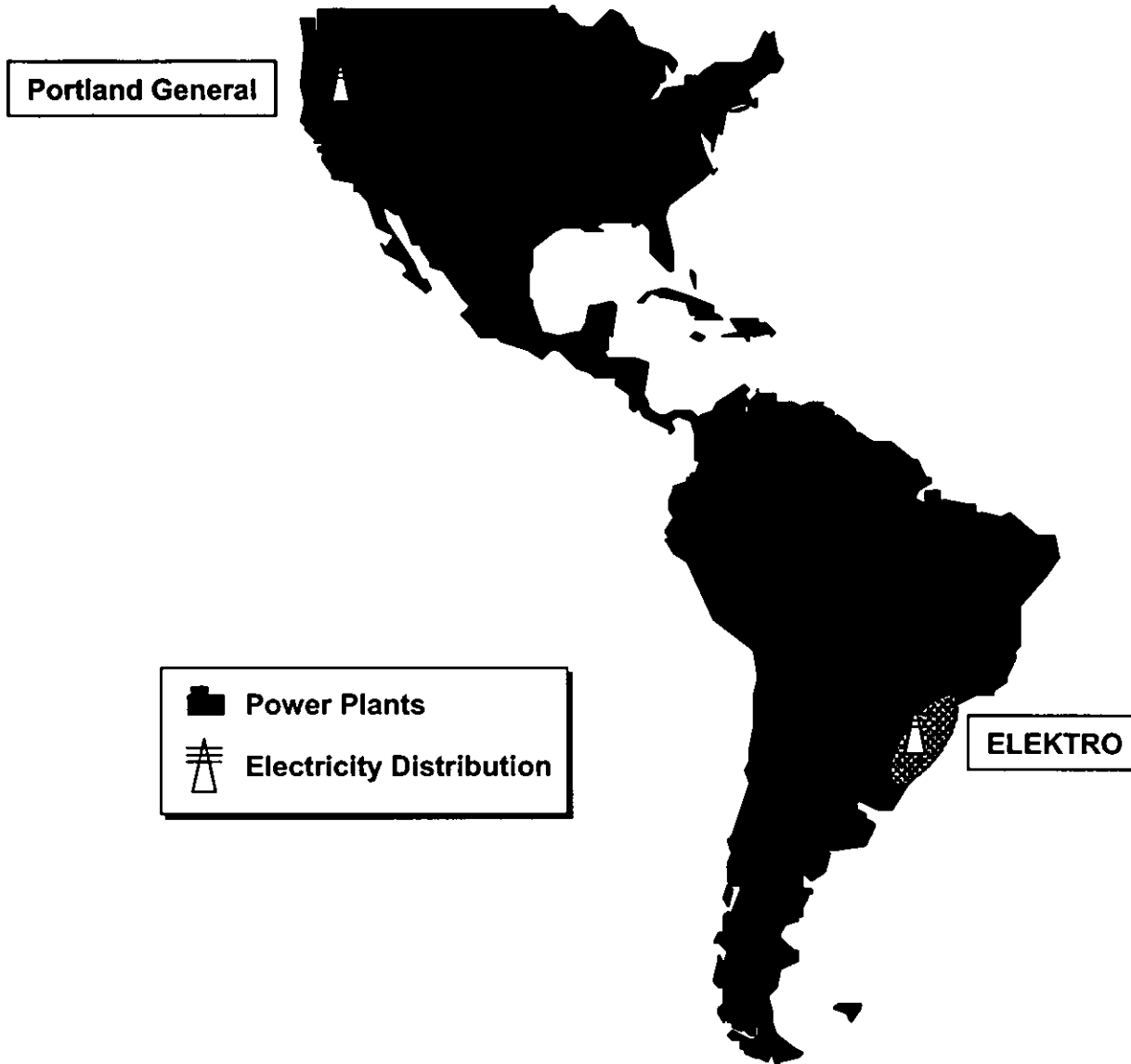


- 6,000 mile “inter-country” pipeline with a projected capacity of 1.8 Bcf/d by 2003 and expansion opportunities
- Only pipeline connecting abundant Bolivian gas fields with consumption region of Brazil
- Fully contracted under long term agreements
- Negotiated tariff structure
- Minority interest owned by Enron with the following JV partners:
 - Shell
 - Petrobras
 - El Paso Energy
 - British Gas
 - Total Fina Elf

