Costello, Jeanne

From: Hopping, Albert [Albert.Hopping@pgnmail.com]
Sent: Monday, June 07, 2004 4:33 PM
To: Rhodes, Rick
Subject: Values2.xls

Values2.xls (655 KB)

REDACTED

Part 1 of 3

DOCUMENT NUMBER-DATE

11126 OCT 15 8

FPSC-COMMISSION CLERK

PEF 000757
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

:F 000787
)CK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Hopping, Albert [Albert.Hopping@pgnmail.com]
Sent: Thursday, June 24, 2004 9:06 AM
To: Boulmay, Ramon
Cc: Rhodes, Rick
Subject: Hines Supply

Ramon, I got your message. I think you must be working off of an old or altered file. I could not find the error you were describing in my file. Please refer to the attached file. Let me know if you find anything. Thank you.

<<Values3.xls>>

PEF 000793
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Boulmay, Ramon [ramon.boulmay@pgnmail.com]
Sent: Thursday, June 17, 2004 1:59 PM
To: Hopping, Albert
Cc: Rhodes, Rick
Subject: FW: ERM Hines Supply Deliverables
Importance: High

Regarding the analyses for [redacted], what is the source of the monthly basis numbers used in cells S8 through S19? Said another way, does that represent some historical slice of data?

-----Original Message-----
From: Rhodes, Rick
Sent: Wednesday, June 16, 2004 8:01 AM
To: Boulmay, Ramon; Adams, Melanie; Murphy, Pam (CP&L)
Cc: Hopping, Albert
Subject: FW: ERM Hines Supply Deliverables
Importance: High

Ramon.

The e-mail below from Albert lists of quantifiable and non-quantifiable items we discussed last night. Albert mentioned that he could complete the "quantifiable list" by the end of next week (6/25).

Also attached is the work completed so far from ERM - this analysis shows the net present cost of each option with confidence intervals that are based on the gas price forecast high and low cases.

<<Values3.xls>>

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

-----Original Message-----
From: Hopping, Albert
Sent: Tuesday, June 15, 2004 7:05 PM
To: Rhodes, Rick; Boulmay, Ramon
Cc: Li, Yong; McCallister, Joseph
Subject: Hines Supply Deliverables

This is a follow up to recap what ERM - Risk Analytics will and will not deliver in regards to long term Hines NG supply.

We will provide:

PEF 000830
DOCK NO. 040817-EI

- A list of assumptions
- The exposure (supplied to the credit group for their analysis)
- Further stress testing of TZ4 basis
- The volume of NG in excess of PEF burn (the traders will help us quantify the value of this)

- The value of the [redacted] will be ingrained
- A mean value and a distribution for each of the [redacted] proposed deals that reflects these improvements
- Estimated LD

Items that we will not quantify:

- The value of supply diversity [redacted]
- Certainty of any [redacted]
- The credit risk itself (however we will supply the expose to the credit group so they can do the analysis)

Thank you.

Albert Hopping
ERM - Risk Analytics

PEF 000831
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 000836
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 000862
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

tello, Jeanne

From: Boulmay, Ramon [ramon.boulmay@pgnmail.com]
Sent: Thursday, June 24, 2004 10:33 AM
To: Hopping, Albert
Cc: Rhodes, Rick; Murphy, Pam (CP&L)
Subject: FW: Hines Supply
Importance: High

Albert:

I have added a new column to the file you sent me this morning with your (below) email that correctly computes the total FT $'s so you can compare to your original computation. I have highlighted (yellow shading) those cells in which your original computations are misstated.

<<Values3.xls>>
I detected this problem by performing a very simple back-of-envelope computation to test the general reasonableness of the [redacted] I've added a new worksheet to the above attached file labeled [redacted]", which recreates the simple math (ignoring leap-years) I went through to test the [redacted] result. The correct total FT amount for [redacted] should have been approximately [redacted], whereas your original computation produced a result of only [redacted].

The primary problem with your original computations is that the volumes (dekatherms) you have embedded within in your formulae were incorrect (i.e. - not consistent with the volumes in Column D). Additionally, with respect to the [redacted], you were computing cost after termination of the deal [redacted].

If this discovery impacts the timing of when you expect to complete your remaining work for us, please contact me or Pam Murphy at your earliest possible convenience!

Ramon

-----Original Message-----
From: Hopping, Albert
Sent: Thursday, June 24, 2004 9:06 AM
To: Boulmay, Ramon
Cc: Rhodes, Rick
Subject: Hines Supply

Ramon, I got your message. I think you must be working off of an old or altered file. I could not find the error you were describing in my file. Please refer to the attached file. Let me know if you find anything. Thank you.

PEF 000868
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 000878
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Rhodes, Rick [Rick.Rhodes@pgnmail.com]
Sent: Wednesday, June 16, 2004 8:01 AM
To: Boulmay, Ramon; Adams, Melanie; Murphy, Pam (CP&L)
Cc: Hopping, Albert
Subject: FW: ERM Hines Supply Deliverables
Importance: High

Ramon,

The e-mail below from Albert lists of quantifiable and non-quantifiable items we discussed last night. Albert mentioned that he could complete the "quantifiable list" by the end of next week (6/25).

Also attached is the work completed so far from ERM - this analysis shows the net present cost of each option with confidence intervals that are based on the gas price forecast high and low cases.

<<SimulationResults with CapitalCost.xls>> <<Values3.xls>>

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

-----Original Message-----
From: Hopping, Albert
Sent: Tuesday, June 15, 2004 7:05 PM
To: Rhodes, Rick; Boulmay, Ramon
Cc: Li, Yong; McCallister, Joseph
Subject: Hines Supply Deliverables

This is a follow up to recap what ERM - Risk Analytics will and will not deliver in regards to long term Hines NG supply.

We will provide:

- A list of assumptions
- The exposure (supplied to the credit group for their analysis)

[redacted]

Items that we will not quantify:

PEF 000902
DOCK NO. 040817-EI

- The value of supply diversity (east coast LNG vs. the Gulf area)
- Certainty of any pipeline project's success
- The credit risk itself (however we will supply the expose to the credit group so they can do the analysis)

Thank you.

Albert Hopping
ERM - Risk Analytics

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 000916
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 000935
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Boulmay, Ramon

From: Boulmay, Ramon
Sent: Monday, July 26, 2004 12:55 PM
To: Caldwell, Rob
Subject: [redacted]

Rob: In reviewing a series of articles dating back to January that were published in Bahamian newspapers, I've pieced today the following summary of information.

- Economic benefits, job creation, revenues to the Bahamian government, and a desire to dismantle the environmentally unsafe cement factory (due to asbestos) appear to be the primary issues being debated. The safety/terrorism issues are being raised by the opposition political party.

- The Freeport News was "reliably informed" (July 22nd) that the Government would make a decision regarding the Tractebel project "soon".

- Bahamian Government
  a) Approval-in-principle had been granted to all three projects in 2001 by the prior Administration of Bahamas Government. (Final approval has not been given to any project by the current Administration.)
  b) Key agencies / officials who are or will weigh-in:
     - Bahamas Environment, Scientific & Technology Commission (BEST);
     - Minister of Trade & Industry (Leslie Miller);
     - Minister of Health and Environment (Dr. Marcus Bethal);
     - Prime Minister (Perry Christie) and his Cabinet
  c) Public treasury could accrue $1 billion over 25-year period for 1 project.
  d) Examining the possibility of charging $10 million for a license in addition to another $6 million to lease seabed at Ocean Cay.
  e) Receiving on-site assistance from industry experts and government officials from Trinidad and Tobago.

- Tractebel
  a) Issued EIA to BEST in December 2003
  b) The site of Tractebel's facility (Bahamas Cement Factory) adjacent to a large residential settlement known as Hepburn Town
  c) Granted license by the Grand Bahamas Port Authority (GBPA) to build and operate in Freeport Harbor with Tractebel agreeing to:
     - An annual license fee of $3 million;
     - Environmental clean-up of asbestos at the site
  d) Relocation of the cruise ship port has been pushed by the National Government, not the GBPA. However, the GBPA and Tractebel have reportedly agreed to the relocation.
  e) Effective in generating local support. Apparently there is high unemployment in the western Grand Bahamas. There was a public demonstration in early July by residents demanding the jobs that the Tractebel project would generate. In late July, a petition with more than 1,000 signatures was presented to the Prime Minister, the Cabinet and members of Parliament.

- FPL/El Paso
  a) Submitted EIA to BEST in November 2003
  b) Approval from the Government to sub-lease public property for its facility may still be

PEF 000956
DOCK NO. 040817-EI

outstanding.

- AES
  a) Initially considered the frontrunner in obtaining final approval from the Bahamian government apparently based the facts that it was the first project to file its Environmental Impact Study (EIA) with the BEST, BEST has reportedly completed its review and turn-over documents to the Cabinet; and was the first project to receive U.S. approvals.
  b) Alleges that it has invested $50 million thus far.
  c) ICF Consulting has been providing technical support to AES.
  d) AES's port facility was reported as not being in compliance with new requirements of the International Ship and Port Facility Security Code (ISPS) that were implemented on July 1st. The code represents a comprehensive shipping regime for all internal shipping and was implemented in response to September 11th. AES disputes this since the port is currently not operating.

Ramon Boulmay
Manager - Structuring & Analysis
Regulated Commercial Operations
(919) 546-5790
ramon.boulmay @pgnmail.com

PEF 000957
DOCK NO. 040817-EI

Tractebel plans $700 million LNG project

Slugline	Tractebel plans $700 million LNG project
Publication	Nassau Guardian
Date	January 15, 2004
Section(s)	Business
Page	
Byline	
Brief	Tractebel plans $700 million LNG project By LINDSAY THOMPSON Guardian Business Editor lthompson@nasguard.com Tractebel North America Inc., a division of a French-Belgian company, is prepared to invest from $650 to $700 million to construct and operate a

By LINDSAY THOMPSON

Guardian Business Editor

lthompson@nasguard.com

Tractebel North America Inc., a division of a French-Belgian company, is prepared to invest from $650 to $700 million to construct and operate a natural gas terminal and pipeline between Freeport, Grand Bahama and Broward County, Florida, according to the company's attorney.

PEF 000958
DOCK NO. 040817-EI

In an address to the Rotary Club of Lucaya on Tuesday, Fred Smith, former attorney for Enron, the company that initially conceived and developed the Liquefied Natural Gas project and sold it to Tractebel in 2002, said the investment in the Bahamas was estimated at $450 million.

An approval-in-principle was granted to Enron by The Bahamas Government on May 21, 2001, with the company subsequently being issued a licence by The Grand Bahama Port Authority on Oct. 19, 2001.

Subject to the Grand Bahama Port Authority and the Government of the Bahamas being satisfied that the project can be undertaken safely and in an environmentally sustainable manner, the authority has licensed Tractebel to build and operate a LNG facility at Freeport Harbour.

Two Texas-based companies, AES Corp and El Paso Corp have proposed similar pipelines.

Mr. Smith said that about 500 jobs were expected to be created during the development, which would comprise three stages, including: Construction of the terminal; laying of the offshore pipeline, and operation of the facility.

The workforce will consist of approximately 50 to 60 employees, of whom 12 would initially be expatriate managers, he said.

Given the international stature of Tractebel and the scope of the investment, he continued, "this single project will become one of the cornerstones in the foundation of Freeport's long term development."

It would also assist in the Freeport Harbour's continued growth as an international maritime centre, Mr. Smith said, and, "It will flesh out and feed into the dream and vision of the Hawksbill Creek Agreement."

"This is a unique opportunity which Freeport must capitalise on to secure a solid economic base and a future of prosperity," he told the Rotarians.

PEF 000959
DOCK NO. 040817-EI

According to observers, Freeport is coming into its own as The Bahamas' major industrial centre, and a significant player in the global energy business.

Tracing the history of Tractebel's involvement in the project, Mr. Smith said that after Enron was faced with "well-publicised" financial difficulties, "the company suspended the development of the project during the last quarter of 2001."

On Jan. 7, 2002, Enron filed for bankruptcy with the U.S. Bankruptcy Court and shortly thereafter, in early 2002, began to pursue the sale of the project, he said.

Under the oversight of the bankruptcy court, a competitive bid process for the sale of the project was conducted, with Tractebel submitted the winning bid and completing purchase on Oct. 8, 2002.

Since then, he continued, Tractebel has "diligently" pursued plans for the project and licensing and government applications (both in The Bahamas and abroad) for conducting business in The Bahamas.

Subject to all approvals, Tractebel hopes to begin construction of the project in 2004 with start-up operations planned for 2007.

The project calls for the development of an LNG receiving, storage and regasification terminal at Freeport Harbour and a 90-mile natural gas pipeline to transport natural gas from the terminal in Freeport to Port Everglades in Fort Lauderdale, Florida.

The planned 200-acre site for the terminal is the now abandoned Bahama Cement Company site, now consisting of open space that has been cleared and used for rock crushing operations and storage.

"It will be large enough to provide sufficient land area for the safe and efficient construction and operation of the project, together with a private ship berth located inside Freeport Harbour, but separate from the marine channel, as well as an

PEF 000960
DOCK NO. 040817-EI

appropriate safety and security buffer zone around the terminal complex," Mr. Smith said.

Tractebel is a global energy and services business that, among other activities, owns and operates LNG receiving and storage facilities in Europe and North America. The company also owns and/or controls LNG supplies and LNG cargo ships and an international designer and builder of LNG terminals.

The initial construction period, expected to take about 36 to 40 months, will call for the employment of about 400 persons, including 300 Bahamians and 100 expatriates.

Training of personnel for the operation of the terminal and the pipeline will begin during the construction period.

The project is expected to create 400 to 500 jobs at the peak of the construction period, with up to 50 to 60 employees during normal operations.

"As previously stated, Tractebel is committed to maximise the number of Bahamian employees," Mr. Smith said. "Tractebel will train qualified Bahamians to learn the skills needed to gain employment in the project, some to the level of skilled LNG terminal operators."

Posted: Wednesday January 15, 2004

Back to Results

PEF 000961
DOCK NO. 040817-EI

Govt weighing 'economic' benefits of LNG proposals

Slugline	Govt weighing 'economic' benefits of LNG proposals
Publication	Nassau Guardian
Date	January 28, 2004
Section(s)	National News
Page	
Byline	
Brief	Govt weighing 'economic' benefits of LNG proposals By Tamara Mckenzie Guardian Staff Reporter Three companies have submitted bids to The Bahamas Environment, Scientific and Technology (BEST) Commission to construct LNG pipelines in The Bahamas and the re

By Tamara Mckenzie

Guardian Staff Reporter

Three companies have submitted bids to The Bahamas Environment, Scientific and Technology (BEST) Commission to construct LNG pipelines in The Bahamas and the review process of one company has been completed.

However, the government is now set on negotiating the "economic" aspects of all three proposals and is presently receiving assistance from LNG experts in Trinidad and Tobago,

PEF 000962
DOCK NO. 040817-EI

claimed the Minister of Trade, Leslie Miller on Tuesday.

"The BEST Commission has completed their work as I understand it [regarding AES Corp] and I think we are now looking toward having negotiations on the economic aspects of it, [LNG pipeline proposals] with a view hopefully that the government would have given its blessing to the incorporation of such an entity in The Bahamas," Minister Miller stated.

The Trade and Industry Minster added however, that the Prime Minister and the Cabinet have not yet agreed to have an LNG pipeline built in The Bahamas and are still reviewing all documents handed over to them by BEST. He added however, that the government is much "closer" to a decision of approval or rejection since receiving reviewed documents from the BEST Commission last year.

"Cabinet is still reviewing all of the documents given to them, which now comes under the auspices of Dr. Bethel. My side of it is financial and providing the license," Minister Miller said.

AES Corp submitted its proposal to The Bahamas government since 2001. The Company was also the first to submit a $4 million Environmental Impact Assessment (EIA) to the BEST Commission. The proposal has since been reviewed and handed over to Cabinet for further review. The company has also recently received approval form The Federal Energy Regulatory Commission (FERC), awarding the project a U.S. presidential permit, which is needed whenever a pipeline crosses international borders.

FERC also ruled that the project would not cause excessive harm to the environment. AES owns over $33 billion in assets and wants to build a gas pipeline between Ocean Cay, Bimini and Dania Beach, Florida. The $600 million AES project has undergone extensive review and analysis in both The Bahamas and the United States, with ICF Consulting of Washington D.C. offering technical assistance.

PEF 000963
DOCK NO. 040817-EI

According to Minister Miller, the government is also working with experts from Trinidad and Tobago to assist them with evaluating LNG projects. These experts, he said have been in the LNG business for several years and is presently advising the government on the "pros and cons" of the three proposals submitted.

"They are also advising us on what economic benefits would be derived by the Bahamian people, if the government was to give its blessing to one or two of the plants to be incorporated here in The Bahamas, so those discussions are still ongoing and we are in constant dialogue with our counterparts and government representatives from Trinidad and Tobago and in fact, the Prime Minister himself has given his blessing for the Hon. Patrick Manning [Trinidad and Tobago's Prime Minister] to have his people there assist us," Minister Miller informed.

Minister Miller continued that the government is indeed grateful for the assistance of foreign experts because they bring so much to the table from their own experience and expertise.

"They are helping us tremendously in getting a feel for what this LNG business is all about and how best we can accrue benefits that would best serve our people and we are doing so very vigilantly and we are hoping that in the not too distant future, once Cabinet would have given its blessing, we would have an agreement worked out between the parties that is going to be a benefit to our country and our people," he said.

Tractebel facing problems?

Tractebel, an energy giant based in Houston Texas, was the third company to submit its EIA to the BEST Commission in early December. The company is proposing to construct an LNG terminal and a 96 mile long pipeline from Grand Bahama to Port Everglades for the transfer of natural gas. A 200-acre site has been identified in Grand Bahama for the project, which is expected to provide 300 of the 600 construction jobs for Bahamians. The EIA was also presented to The Grand Bahama Port Authority Chairman,

PEF 000964
DOCK NO. 040817-EI

Edward St. George, and if granted approval, the company hopes to start construction of the plant in the second quarter of 2004.

On the other hand, Minister Miller told The Guardian Tuesday that the company is still negotiating with the Grand Bahama Port Authority to construct its LNG re-gasification terminal at the Freeport harbour. The move, he said, causes some concern to the government.

"In this business with tourism, perception is reality and there is grave concern about the placement of an LNG re-gasification terminal to be in a harbour where there is a cruise ship berthing nearby, but the Port Authority has indicated that they are prepared to facilitate a new port for their cruise ships, which I think is, from all indications, under the Port Authority Group that is under the Chairmanship of Sir Edward St. George," Minister Miller said.

According to Minister Miller, the Port Authority wants to incorporate a new terminal for the purpose of having more cruise ships berth at the terminal. He said that if given a firm commitment, the Authority might collaborate with Tractebel, and find or build a new port facility for cruise ships.

Minister Miller said as it stands now, he has recently visited the Port and it is clear that the Port is an industrial Port and has never been developed for cruise ships. He said that the Port incorporates: Bahamas cement, the container terminal, a boat repair facility and a rock plant.

"In fact, it is an industrial Port that I guess could facilitate the incorporation of an LNG terminal, except the Port is not in the best interest of cruise ships. I sure the Minister of Tourism will have some definitive views as to whether or not cruise ship passengers would be happy," he said.

"Mind you, with the plans they [Tractebel] have, the passengers on the cruise ship really wont even see the LNG terminal with their proposal, but again, perception is reality in the tourism business and I think once those concerns are

PEF 000965
DOCK NO. 040817-EI

properly addressed, then I think my ministry and certainly the government would be prepared to revisit the whole idea of an LNG terminal to be built in Freeport."

On the other hand, Minister Miller said that Freeport is a "logical spot" for an LNG terminal, as it has the necessary infrastructure in place, which is probably "second to none" in the region.

El Paso Corp working with Florida Power and Light?

El Paso wants to construct an LNG pipeline on Grand Bahama from a re-pressurization facility near South Riding Point on Grand Bahama, to Martin County in South Florida - about 40 miles in Bahamian waters and 20 miles on Grand Bahama itself.

The EIA from Texas El Paso was submitted to the BEST Commission sometime in November, preliminary work began on this project in early December.

In regards to El Paso, Minister Miller said on Tuesday that he was not "in tune" with what assets El Paso may have in the country. He informed the media that he only knew that the company was attempting to lease a "transshipment terminal" on East End, Grand Bahama, but needed government's approval. So far, the government he said, has given no approval for El Paso to sublease public property on East End, Grand Bahama and it is somewhat "premature" for the company to be making statements.

"This is an ongoing situation and I am sure it will smooth itself out in the not too distant future; but we are looking at all of the applicants and sifting through them and being very tedious at it, while getting assistance from the government of Trinidad and Tobago in our deliberations.

Meanwhile, last week Friday, Florida Power and Light (FPL) Group Inc., the owner of Florida's largest utility, got options from El Paso Corp. to develop a liquefied natural-gas terminal in the Bahamas and to obtain a 50 percent interest in a

PEF 000966
DOCK NO. 040817-EI

pipeline running to Florida from the plant.

According to Bloomberg news, the terms of the move were not disclosed, however, the terminal will be on Grand Bahama Island, and the 128-mile (205-kilometer) Seafarer pipeline will be designed to carry 750 million cubic feet of gas a day. Houston-based El Paso, the biggest U.S. gas-pipeline owner, said in a statement.

The FPL Group Resources unit can opt to take over the entire LNG plant, El Paso spokesman Aaron Woods said. FPL's Florida Power & Light utility needs more gas to meet rising demand for electricity. It added 1,300 megawatts of new gas-fueled generation as the number of customers grew 97,000 in the past year with more people moving into the state. The company said it would ask state regulators to approve a new 1,100-megawatt gas-fueled plant to meet anticipated 2007 demand.

Posted: Wednesday January 28, 2004

Back to Results

PEF 000967
DOCK NO. 040817-EI

The Nassau Guardian EST. 1844
online

Tractebel Calypso gets final nod from U.S. agency but not Bahamas Government

Slugline	Tractebel Calypso gets final nod from U.S.
Publication	Nassau Guardian
Date	February 02, 2004
Section(s)	National News
Page	
Byline	
Brief	**By Tamara Mckenzie** **Guardian Staff Reporter** Tractebel North America, Inc., a business unit of Tractebel Electricity & Gas International and one of the three business divisions of SUEZ announced, over the weekend, that the Federal Energy Regulatory C

By Tamara Mckenzie

Guardian Staff Reporter

Tractebel North America, Inc., a business unit of Tractebel Electricity & Gas International and one of the three business divisions of SUEZ announced, over the weekend, that the Federal Energy Regulatory Commission (FERC) has issued its final environmental impact statement (FEIS) for the firm's proposed Tractebel Calypso Pipeline Project.

The Guardian has confirmed however, that no approval has been given by the government of The Bahamas.

PEF 000968
DOCK NO. 040817-EI

The FEIS evaluates the potential environmental effects of the construction and operation of the U.S. portion of the proposed project and concludes that the project can be built with limited impact to the environment. The FEIS is the last remaining step before FERC issues its certificate of Public Convenience and Necessity, signifying its authorization to construct the project, which Tractebel expects to receive shortly.

Houston based Tractebel was the third company to submit its Environmental Impact Assessment (EIA) to the BEST Commission in early December. Other energy giants vying to construct an LNG pipeline in The Bahamas include: Applied Energy Services (AES Corp) and Texas El Paso. So far, only the EIA of AES has undergone review by the BEST Commission and its documents have since been handed over to the Cabinet of The Bahamas.

On the other hand, the proposed Tractebel Calypso project will transport natural gas via pipeline from the planned Tractebel Calypso Liquefied Natural Gas (LNG) storage and re-gasification facility in Freeport, Grand Bahama. The pipeline, originating in Freeport, would make landfall at Port Everglades with another 6.2 miles of onshore pipeline ending at the Florida Gas Transmission system tie-in adjacent to Florida Power and light's Fort Lauderdale plant. It will transport approximately 832 million cubic feet of natural gas into Florida per day.

Last August, Tractebel Calypso received its draft environmental impact statement (DEIS). As part of the routine process, FERC held a public meeting and received comments on its DEIS prior to issuing the final statement.

The final environmental impact statement reflects consideration of all public comments that were submitted following the release of the DEIS.

PEF 000969
DOCK NO. 040817-EI

"We're pleased with the Commission's conclusions, and are ready to move forward, " AP news, quoted Paul Cavicchi, President and CEO of Tractebel Project Development, Inc as saying. "After a comprehensive and careful review of routing and environmental issues, FERC's green light further underscores our commitment to build this project in a sound and environmentally prudent manner, " he said.

"We're one step closer to bringing the Calypso project to Florida, a project that will provide clean burning-natural gas to meet Florida's increased fuel needs by 2007. "

According to the Florida Public Service Commission, the state's electricity demand is expected to increase 25 percent in the next five years. The Tractebel Calypso pipeline is designed to satisfy about 40 percent of Florida's projected increase in electric generation capacity over the next 10 years.

Prior to this environmental review, Tractebel Calypso also received its Preliminary Determination (PD) from FERC on non-environmental matters to build, own and operate the natural gas pipeline. In issuing the PD, FERC assessed the market demand and confirmed the growing need for natural gas in the Florida market. In addition, Tractebel Project Development recently completed a comprehensive geo-technical study of the pipeline route to further ensure minimal impact to the environment.

In addition to its FERC application, Tractebel Calypso has filed numerous permit applications with federal, state and local agencies including the Florida Department of Environmental Protection, U.S. Army Corps of Engineers, Broward County, U.S. Minerals Management Services and the State Historic Preservation Office. They have also completed key negotiations with officials from the U.S. Navy, John U. Lloyd State Park and Port Everglades, which approved the proposed route that traverses through their property.

According to AP news, Tractebel Calypso has received its approval "in principle" from the Government of The Bahamas and is awaiting their final approval of its Environmental Impact Statement. To date, Tractebel has supplied

PEF 000970
DOCK NO. 040817-EI

nearly half of all of the United States' imported liquefied natural gas (LNG) Upon approval; construction is scheduled to begin in 2004 with active

transport of natural gas in 2007.

In an interview with The Guardian last week, Trade and Industry Minister, Leslie Miller, told The Guardian that Tractebel is still negotiating with the Grand Bahama Port Authority to construct its LNG re-gasification terminal at the Freeport harbour. The move, he said, causes some concern to the government.

"In this business with tourism, perception is reality and there is grave concern about the placement of an LNG re-gasification terminal to be in a harbour where there is a cruise ship berthing nearby, but Port Authority has indicated that they are prepared to facilitate a new port for their cruise ships, which I think is, from all indications, under the Port Authority Group that is under the Chairmanship of Sir Edward St. George," Minister Miller said at the time.

Posted:Monday February 2, 2004

Back to Results

The Nassau Guardian

160 YEARS

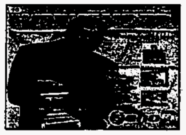
www.thenassauguardian.com

CELEBRATING 160 YEARS AS THE NATIONAL NEWSPAPER OF THE BAHAMAS

EST.1844 / VOL. 160. NO.103 | FRIDAY, MARCH 26, 2004 | $0.50

SEARS: Bahamas behind in financial laws

■ The Purpose Trust Bill is another example of The Bahamas lagging behind competitors / See page BR1



Eugene Davis

■ Eugene Davis, aka Geno D, is one of the younger generation of Bahamian musicians. / See The Weekender page 3

Pakistani president 'a traitor'

■ Al-Qaeda urged Pakistanis on Thursday to overthrow President Pervez Musharraf / See page A11

LNG OK in two weeks

Minister 'certain' agreement near

By TAMARA McKENZIE

Guardian Staff Reporter

After months of weighing economic and environmental pros and cons, one of three companies vying to construct a liquefied natural gas pipeline (LNG) from Florida to The Bahamas will be granted approval within the next 14 days, Minister of Trade and Industry, Leslie Miller said Thursday.

"I can say with a greater degree of certainty today than I would have stated in the past, that very shortly, within the next two weeks, a Heads of Agreement would be arrived at between the Government of The Bahamas and one of the major conglomerates that have made a submission to the Government of The Bahamas for a re-gasification facility to be established on our borders. I think I can say that without fear of contradiction," said Minister Miller during an exclusive interview with The Guardian.

AES front runner

The three companies desiring to construct LNG pipelines to The Bahamas include: Virginia-based AES Corp; Houston based Tractebel and Texas El Paso. Of the three proposals submitted to The Bahamas Environmental, Scientific and Technology Commission (BEST) for review, it was speculated that AES Corp would be first in line to receive Government approval.

AES was the first to submit its $4 million Environmental Impact Assessment (EIA) to

SEE LNG, A3

(AP Photo/Andres Leighton)

OF ONE ACCORD – Prime Minister of The Bahamas Perry Christie, centre, speaks with his counterparts of St. Vincent and the Grenadines, Ralph Gonsalves, right, and Barbados' Owen Arthur during a short break at the 15th Inter-sessional Meeting of the Heads of Government of the Caribbean Community (CARICOM) taking place in Basseterre, St. Kitts, Thursday. Caribbean leaders discussed suspending Haiti from their regional bloc, showing anger over the U.S. role in the ouster of Jean-Bertrand Aristide and its backing of an interim leader who praises the rebels that forced out Haiti's first freely elected president.

Keeping hope alive

Private search continues for missing aircraft

By KHASHAN POITIER

Guardian Staff Reporter

Family members and friends of four persons missing in a twin-engined aircraft say they will continue their efforts despite the search being officially called off.

After three days, Bahamas Air-Sea Rescue Association and United States Coast Guard officials discontinued their efforts to locate the Piper Aztec, its pilot and three passengers at 5 pm Wednesday after "no leads" were discovered.

Still missing are the pilot, Majambe Nixon and his three passengers, George Bain, Enoch Lubin and Dwain Adderley.

Mr Nixon's family and other Exuma residents, however, say they are not giving up hope and will continue their efforts.

The aircraft left Nassau at 5 p.m. Sunday for Farmer's Cay and Black Point, Exuma.

Caught in thunderstorm

Concern arose after the pilot made numerous calls to Air Traffic Control in Nassau, stating that the aircraft was 25 miles southeast of Nassau and he was flying through a severe thunderstorm.

Air Traffic Control reported that the last contact with Mr Nixon, was when he said

SEE HOPE, A3

U.S. demands CARICOM recognise Haiti

By MINDELL SMALL

Guardian Staff Reporter

The United States is demanding that CARICOM recognise the new government of Haiti as legitimate and continue normal relations with it for the sake of stability in the region.

Foreign Affairs Minister Fred Mitchell made the announcement in an interview with The Guardian from St. Kitts Thursday.

Mr Mitchell is a part of a delegation in that country, including Prime Minister Perry Christie, Attorney General Alfred Sears and Parliamentary Secretary in the Ministry of Finance, Michael Halkitis. They are attending CARICOM's 15th intercessional meeting at the headquarters of the Eastern Caribbean Central Bank in the capital, Basseterre where Haiti is topping the agenda.

Mr Mitchell said the announcement by the United States is generating even further discussion on Haiti as CARICOM, earlier this month, questioned the constitutionality of the new government there.

"There was a demarche by the United States on all of the CARICOM countries, demanding that the Caribbean countries recognise the interim government of Haiti as the de jure and not just a defacto government."

SEE CARICOM, A3

Man injured in morning shoot-out

By JIMENITA SWAIN

Guardian Staff Reporter

In the Pinewood Gardens area Thursday morning, 35-year-old Jermaine Russell was shot in the chest and side after an exchange of words with another male.

Chief Superintendent Hulan Hanna charged with responsibility for press briefings revealed that the shooting took place yesterday at 11:45 a.m. at Cascarilla Street.

According to police, the sketchy details are that Mr Russell was at home with a male friend when another young man known to him approached Russell.

There was an exchange of words, which subsequently led to Mr Russell being shot in the chest and the side.

He was taken to Princess Margaret Hospital where police say nothing was

SEE SHOOT OUT, A2

Staff Photo by Patrick Hanna

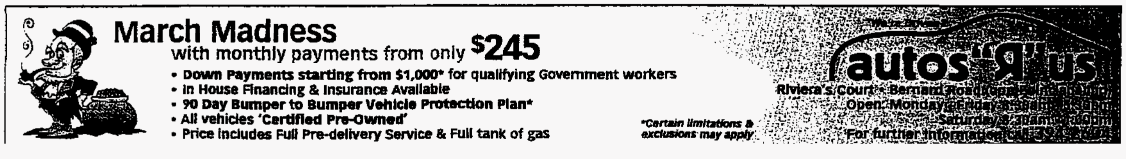
CRIME SCENE - The green and white house on Cascarilla Street Pinewood Gardens where a 27-year-old male was shot Thursday morning was taped off by police.

TODAY'S WEATHER

Windy with a few showers; limited sun

High 76

Low 65



PEF 000972

DOCK NO. 040817-EI

LNG OK in two weeks

Slugline	LNG OK in two weeks
Publication	Nassau Guardian
Date	March 26, 2004
Section(s)	National News
Page	
Byline	
Brief	LNG OK in two weeks Minister 'certain' agreement near By TAMARA McKENZIE,Guardian Staff Reporter After months of weighing economic and environmental pros and cons, one of three companies vying to construct a liquefied natural gas pipeline (LNG) from Flor

Minister 'certain' agreement near

By TAMARA McKENZIE,Guardian Staff Reporter

After months of weighing economic and environmental pros and cons, one of three companies vying to construct a liquefied natural gas pipeline (LNG) from Florida to The Bahamas will be granted approval within the next 14 days, Minister of Trade and Industry, Leslie Miller said Thursday.

PEF 000973
DOCK NO. 040817-EI

"I can say with a greater degree of certainly today than I would have stated in the past, that very shortly, within the next two weeks, a Heads of Agreement would be arrived at between the Government of The Bahamas and one of the major conglomerates that have made a submission to the Government of The Bahamas for a re-gasification facility to be established on our borders. I think I can say that without fear of contradiction," said Minister Miller during an exclusive interview with The Guardian.

AES frontrunner

The three companies desiring to construct LNG pipelines to The Bahamas include: Virginia-based AES Corp; Houston based Tractebel and Texas El Paso. Of the three proposals submitted to The Bahamas Environmental, Scientific and Technology Commission (BEST)for review, it was speculated that AES Corp would be first in line to receive Government approval.

AES was the first to submit its $4 million Environmental Impact Assessment (EIA) to BEST for review. Its review was completed since last November and its documents have since been forwarded to the Cabinet.

In the United States, AES was also the first to win FERC approval and was issued its Final Environmental Impact Statement last December. However, the EIA of the two remaining energy giants are still being reviewed by BEST.

AES

Virginia-based AES Corp wants to build a gas pipeline between Ocean Cay, Bimini and Dania Beach, Florida. It proposes to construct a terminal to receive liquefied natural gas via ocean tankers, store the liquid gas, re-convert it to natural gas through warming and send it to The United States via pipeline.

The $600 million project has undergone extensive review and analysis in both The Bahamas and the United States, with ICF Consulting of Washington D.C. offering technical assistance.

PEF 000974
DOCK NO. 040817-EI

Texas El Paso

Texas El Paso wants to construct an LNG pipeline on Grand Bahama from a re-pressurization facility near South Riding Point on Grand Bahama, to Martin Country in South Florida - about 40 miles in Bahamian waters and 20 miles on Grand Bahama itself.

Its EIA has been submitted to the BEST Commission since last December, but according to Mr. Miller, no documents have been submitted by El Paso to FERC.

Tractebel

The proposed Tractebel Calypso project has also not yet received approval from the BEST Commission. The company wants to transport natural gas via pipeline from the planned Tractebel Calypso LNG storage and re-gasification facility in Freeport, Grand Bahama.

The pipeline, originating in Freeport, would make landfall at Port Everglades, with another 6.2 miles of onshore pipeline ending at the Florida Gas Transmission System tied into the adjacent Florida Power and Light's Fort Lauderdale plant.

It will transport approximately 832 million cubic feet of natural gas into Florida per day. The Houston-based company was the second to submit its Environmental Impact Assessment (EIA) to the BEST Commission last December.

FERC approval

Meanwhile, Tractebel North America, a business unit of Tractebel Electricity & Gas was granted final approval from the Federal Energy Regulatory Commission (FERC) on Wednesday to construct an LNG pipeline from The Bahamas. The company was also issued a Certificate of Public Convenience and Necessity (CPCN).

Tractebel announced in a statement issued Wednesday that pre-construction activities are underway for the pipeline project, with construction expected to begin this summer.

PEF 000975
DOCK NO. 040817-EI

The company further stated that it anticipates initial gas deliveries to begin in 2007, and has received approval from The Bahamas government "in principle" and is awaiting its final approval of a Bahamian Environmental Impact Statement.

The company outlined further that the Florida Department of Environmental Protection has also recommended that Florida Governor Jeb Bush approve an Environmental Resource Permit for the Florida segment and grant it a state lands easement.

Bush voiced concerns

Earlier this month, Governor Bush said that AES Corp and Tractebel Calypso Pipeline must wait for state approval before it constructs LNG pipelines, because he was concerned about South Florida being a landing point for natural gas coming from the Caribbean to points across the United States.

On the other hand, company officials said the projects have not been stalled by the delay, and both companies were still waiting for approval from other agencies.

Uncharted waters

According to Mr. Miller however, the EIA of Tractebel is presently before the BEST Commission and his ministry is aware of Tractebel's approval from FERC, and now looks forward to the company finalizing all the requirements of the BEST Commission.

"They have to go BEST and then they would deal with my ministry on economic matters," Mr. Miller said.

He acknowledged that the process of review carried out in the Bahamas is "slow and tedious," but added that all agencies must be cautious with decisions as it is the first time venturing into "un-charted waters."

PEF 000976
DOCK NO. 040817-EI

"We have to be cautious with the decisions that we make, as we do not want to have an ill effect on the country, but I have full confidence that this is a good project, it is a feasible and worthy project that is going to economically benefit the people of The Bahamas," he said.

Green light

The Certificate of Public Convenience and Necessity (CPCN) issued to Tractebel on Wednesday authorizes the company to construct, own, operate and maintain the 42-mile jurisdictional pipeline from the border of the Exclusive Economic Zone between the United States and the Bahamas to a proposed interconnection near Port Everglades, Florida.

Tractebel received its Final Environmental Impact Statement from FERC in January. The FEIS evaluated the potential environmental effects of the construction and operation of the U.S. portion of the proposed project and concluded that the project could be built with limited impact on the environment.

The FEIS is the last remaining step before FERC issued its CPCN, which was received by Tractebel on Wednesday. Prior to this environmental review, Tractebel Calypso also received its Preliminary Determination from FERC on non-environmental matters to build, own and operate the natural gas pipeline. In issuing the Preliminary Determination, FERC assessed the market demand and confirmed the growing need for natural gas in the Florida market.

'Great accomplishment'

A statement issued from Tractbel quoted the President for the Tractebel Calypso Pipeline, Mr. William P. Utt, as stating that the FERC approval was a "great accomplishment" for Tractebel.

"The FERC's green light underscores Tractebel's commitment to complete this project in a sound and environmentally prudent manner. We're one step closer to bringing clean-burning natural gas to Florida to help meet its increased

PEF 000977
DOCK NO. 040817-EI

fuel needs by 2007, " he said.

"We recognize the great effort demonstrated by all of the interested parties which culminated in the FERC approval, " Utt said. "Tractebel will continue to work with all federal, state and local agencies to construct this vital project in a manner sensitive to the needs of the environmental resources and landowners along the route. "

The Tractebel Calypso pipeline will be owned by Tractebel Calypso Pipeline LLC, a subsidiary of Tractebel North America, Inc. "TNA ". Based in Houston, Texas, TNA is a business unit of Tractebel Electricity & Gas International "Tractebel EGI ", and is responsible for managing EGI's positions within the energy value chain in the US, Mexico, and Canada, including electricity generation and cogeneration, natural gas and LNG, asset-based trading and origination, and energy sales and related services.

Back to Results

An 'ideal spot'

Publication	The Freeport News
Date	April 30, 2004
Section(s)	National News

By BARBARA WALKIN

Senior Freeport News Reporter

barbara@nasguard.com

Trade and Industry Minister Leslie Miller yesterday described the old Bahama Cement site as an "ideal spot" for Tractebel Calypso LLC Pipeline liquefied natural gas (LNG) terminal.

Having visited the site briefly on three previous occasions, Mr. Miller toured the entire facility and the neighbouring settlement of Hepburn Town Wednesday afternoon with Tractebel executives.

"From all indications of the laid-out plans I've seen from Tractebel, it is certainly an adequate spot," Mr. Miller said. "In fact, it is possibly the best spot that they could have chosen on the island of Grand Bahama, especially in an area where you already have an industrial port."

PEF 000979
DOCK NO. 040817-EI

However, the Trade and Industry Minister said the Government is still desirous of having the

Grand Bahama Port Authority and Tractebel move the cruise shipping port to another location in Freeport, "and they have agreed to do so."

"I believe that going in this direction would probably make the process of getting an approval from the Government a lot easier than if they had insisted on keeping the cruise ship terminal at this location," Mr. Miller said.

Reiterating that the site is adequate, the Minister added that he is satisfied at what he has seen of the site.

"And from the proposed location of their two LNG tanks and how they are going to set it up with the facility that they will be putting in place ... with the guard rails, fencing mechanism and the security system that they envision to be in place... this is an ideal spot for that LNG terminal," Mr. Miller said.

Noting that the old Bahama Cement site is 200 acres, Minister Miller added that it is more than adequate for what Tractebel is proposing to do in the harbour area.

Dave Clark, Tractebel site project manager, who moved to Grand Bahama 14 months ago to oversee the groundwork and learn what was needed for Tractebel North America to build this project the right way, said the first thing that is needed for the next stage is The Bahamas Government approval.

"Once we have approval, which is the next major step for us, we will contract with Bahamian contractors to clear this site, to remove all the dilapidated buildings and remove all the environmental hazards in accordance to the standards utilized in the United States, and dispose of them properly, correctly," explained Mr. Clark.

PEF 000980
DOCK NO. 040817-EI

He noted that the time frame for the demolition process is somewhere around eight months and at the cost of millions of dollars.

"In any other country the Bahama Cement site is considered an environmental disaster area, but

Tractebel will spend millions of dollars to clean-up the liability that was left by Bahama Cement," Mr. Clark said. "Once the site is clean, the time line for Tractebel, beginning to end, is three years." This includes demolition, clean-up and construction.

Mr. Clark explained that some of the construction will be able to start parallel to the demolition. This is inclusive of the construction of ship slips and the levelling and grading for the construction of the foundation for the tanks.

Using a model of the finished plant site, he pointed out the lay-out of the tanks and pipelines for the Minister and Grand Bahama Port Authority executives.

CAPTION

IN AGREEMENT -- Grand Bahama Port Authority Chairman Edward St. George, left, and Minister of Trade and Industry Leslie Miller agree that the Tractebel project will not only be a positive addition to The Bahamas industrial park, but an added boost to the economy. (Photo by Barbara Walkin)

PEF 000981
DOCK NO. 040817-EI

Miller ignores LNG critics

By TAMARA McKENZIE
Guardian Staff Reporter

All critics of the establishment of a liquefied natural gas (LNG) pipeline were dashed in the House of Assembly on Wednesday, as Trade and Industry Minister Leslie Miller pointedly stated that he had an obligation to put forth his views and present the facts until a decision was made by cabinet.

"I have taken the brunt of the criticism from some quarters with regard to LNG, and I think it is out of ignorance and emotions, where most of the views stem from, and they are not true facts," said Mr Miller while giving his contribution to the 2004/05 Budget Debate. Mr Miller said he could take his "licks" from all critics and referred to himself as a "regular potcake." He claimed that FNM leader Tommy Turnquest and columnists had called on several occasions for his dismissal because he promoted LNG, but his job was to educate and inform.

"My only vested interest is in the further diversification and expansion of the Bahamian economy," he said, adding that the economy of The Bahamas had to be driven by Bahamians, and he was only trying to advance the economy to produce a better economic mix. He said that the tourism industry was "fickle" and other sectors of the economy had to be enhanced.

"If I believed for one minute than an LNG re-gasification terminal would have a negative effect on my country, I would not have entertained any of the three companies that we are dealing with. Why would I? I am a Bahamian. This is the only country that I have," he said.