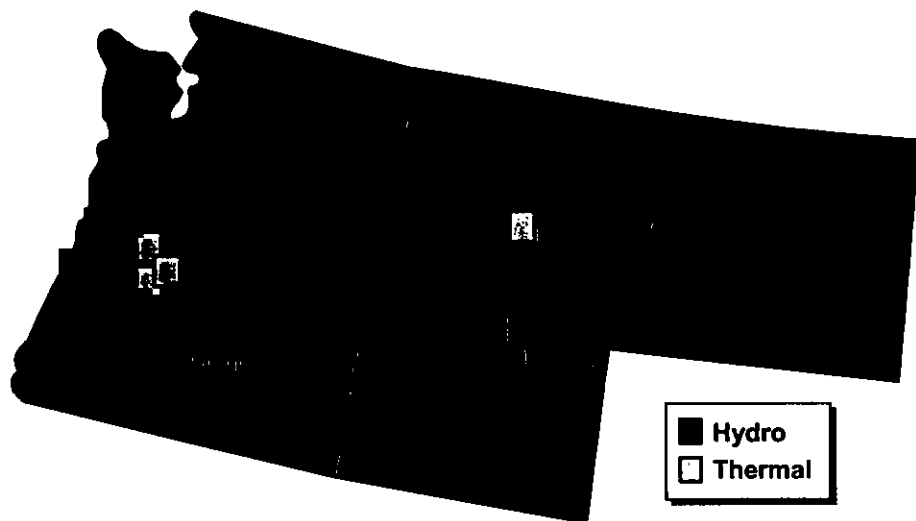


Power Distribution

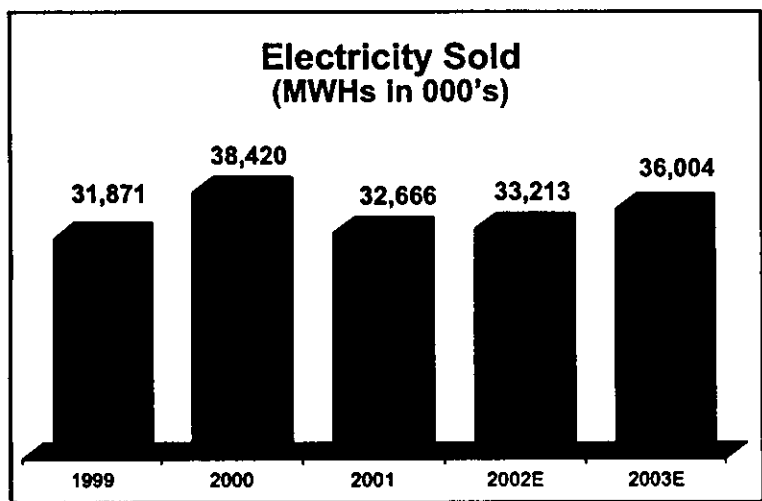
Power Distribution Assets



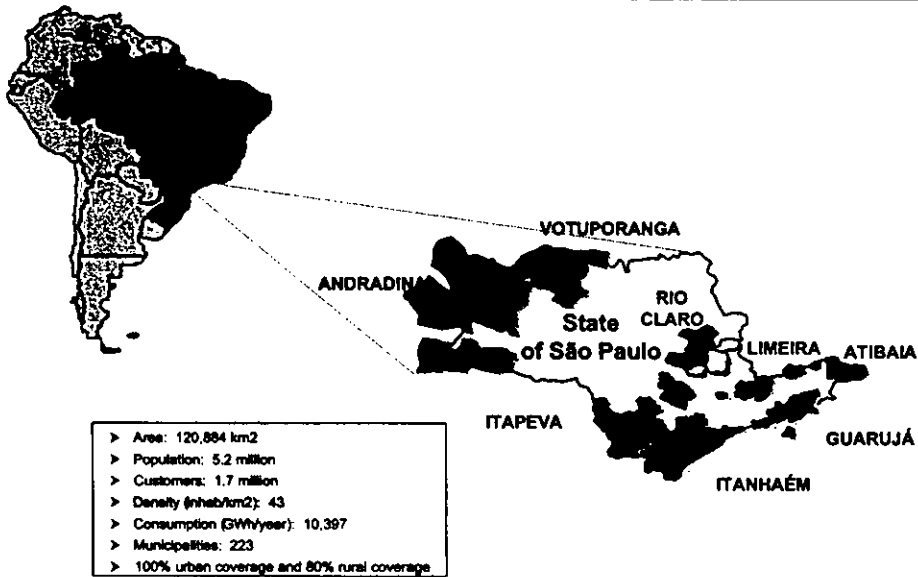
Portland General Electric



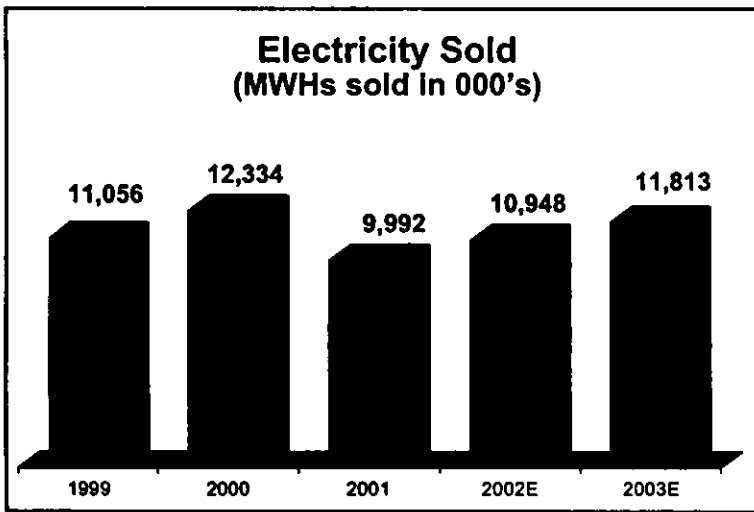
- Serves more than 736,000 customers in Oregon
- Portland General Electric owns and operates eight hydroelectric plants with net capacity of 482 MW and 4 thermal plants with net capacity of 1,427 MW
- Net buyer of supply for its captive load
- Customer satisfaction has been in top quartile
- Hydro and thermal plant availability in 90th percentile
- PGE General Rate Case (UE-115)
 - ROE - 10.5%
 - Rate Increase – 32% Residential, 39% Commercial, 51% Industrial
- 100% Owned by Enron
- Currently subject to Purchase and Sale Agreement with Northwest Natural