Mr Miller also informed that the three companies wanting to build an LNG facility had been given approval "in principle" by the former FNM government in 2001. He therefore stated that he was only "advancing the course" that he met in place and would not abort his efforts.

Outlining the myths and facts of LNG, Mr Miller firstly explained that LNG was neither explosive nor flammable, as it contained no oxygen. He added that, if LNG spilled on the water, it would float and would not affect any marine species. If LNG spilled on land, it would warm and vaporise into natural gas, while leaving no residue.

If given approval, Mr Miller said, the government was examining an agreement with energy companies to charge some $10 million for a license and another $6million to lease the seabed at Ocean Cay.

Other benefits include: Between $12-$15 million in revenue during year one, climbing to approximately $22 per annum by year five and $34 million by year 15. In total, the public treasury could accrue some $985 million over a 25-year period, said Mr Miller.

Mr Miller said in regards to the AES project at Ocean Cay, the company intended to employ some 450-500 Bahamians to work on the project, and some $250,000 would be given annually to social services in The Bahamas.

Meanwhile, the government has given no approval to any of the three companies vying to construct an LNG pipeline from The Bahamas to the United States. These energy companies include Applied Energy Services (AES), Tractebel and Texas El Paso.

Mr Miller said on Wednesday that the proposals of the three companies were still being assessed to see whether or not the government feels that the project is safe and sound.

The Trade and Industry Minister said energy companies were attracted to The Bahamas because some 150-200 acres of land were available on the waterfront. This land, he said, would be too expensive in the United States, costing some $1.5 - $2 billion.

PEF 000982
DOCK NO. 040817-EI

Miller ignores LNG critics

Slugline	Miller ignores LNG critics
Publication	Nassau Guardian
Date	June 11, 2004
Section(s)	National News
Page	
Byline	
Brief	**Miller ignores LNG critics**

By TAMARA McKENZIE,Guardian Staff Reporter

All critics of the establishment of a liquefied natural gas (LNG) pipeline were dashed in the House of Assembly on Wednesday, as Trade and Industry Minister Leslie Miller pointedly sta

By TAMARA McKENZIE,Guardian Staff Reporter

All critics of the establishment of a liquefied natural gas (LNG) pipeline were dashed in the House of Assembly on Wednesday, as Trade and Industry Minister Leslie Miller pointedly stated that he had an obligation to put forth his views and present the facts until a decision was made by cabinet.

"I have taken the brunt of the criticism from some quarters with regard to LNG, and I think it is out of ignorance and emotions, where most of the views stem from, and they are not true facts," said Mr Miller while giving his contribution to the 2004/05 Budget Debate. Mr Miller said he could take his "licks" from all critics and referred to himself as a "regular potcake." He claimed that FNM leader Tommy Turnquest and columnists had called on several occasions for his dismissal because he promoted LNG, but his job was to educate and inform.

"My only vested interest is in the further diversification and expansion of the Bahamian economy," he said, adding that the economy of The Bahamas had to be driven by Bahamians, and he was only trying to advance the economy to produce a better economic mix. He said that the tourism industry was "fickle" and other sectors of the economy had to be enhanced.

"If I believed for one minute than an LNG re-gasification terminal would have a negative effect on my country, I would not have entertained any of the three companies that we are dealing with. Why would I? I am a Bahamian. This is the only country that I have," he said.

Mr Miller also informed that the three companies wanting to build an LNG facility had been given approval "in principle" by the former FNM government in 2001. He therefore stated that he was only "advancing the course" that he met in place and would not abort his efforts.

Outlining the myths and facts of LNG, Mr Miller firstly explained that LNG was neither explosive nor flammable, as it contained no oxygen. He added that, if LNG spilled on the water, it would float and would not affect any marine species. If LNG spilled on land, it would warm and vaporise into natural gas, while leaving no residue.

If given approval, Mr Miller said, the government was examining an agreement with energy companies to charge some $10 million for a license and another $6million to lease the seabed at Ocean Cay.

PEF 000984
DOCK NO. 040817-EI

Other benefits include: Between $12-$15 million in revenue during year one, climbing to approximately $22 per annum by year five and $34 million by year 15. In total, the public treasury could accrue some $985 million over a

25-year period, said Mr Miller.

Mr Miller said in regards to the AES project at Ocean Cay, the company intended to employ some 450-500 Bahamians to work on the project, and some $250,000 would be given annually to social services in The Bahamas.

Meanwhile, the government has given no approval to any of the three companies vying to construct an LNG pipeline from The Bahamas to the United States. These energy companies include Applied Energy Services (AES),Tractebel and Texas El Paso.

Mr Miller said on Wednesday that the proposals of the three companies were still being assessed to see whether or not the government feels that the project is safe and sound.

The Trade and Industry Minister said energy companies were attracted to The Bahamas because some 150-200 acres of land were available on the waterfront. This land, he said, would be too expensive in the United States, costing some $1.5 - $2 billion.

Back to Results

PEF 000985
DOCK NO. 040817-EI

Men demonstrate for work Say project would provide needed jobs

Publication	The Freeport News
Date	July 02, 2004
Section(s)	National News

No Published Caption

By LISA S. KING

Freeport News Reporter

As the Governmer debates on whether to make a firm decision on the proposed implementation of the LNG project, residents of West Grand Bahama are voicing their approval of the project, stating that such a project would benefit the economy of the island at a time when a good number of people are unemployed.

Concerned citizens from the western area assembled at the entrance to Eight Mile Rock on Thursday holding placards displaying catchy phrases like ' LNG not a new thing' and 'LNG safer than LPG.' Their main purpose was to demonstrate the need for government to move with speed concerning the implementation of LNG/regasification terminals to be erected and operated in The Bahamas.

The next purpose was to announce a special

PEF 000986
DOCK NO. 040817-EI

town meeting which intends to educate the public on the LNG project on July 6.

This demonstration comes after Tractebel Calypso Pipeline LLC, the company conducting the project, received a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission, that Tractebel Bahamas LNG Limited had received its approval in principle from the Government of The Bahamas and is awaiting its final approval of a Bahamian environmental impact statement.

Tractebel Calypso had received its federal approval when Florida's Governor Jeb Bush and his cabinet voted to grant a "Sovereign Submerged Lands Easement" and approve the Florida Department of Environ-mental Protection's issuance of an Environ-mental Resource Permit (ERP) in connection with the Tractebel project.

Demonstrator Donovan Glinton said residents of West Grand Bahama are fully aware of the existing employment situation that has made life difficult for some because there are no jobs, some have just lost jobs and now there are many guys hanging on the streets some looking for jobs and others for comfort.

He said unemployed persons from the various communities are hoping that the project comes on stream so that they could be employed when an estimated 300 jobs will be available for a period of three years.

"We are aware of the concerns of some of the critics of the project but we want them to come to the town meeting so that all of the myths and their preconceived notions will be dispelled when they get a clear presentation of exactly what the LNG project is all about," Mr. Glinton said.

"We want the job situation dissolved for Grand Bahama. My main point is that this project will provide about 300 construction jobs for three years that is a lot of families that will be supported."

PEF 000987
DOCK NO. 040817-EI

Noting the safety involved with the LNG project, demonstrator Troy Garvey said based upon what his knowledge of Liquefied Natural Gas, it is much safer than LPG or propane gas. He added that Bahamian people must allow themselves to be educated on how beneficial the project would be without having a negative affect on the environment.

He said unemployed people are hurting in a big way, and that the demonstration was a way for them to plead to the government to make their decision in an expeditious manner so that the people can be employed.

"This is not a political move to bash the government or the prime minister, but a motion to plead with them to act quickly to give us some kind of response to the LNG project for West Grand Bahama," Mr. Garvey said.

The BEST Commission is presently making its environmental investigations, and once Tractebel is approved, it will construct a natural gas pipeline from Grand Bahama to Florida and take over the old Bahamas Cement plant, with a proposed investment of $700 million on the island.

Officials at the Grand Bahama Port Authority (GBPA), which has already granted Tractebel a licence to construct the pipeline from the industrial area of Freeport, were also elated by the decision made by Governor Bush and his cabinet.

The U.S. segment of the pipeline would make landfall at Port Everglades, Florida, then travel onshore to a proposed interconnection with the Florida Gas Transmission system adjacent to Florida Power and Light's Lauderdale power plant. The Tractebal Calypso project will transport approximately 832 million cubic feet of natural gas into Florida per day, and it is anticipated that the initial gas deliveries will begin as early as 2007.

PEF 000988
DOCK NO. 040817-EI

LNG DEMONSTRATION - Residents of the western area of Grand Bahama gathered at the entrance to Eight Mile Rock on Thursday to demonstrate their approval of the proposed LNG project and to urge the government to approve it so that unemployed people in those communities could be among the 300 persons expected to be employed should the project come on stream. In photo from left to right are Donovan Glinton and Troy Garvey. (Staff photo by Lisa King)

Back to Results

PEF 000989
DOCK NO. 040817-EI

LNG 'frontrunner losing ground'

By TAMARA McKENZIE
Guardian Staff Reporter

The "frontrunner" in the race to build a liquefied natural gas (LNG) pipeline in The Bahamas seems to be losing steam, as two other energy competitors wanting to construct similar pipelines are quickly moving through the ropes in their bid to obtain government approval.

And with some $50 million already being invested to meet certain requirements, Virginia-based AES Corp does not anticipate rejection.

Project Director of Virginia-based AES Corp, Aaron Samson told The Guardian Monday that his main concern was not being rejected by The Bahamas Government, but watching their lead in the negotiation race be diminished by two other LNG contenders.

"The process has been a little troublesome because we were way ahead of the competition. We had things done the way people wanted them done. We completed the environmental review process way ahead of the other participants, and I guess my bigger issue is that in some regard, they are catching up. My frustration isn't over the date of when the project comes on line, the issue is we had a demonstrable lead and it's diminishing," said Mr Samson during an exclusive interview with The Guardian from Virginia on Monday.

The two other companies vying to construct an LNG pipeline in The Bahamas include Texas El Paso and Houston based Tractebel. However, of three proposals submitted to The Bahamas Environmental, Scientific and Technology Commission (BEST) for review, it was speculated that AES Corp would be first in line to receive Government approval.

AES Corp wants to build a gas pipeline between Ocean Cay, Bimini and Dania Beach, Florida. It was the first to submit its $4 million Environmental Impact Assessment (EIA) to BEST for review. The review was completed since last November and its documents have since been forwarded to Cabinet.

In the United States, AES was also the first to win FERC approval and was issued its Final Environmental Impact Statement last December. However, the EIA of the two remaining energy giants are still being reviewed by BEST, leaving AES as the only company that would be granted government approval at this time but the government has not given approval to any of the three companies.

A special luncheon is scheduled for Wednesday with Parliamentarians, the press and officials from The Bahamas Environmental Technology and Scientific (BEST) Commission to discuss the pros and cons of establishing an LNG re-gasification facility and pipeline in The Bahamas, The Guardian has learned.

Asked what would AES do if rejected approval by The Bahamas Government, Mr Samson responded: "I guess I would...I don't know what to say." He added that he does not anticipate rejection and would not lose sleep over the issue. He said that when it comes to public security and safety and any of the other "issues" involving LNG, AES by far, has presented the best alternatives.

Mr Samson said further that if rejected, some $50 million dollars of investment would have "gone down the drain". He explained that a large amount of "engineering" dollars have been spent to carry out surveys at Ocean Cay in addition to money spent for permits, consultancy fees, and for the acquiring of the mining company at Ocean Cay. Additionally, some $4 million has been spent to have an Environmental Impact Assessment (EIA) carried out, he said.

Mr Samson said that an agreement "in principle" was given to AES because it took a lot of money to obtain the engineering, technical and environmental answers that people want. He added that AES' confidence is based on the standards that they have been told to comply with.

Asked if he was tired of the long wait to obtain government approval, Mr Samson said, "Patience is a virtue." He said that he understood that an active process has been put in place and the decision to grant approval is not a "small" one.

"This is not a tourism-type decision that they are used to and comfortable making; and while we expected this process to be completed some time ago, we are coordinating with the government to make sure that they are satisfied that they have completed the process and feel comfortable making the decision. There are days it [the wait] is very frustrating, but it is not a small decision," he said, adding that there is no other alternative location other than Ocean Cay on which AES would be able to build its pipeline to adequately serve the Florida market.

"If you can't get the government comfortable at this site [Ocean Cay] I don't know where you would," he said.

Minister of Trade and Industry, Leslie Miller said the Minister of Health and Environment, Dr Marcus Bethel and his team have already given "the green light" for an LNG facility to be incorporated in The Bahamas.

"They don't have a problem with it, nor the consultants; it is just a matter now of the government making up its mind as to whether they want LNG or not. That's how simple it is. You want it or you don't want it. I guess the people will go elsewhere, but I don't know what they would do with all the expenses they incurred," he said.

"I hope that it happens for the benefit of the Bahamian people and for all those jobs that would be initiated and the funds that the treasury would get. The former Prime Minister had given his go-ahead on it, as he had indicated in Parliament in his contribution. It was initiated by the previous government and they issued three letters of comfort. They did not have a problem, so let's wait and see. It ain't over till it's over."

Education and radio network for CARICOM

By CLINT WATSON

In an era where modern technology dominates, CARICOM is determined that it will embrace the changes brought on by globalisation. For years, this body has expressed concern over the need to bring individual nations together under the regional banner of CARICOM. One way that the organisation hopes to achieve this is through its two radio networks: Radio CARICOM and the Caribbean Knowledge and Learning Network.

Radio Caricom is currently being tested in Barbados, Belize, St. Lucia and Grenada with the ultimate goal of operating in every CARICOM nation. The new station was launched during CARICOM Opening Ceremonies on Sunday evening by the chairman of CARICOM and Prime Minister of host country, Grenada, Keith Mitchell who said, "I am assured that the service will be established as quickly as practical in all member states. Eventually, this service will not only be available in the member states, but in the wider diaspora as well."

Prime Minister Mitchell said Radio CARICOM will challenge resistance to positive change, facilitate debate and complement mainstream radio broadcasting. He said that the new station will not compete with or duplicate other broadcast services in the area, but rather serve as a source for current and authoritative information in the community.

Also launched during the CARICOM opening was the Caribbean Knowledge and Learning Network or CKLN. This network is used to host video conferencing from around the region. CKLN will also provide a basis for e-learning, e-commerce and e-government throughout the region.

"This initiative will provide untold learning opportunities for all our people," Prime Minister Mitchell said. He thanked the World Bank and

SEE EDUCATION; A4

PEF 000990
DOCK NO. 040817-EI

LNG 'frontrunner losing ground'

Slugline	LNG 'frontrunner losing ground'
Publication	Nassau Guardian
Date	July 06, 2004
Section(s)	National News
Page	
Byline	
Brief	LNG 'frontrunner losing ground' By TAMARA McKENZIE,Guardian Staff Reporter The "frontrunner" in the race to build a liquefied natural gas (LNG) pipeline in The Bahamas seems to be losing steam, as two other energy competitors wanting to construct similar

By TAMARA McKENZIE,Guardian Staff Reporter

The "frontrunner" in the race to build a liquefied natural gas (LNG) pipeline in The Bahamas seems to be losing steam, as two other energy competitors wanting to construct similar pipelines are quickly moving through the ropes in their bid to obtain government approval.

And with some $50 million already being invested to meet certain requirements, Virginia-based AES Corp does not anticipate rejection.

PEF 000991
DOCK NO. 040817-EI

Project Director of Virginia-based AES Corp, Aaron Samson told The Guardian Monday that his main concern was not being rejected by The

Bahamas Government, but watching their lead in the negotiation race be diminished by two other LNG contenders.

"The process has been a little troublesome because we were way ahead of the competition. We had things done the way people wanted them done. We completed the environmental review process way ahead of the other participants, and I guess my bigger issue is that in some regard, they are catching up. My frustration isn't over the date of when the project comes on line, the issue is we had a demonstrable lead and it's diminishing," said Mr Samson during an exclusive interview with The Guardian from Virginia on Monday.

The two other companies vying to construct an LNG pipeline in The Bahamas include Texas El Paso and Houston based Tractebel. However, of three proposals submitted to The Bahamas Environmental, Scientific and Technology Commission (BEST) for review, it was speculated that AES Corp would be first in line to receive Government approval.

AES Corp wants to build a gas pipeline between Ocean Cay, Bimini and Dania Beach, Florida. It was the first to submit its $4 million Environmental Impact Assessment (EIA) to BEST for review. The review was completed since last November and its documents have since been forwarded to Cabinet.

In the United States, AES was also the first to win FERC approval and was issued its Final Environmental Impact Statement last December. However, the EIA of the two remaining energy giants are still being reviewed by BEST, leaving AES as the only company that would be granted government approval at this time but the government has not given approval to any of the three companies.

A special luncheon is scheduled for Wednesday with Parliamentarians, the press and officials from The Bahamas Environmental Technology and Scientific (BEST) Commission to discuss the pros and cons of establishing an LNG re-gasification facility and pipeline in The Bahamas,

PEF 000992
DOCK NO. 040817-EI

The Guardian has learned.

Asked what would AES do if rejected approval by The Bahamas Government, Mr Samson responded: "I guess I would...I don't know what to say." He added that he does not anticipate rejection and would not lose sleep over the issue. He said that when it comes to public security and safety and any of the other "issues" involving LNG, AES by far, has presented the best alternatives.

Mr Samson said further that if rejected, some $50 million dollars of investment would have "gone down the drain". He explained that a large amount of "engineering" dollars have been spent to carry out surveys at Ocean Cay in addition to money spent for permits, consultancy fees, and for the acquiring of the mining company at Ocean Cay. Additionally, some $4 million has been spent to have an Environmental Impact Assessment (EIA) carried out, he said.

Mr Samson said that an agreement "in principle" was given to AES because it took a lot of money to obtain the engineering, technical and environmental answers that people want. He added that AES' confidence is based on the standards that they have been told to comply with.

Asked if he was tired of the long wait to obtain government approval, Mr Samson said, "Patience is a virtue." He said that he understood that an active process has been put in place and the decision to grant approval is not a "small" one.

"This is not a tourism-type decision that they are used to and comfortable making; and while we expected this process to be completed some time ago, we are coordinating with the government to make sure that they are satisfied that they have completed the process and feel comfortable making the decision. There are days it [the wait] is very frustrating, but it is not a small decision," he said, adding that there is no other alternative location other than Ocean Cay on which AES would be able to build its pipeline to adequately serve the Florida market.

PEF 000993
DOCK NO. 040817-EI

"If you can't get the government comfortable at this site [Ocean Cay] I don't know where you would," he said.

Minister of Trade and Industry, Leslie Miller said the Minister of Health and Environment, Dr Marcus Bethel and his team have already given "the green light" for an LNG facility to be incorporated in The Bahamas.

"They don't have a problem with it, nor the consultants; it is just a matter now of the government making up its mind as to whether they want LNG or not. That's how simple it is. You want it or you don't want it. I guess the people will go elsewhere, but I don't know what they would do with all the expenses they incurred," he said.

"I hope that it happens for the benefit of the Bahamian people and for all those jobs that would be initiated and the funds that the treasury would get. The former Prime Minister had given his go-ahead on it, as he had indicated in Parliament in his contribution. It was initiated by the previous government and they issued three letters of comfort. They did not have a problem, so let's wait and see. It ain't over till it's over."

Back to Results

PEF 000994
DOCK NO. 040817-EI

Slugline	Ocean Cay not complying with ISPS
Publication	Nassau Guardian
Date	July 08, 2004
Section(s)	National News
Page	
Byline	
Brief	Ocean Cay not complying with ISPS By TAMARA McKENZIE Guardian Staff Reporter All port facilities throughout The Bahamas satisfied the requirements of the International Ship and Port Facility Security Code (ISPS) implemented on July 1. All but one - the

Ocean Cay not complying with ISPS

By TAMARA McKENZIE

Guardian Staff Reporter

All port facilities throughout The Bahamas satisfied the requirements of the International Ship and Port Facility Security Code (ISPS) implemented on July 1. All but one - the port of Ocean Cay, Bimini, is not in compliance, according to information received from the Port Department.

PEF 000995
DOCK NO. 040817-EI

The ISPS was mandated by the International Maritime Organization (IMO), as a result of an amendment to the Safety of Life at Sea (SOLAS)

Convention. The code represents a comprehensive shipping regime for all international shipping. It is essentially a part of the broader global push towards ensuring that all international transit points, whether they are docks or airports, are upgraded in accordance with universally accepted security standards to prevent acts of terrorism. Failure to comply with the July 1 deadline would mean that any vessel that visited The Bahamas' ports, would be considered "contaminated" and prohibited from entering other ports.

The code provides a standardised framework for evaluating security risks and for enabling governments to offset changes in security threat levels with changes in measures for ships and port facilities. There are 22 port facilities in The Bahamas, and last week Thursday, eight of the 21 compliant port facilities were presented with certificates of compliance.

The one exception is Ocean Cay, a small island off Bimini that mined and exported aragonite several months ago. All export operations have been halted, because the owners of the cay, AES Corp, a Virginia based energy company, is presently negotiating with the government to build a liquefied natural gas (LNG) re-gasification facility on the island and an LNG pipeline that leads from Ocean Cay to Dania Beach, Florida.

Project director of AES Corp, Mr Aaron Samson, said that Ocean Cay was not a public port and the ISPS July 1 requirement was not made "clear" to him and the company. "There was some mix up about the ISPS notification that the people [Port Department] wanted us to comply with, and I have stopped trying to figure out what the issue was, but for two to three months, Capt. Herbert Bain [Lieutenant Commander of Ports] wanted us to comply with this code, but we are not acting as a port today, we are not a sea port," Mr Samson said during a telephone interview with The Guardian on Tuesday from Virginia.

PEF 000996
DOCK NO. 040817-EI

On the other hand, Permanent Secretary at the Ministry of Transport and Aviation Archie Nairn said that any port that facilitates international shipping was obligated to comply with the ISPS. He said it was extremely important for all proprietors and operators of Ocean Cay to know and understand that all other ports have complied.

"If they have closed down, that is one thing, but they have to determine whether they have to open up again. In fact, we are moving along the lines as if they are still in operation. Once you have a listing of all of these ports, we must show status reports in terms of what they have done and that is all we were trying to do," he said.

Meanwhile, the AES project director said Ocean Cay had only carried out one single activity at its port, which was the transport of Aragonite, but because of construction activity, all operations were suspended. He said that AES had communicated with the Port Department and had agreed to implement a plan within the next two weeks, but he was clueless of how a plan would be devised when no export activity was taking place.

"We are going to write a plan that basically deals with the fact that we are not doing anything, and then we need to have an upgraded plan when we go into a two to three year construction period where we are only bringing in a lot of supply ships with equipment and material. We are stuck in between," he said. "We missed the deadline, and I'm the responsible guy, and I think we have an understanding with the Port Authority, and I think everything is going to get resolved, but we have not exported any product in months, and we don't have any current obligation to do anything."

Meanwhile, Deputy Port Controller Brent Williamson said all port facilities had to present a security plan that had to be approved by the port department. "We would have the plan properly audited and we would also visit the facility to make sure that all the guidelines that are in the plan are actually in place," he said.

PEF 000997
DOCK NO. 040817-EI

Mr Williamson said several port facilities had already been issued their certificate of compliance, which meant they had satisfied their requirements under the code. "All of Nassau has been satisfied, so we are well on track, it is just a matter of making sure there is appropriate infrastructure, personnel and training in place, so that the port facilities would be secured," he said.

In an effort to meet ISPS standards, ABS Consulting, an international shipping and maritime consulting firm, was engaged at a cost of approximately $95,000 to make an assessment of Price George Dock and the Marsh Harbour Port. The firm was also asked to develop an ISPS Compliance Plan and conduct a training programme for port facility security officers and line security officers in respect to both facilities. ABS is also charged with reviewing the assessment and compliance plans of the 18 private international ports in the country.

Measures taken at Prince George Dock in compliance with the ISPS include the installation of perimeter fencing, the construction of a new security booth, the installation of election gates and barriers, the placement of extra manpower, including RBDF officers, and the installation of closed circuit television.

Back to Results

Benefits of LNG pipeline cited

Publication	The Freeport News
Date	July 13, 2004
Section(s)	National News

By NAVARDO SAUNDERS

Freeport News Reporter

International acclaim-ed accounting firm KPMG has given the proposed Liquefied Natural Gas (LNG) pipeline two thumbs up, saying it would make Grand Bahama's economy less reliant on the "fickle nature" of the tourism and financial services industries.

The accounting firm has conducted a socio-economic impact assessment on the proposed pipeline. Noted attorney Frederick Smith revealed some of the firm's findings at a town meeting last week.

An estimated $180 million would be spent in Grand Bahama on goods and services during the anticipated three year construction phase of the pipeline, Mr. Smith revealed.

PEF 000999
DOCK NO. 040817-EI

Thirty three million of that, he said, would be dispersed to Bahamian workers and an additional $67 million to expatriate sub-contractors, with a huge portion of the $67 million going into the local economy on housing, transportation, entertainment, food and other services.

Tractebel Calypso Limited, the company seeking government's approval to build an LNG pipeline at the old Bahama Cement Factory, has indicated that construction of the pipeline will require the services of 360 Bahamians and 540 expatriates.

Mr. Smith said many of the expatriate workers will bring their families with them, making it even more profitable for local businesses.

"They will need food, transportation, housing and other necessities," he said. "Businesses throughout Grand Bahama would benefit."

Tractebel Calypso has agreed to pay the Grand Bahama Port Authority an annual licence fee of $3 million dollars which the Port Authority says would be used to improve educational and medical facilities.

And as part of the licensing agreement Tractebel would use as a first resource local businesses and licensees of the port authority for goods and services, Mr. Smith said.

The Bahamas Treasury would also benefit tremendously from the proposed project Mr. Smith stated, noting that government taxes would amount to $10 to $15 million dollars annually.

And during the first three years of operation, said Mr. Smith, it is estimated that at least $1 million dollars will be paid to Bahamians and by the fourth year $2.3 million with increases each following year.

PEF 001000
DOCK NO. 040817-EI

According to Tractebel, once completed the proposed pipeline will create more than 60 full-time career jobs for Bahamians.

Mr. Smith said in addition to the millions of dollars that will be pumped into the local economy there are other benefits that will be derived from the proposed LNG pipeline.

"Natural gas is ideal for power generation and energy intensive industries and will consequently improve opportunities for expansion of the industrial base for Grand Bahama, the industrial capital of The Bahamas," he said.

"The diversification of the economy will render it less prone to reliance on the fickle nature of tourism and financial services industries. Diversification will allow the economy to better withstand external shocks such as September 11 and competitive pressures from neighbouring tourism-based economies."

Mr. Smith said that Tractebel is also committed to training Bahamians to operate the LNG plant.

"Tractebel is committed to a comprehensive training programme to provide training for Bahamian operators and maintenance personnel who will be hired on a permanent basis," he said. "The knowledge they gain will make them a valuable asset to the job market."

Construction of the LNG terminal, he said, would result in the demolition of the Bahama Cement Factory, removing extensive waste materials which are depleting the environment.

Mr. Smith also cited savings for customers of the Grand Bahama Power Company, saying that with the availability of natural gas the power company would be able to convert its power generation plant to gas which is less costly, non-polluting and less hazardous.

FREDERICK SMITH

Back to Results

PEF 001001
DOCK NO. 040817-EI

Tractebel pipeline gets support

Slugline	Tractebel pipeline gets support
Publication	Nassau Guardian
Date	July 22, 2004
Section(s)	National News
Page	
Byline	
Brief	Tractebel pipeline gets support

West GB residents present petition to government with more than 1,000 signatures By NAVARDO SAUNDERS,Freeport News Reporter

FREEPORT -- A petition with the names and telephone numbers of over 1,000

residents of West Grand

West GB residents present petition to government with more than 1,000 signatures

By NAVARDO SAUNDERS,Freeport News Reporter

FREEPORT -- A petition with the names and telephone numbers of over 1,000

residents of West Grand Bahama endorsing the proposed LNG pipeline was

presented to Prime Minister Perry Christie and members of his Cabinet Tuesday.

PEF 001002
DOCK NO. 040817-EI

Philip Hepburn, petition organiser, visited Nassau for the sole purpose of presenting the petitions to government ministers.

Members of Parliament in Grand Bahama were expected to receive their copies

of the petition yesterday.

The petition is in a form of a booklet and contains a letter signed by Calvis Bartlett, chief councillor for the West Grand Bahama District Council.

The letter states, in part, that after more than 48 meetings, a number of

briefings and door-to-door visits from Hepburn Town to Martin Town, meetings

with representatives of Tractebel Calypso in Grand Bahama and Boston and two

formal town meetings, the "residents of West Grand Bahama are confident of

Tractebel's ability and commitment to meet and exceed the environmental and

safety standards that are set by the government for their operations at old

Bahama Cement Factory."

"We are equally confident of the solidarity of our community behind this project," the letter states. "We believe that Tractebel will make a positive contribution to our community and to our country. With this petition, endorsed by more than 1,000 informed residents -- from Hepburn Town to Martin Town -- we respectfully call on the government to favourably consider approval of the proposed Tractebel LNG facility at Freeport Habour."

Above the signatures of the residents it states: "I am a resident of Eight Mile Rock, Grand Bahama without any bias. I am in agreement with the construction and operation of Tractebel's LNG world-class receiving terminal

PEF 001003
DOCK NO. 040817-EI

in Grand Bahama."

The Freeport News has been reliably informed that government ministers have

begun very serious discussions on the proposed pipeline.

Mr. Hepburn said he was also reliably informed that serious discussions had

begun and that is why he decided to go to Nassau to present the petition.

"The residents of West Grand Bahama have spoken loud and clear," he said.

"They want the government to approve the pipeline. They are convinced that

Tractebel will meet and exceed safety requirements."

Mr. Hepburn stressed that none of the petitioners were coerced.

"They signed the petition because they wanted to," he said. "They realise

the many benefits that will be derived from the project."

Mr. Hepburn admitted, though, that there are some people in West Grand

Bahama who oppose the pipeline.

"The few people who don't want government to approve the project aren't

making their positions clear as to why they don't want the project to be approved," he said. "It doesn't make sense."

Mr. Hepburn said he along Vernae Grant, Shantell Lewis and Elvis Hepburn --

PEF 001004
DOCK NO. 040817-EI

all residents of West Grand Bahama -- have been working closely with Tractebel officials over the last several months and are convinced that

Tractebel has the best interests of the people of West Grand Bahama at heart.

Tractebel Calypso is seeking approval from the government to construct an LNG pipeline originating from the old Bahama Cement Factory. The Grand

Bahama Port Authority has already approved the project.

At a recent town meeting in West Grand Bahama, project manager for Tractebel

David Clark branded as myths rumours that LNG would damage precious marine

resources, pollute the soil, cause major explosions, make Grand Bahama susceptible to terrorist attacks and put the tourism industry in jeopardy.

Mr. Clark said there was a lot of erroneous information circulating about the proposed LNG pipeline and that was why some residents of West Grand Bahama were opposing it.

The proposed pipeline would transport natural gas, which is said to be one of the cleanest, most efficient sources of energy available today.

It would originate at the old Bahama Cement Factory and extend 90 miles to

Broward County, Florida and come on shore near Port Everglades.

It would then run west for approximately 6.2 miles, primarily along an existing pipeline, ending at an interconnect that would tie into the existing Florida Gas Transmission pipeline.

The pipeline will increase the amount of clean-burning natural gas available for use in Florida and the rest of the United States. It is particularly important to Florida, which is facing rapidly growing energy demands since the population growth is expected to significantly increase demand for energy over the next decade.

PEF 001005
DOCK NO. 040817-EI

The pipeline could supply enough gas to satisfy about 40 per cent of the planned electric generation capacity required to meet Florida's 10-year projected growth.

Construction of the 90-mile, 24-inch pipeline is scheduled to begin in 2005

with active transport of gas to begin in 2007.

Back to Results

PEF 001006
DOCK NO. 040817-EI

Pipeline will eliminate health risk

Publication	The Freeport News
Date	July 22, 2004
Section(s)	National News

By NAVARDO SAUNDERS

Freeport News Reporter

Dismantling the old Bahama Cement Factory would eradicate exposure to asbestos, a hazardous substance that has been linked to a large number of deaths and cancer in the United States.

A Freeport News investigation has found that cement contains asbestos.

Tractebel Calypso Limited, the company seeking Governmental approval to construct a Liquefied Natural Gas (LNG) pipeline on the old Bahama Cement Factory site, says it would completely demolish the old cement factory and build a world-class LNG terminal that will meet and exceed the environmental and safety standards set by the Government.

Asbestos was once seen as an ideal building material, as it is an excellent insulator, fireproof and relatively inexpensive.

It was used in the construction of industrial sites, office buildings, schools, shipyards, homes and everyday items such as ironing boards, dryers, toasters, and low-density insulation products.

In 1955, however, researchers confirmed what they had long suspected; there was a unmistakable connection between the ingestion of asbestos fibres and the development of certain forms of lung cancer.

PEF 001007
DOCK NO. 040817-EI

Today asbestos is still being used in some building materials even though U.S. authorities have urged manufacturers to discontinue using it in their products.

At a recent town meeting Dave Clark, project manager of the proposed pipeline said, Tractebel would perform a massive clean-up of the old Bahama Cement Factory, leaving no trace of cement.

The slightest wind can cause cement, a light grey powdery substance, to travel for miles.

The old Bahama Cement Factory is adjacent to Hepburn Town, a large residential settlement in West Grand Bahama.

When it was in operation there was no need for concern because the operators had put stringent plans in place to ensure that cement did not spill into surrounding areas.

But when operations ceased, cement containers were left behind, that cement decayed and the powdery substance spread throughout the compound.

Residents of Hepburn Town have complained, from time to time, of experiencing suffocation from the cement powder substance.

Noted attorney Fred Smith, who attended the recent town meeting, indicated that Tractebel would remove all the hazardous materials from the cement plant, eradicating health risks.

Meanwhile, the push for Government to approve the LNG pipeline has intensified. A petition with the names and telephone numbers of over 1,000 residents of West Grand Bahama endorsing the proposed LNG pipeline was presented to Prime Minister Perry Christie and members of his Cabinet on Tuesday.

Petition organizer Philip Hepburn travelled to Nassau to personally hand deliver the petition.

PEF 001008
DOCK NO. 040817-EI

Mr. Hepburn indicated that reliable resources informed him that Government Ministers had been holding serious discussions about the fate of the proposed pipeline.

The Freeport News has been reliably informed that the Government will make a decision regarding Tractebel soon.

Tractebel is seeking Government's approval to construct an LNG pipeline originating at the old Bahama Cement plant.

The Grand Bahama Port Authority has already approved the project.

The pipeline would extend 90 miles to Broward County, Florida and come ashore near Port Everglades.

It will increase the amount of clean-burning natural gas available for use in Florida and the rest of the United States. It is particularly important to Florida which is facing rapidly growing energy demands since the population growth is expected to significantly increase demand for energy over the next decade.

Construction of the pipeline is scheduled to begin in 2005 with active transport of gas to begin in 2007.

Back to Results

PEF 001009
DOCK NO. 040817-EI

[redacted]

Costello, Jeanne

From: Boulmay, Ramon [ramon.boulmay@pgnmail.com]

Sent: Tuesday, June 08, 2004 11:56 AM

To: Rhodes, Rick

Cc: Adams, Melanie

Subject: [redacted]

The attached puts all alternatives on the same quantity basis as the [redacted]

[redacted]

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Trimble, John [John.Trimble@pgnmail.com]

Sent: Monday, July 19, 2004 8:23 AM

To: Boulmay, Ramon

Cc: Murphy, Pam (CP&L); Adams, Melanie; Rhodes, Rick

Subject: Updated Answers To Your Questions - 1) [redacted]

REDACTED

REDACTED

Global Equity Research

Industry Focus

North America US

Energy Integrated Oil

22 July 2004

Global LNG

Deutsche Bank

F.I.T.T. Research

Fundamental, Industry, Thematic, Thought Leading

Deutsche Bank Equity Research's Research Product Committee has deemed this work F.I.T.T. for our clients seeking differentiated ideas. Here our global oils team issues the latest in its series of annual probes into the liquefied natural gas (LNG) market. This year's focus is on clearing up widely held misconceptions.

Fundamental: a global LNG market model is our foundation

Industry: LNG boom? What LNG boom?

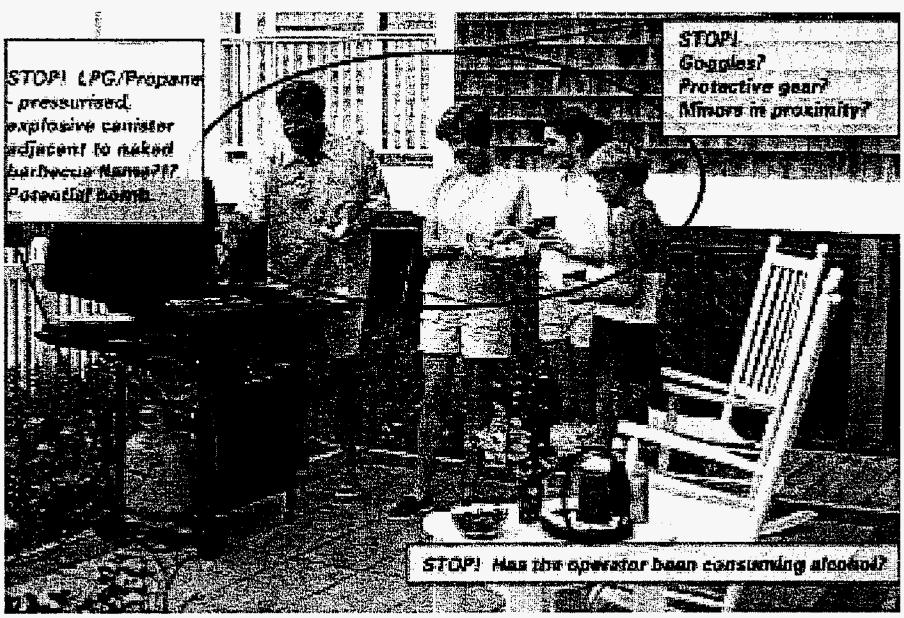
Thematic: no problems with US regasification or market access

Thought Leading: lifting the veil of assorted other illusions

In terms of LNG, we favour the first movers

Exploding the Myths

"Not in my backyard" – more shocks over US gas safety



PEF 001056
DOCK NO. 040817-EI

Paul Sankey
(+1) 212 250 6137
paul.sankey@db.com

Caroline Cook
(+44)131 240 7642
caroline.cook@db.com

Adam Sieminski
(44)20 7545 1202
adam.sieminski@db.com

Dr. J.J. Traynor
(+44) 131 240 7648
jj.traynor@db.com

Deutsche Bank

22 July 2004

Global LNG
Exploding the Myths

Paul Sankey
(+1) 212 250 6137
paul.sankey@db.com

Caroline Cook
(+44)131 240 7642
caroline.cook@db.com

Adam Sieminski
(44)20 7545 1202
adam.sieminski@db.com

Fundamental, Industry, Thematic, Thought Leading

Deutsche Bank Equity Research's Research Product Committee has deemed this work F.I.T.T. for our clients seeking differentiated ideas. Here our global oils team issues the latest in its series of annual probes into the liquefied natural gas (LNG) market. This year's focus is on clearing up widely held misconceptions.

Fundamental: a global LNG market model is our foundation

Last year we identified a long-term secular trend: LNG will be the oil of the 21st Century. This year, we once again delve into global LNG supply/demand trends to form our updated near-term and long-term outlook. Growth has generated interest; interest has generated myths.

Industry: LNG boom? What LNG boom?

Despite huge global gas prices, no major new "greenfield" LNG project is starting up this year. Gas reserves are abundant and there is considerable spare LNG shipping capacity, yet few new developments. Growth in LNG is strong, but hardly impressive from a low base (oil demand growth is greater than gas demand growth this year). This report looks at why there is not more development. The answer lies in the scale of the challenge.

Thematic: no problems with US regasification or market access

The economic opportunity of $6 US gas is overwhelming. Our analysis focuses on the winners of the clear themes: a higher sustained US gas price, a massive need for development expenditure, and a lack of action that will reward the first movers of the past five years.

Thought Leading: lifting the veil of assorted other illusions

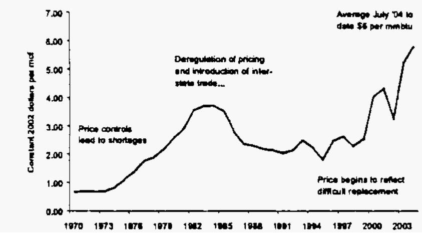
As a "hot topic" LNG has quickly developed its own set of myths. Our LNG theme this year is to explode these myths, the biggest of which is a perceived problem with US regasification capacity – which there is not. The four existing terminals have yet to sell out. LNG is safe, and the public in the US Gulf Coast supports its development. We do not see a significant issue with access to the US gas market.

In terms of LNG, we favour the first movers

Until sufficient LNG supply is developed to meet the need for gas in the US – at least five years – natural gas prices will be high. Companies that can begin to meet the market's needs are the winners – select US E&Ps, early-moving LNG suppliers that are now successfully supplying gas (Shell, BP, BG, TOTAL and Repsol) and companies moving now to develop nearer-term supply (Marathon, ExxonMobil, ConocoPhillips). The theme of major LNG project investment is a good one for developers such as Halliburton and Technip, and the chemical company, Air Products.

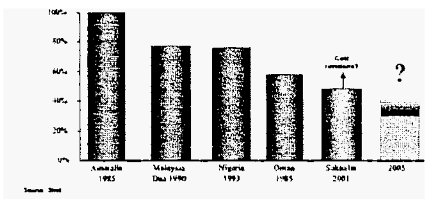
F.I.T.T. Research

US Gas Prices Rising



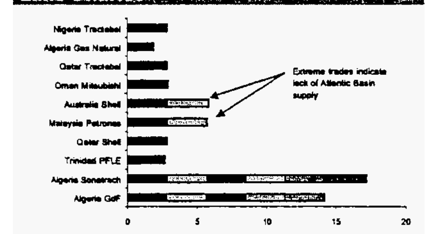
Source: DOE, World Bankl

The industry now wastes less money



Source: Shell., Wood Mackenzie

January to June 2004 LNG deliveries to Lake Charles



Source: Waterbourne LNG report

PEF 001057
DOCK NO. 040817-EI

Deutsche Bank Securities Inc.