ELEKTRO

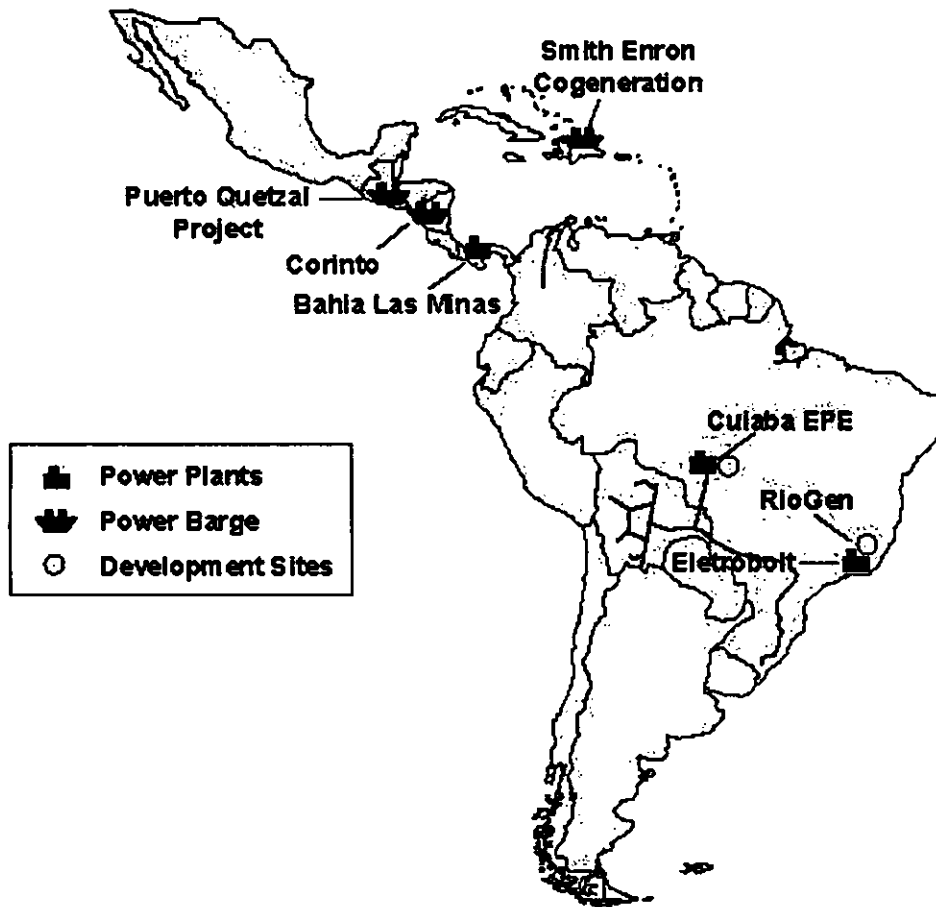


- Serves over 1.7 million customers
- 47,000 square mile concession in Sao Paulo; Brazil's most populous state
- 52,836 miles of transmission and distribution lines
- 30 year renewable exclusive concession expiring 2028
- Purchases 100% of its supply needs
- Rate case due in 2003
- Common equity 76% owned directly by Enron, 24% owned in finance vehicle



Generation and Production

Central and South America Generation and Production Assets



Puerto Quetzal (PQP) (Guatemala)

- 2 Barge-mounted power facilities – 110 MW and 124 MW
- Supplies 14% of Guatemala's electrical energy

Corinto (Nicaragua)

- 70.5-megawatt barge-mounted power plant
- Plant was built in the US and the mooring facility, pier and fuel storage were constructed in Nicaragua

Bahia Las Minas (BLM) (Panama)

- 335-megawatt electric generation company
- Largest thermal power plant in Central America

Smith Enron Cogeneration (Dominican Republic)

- 185 MW oil fired-barge mounted power facility in Dominican Republic
- Supplies 15% of country's power needs

Cuiaba (Brazil)

- 480 MW combined cycle power plant
- 960 MW development site

Eletrobolt (Brazil)