Figure 1: World LNG supply and demand balance – projects and players

Demand (Mt)		1990	1995	2000	2004E	2005E	2006E	2007E	2010E	2015E	2004-2007 CAGR
Japan	Japan Inc. utilities esp. Tokyo Electric	32.4	43.6	53.4	57.7	58.3	60.2	62.1	67.8	75.6	2%
South Korea	Kogas	2.1	7.1	15.0	20.2	25.2	27.8	30.4	38.1	48.4	15%
Taiwan	CPC	0.7	2.5	4.3	5.9	6.4	6.9	7.4	9.0	13.5	8%
India	Petronet				2.0	5.7	6.6	7.6	10.5	16.0	56%
China	CNOOC						2.0	2.5	7.1	13.0	
Asia		35.2	53.2	72.7	85.9	95.6	103.5	110.0	132.5	166.5	
Belgium	Tractebel, Shell	3.2	3.6	2.5	3.0	3.1	3.3	3.5	4.2	5.0	5%
France	GdF	6.1	7.0	9.0	9.2	8.8	9.4	10.0	11.8	14.0	3%
Greece	DEPA			0.4	0.5	0.5	0.6	0.6	0.8	1.2	11%
Italy	ENI, BG	0.2	1.0	1.6	3.6	3.7	5.0	6.4	10.4	10.8	21%
Portugal	Galp		0.0	0.2	1.3	1.6	1.9	2.1	2.8	3.7	17%
Spain	Gas Natural, BP, Cepsa	3.9	3.4	6.9	13.9	15.5	16.2	16.8	18.8	35.2	7%
Turkey	Botas			3.3	2.9	2.1	2.5	2.9	4.0	6.0	-1%
UK	ExxonMobil, Lattice, BG					2.6	6.1	9.5	19.9	27.2	
Europe		13.4	15.0	23.9	34.3	37.9	44.9	51.8	72.7	103.0	15%
US East Coast	BG, Trac'bel, Shell, BP, Chevron, AES	1.7	0.4	4.9	12.7	15.0	18.7	27.7	45.0	70.0	30%
US West Coast	El Paso, Shell, Bolivia LNG								5.0	10.0	
USA		1.7	0.4	4.9	12.7	15.0	18.7	27.7	50.0	80.0	30%
Puerto Rico	Repsol			0.3	0.7	0.9	1.0	1.2	1.6	2.5	20%
Dominican Republic	AES				0.7	0.7	0.7	0.7	0.7	0.7	0%
Mexico	Shell, Marathon, ConocoPhillips						0.9	3.6	11.3	15.8	
Brazil	Petrobras, Shell								1.9	4.0	
Americas		1.7	0.4	5.1	14.1	16.5	21.3	33.2	65.5	103.0	33%
Total demand		50.2	68.6	101.8	134.3	150.0	169.7	195.0	270.6	372.5	13%
% Annual Growth			6.4%	8.2%	7.3%	11.7%	13.1%	14.9%	12.5%	6.6%	
Asian Market Share		70.0%	77.6%	71.4%	63.9%	63.7%	61.0%	56.4%	49.0%	44.7%	-4%

Supply Brownfield (Mt)		1990	1995	2000	2004E	2005E	2006E	2007E	2010E	2015E	2003-2007 CAGR
Abu Dhabi	Adnoc, BP, Mitsui, TOTAL	4.5	4.5	5.1	5.4	5.5	5.5	5.5	5.5	5.5	1%
Algeria	Sonatrach	24.5	24.5	23.6	19.5	20.0	20.0	21.0	24.4	28.4	3%
Australia NWS	Woodside, BP, Chevron, BHP, Shell, MIMI	3.0	7.2	7.3	7.6	7.6	7.6	7.6	7.6	7.6	0%
Australia NWS IV	Woodside, BP, Chevron, BHP, Shell, MIMI				1.5	3.5	3.5	3.5	3.5	3.5	33%
Australia NWS V	**Woodside, BP, Chevron, BHP, Shell, MIMI**								4.2	4.2	
Brunei	Brunei Coldgas, Shell, Mitsubishi	5.1	5.5	6.7	7.0	6.6	6.6	6.6	6.6	6.6	-2%
Indonesia Arun	ExxonMobil, Pertamina	11.9	11.5	6.0	5.8	5.6	5.1	4.6	3.0	1.1	-8%
Indonesia Bontang	TOTAL, Unocal, BP, Pertamina	11.1	13.8	21.2	19.1	22.5	22.5	22.5	22.5	22.5	6%
Indonesia Bontang I	TOTAL, Unocal, BP, Pertamina								3.5	3.5	
Libya	Sirte	1.2	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5	
Malaysia	Petronas, Shell, Mitsubishi, Sarawak Govt.	6.6	9.5	15.3	15.0	15.0	15.0	15.0	15.0	15.0	
MLNG Tiga	Petronas, Shell, Mitsubishi, Sarawak Govt.				4.0	6.8	6.8	6.8	6.8	6.8	19%
Nigeria LNG I-III	NNPC, Shell, TOTAL, ENI			4.5	8.7	8.7	8.7	8.7	8.7	8.7	0%
NLNG Plus	NNPC, Shell, TOTAL, ENI				5.1	8.1	8.1	8.1	8.1	8.1	17%
NLNG Plus Plus	NNPC, Shell, TOTAL, ENI						4.1	4.1	4.1	4.1	
Oman	**Shell, TOTAL, MIMI, Numerous Korean**			2.1	6.7	6.7	6.7	6.7	6.7	6.7	0%
Oman II Qalhat	**Oman Govt, Oman LNG, Union Fenosa**						1.5	3.3	3.3	3.3	
QatarGas	**QGPC, ExxonMobil, TOTAL, Marubeni, Mitsui**			6.6	8.7	9.2	9.2	9.2	9.2	9.2	2%
QatarGas II	QGPC, ExxonMobil, TOTAL							3.5	15.0	15.0	
QatarGas III	QGPC, ConocoPhillips								7.5	15.0	
Rasgas	**QGPC, ExxonMobil, Kogas, Itochu, Nissho Iwai**			3.8	6.7	6.7	6.7	6.7	6.7	6.7	0%
Rasgas T3 & 4	**QGPC, ExxonMobil, Petronet, UK**				3.5	6.3	9.4	14.1	14.1	14.1	59%
Trinidad I	**BP, Repsol, BG,Tractebel, Govt. of T&T**			3.0	3.3	3.3	3.3	3.3	3.3	3.3	0%
Trinidad II, III & IV	**BP, Repsol, BG,Tractebel, Govt. of T&T**				6.7	6.7	11.9	11.9	11.9	11.9	21%
Trinidad V	BP, Repsol, BG,Tractebel, Govt. of T&T								4.0	4.0	
Kenai USA	Phillips, Marathon	1.2	1.2	1.4	1.3	1.3	1.3	1.3	0.8	0.4	1%
Brownfield Supply		69.1	78.5	107.1	136.2	150.7	164.0	174.5	206.5	215.7	9%
% 5 year Annual Growth			2.6%	6.4%	7.4%	7.1%	8.1%	8.2%	6.5%	5.6%	3%
Supply Greenfield					9.9%						
Angola	ChevronTexaco, Sonangol, TOTAL, BP, ExxonMobil								2.0	8.0	
Bayu Undan	Phillips, Shell, Woodside					1.5	3.0	3.0	3.0	3.0	
Egypt LNG I	BG, Petronas, EGPC					0.7	3.5	3.5	3.5	3.5	
Egypt LNG II	BG, Petronas, EGPC						1.8	3.5	3.5	3.5	
Egypt LNG III+	BG, Petronas, EGPC, Apache								4.0	4.0	
Egypt SEGAS LNG	EGPC, Union Fenosa, Eni					5.3	5.3	5.3	5.3	5.3	
Egypt SEGAS II	EGPC, Union Fenosa, Eni, BP								5.3	5.3	
Equatorial Guinea	Marathon							0.2	4.0	4.0	
Snoevhit	Statoil, TOTAL, GdF								4.2	4.2	
Sakhalin	Shell, Mitsubishi, Mitsui							1.0	9.6	9.6	
Tangguh	BP, Mitsubishi, BG							1.0	6.0	10.0	
Iran	NIOC, Reliance, BP									4.0	
Venezuela	Shell, Mitsubishi									8.0	
Gorgon	Chevron/Texaco, Shell, ExxonMobil								5.0	7.5	
Nigeria Brass River	ConocoPhillips, ChevronTexaco								4.0	4.0	
Total Supply		69.1	78.5	107.1	136.2	158.2	177.6	192.0	265.9	299.6	10%
Bolivia	*Repsol, BG*								*4.0*	*8.0*	
Peru	*Hunt Oil, PlusPetrol, SK*								*4.0*	*4.0*	
Iran	*NIGEC*									*4.0*	
Indonesia Sulawesi etc	*Pertamina*									*4.0*	
NAGV	*Shell, Woodside*									*4.0*	
North Slope	*BP, Phillips*									*8.0*	
Yemen	*TOTAL*								*2.0*	*5.0*	
Unlikely									*8.0*	*32.0*	

Asia delivers strong sustained growth in LNG demand, led by Taiwan, China and India.

Southern Europe drives forward the European market - with stellar growth from Spain, Portugal, Greece and Turkey.

US gas market shows major expansion in the 2002-2007 timeframe as two terminals reopen. Huge annualised growth. The wave of new LNG regas projects will sustain the growth story.

Overall market growth is strong, even if from a relatively small base.

Asia's market share falls - dramatically. The Atlantic Basin-US market is where the big action is.

Will Indonesia succeed in maintaining its market share as Arun declines? BP's Tangguh is vital.

market share?

Shell's Nigeria and Oman also huge success stories.

Qatar moves to become the **world's biggest** LNG player **from nothing** in 1995 to 60 **Mt per year** in 2010.

Trinidad is the jewel in BP's **LNG crown** - huge returns into **the US market**. Repsol also well exposed.

Best returns are in expansion projects...

Bayu-Undan major success for ConocoPhillips.

Egypt emerges as mjaor new player - BG shows the way. Dominates 2005

Can Marathon take the mid-cap challenge and make Equatorial Guinea work? Market says BG will, but Marathon won't - doesn't make sense...

Supply grows faster than demand, as market moves from excess tightness.

Bolivia referendum great result for Repsol. Now for a choice of export port...

Source: Deutsche Bank

PEF 001058
DOCK NO. 040817-EI

Executive summary

Outlook: developing supply is the challenge

LNG boom? What LNG boom?

Despite huge global gas prices, riding at $5+ per mmbtu ($40 per barrel), there is no major new project starting up this year to supply the global market with LNG. Literally trillions of feet of gas reserves are available at these prices. There is currently considerable spare LNG shipping capacity...but few new developments. LNG market growth of 20%-30% annually is hardly impressive from a base of 4mmboe/d of LNG production – or just 5% of the global oil market (80mmboe/d). Growth this year of around 1mmboe/d in the LNG market is just half the growth of the oil market in absolute energy terms. Boom? What boom?

Exploding the myths

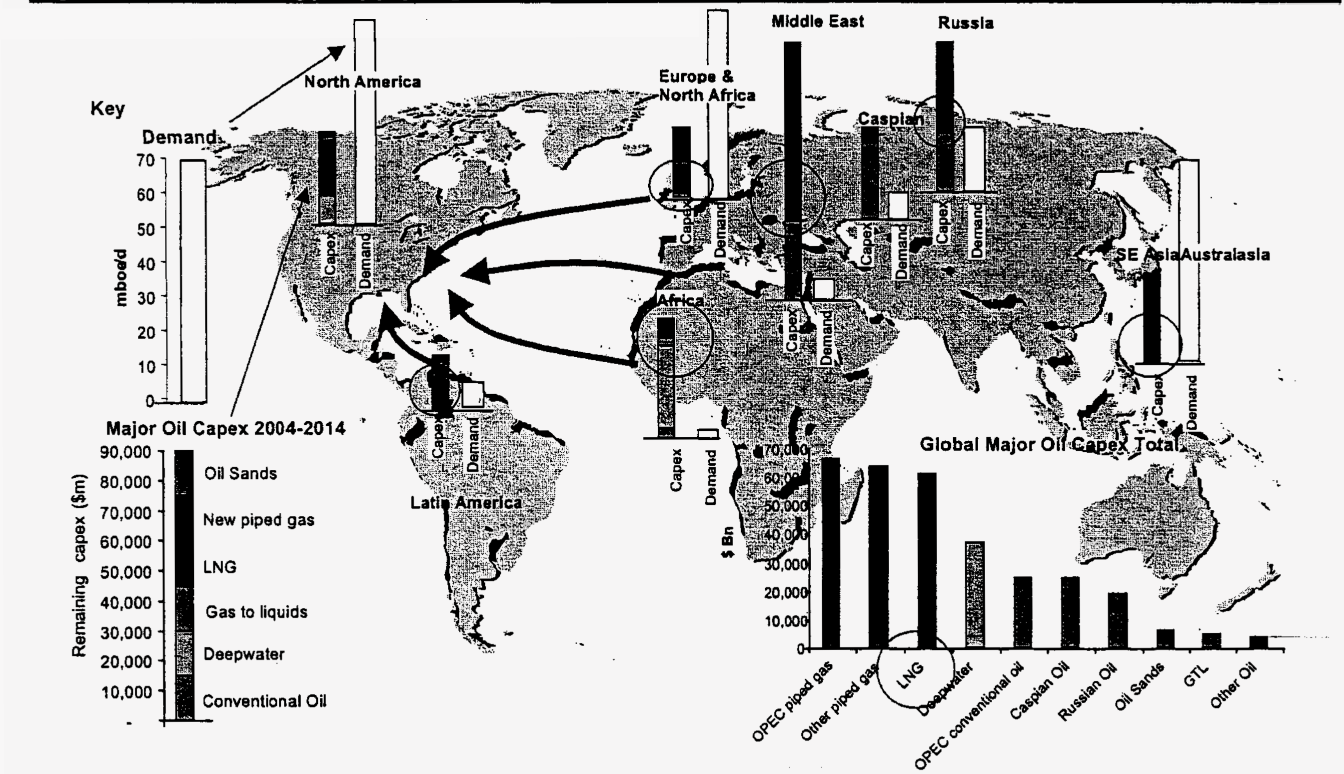
The most widely held misconception is that there is a problem with US regasification capacity – there is not. The four existing terminals have yet to sell out. LNG is safe and the public in the Gulf Coast of the US supports its development. Neither currently, nor longer term, do we see a significant issue with access to the US gas market. Rather, the terminals are extremely expensive, and to lower unit costs, have to be extremely large.

Developing supply is the challenge. Several permitted regas terminals are slated at 1.5bcf/d of capacity (250kboe/d), which would require huge LNG projects to fill; the fastest LNG project expansions – e.g. Nigeria LNG – took six years from first delivery to reach that scale. To extend the example, prior to first delivery, the Nigerian project was 30 (thirty) years in development between gas discovery and first LNG. This is because there are multiple partners and developing governments to convince, multi-year planning and construction cycles...and potentially, based on planned start-ups, everybody will start attempting to build simultaneously.

The LNG challenge fits our key overall oil and gas theme: the globe is under-invested in the infrastructure required to meet strong demand for oil and gas. OECD (ie North American and European) oil and gas is in secular decline. Replacement energy is distant and requires huge development expenditure. US gas and the LNG challenge is the most obvious, and largest, of these challenges.

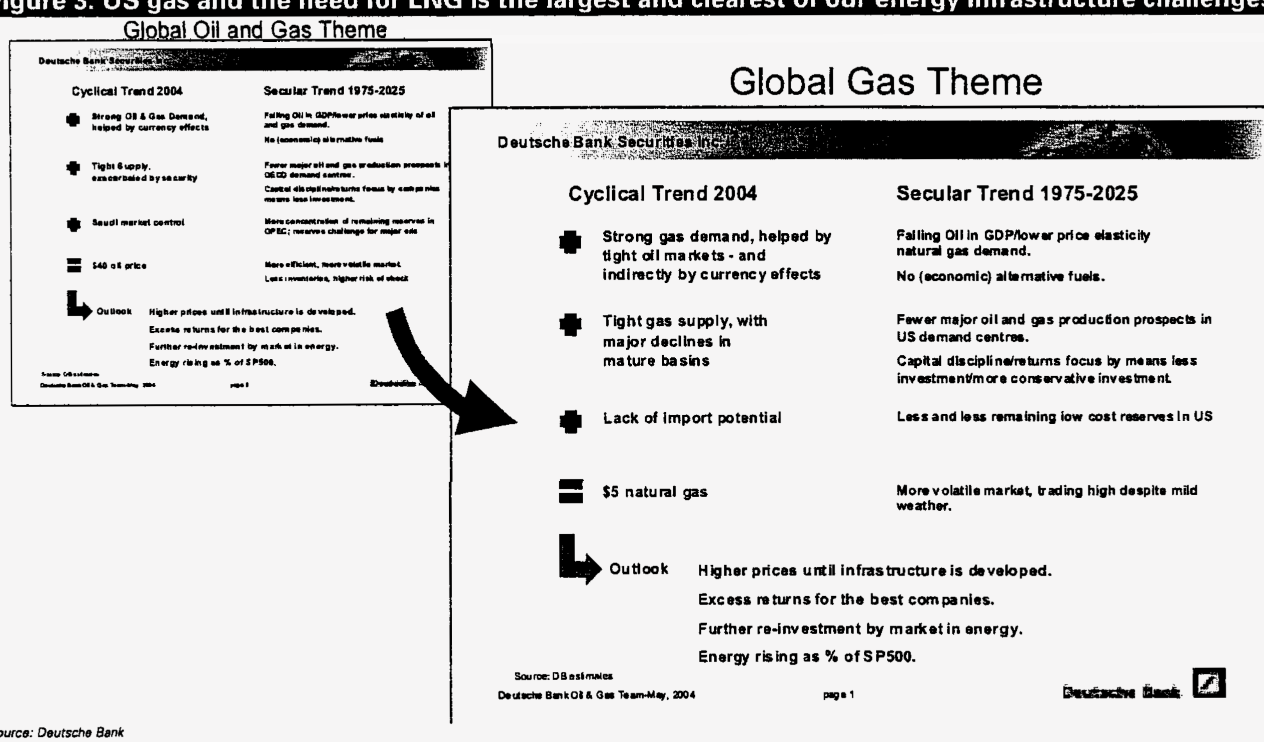
PEF 001059
DOCK NO. 040817-EI

Figure 2: Global energy supply is getting more distant; more OPEC; riskier



Source: Deutsche Bank

Figure 3: US gas and the need for LNG is the largest and clearest of our energy infrastructure challenges



Source: Deutsche Bank

PEF 001060
DOCK NO. 040817-EI

The winners: companies that can begin to meet the market's needs

Between now and the development of sufficient LNG supply to meet the need for gas in the US, natural gas prices will be high. This is a five-year period at least. Companies that can meet the *current* market's needs are winners.[1]

- **US E&Ps with good growth and contained costs:** Our US E&P team highlights the following companies with strong leverage to higher gas prices: EOG (Buy, PT $57); XTO (Buy, PT $32) and Devon (DVN, Buy, PT $64).
- **Early-moving LNG suppliers that are now successfully supplying gas:** Several European companies are in this position owing to their moves over the *past* five years – RD/Shell (RD.N, PT $57, Buy), BP (BP.N, PT $53, Hold), BG (BG.L, PT 340p, Hold), TOTAL (TOT.N, PT $105, Buy) and Repsol (REP.N, PT $25, Buy).
- **Companies that are moving now to develop mid-term supply:** Here we cite Marathon (MRO, PT $40, Buy). ConocoPhillips (COP, PT $82, Hold) has a major start up at Bayu Undan by 2006. ExxonMobil (XOM, PT $46, Buy), leveraging the huge low cost potential of Qatar, is aggressively moving to dominate a global business with no anti-trust issues. ChevronTexaco (CVX, PT $99, Buy) has the highest potential risk/reward in LNG, with plenty of opportunity but little *concrete* progress to date.
- **Developers:** The basic thesis that LNG projects need major investment is good for developers, such as Halliburton (HAL, PT $40, Buy) Technip (TECF.PA, PT Euro 130, Buy) and Chiyoda (6366.T, PT ¥750, Buy). Chemical company Air Products (APD, PT $60, Buy) also fits this theme.

Valuation

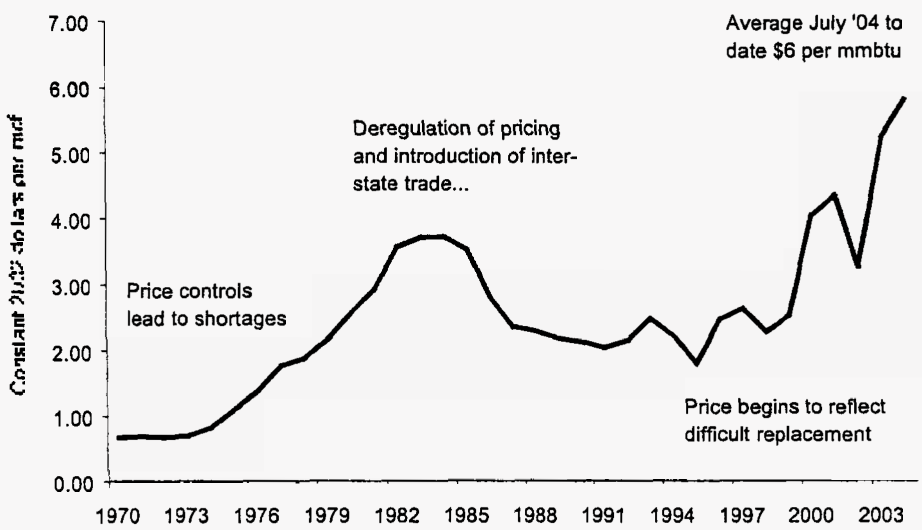
Supply is not available on the scale required to seriously dent the high price environment

Point 1: There is a myth that LNG threatens the US gas price in the medium term. It does not. Supply is not available on the scale required to seriously dent the high price environment that is borne from strong demand and the ongoing declines in supply in the US gas market. Weather may alter the seasonal picture on a short term-cyclical basis, but the secular trend towards higher US gas prices is undeniable. In the medium term, the picture is positive for the earnings of US E&Ps and US-oriented service companies.

PEF 001061
DOCK NO. 040817-EI

[1] Share prices for recommended companies as of the close, Tuesday, 20 July:
US E&Ps: EOG $62.80, XTO, $29.15, DVN $69.64
European oils: RD $51.96, BP $55.43, BG 347.5p, REP $22.40
US oils: MRO $37.57, COP $79.28, XOM $45.90, CVX $94.77
Service/chemical companies: HAL $31.43, TECF.PA EUR 111.8, 6366.T ¥718, APD $51.62

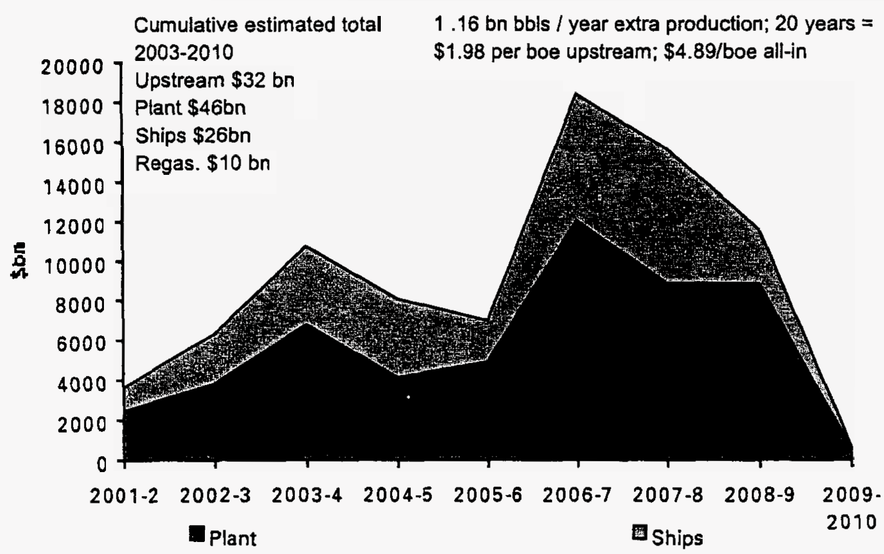
Figure 4: Real US gas prices: rising



Source: DOE, World Bank

Point 2: with LNG deliverable globally at $3 per mmbtu, the higher US gas price represents a huge opportunity that companies will rush to fill. We reiterate our longstanding forecast of major increases in LNG capital spending over the coming years (and decades). Companies exposed to this are: Halliburton; Technip; Chiyoda and Air Products (all BUYS). Additional plays on the theme are Saipem (SPMI.MI, Hold, EUR 7.6) and Chicago Bridge and Iron (CBI, not rated), as well as Daewoo Shipbuilding (062660.KS, Not Rated).