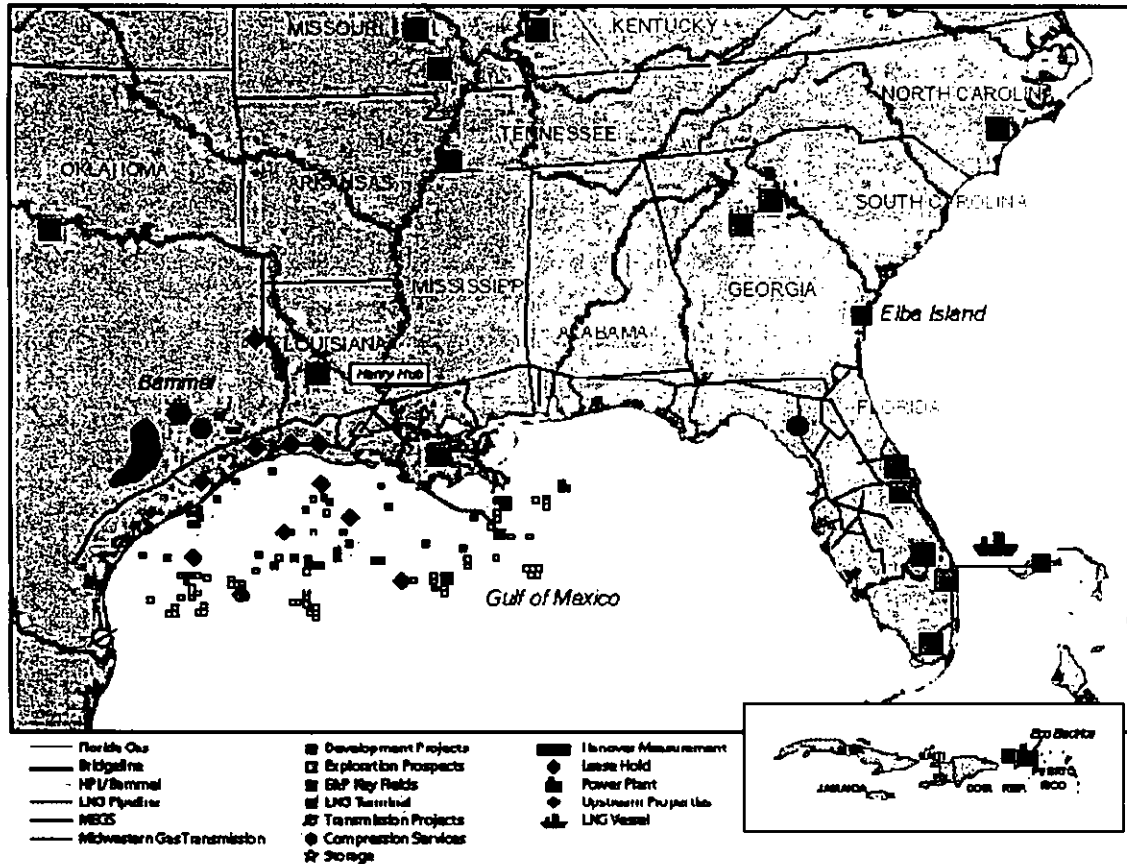
- 379 MW Power Plant located in Rio de Janeiro includes operation and maintenance responsibilities
- Project sells capacity on the merchant market after expiration of 5 year Petrobras capacity guarantee

RioGen (Brazil)

- Development site adjacent to Eletrobolt with 992 total MW potential capacity

Note: See business plan for Enron ownership percentages

Gulf Coast/Southeast Generation and Production Assets



Mariner Energy Inc.

- 100 MMcfe/d of production
- 360 Bcfe of proved and probable reserves
- 140,000 net undeveloped acres
- MEGS: Sub-Sea gathering pipeline

Eco Electrica

- 542 MW power plant in Puerto Rico
- 1 million bbl LNG import, storage and regas facility
- Fully contracted facility supplying 20% of country's demand

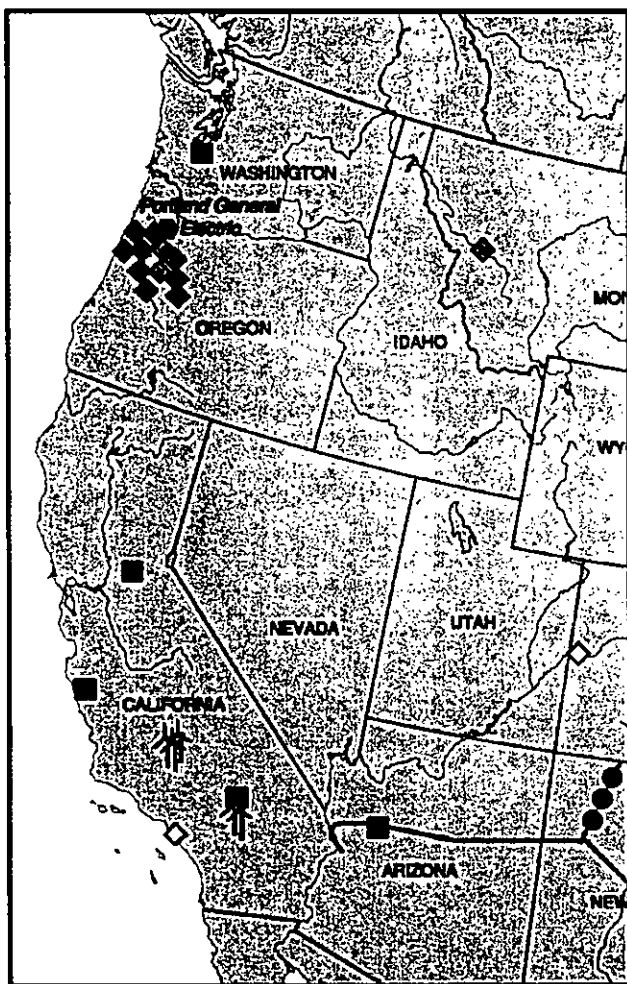
Site Bank

- Over 17,000 MW of power development sites

Bridgeline

- 2 Bcf/d capacity of intrastate gathering and gas pipelines connected to Henry Hub
- 1,000 miles of pipeline connecting key supply areas to interstate pipelines, including FGT
- 13 Bcf storage

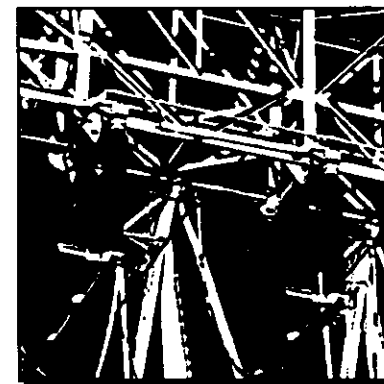
West Coast Generation and Production Assets



- | | |
|------------------------|-----------------------|
| — Transwestern | ◆ Hydroelectric Plant |
| ■ Development Projects | ◇ Thermal Plant |
| ● Compression Services | ◇ Upstream Properties |
| ↑ Wind Farms | |

- Over 1,400 MW of power sites under development
- Identified several other “Ready To Go” opportunities including Transmission, Generation, and Emission Reduction Credits (ERC)
- Various stages of permitting in very difficult permitting region
- Strategically positioned in California and Washington load centers
- One of the most successful development teams in the Western U.S.. Completed over 2,000 MW of projects (5) in CA, OR, CO, and NV.
- Potential synergies with PGE’s unregulated affiliate

The Assets: Wellhead to Power Plug



- Mariner
- Enron Controlled Investments (10)

- Gas Marketing
- Imported LNG
- Citrus Supply Agreements

- Bridgeline
- MEGS
- LNG Ship
- Calypso
- HPL

- Citrus Sales
- Transportation & Services
- LNG Marketing
- Compression Services
- Hanover Measurement Services

- S. America Plants
- C. America Plants
- Eco Electrica
- N. America Development Sites
- Wind Farms
- QF Assets

- PGE
- ELEKTRO
- Power Grids



Enron North America Corp.

P.O. Box 1188

Houston, TX 77251-1188

VIA EMAIL AND OVERNIGHT MAIL

June 10, 2002

Mr. Al Linero
New Source Review
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

RECEIVED

JUN 11 2002

BUREAU OF AIR REGULATION

Re: Extension Request for The Midway Energy Center
Permit Number PSD-FL-305
Response to Request For Additional Information dated, 4/26/2002

Dear Mr. Linero:

On behalf of Midway Development Company, L.L.C. ("MDC"), please accept this letter as our response to your request for additional information dated April 26, 2002. Attached is a copy of your letter for reference. Below please find a summary of your questions in bold followed by our response:

(Summarized from the text of the 4/26 letter) With additional natural gas capacity coming to Florida, why is there still a need for oil to be used as a backup fuel?

The use of distillate as a back up fuel is necessary in order to ensure that the project remains economically viable. While there are several proposed projects that would increase the supply of natural gas into the Florida marketplace, it remains uncertain which of these projects will be completed and what impact they would ultimately have to the local region where this project is to be built. Additionally, because this facility will be operated primarily during times of peak demand, competition for natural gas supply will be strong and it is unfeasible to enter into contracts guaranteeing the delivery of firm natural gas supply.

(Summarized from the text of the 4/26 letter) Information from other projects suggests that the use of oil firing in combustion turbines can be limited to NOx emission rates of 36 ppmvd @ 15% oxygen. Are NOx emissions limits of 42 ppm during oil fire, which is how this facility is permitted, still accurate? Additionally, since recent BACT determinations for other similar projects are restricted to no more than 500 hours of oil firing, does this project still require 1000 hours of oil back up fuel?

This facility is proposing to utilize three General Electric ("GE"), model 7FA combustion turbines. The technical data that has been received from General Electric confirms that the lowest expected NOx emissions while firing distillate oil is 42 ppmvd @ 15% O2. Additionally, the increase of water injection rates beyond the manufacturer's guidelines in an attempt to achieve lower NOx emissions, will not only void the manufacturer's warranty, but

would result in significant combustion hardware failure. A copy of correspondence from General Electric that addresses this issue is attached to this letter.

MDC acknowledges that other BACT determinations have been made for recently permitted projects with regards to the amount of hours allowed during oil firing. Given the potential increase in the future natural gas supply in Florida, and in order to remain consistent with FDEP's other recent BACT determinations, MDC is willing to accept a permit condition limiting the oil fire capabilities of this facility to a maximum average of 500 hours per installed unit, per year.

List the tasks to be performed to prepare the site, install the combustion turbines and related equipment and conduct compliance tests. Include the approximate dates for completing those tasks.

Attached to this letter is a table outlining the requested information.

Please provide information regarding the amount of water (at loads between 25 and 100 percent to be used to effect NOx emissions reduction to 42 ppmvd @15% O2. Provide any information regarding the maximum water injection rates possible for the units. These should be as maximum water injection rate in pounds per hour and in lb water per lb fuel at loads between 25 and 100 percent.

Attached to this letter is a chart summarizing indicative water injection rates for the General Electric model 7FA gas turbine. These rates were developed from General Electric's Gas Turbine Performance Simulation software and are based on the combustion of distillate oil containing less than 150 ppm by weight FBN (fuel bound nitrogen). The y-axis of the table shows the water/fuel ratio as a percentage of the full load condition. It is only possible to assign a precise numerical value for the amount of water to be injected as a function of fuel rate for a specific operating condition. Because this number is affected by ambient temperature, humidity, compressor pressure ratio as well as other system variables, a family of curves is needed to reflect the multitude of possible operating conditions. Therefore, we have provided the water to fuel curve for the gas turbine corresponding to a design basis of 50°F and 95% RH. According to GE, the US Environmental Protection Agency ("USEPA") has reviewed and accepted GE Power Systems' ("GEPS") distillate water injection control methodology as an acceptable alternative test method to 40 CFR §60.335 for GE heavy duty diffusion combustors and has issued a letter on the subject to the USEPA regional offices. GEPS has agreed to provide this information to Enron, who will in turn provide it to the FDEP. In the letter, EPA acknowledges that GE's control algorithm compensates for variations in ambient parameters over the ambient conditions and load range to provide for safe, reliable operation of the gas turbine. In addition to continually controlling NOx emissions below the permitted value, an additional function of the algorithm is to avoid a condition of "overwatering" the combustion turbine. As previously stated, high water to fuel ratios will not be sanctioned by GE, whereas lower water to fuel ratios may not achieve the desired NOx level (in ppm) in the exhaust.