Figure 5: Estimated Capex in global LNG 2001-2010



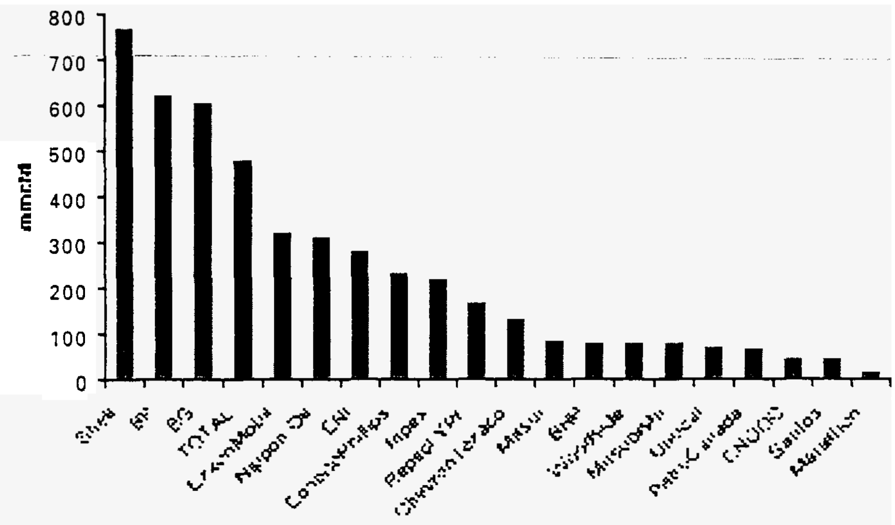
Source: Deutsche Bank

PEF 001062
DOCK NO. 040817-EI

Euphoria over some of the lower return elements over the business may be over-stated. We deny the sustained potential for a major traded spot market in LNG and consider the "LNG Chain" of contracts to be strengthening and tightening as projects become bigger, more capital intensive, and therefore more bound by contractual links. If the speculative, or spot, market was really here, surely one of the permissioned US LNG regasification greenfield projects would have started construction – they have not.

Certain LNG-exposed companies will make no more money from higher gas prices, and will be threatened by rapid growth, as they are essentially utility businesses. These are LNG shippers (e.g. Golar LNG, not rated and Teekay Shipping, not rated) and LNG regasification plays (Cheniere, not rated). However, these companies may be attractive take-out candidates within the theme of more tightly integrated contractual chains, for example if ExxonMobil needs a quick fix to its lack of US regasification capacity or if organic development proves too time-consuming and frustrating.

Figure 6: Growth in gas into LNG production, 2003-07E



Source: Deutsche Bank

Among the conventional gas producers, where the highest returns and highest leverage to higher gas prices are to be found, the relative growth is with the traditionally dominant plays, Shell, BP, BG, TOTAL, ExxonMobil, Eni and ConocoPhillips. These companies have invested heavily over the past five years and should now reap the rewards. Based on valuation, we currently have Buy recommendations on Shell, TOTAL, and ExxonMobil.

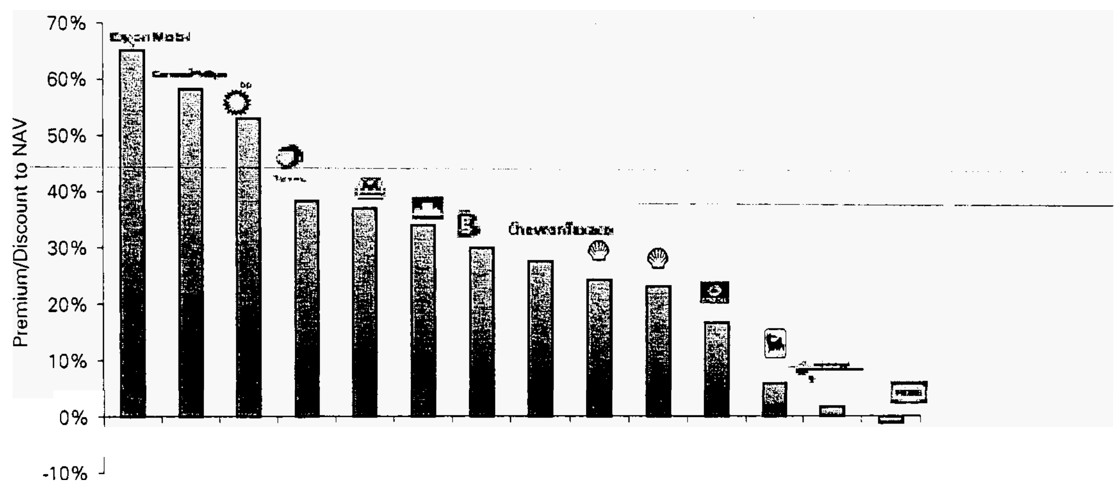
PEF 001063
DOCK NO. 040817-EI

Risks: project development and management

Mismanagement could lead to enormous value destruction

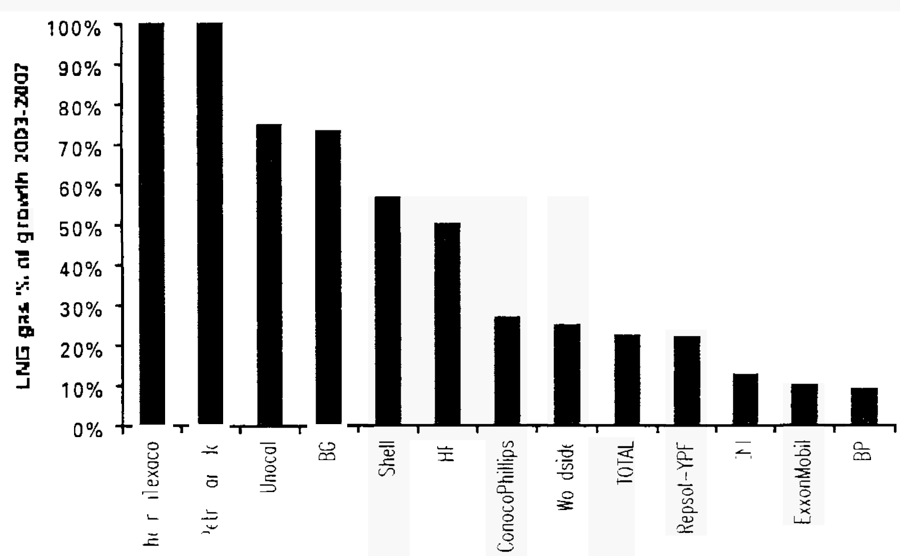
Companies need to invest billions and must successfully manage the process to avoid enormous value destruction. Projects are in risky places, either technically, such as the extreme Northerly Barents Sea for Statoil's Snoevhit; politically, such as Angola or the Middle East (Qatar); or from a labour dispute point of view, such as Trinidad. Companies that mismanage projects in development and operation can literally cost shareholders billions. Investors must be convinced that they are entrusting their money to top quality managements, or be rewarded with an appropriately risked entry price. Unable, as we are, to judge managements objectively ourselves (at least in print) we point to NAV premium/discount as *de facto*, as a representation of future re-investment skill, the markets' valuation of management quality.

Figure 7: NAV premium/discount – market view of management quality



Source: Deutsche Bank, companies shown only integrated majors with LNG project exposure

Figure 8: Who needs LNG? Relative exposure to growth from LNG



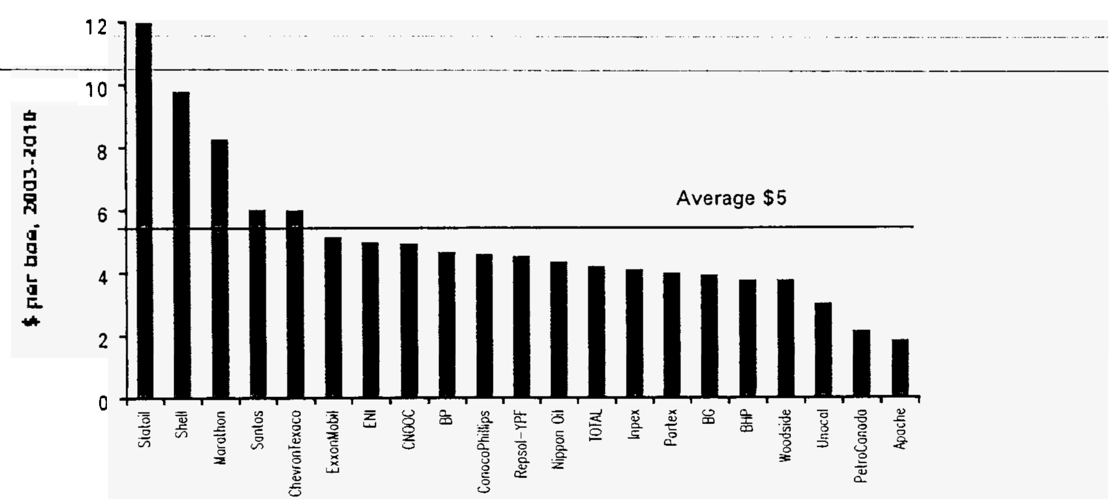
Source: Deutsche Bank

PEF 001064
DOCK NO. 040817-EI

Who *needs* LNG? Companies with LNG growth and little other volume growth drivers are the more leveraged to LNG as above – ChevronTexaco and PetroCanada reveal themselves to be dependent on LNG for providing any kind of growth. Eni, BP and ExxonMobil are notable for having high levels of LNG growth in absolute terms that do not dominate their overall growth profiles.

An alternative risk calculation is capex per boe of production. Of course, this is problematic because pure boe production numbers do not capture returns on capital expenditure, nor investment this decade for growth next. Nevertheless, a first glance of approximate capex dollars per boe of additional production 2003-2010 throws up some interesting exposure to relatively high levels of capex for relatively little production over the next 10 years, particularly for Statoil and Shell. However, we stress that current pressure on book returns is likely to lead to longer-term high free cashflow as LNG drives gas delivery in the 21st Century. In other words, high capex for the next decade is not *necessarily* a bad thing, assuming projects are on time, on budget and perform with long lives. However, history says the market will pay for growth now, not capex now.

Figure 9: LNG capex per boe of LNG gas production 2003-2010



Source: Deutsche Bank. Capex is upstream and gasficiation plant, but not ships or regasification

PEF 001065
DOCK NO. 040817-EI

Key corporate picks

Buying into LNG potential – key picks

Top LNG picks:
Halliburton
Technip
Air Products
Shell
TOTAL
ChevronTexaco
Repsol

Kellogg Brown and Root (KBR) is the dominant builder of LNG infrastructure globally, accounting for more than two-thirds of liquefaction capacity additions in the past 20 years. Currently held within the **Halliburton** company (Buy, PT $40), we think KBR could be spun out within the next year. Halliburton currently trades at a 30% discount to rivals Schlumberger and Baker Hughes, and at a major discount to pure play LNG stories such as BG and Chicago Bridge and Iron. Buyers of Halliburton shares gain a rare discount entry to LNG construction growth over the coming decade. Equally, France's **Technip** (Buy, price target Euro 130) is the best value European play on LNG procurement and construction growth.

LNG should be a significant driver of growth in EPS for **Air Products** (Buy, TP $45) between now and 2006. The company's leading position in the LNG heat exchanger market provides derivative exposure to LNG growth. While LNG heat exchangers are a small part of Air Products' operations, LNG growth lifts the Equipment segment profits to an estimated 2%-3% of EPS by 2006, from breakeven in 1H04. Air Products is one of our top picks in the chemical sector.

Australia N.W. Shelf; Brunei ColdGas; Malaysia LNG; Nigeria LNG; Oman LNG; Russia Sakhalin II LNG; Australia Gorgon LNG; Venezuela LNG – no company has a more comprehensive or sizeable spread of LNG exposure than **Shell** (RD.N Buy, PT $47). We have continued to underline the asset base of this giant company as a key rationale for our Buy rating; it is *the* dominant LNG play – with major upstream, plant, shipping, and regas positions. The key project to watch is Sakhalin II, which is currently under development. With a tie-up with **Sempra** to take Russian LNG to the US West Coast, the project looks to be the major greenfield start-up of the next five years. **TOTAL** (Buy, PT $105) also has a very strong global LNG position with exposure to both Asian & Atlantic Basin markets.

Like Shell, **ChevronTexaco** (Buy, PT $99) remains undervalued against the prevailing oil, gas and refining environment – both trade on just 25% premium to NAV at $23 (ExxonMobil trades at 58% premium currently). The challenge for ChevronTexaco is turning its capital recycling programme, of selling down US gas assets to invest in international gas assets, into actual steel, concrete and US LNG supply. To date, the company only has a very large inventory of unsold gas on its books. The next three years will determine whether ChevronTexaco can turn its LNG potential into LNG earnings. Now trading on just 10.6x 2004E earnings, and 7.3x cashflow, we think the market is discounting future failure.

Repsol (Buy, PT Euro 20) is another discount play on LNG potential. The Bolivians have voted "yes" to permitting Pacific LNG exports on the 18 July, and the prospects for this project look better than ever for commercialising Bolivia's 50tcf plus of gas into the high-priced North American market. With some 16tcf net, Repsol is Bolivia's biggest gas reserves holder. We currently value their stake in the base Bolivia Margarita gas project at only Euro 225m - the developing and expanding Trinidad LNG project is in our Repsol NAV at Euro 2bn. With additional exploration in LNG hot spot, Equatorial Guinea, this year, even at our Euro 20 target price, Repsol would trade at just 5.7x 2004E cashflow vs. the European midcaps on 7.1x and Petrobras at 6.3x. Buy.

PEF 001066
DOCK NO. 040817-EI

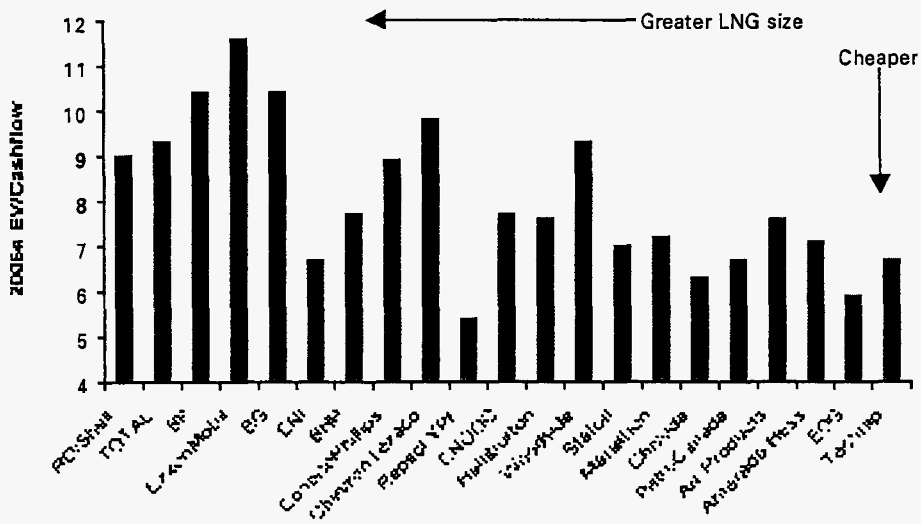
Figure 10: Major LNG companies and valuations

LNG Producers	Ticker	Recomm-endation	Market Cap.($ Bn)	Net Debt	EV	Est. % LNG 2006*	2004E P/E	2004E CFx	2006E P/E	2006E CFx	Comment
RD/Shell	RD.N	Buy	174.58	14.01	188.58	20%	11.5	7.5	17.2	9.0	Global range of major LNG projects
TOTAL	TOT.N	Buy	122.80	8.40	131.20	22%	12.7	8.2	18.3	9.3	Global range of major LNG projects - smaller stakes than Shell
BP	BP.N	Hold	198.00	15.86	213.86	12%	13.8	8.6	21.3	10.4	Dominant in highly profitable Trinidad. Adding Tangguh, Indonesia
ExxonMobil	XOM.N	Buy	296.90	-2.26	294.65	8%	15.0	10.0	19.9	11.6	Very highly reliant on Qatar - major expansion pre-2010
BG	BG.L	Hold	22.60	0.58	23.18	35%	16.9	9.2	20.5	10.4	The pure LNG play amongst major oils - no refining or chemicals dilution
ENI	E.N	Hold	77.90	13.32	91.22	8%	12.0	6.6	12.6	6.7	Strong upstream, also service leverage through Saipem and Snamprogetti
ConocoPhillips	COP.N	Hold	54.20	13.48	67.68	6%	8.8	6.5	18.5	8.9	New growth with Bayu Undan, aggressive position on US regas
ChevronTexaco	CVX.N	Buy	96.90	4.10	101.00	4%	10.6	6.8	20.6	9.8	Potential is there, challenge is delivery, first step, Gorgon
Repsol-YPF	REP.N	Buy	27.10	4.88	31.98	10%	9.7	5.2	11.8	5.4	Bolivia referendum result could turn project into major winner
CNOOC	0883.HK	Hold	17.50	-0.12	17.38	15%	11.5	7.4	13.5	7.7	The China play on LNG - partner of choice for China access
Unocal	UCL.N	Hold	10.19	3.25	13.44	18%	13.3	4.9	na	na	Good position at Bontang in Indonesia - leads the US E&Ps
Woodside	WPL.AX	Buy	8.50	0.79	9.29	25%	19.1	11.7	17.5	9.3	Australia's LNG operator
BHP	BHP.AX	Buy	57.60	4.71	62.31	8%	15.3	10.4	10.8	7.7	North West Shelf niche position
Statoil	STL.OL	Hold	27.10	3.16	30.26	6%	11.3	5.8	16.5	7.0	Can costs be controlled at Snoevhit - looks like a major risk
Marathon	MRO.N	Buy	12.50	3.73	16.23	5%	11.2	6.0	14.3	7.2	Equatorial Guinea is now a development challenge - can MRO deliver?
Apache	APA.N	Hold	15.25	2.25	17.50	2%	11.0	4.8	na	na	Egypt position
PetroCanada	PCZ.N	Hold	11.40	2.81	14.21	2%	8.7	5.0	15.3	6.7	Trinidad position
Amerada Hess	AHC.N	Buy	8.30	3.10	11.40	2%	11.6	5.4	23.2	7.1	Small stake in the ballooning costs of Statoil's Snoevhit is worrying
EOG	EOG.N	Buy	7.38	1.19	8.57	2%	16.7	5.9	16.7	5.9	Trinidad position
Service/Chemical Companies											
Halliburton	HAL.N	Buy	13.39	3.02	16.41	15%	35.5	11.8	18.6	7.6	(2005E P/E, EV/EBITDA) Key play is KBR - top LNG constructor
Chiyoda	6366.JP	Buy	1.11	0.00	1.11	40%	16.4	9.1	14.8	6.3	(Fiscal years) Chiyoda highly leveraged to LNG growth
Air Products	APD.N	Buy	11.60	2.40	14.00	2%	19.7	9.2	15.0	7.6	Small but growing element of business
Technip	TECF.PA	Buy	2.21	0.18	2.39	5%	22.1	7.6	54.9	6.7	Benefits from LNG construction growth
Memo, not covered:											
LNG Shippers											
Golar LNG	*GLNG.OL*		*0.97*	*na*	*0.97*	*100%*	*18.4*				*Consensus P/E - pure play on LNG shipping, but spare capacity currently*
Teekay Shipping	*TK.N*		*3.05*	*na*	*3.05*	*20%*	*7.4*				*Consensus P/E - primarily a crude oil shipping play*
LNG Service											
Chicago Bridge and Iron	*CBI.N*		*1.36*	*na*	*1.361*	*60%*	*20.3*				*Consensus P/E - good leveraged play on cryogenic tanks*
Daewoo Shipbuilding	*042660.ks*		*2.14*	*na*	*2.14*	*50%*	*9.7*				*Dominates new build LNG tanker business*
LNG Regas											
Sempra	*SRE.N*		*8.20*	*na*	*8.204*	*5%*	*10.6*				*Consensus P/E - interesting utility play on LNG imports to US*
Cheniere	*LNG.A*		*0.36*	*na*	*0.362*	*100%*	*na*				*Consensus P/E not available - leveraged pure-play with first mover status*

* Estimated % of capital employed for LNG producers, estimated % of order backlog for service companies

Source: Deutsche Bank estimates, company data, Bloomberg

Figure 11: EV/Cashflow 2006E by LNG size



Source: Deutsche Bank estimates

PEF 001067
DOCK NO. 040817-EI

---

2 Additional share prices for recommended companies as of the close, Tuesday, 20 July: E.N \$103.09, 0883.HK HK\$3.65, UCL \$38.88, WPL.AX A\$17.30, BHP.AX A\$12.90, STL.OL NOK 86.3, APA \$46.50, PCZ \$44.42, AHC \$83.19

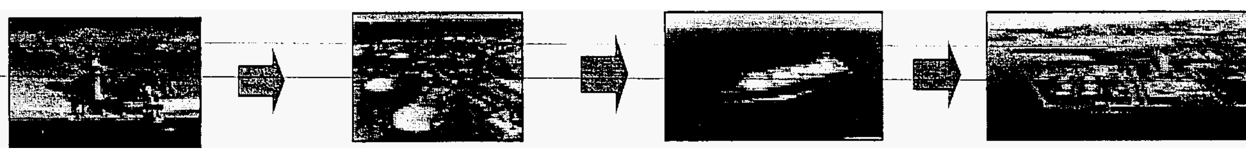
Global LNG: overview

Technically a simple story. Financially a scale challenge

In characterising LNG as "the oil of the 21st Century" (*LNG: going, going, gone Global*, May 2003), we identified a long-term secular trend based on the abundance of remaining gas reserves, mostly discovered in association with oil (Explorationist comment, "Oh no! It's gas"). Quite simply, in the absence of an economic alternative to oil and gas as the primary fuel of global economic activity, and allowing for the decline in major oil provinces, still-abundant international gas will be the fuel of the 21st Century. The most economic, clean and safe means to transport this international gas is liquefied, in ships, simply because major remaining gas reserves are distant from major current i.e. US and Europe, and future i.e. Asia, gas markets. Pipeline economics collapse relative to LNG over long distances.