For the design conditions provided, 50 degrees Fahrenheit compressor inlet temperature with 95% relative humidity, the target water injection ratio would be nominally 1.3 pounds of water per pound of fuel at fully-fired, base load conditions. Additionally, since the facility

Mr. Al Linero
June 10, 2002
Page 3

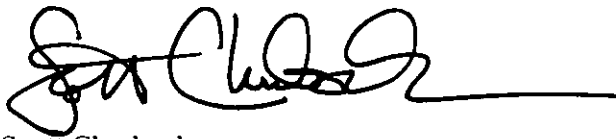
will not normally operate below 50% load condition, this evaluation was only performed for operation between 50 and 100 percent load.

Provide a statement (and basis for believing) that the facility will comply with applicable regulations.

As requested, attached to this letter is a statement of assurances.

We hope that this information satisfies your request. However, should you have any questions about this information or require additional clarification, please do not hesitate to contact me at 713/345-4623.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Scott Churbock', with a long horizontal line extending to the right.

Scott Churbock
Environmental Manager

Attachments

cc: Greg Krause, Enron North America
Ben Jacoby, Enron North America

J. Alton



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 26, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ben Jacoby, Director
Midway Development Company, L.L.C.
1400 Smith Street
Houston, Texas 77002-7631

Re: DEP File No. 1110099-002-AC (PSD-FL-304)
Midway Energy Center
Three Simple Cycle Combustion Turbines

Dear Mr. Jacoby:

The Department received a request from Scott Churbock of Enron North America, to extend the referenced air construction permit from June 30, 2003 to February 14, 2006. The letter also includes a request to extend the commencement of construction date by 18 months until February 14, 2004. We consider the request incomplete and require some additional information as detailed below.

When the original project was approved, the natural gas capacity of the Florida Gas Transmission (FGT) network was approximately 1.4 billion cubic feet per day (bcfd). FGT is an affiliate of Enron. FGT Phase IV and Phase V expansions of the FGT will supply natural gas transportation service for approximately 0.66 bcfd of natural gas to expanding markets in Florida. Phase IV is already in service. Phase V will be in service by the end of 2002.

FGT's Phase VI project is already under review by FERC and is expected to be operational by mid-2003. This project will further increase FGT capacity by 0.12 bcfd, raising FGT's capacity to 2.2 bcfd.

Gulfstream Natural Gas System, LLC commenced construction on a 1.13 bcfd natural gas pipeline from supply areas in Mississippi and Alabama to new and existing markets in Florida. The Gulfstream project will cross the FGT system at several points and we understand will have interconnections with the FGT system near St. Lucie.

FERC is processing an application from Cypress Natural Gas to construct a new pipeline capable of delivering 0.31 bcfd of natural gas from existing liquefied natural gas (LNG) processing facilities in Georgia to the FGT network in Florida.

The above projects will increase total gas delivery capacity to the state from approximately 1.4 bcfd in 2000 to 3.6 bcfd in 2004 (exclusive of any Bahamas LNG projects by AES, El Paso or Enron). The increase exceeds the requirements by additional permitted power plants (including Midway Development Company, L.L.C.).

"More Protection, Less Process"

Printed on recycled paper.

El Paso recently received permits at two sites (Belle Glade and Manatee) and a draft permit for a site in Broward County. These projects include simple cycle units fired exclusively on natural gas. Furthermore, Deerfield Beach Energy, L.L.C. (an Enron affiliate) proposed to the City in December of 2001 the use of gas only at a project identical to the Midway project.

With the Midway project so far behind schedule, we would like to know how the developments detailed above affect the need to use fuel oil for up to 1000 hours per year per unit. The reason is that during fuel oil combustion, emissions are presently permitted at 42 ppmvd @15% O₂ rather than 9 ppmvd. Final BACT determinations for similar projects (since issuance of the original Midway permit) have included fuel oil use restrictions of 0 to 500 hours per year. We have furthermore received information from recently constructed facilities that suggest that a NO_x emission rate of 36 ppmvd @15% O₂ is achievable when firing fuel oil. These limitations have been proposed at several proposed projects in the state.

In addition to the questions above, please provide the following information:

1. List the tasks to be performed to prepare the site, install the combustion turbines and related equipment, and conduct compliance tests. Include the approximate dates for completing those tasks.
2. Please provide information regarding the amount of water (at loads between 25 and 100 percent) to be used to effect NO_x emissions reduction to 42 ppmvd @15% O₂. Provide any information regarding the maximum water injection rates possible for the units. These should be as maximum water injection rate in pounds per hour and in lb water per lb fuel at loads between 25 and 100 percent.
3. Provide a statement (and basis for believing) that the facility will comply with applicable regulations.

Please note that per Rule 62-4.055(1): *"The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department..... Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."*

If you have any questions regarding this matter, please contact me at 850/921-9523 or at alvaro.linero@dep.state.fl.us .