Figure 12: LNG, easy as $1bn, $2bn, $3bn

No change in chemical make up of gas - simply (almost) pure methane chilled and then re-heated



Conventional "Upstream"

Supplies gas - large quantities required. Best projects have large, simple reservoirs, hopefully with associated oil. Approx. ~3 tcf of gas required for a 3 Mt 20 year project = 300 mmcfd delivered

Same process as gas production for pipelines.

Liquefaction - a giant fridge

Using the same technology as a refrigerator - just on a giant scale, a "train" takes 450 mmcfd of gas to produce 3 Mt of super-cooled gas liquefied at -160 degrees, and reduced in volume by 1/600

Shipping - a giant thermos

Liquid is pumped onto a ship, confusingly scale is measured here in cubic metres - gas is a nightmare when it comes to unit conversions. Typical ship is 135,000 m3 and delivers 2.85 bcf of gas. Note this is around 1/4 the size of energy delivery of a super tanker of oil (2 mbbls of oil, vs 0.4 mbbls o.e. of LNG).

Re-gas - a nozzle

Regasfication is the most basic part. The ship is attached to the storage tanks and offloaded. The liquid gas will boil naturally back to gaseous form. This is also the safest part of the process.

Source: Deutsche Bank. Wood Mackenzie.

However, the capital intensity of LNG is such that while costs have been driven down, the overall investment required for a 5Mt per annum LNG train is around $5bn, which delivers just 500mmcfd of gas – around 1% of the US market for gas. The global energy industry faces a vast investment requirement.

The quantities delivered for such an investment in LNG are considerably less than the equivalent delivery of oil, and a simple conclusion is that if LNG is to be the oil of the 21st Century, then global energy costs, and capital employed in energy, must rise.

PEF 001068
DOCK NO. 040817-EI

A major investment, but returns are good...eventually

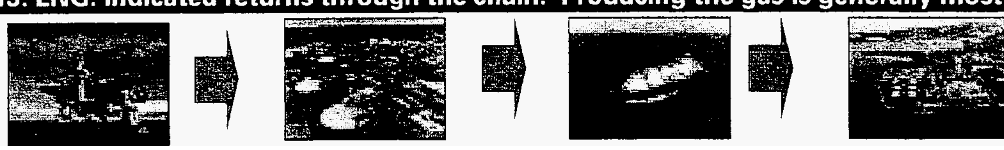
Will returns suffer? Yes and no. In the short term it is clear that the major LNG investment is dilutive to book returns, simply because of the large up-front capex that is required. It is important to note that current capex outlines for major oil companies are basically ex-LNG. ExxonMobil, ChevronTexaco and ConocoPhillips all advise that current capex guidelines do not include the potential for further major, lumpy, LNG investment. For example, if ChevronTexaco succeeds in progressing Angola LNG and Port Pelican regas, which would like be a simultaneous process, then annual capex will be as much as $1bn, or approximately 15% higher than current guidance.

To complicate returns further, there is the different financial nature of different projects. Key amongst these is the potential for project finance to take investments off balance sheet. Equally, when oil markets were very low and Russia was making debt very expensive, Shell financed Nigeria LNG with equity. Qatari trains have been financed with bonds. BG has made aggressive use of off-balance sheet financing. To add to the difficulty in making generalisations, different projects make their return in different parts of the chain - be it upstream, plant, or shipping.

However, broadly speaking:

1) Returns are around 12% IRR.

Figure 13: LNG: indicated returns through the chain. Producing the gas is generally most profitable



	Upstream	Liquefaction	Shipping	Re-gas	*Total*
		← *Returns are being impacted by difficulties in getting investments off the balance sheet* →			
"Typical" Investment (5 Mt project)	US$1bn (29.7%)	US$1.25bn (37%)	US$0.8bn (23.7%)	US$0.325bn (9.6%)	*US$3.375bn (100%)*
"Typical" Return	15-**20%** or above	8-**12%** if "tolling" 10-20% otherwise	8-**10%**	8-**10%**	*13.7% (weighted average)*
	Players trade-off upstream and liquefaction returns depending upon project specifics		"Utility businesses"		

BG typically quotes an integrated return of 12-13% from its LNG business

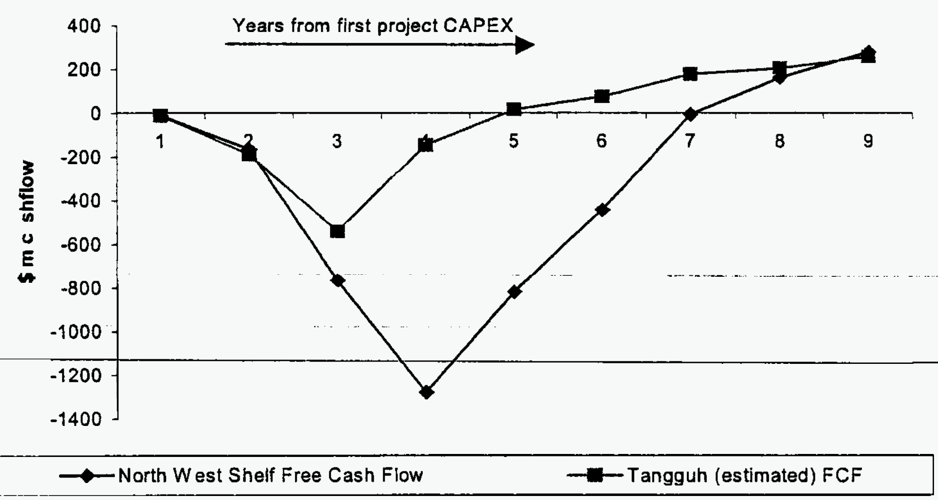
Source: Wood Mackenzie, Deutsche Bank

2) Returns are destroyed by project delays. With the amount of capital expenditure involved in LNG, it is vital to get free cashflow flowing as fast as possible in order to enhance returns. Delays to projects, which occur frequently, will destroy returns. The ability of company management to successfully develop projects on time and on budget is absolutely vital.

PEF 001069
DOCK NO. 040817-EI

Note, delays to the commencement of first spending on a project are more or less irrelevant to returns, as most LNG gas has long since been discovered and the exploration expense is very small compared to overall project costs. The key is to manage spending and development from the moment of first real capital expenditure – ie project management. The experience of Canadian oil sands projects says that a sudden rush of expenditure into a particular global energy theme causes considerable delays and horrendous cost over-runs. There is clearly a danger of this occurring in global LNG, and it underlines our view that supply remains tight.

Figure 14: Project management is vital to avoid value destruction



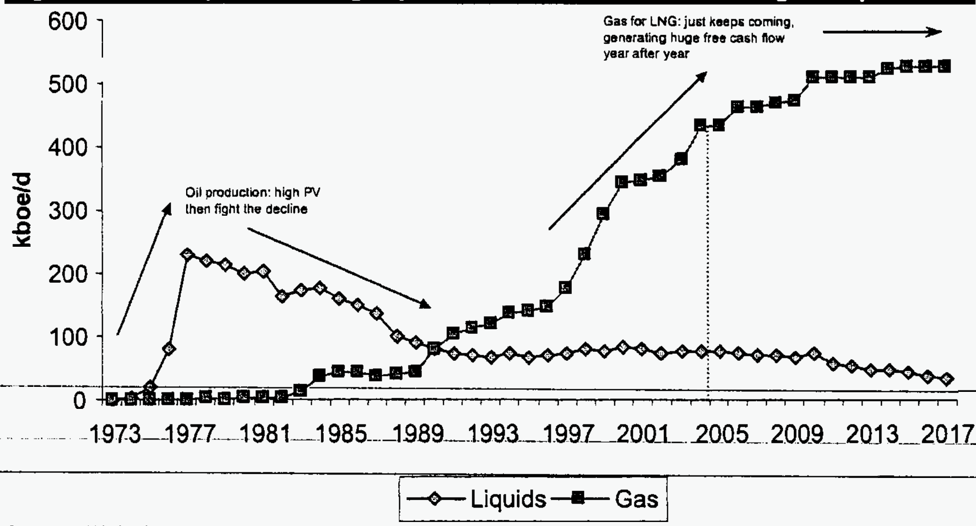
Source: Wood Mackenzie, Deutsche Bank

3) However, if successfully developed, the long-lived nature of LNG projects makes them free cashflow machines once they are built. (see [Figure 13]). Furthermore, most 12% returns calculations are based on fairly aggressive discount rates (i.e. 10%). Reducing discount rates, given the length of time (20 years plus) that an LNG plant is operational, makes returns look even more attractive.

PEF 001070
DOCK NO. 040817-EI

Why do discount rates matter? Because LNG plants are built on top of huge gas reserves. They go on and on (of global LNG plants built since 1968, only Arun has gone into decline, and gas was flared in large quantities for many years there). In the example given in Figure 13, TOTAL's production at Bontang in Indonesia is comfortably sustainable through 2050, long after the plant is fully depreciated.

Figure 15: Example: oil and gas production at TOTAL's Bontang LNG plant



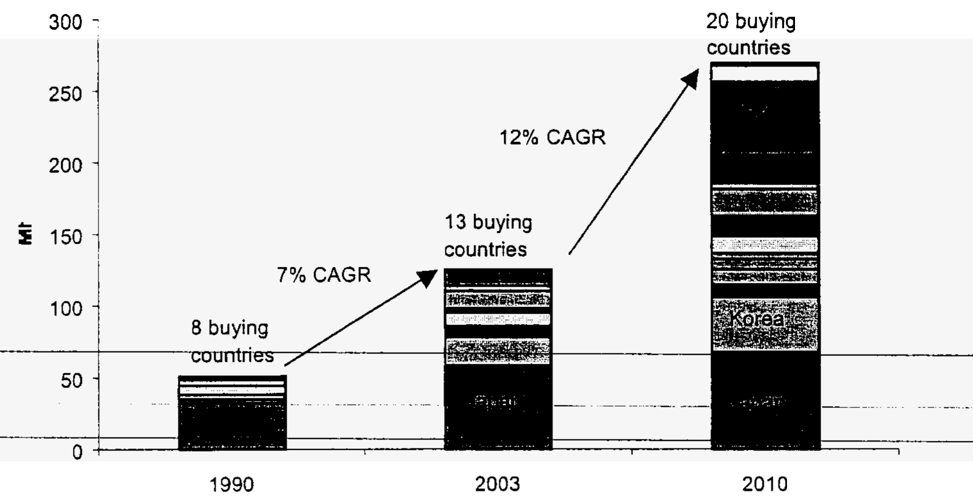
Source: Wood Mackenzie

PEF 001071
DOCK NO. 040817-EI

Demand + returns = growth is strong...from a low base

The LNG market is growing fast, from a low base. As global gas prices have increased, LNG unit costs have declined. The result is strong expansion for LNG demand, from an increasing number of markets.

Figure 16: Market is growing fast and fragmenting



Source: Deutsche Bank estimates

Last year we highlighted the fact that the gas price has now globalised owing to the influence of LNG, whereby the Japanese nuclear crisis, in a chain reaction, reduced the available quantity of LNG for delivery to the US (*LNG: Going...going...gone global*, May 2003). Equally, based purely on available reserves and its relatively clean characteristics as a fuel, we described LNG as "the oil of the 21st Century." Needless to say nothing has changed in a year to alter that view.

In fact, the problem for LNG is meeting near-term expectations. The modern era of globally traded LNG has coincided with a global shortage of gas (and oil) that has left prices in all markets much higher than the ultimate global clearing price of LNG, which we take to be the price of LNG delivered from Qatar. In a piece of geographic elegance, the distance from Qatar to the *East* Coast USA is equal to that from Qatar to the *West* Coast of the USA (think global). Qatar is the location of the huge North Field, the largest known gas field in the world, at around one quadrillion feet of gas (one thousand trillion = one quadrillion), or around 50 years of US natural gas consumption. For 2008 delivery, ExxonMobil claims it can deliver gas from its Qatari expansion projects to any gas market globally for $3 per mmbtu, for a ~15% return.

PEF 001072
DOCK NO. 040817-EI

Figure 17: LNG markets by type and growth (LNG volumes consumed 2003–2010)

Energy Short, Mature	'03 - '10	Energy Short, Growth	'03 - '10	Decline Replacement, Mature	'03 - '10	Coal Replacement, Growth	'03 - '10
Japan	58 - 68 Mt	South Korea	19 - 38 Mt	East Coast US	5 - 15 Mt	China	0 - 7 Mt
		Taiwan	6 - 9 Mt	Gulf Coast US	10 - 30 Mt	India	0 - 10 Mt
Italy	2 - 10 Mt						
France	9 - 12 Mt	Spain	12 - 18 Mt	UK	0 - 20 Mt		
Belgium	2 - 4 Mt	Portugal	0.2 - 3 Mt				
		Greece	0.4 - 1 Mt				
California	0 - 5 Mt	Turkey	3 - 4 Mt				
Boston	2 - 3 Mt						
		Island markets:					
		Puerto Rico	0.5 - 1.5 Mt				
		Dominic. R.	0.2 - 0.7 Mt				
		Shouldn't be importing gas:					
		Mexico	0 - 11 Mt				

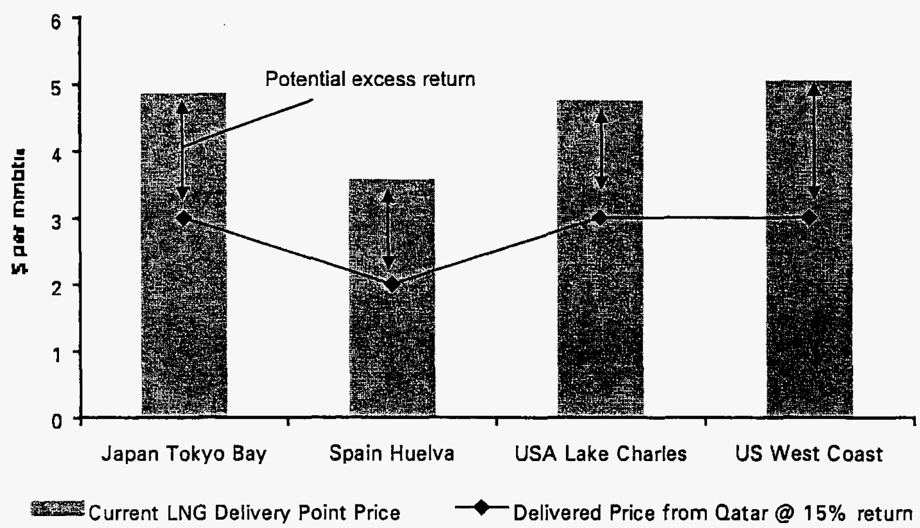
Total Global Market Growth 2003: 125 Mt, 2010: 270 Mt = 12% CAGR

2003 ~17 bcf/d, ~4 mb/d), 2010 (37 bcf/d ~8 mb/d)

Source: Deutsche Bank

For example, the key LNG pricing points from an intra-LNG global trade perspective will be Tokyo Bay; Huelva in Spain; Lake Charles in the US; Mexico for California supply (think global). Allowing for the relative proximity of Spain, LNG is currently an outstanding investment proposition. If Qatar makes 15% at $3 gas, then current returns, depending on the precise nature of the upside profit split, would be extremely large – say post tax 30%-40% into any of the three global pricing points (adding $2 to netback prices takes pre-tax returns to 50%+). Even ignoring upside against current prices, the base case 15% IRR is in itself an extremely good return on the $5bn cost of an LNG project, in this era of 4% bond yields.

Figure 18: How Qatar would compete today – if the capacity was available

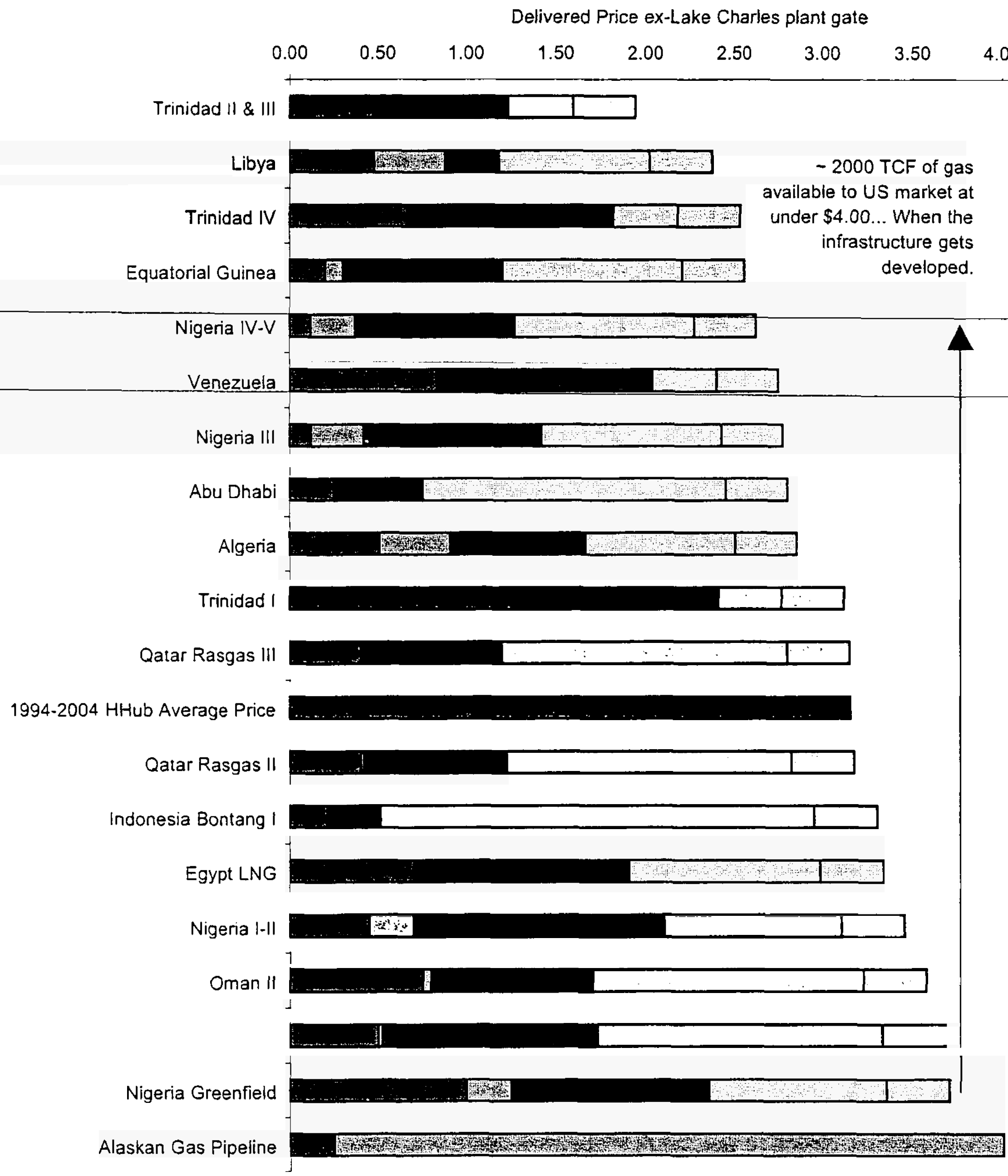


Source. Deutsche Bank estimates., Gas Matters, IEA, DOE

PEF 001073
DOCK NO. 040817-EI

So, as in other areas of the energy market, the prevailing price of oil and gas now wildly exceeds the planning assumptions of the companies, and there is an over-powering economic rationale for building additional LNG capacity. This is even more so the case in the US, where there are few alternative gas supplies to meet the scale of the demand challenge. LNG is clearly the long-term US gas solution.

Figure 19: LNG cost stack for delivery to the US Gulf: huge quantities at competitive prices



Source: Deutsche Bank. Alaskan Gas Pipeline cost is based on transport from Prudhoe Bay to Chicago

PEF 001074
DOCK NO. 040817-EI

The most obvious manifestation of this is the welter of US regasification projects that are being swiftly progressed through the US permitting process. Equally, a similar market, the UK, now has a similar rush to add capacity. However, the development in regasficiation is actually the first, rather than the last part of the chain. Effectively this is establishing a market for the gas. Some companies are planning regasification terminals well ahead of their ability to supply their own LNG – the current tightness in global LNG supply suggests they will not find it easy to fill their terminals if they do indeed go ahead.

The US experience of Sempra is telling. The company successfully won the permits some time ago to build a major LNG regasification terminal in Louisiana, with few if any local opposition issues, and became the first company to have the right to add new regasification capacity to the US gas market. Since then, nothing has happened. No supply.

Furthermore, the expense of the terminals means they will not be built without supply – a company committing to a speculative LNG terminal would be taking a horrible risk on $600m of investment that at best will earn a utility return. The chain in LNG is stronger than ever – it is a capital commitment chain.

So, given the economic rationale and the scale of the opportunity, there is no shortage of LNG project concepts *per se*. However, actual physical development is not enormously high, when considered, for example, against activity in global oil. Global oil and gas demand both grew at around 2% last year, which in the light of the far greater size of the global oil market (whereby absolute growth in oil demand, at ~1.5mmb/d in 2003 was three times greater, than gas, at ~0.5mmb/d). Furthermore, the natural declines in oil, which are far less of an issue for gas production (ex-US and North Sea), present a picture of a global gas market that is not developing as fast as a prediction made five years ago would have foretold.