Sincerely,



A. A. Linero, P.E. Administrator
New Source Review Section

AAL/aal

cc: Melissa Meeker, DEP SED
Tom Tittle, DEP SED
Gregg Worley, EPA
John Bunyak, NPS
Chair, St. Lucie County BCC
Mayor, City of St. Lucie
Scott Churbock, Enron North America
Blair Burgess, P.E., ENSR



GE Power Generation

David J. Balevic
Manager - Combustion Design Engineering

Gas Turbine Operation
General Electric Company
PO Box 648
300 Garlington Road, FD-4
Greenville, SC 29602-0648

Phone: (864)254-3402 or 8*288-3402
Fax: (864)254-2380 or 8*288-2380

May 21, 2002

Mr. Scott Churbock
Environmental Manager
Enron North America
1400 Smith Street
Houston, TX 77002

Subject: Water Injection for NO_x Abatement

Dear Sir,

Industrial gas turbines must provide power generation to maintain reliable electric supply within the US and elsewhere. In addition to reliable operation, which provides grid stability, industrial gas turbine emissions need to be minimized to reduce the environmental impact of operation. GE, through its research and development efforts, has maintained a leadership position in industrial gas turbine emissions and operational reliability, maintainability, and availability. To reduce NO_x in GE's Dry Low NO_x combustion systems, water injection is used to suppress combustion system flame temperature while firing liquid fuel. The magnitude of flame temperature suppression is proportional to the rate of water injection and NO_x reduction. Over suppression of the flame temperature by increasing the water injection rate has been demonstrated to produce the following consequences:

- Elevated combustion dynamics resulting in premature combustion hardware failure, collateral damage to the hot gas path section of the gas turbine, and forced outages measured in weeks.
- Reduced flame stability at extreme ambient conditions resulting in increased unit trips.
- Less reliable, available gas turbines resulting in lost customer revenue and increased maintenance costs.
- Reduced gas turbine efficiency at base load resulting in increased emissions on a lb/MW basis.
- Out of compliance CO and VOC at part load.

GE's water injection schedule used to achieve 42 ppm NO_x for liquid fuel is the optimal water injection rate to maintain reliable equipment operation and minimum total plant emissions (NO_x, CO, VOC).

For these reasons, GE's industrial gas turbine warranty will not cover damage to the gas turbine resulting from operation outside of GE's defined water injection schedule. State permits mandating that owners of GE gas turbines operate outside of GE's defined water injection schedule which achieves 42 ppm NO_x, risk increased gas turbine forced outages that could reduce grid stability. GE cannot support operation of large industrial gas turbines outside the design and operating envelope due to the damages that have been demonstrated to result from such operation.

Sincerely,

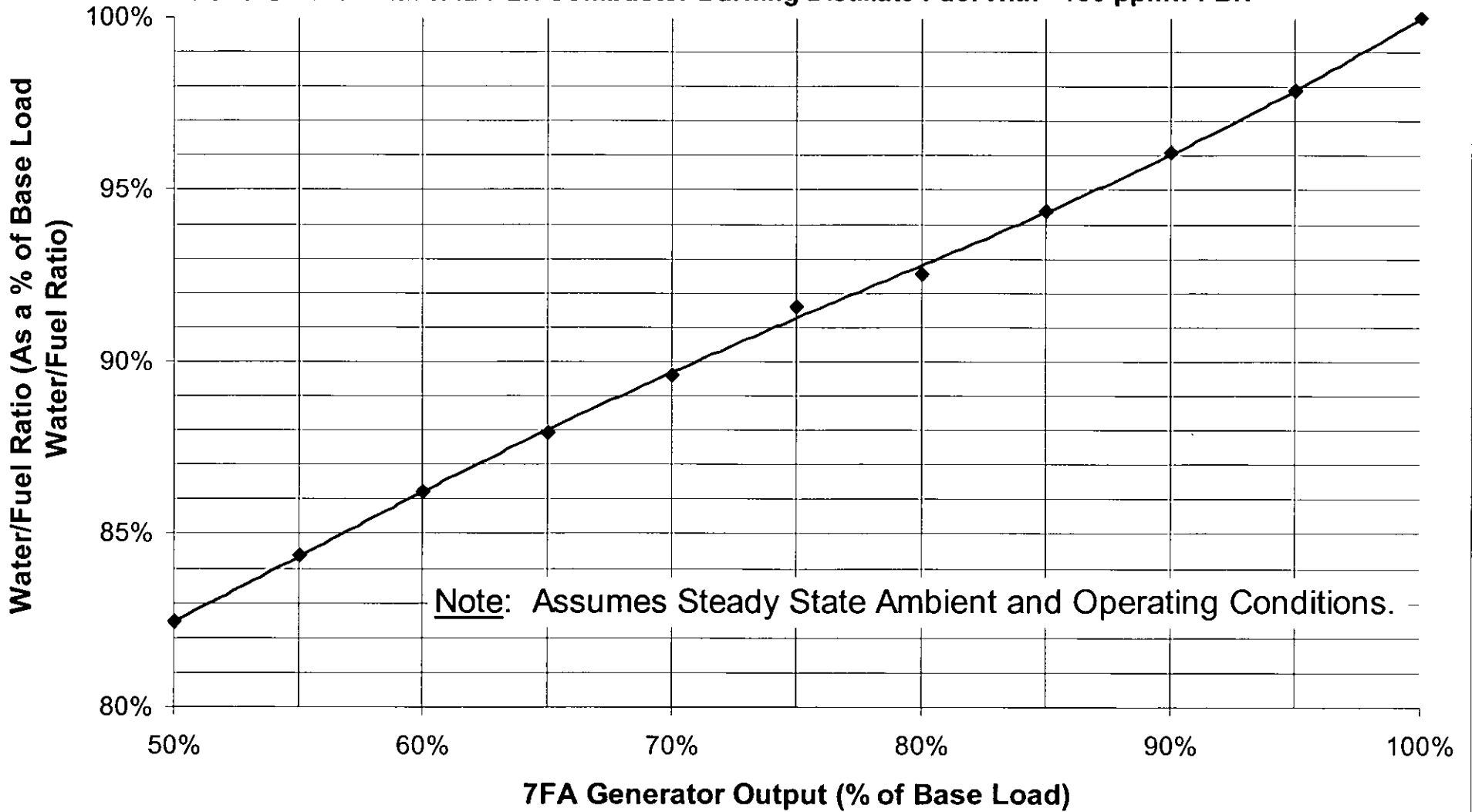
David Balevic
David Balevic
Manager - Combustion Design Engineering

Donald W. Hoffmann
Donald Hoffmann
Gas Turbine Product Line Leader

Water/Fuel Ratio vs Load

Assuming a NO_x Target of 42ppmvd @ 15 vol.% O₂

For a GE 7FA With 9/42 DLN Combustor Burning Distillate Fuel With <150 ppmw FBN



Midway Energy Center

List of Facility Completion Items and Estimated Construction Schedule

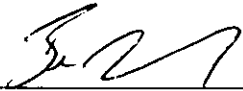
Project Task	Duration	Start	Stop	1	2	3	4	5	6	7	8	9	10	11	12
EPC selection	3	0	3	█	█	█									
Final engineering	3	2	5		█	█	█								
Equipment procurement and delivery	6	2	8		█	█	█	█	█	█					
Site clearing and preparation	1	2	3		█										
Site foundation work	3	3	6			█	█	█							
Fabrication/installation of tanks, water systems and support equipment	6	4	10				█	█	█	█	█	█			
CTG Installation	4	4	8					█	█	█	█				
Installation of piping and infrastructure systems	5	4	9						█	█	█	█	█		
Installation of duct work and stacks	5	5	10							█	█	█	█	█	
Transformer installation	2	8	10									█	█		
CEMs system installation	2	9	11											█	█
Equipment commissioning, tuning and testing	2	10	12												█

Note: All time frames are in months and are from the start of construction.
 (start of construction is currently estimated to be between June, 2003 and January, 2004)

**Midway Energy Center
Statement of Assurances**

Based upon the technical and regulatory information that has been previously submitted for the Midway Energy Center, upon its completion, the facility will comply with the air quality construction permit and applicable regulations. Furthermore, the issuance of the extension to the air quality construction permit will not adversely affect the prospective compliance status of this facility.

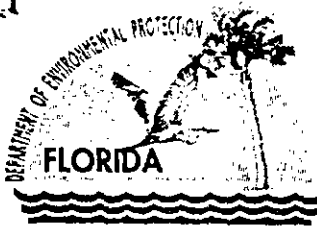
Midway Development Company, L.L.C.

By:  HBC

Date: 6-5-02

Name: Ben Jacoby

Title : Vice President



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

April 26, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Ben Jacoby, Director
Midway Development Company, L.L.C.
1400 Smith Street
Houston, Texas 77002-7631

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Sincerely,



A. A. Linero, P.E. Administrator
New Source Review Section

AAL/aal

cc: Melissa Meeker, DEP SED
Tom Tittle, DEP SED
Gregg Worley, EPA
John Bunyak, NPS
Chair, St. Lucie County BCC
Mayor, City of St. Lucie
Scott Churbock, Enron North America
Blair Burgess, P.E., ENSR

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 9007

Mr. Ben Jacoby.

Postage	\$	
Certified Fee		
Return Receipt Fee Endorsement Required		Postmark here
Restricted Delivery Fee Endorsement Required		
Total Postage & Fees	\$	

Sent To
Midway Development Co.
1406 Smith Street
Houston, TX 77002-7631



Enron North America Corp.

P.O. Box 1188
Houston, TX 77251-1188

VIA OVERNIGHT MAIL

March 28, 2002

Mr. Al Linero
New Source Review
Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400

RECEIVED

MAR 29 2002

BUREAU OF AIR REGULATION

Re: Extension Request for The Midway Energy Center
Permit Number PSD-FL-305

111 0094-033-AC

Dear Mr. Linero:

On behalf of the Midway Development Company, L.L.C. ("MDC"), Enron North America is submitting this letter as a formal request to extend the above referenced permit's construction commencement and completion dates, in accordance with permit conditions II.6, II.9, and Rule 62-4.080 F.A.C. This request is being made for additional time to allow for the procurement of equipment, completion of engineering activities, and construction of this facility. No request is being made for relief of any of the other existing permit conditions. Furthermore, MDC will complete the construction of this facility in full compliance with the permit conditions as well as all applicable federal, state and local rules and regulations. Based on our recent discussion, I understand that this request will be administered as an administrative modification. Therefore, enclosed is a fifty-dollar (\$50.00) check for the modification fee.

Specifically, MDC requests the following changes be made:

Section II, Item 6

Summary of change:

Extend the construction commencement date by an additional 18 months to February 14, 2004.

Revised Text:

PSD Approval to Construct Expiration: Approval to construct shall become invalid if construction is not commenced within ~~18~~ 36 months after receipt of such approval, or if construction is discontinued for a period of ~~18~~ 36 months or more, or if construction is

not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

Section II, Item 8

Summary of change:

Extend the construction completion dates by an additional 18 months from the date of the extension of the construction commencement requirement date (proposed Item 6).

Revised Text:

Completion of Construction: The permit expiration date is ~~June 30, 2003~~ **February 14, 2006**. Physical construction shall be complete by ~~December 3, 2002~~ **August 14, 2005**. The additional time provides for testing, submittal of results, and submittal of the Title V permit to the Department.

Should you have any questions or require any additional information regarding this request please contact me at 713/345-4623.

Respectfully Submitted,



Scott Churbock
Environmental Manager

Enclosure