Given the economic arguments, the inter-related questions become

1. Why there is not more LNG being developed currently?

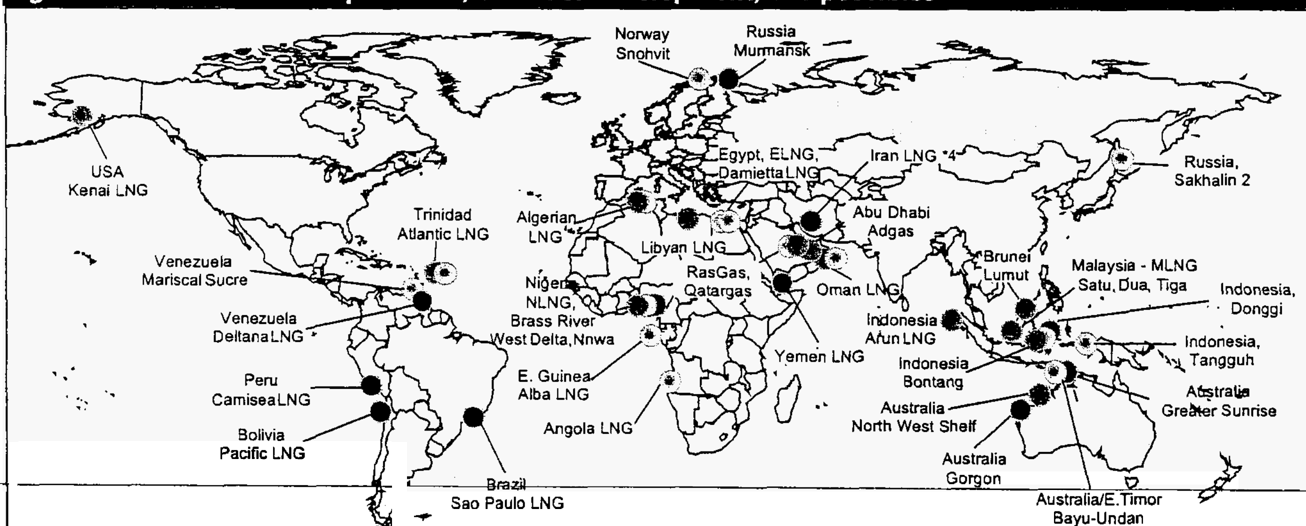
2. Can the potential rush of LNG projects really be simultaneously developed?

PEF 001075
DOCK NO. 040817-EI

Why is there not more LNG growth?

The lack of near-term supply in LNG is a function of the complexity and size of putting together a LNG project. There is a large inventory of projects under development.

Figure 20: Global LNG: 12 operations; 15 under development; 12+ possibles



- Existing LNG Projects
- Probable LNG Projects (or under construction)
- Possible LNG Projects

2003 Performance
+ ALNG T8 – Operational as of May
+/- MLNG Tiga Tr1 – Major explosion
+ MLNG Tiga Tr 2 – Oct 2003

2004 Outlook
+ NW Shelf Train 4 – July 2004
+ RasGas 2, Train 3 – Q1 2004
+ Qatargas debottleneck- Q4 2004

- Algeria Skikda Major explosion
- Trinidad Strike/explosion
- Qatar minor explosion/incident

2005 Outlook
Egypt Damietta Tr 1 – Q1 2005
Egypt LNG Tr 1 – Mid 2005
Nigeria Tr 4 – June 2005
Nigeria Tr 5 – Nov 2005
Qatar RasGas Tr 4 – Q1 2005

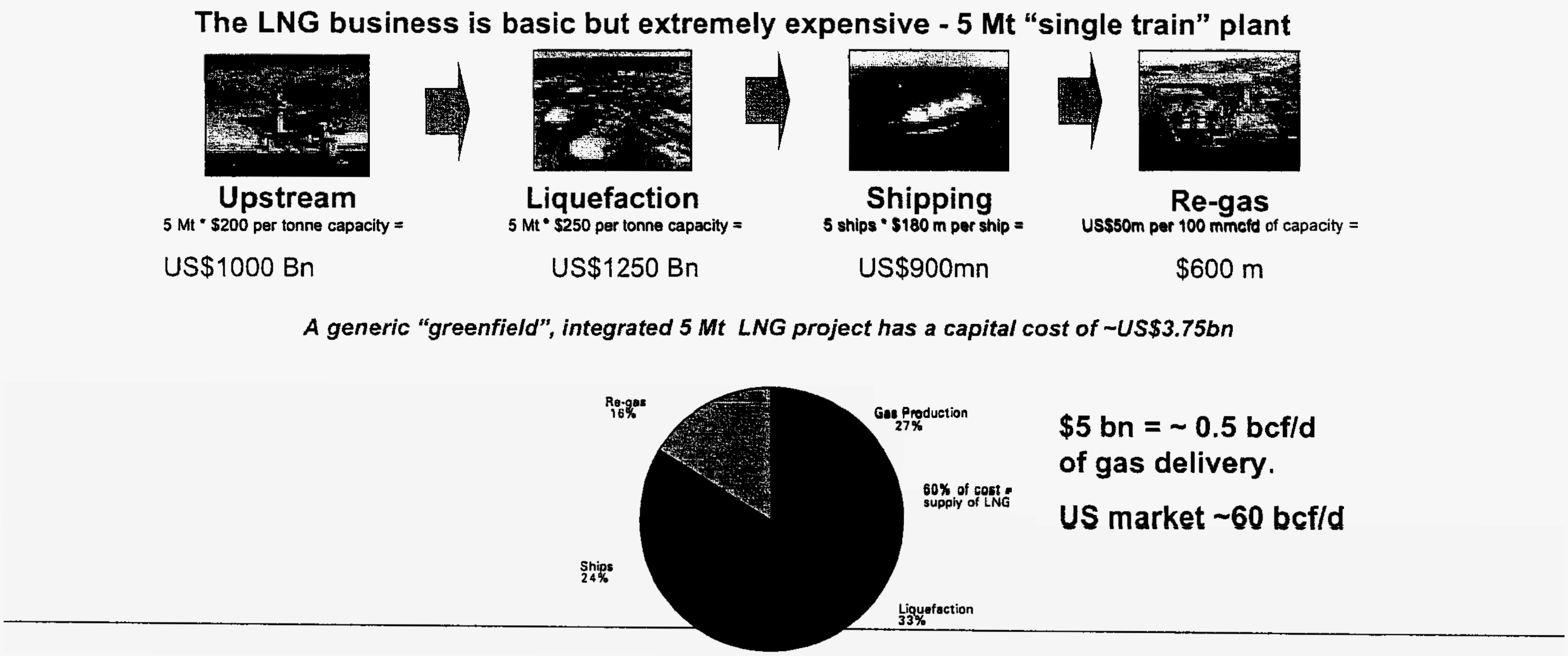
Source: Wood Mackenzie, Deutsche Bank

However, historically the industry has peaked at the addition of around four trains per year, averaging nearer two. This has represented a global LNG market growing at around 6Mt per year in the past decade. Growth in 2004 is expected by Deutsche Bank to double this rate, at around 12Mt.

As we have highlighted, there is a myth, actually being propounded by companies as well as less-informed investors, that you can build the regasification terminal and the supply will come (for "exploding myths" see below). In fact, the supply is the relatively expensive and tricky part – lobster fishermen in Maine are no less challenging than lobster fishermen in Angola – albeit for different reasons, and the investment in Angola is much larger.

PEF 001076
DOCK NO. 040817-EI

Figure 21: Costs and efforts are dominated by supply of gas, not regasification, which is the *easy* bit

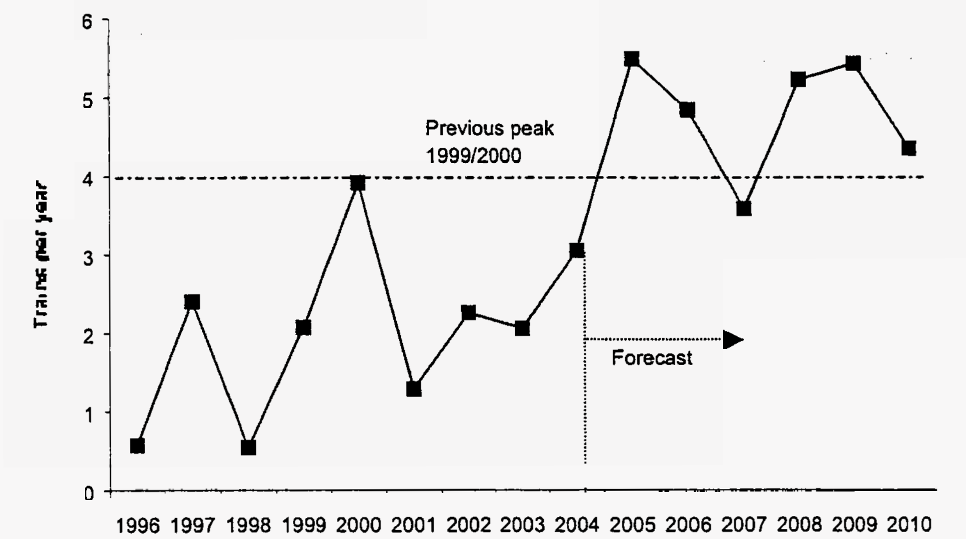


Source: Wood Mackenzie, Deutsche Bank

How fast can the supply grow? One of the interesting data points for future commitments to build LNG gasification plants comes from Air Products, which dominates the market for heat exchanger technology and the heat exchangers necessary to build LNG gasification. Until recently, the company has seen surprisingly little new order action given the implied requirement for new plant – although this is accelerating and is for much larger trains.

PEF 001077
DOCK NO. 040817-EI

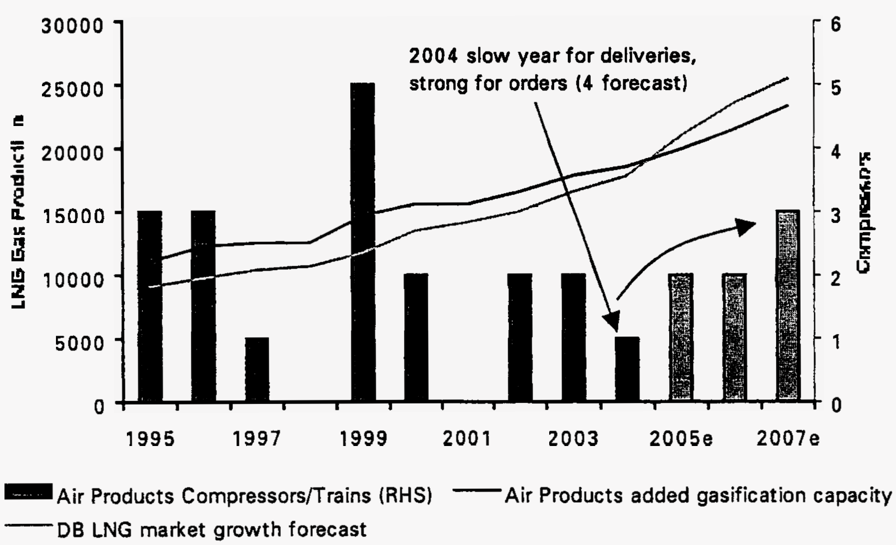
Figure 22: Annual capacity additions in global LNG



Source: Deutsche Bank estimates

The build time on Air Products' compressors is approximately 18 months. From that point it takes one to two months to ship the compressors and then around 12 months to install at the site, and will then need further work. On balance, between an order and first LNG is around three years at best. The fact is that 2004 comes as a lull in deliveries.

Figure 23: Air Products' trains built per year, supply created per year



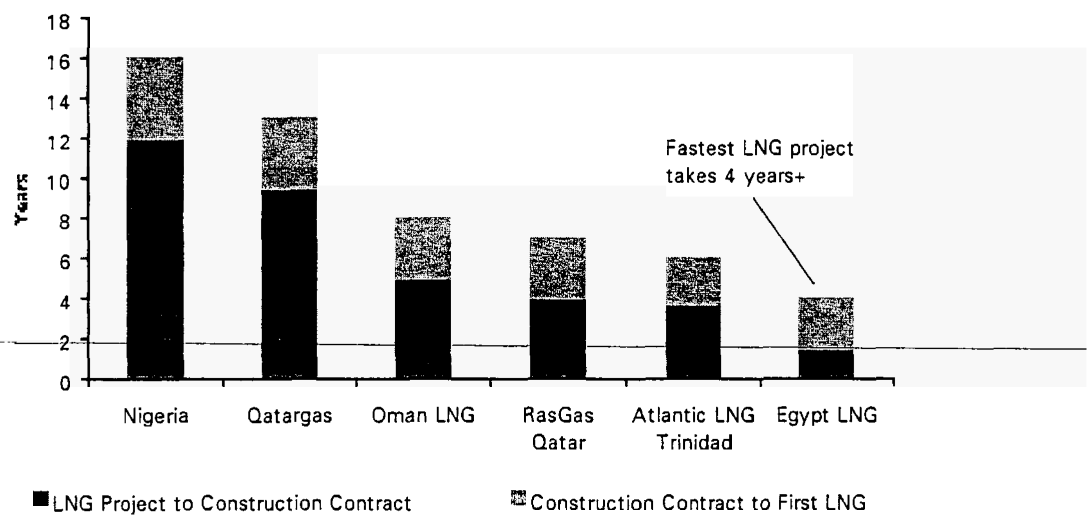
Source: Air Products, Deutsche Bank

PEF 001078
DOCK NO. 040817-EI

Air Products' peak performance was seven heat exchangers in a year, notionally a huge addition of some 42Mt of LNG in a given year for the new, super-large trains that are being developed by ExxonMobil at QatarGas II, for UK and US-oriented LNG projects. In fact, the company expects a large number of orders this year, four, for larger trains that will start up around 2009. However, there is no mistaking from the order book that we are currently suffering from a fairly muted number of orders between 2000 and 2003.

Of course, the Air Products experience is just one part of a complex set of developments. The very fastest developments now take around four years from decision to invest to first LNG, assuming they are delivered on time. We can be comfortable in our forecast for 2008 LNG delivery, as we have established the order book. There are no projects beneath our radar screen that will suddenly appear – it cannot be done. We have based our outlook for LNG supply on this background information.

Figure 24: Speed of development in global LNG: better but a long term process

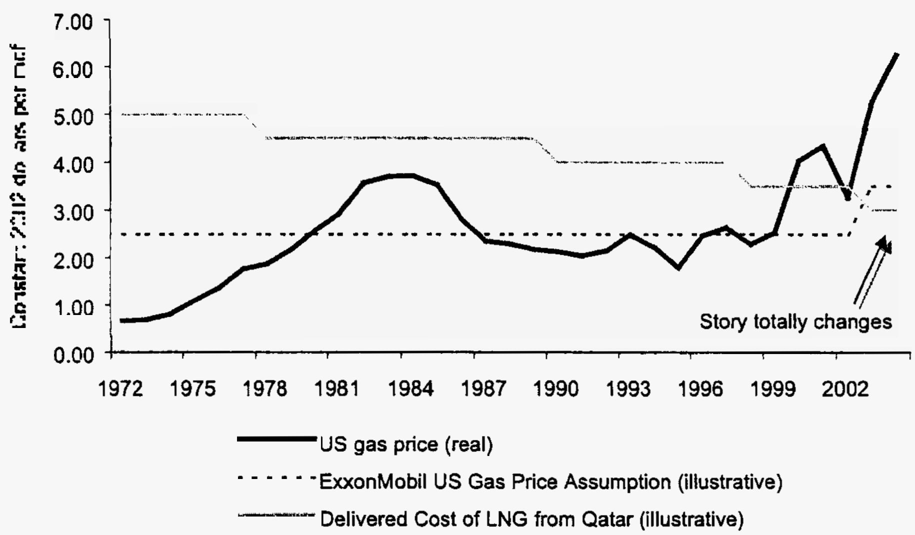


Source: BG

The length of time to develop LNG has combined with the overhang from the 1998/99 oil price crash and global oil industry consolidation. From a Major Oil company perspective, the reason for the relatively limited number of orders is partly a function of their five-year planning horizons. These mean that the oil price crash of 1998/99 and the low gas prices seen in the US market prior to 2000 are only just becoming discounted from the planning process. For example, only recently have we seen the super-major oils, which drive LNG development, move their planning assumptions from the $16 range to the $20 range, regardless of the $40 oil price.

PEF 001079
DOCK NO. 040817-EI

Figure 25: ExxonMobil's US LNG switch



Source: DOE< Deutsche Ban estimates

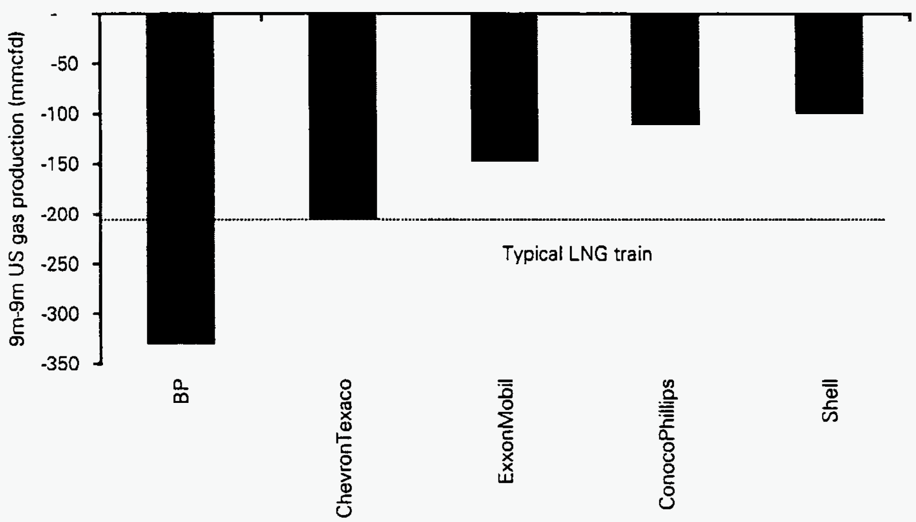
While ExxonMobil does not publish an oil price planning assumption as such, it *has* publicly raised its assumption for the US gas price, to ~$3.50 per mmbtu. The effect on commitment to LNG projects to serve the US markets is dramatic when combined with the lowered costs at Qatar. Historically a LNG sceptic, Lee Raymond (CEO of ExxonMobil) now leads the industry in terms of planned volumes into the global LNG market.

As a further example, it should be remembered that Trinidad's Atlantic LNG, a relatively recent development, was built with aggressively low costs because it was assumed to be likely to make a loss during the Boston summer low price season. Nobody was planning for today's price to be over $6 per mmbtu.

This underlines our thesis that global oil and gas, particularly US gas, is under-invested. Combined with much lower price elasticity of demand, whereby there is sustained strength in demand despite high prices, we are currently in a phase of higher oil and gas prices, while developments are underway to reverse a sustained period of under-investment since 1998 (see Figure 3).

PEF 001080
DOCK NO. 040817-EI

[redacted]



Source: Company Data, Deutsche Bank

Based on this LNG analysis, there is no ready solution to the shortage of US gas before 2010, given the precipitous decline rates in US gas production. In fact, the developments that are currently planned by ExxonMobil, ChevronTexaco and ConocoPhillips only serve to replace the gas production they will lose over the interim period between today's decline rates and 2009/2010 LNG delivery.

Conclusion: while overwhelmingly an attractive proposition from an economic standpoint, LNG is a major infrastructure challenge that will not be developed in sufficient quantity before 2010 to alleviate the high US, and global, gas price. Growth rates appear high but are from a low base. The grand theory that says LNG is the oil of the 21st Century is intact, but the century is just that, and LNG is being introduced in the decade 2000-2010, which is just the beginning.

PEF 001081
DOCK NO. 040817-EI

Global LNG: exploding the myths

Myths and facts in global LNG

The global oil market will grow by twice as much as the global gas market this year – but LNG is the hot topic. Clearly there is huge potential – however, myths have quickly developed. In this section we discuss some of the key misconceptions surrounding global LNG.

Myth	Fact
The LNG market is bottle-necked because of a lack of US regasification capacity: safety concerns and "nimbyism" prevent more capacity being added.	**Spare US regasification capacity is under-utilised because of a lack of LNG supply - at any price. Strong government and local support, particularly in the Gulf of Mexico, means there is clearly excess potential regasification capacity.**
Once sufficient ships and regas can be developed to deliver to the US, abundant international LNG is available at $3 per mmbtu.	**There are also currently spare LNG ships looking for supply.**
Already US gas prices are increasingly under pressure from LNG imports up 100% in the past year.	**US gas prices are still well above $5 per mmbtu despite a mild summer. Yet LNG only supplies around 1.5% of US gas demand - and supply is having to come from Australia to achieve that.**

Source: Deutsche Bank estimates

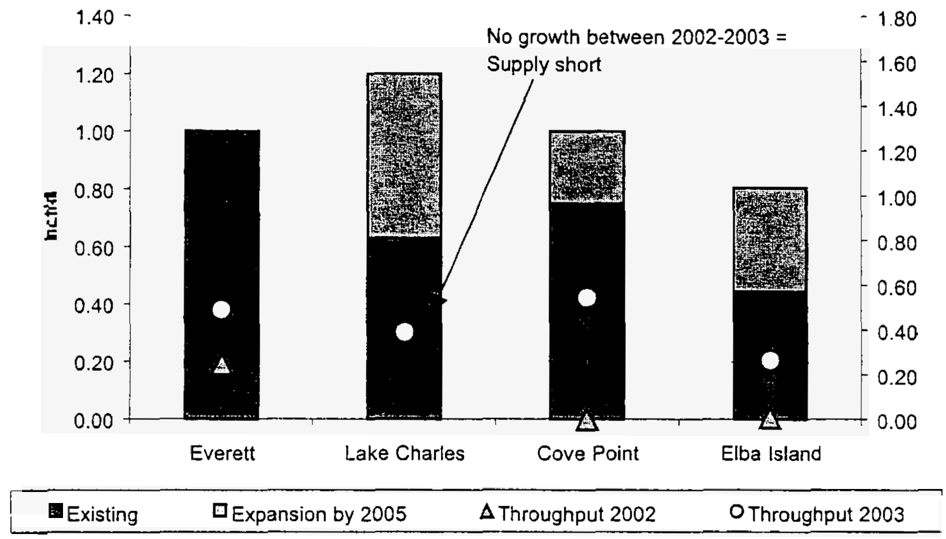
Myth: US regasification is insufficient to meet demand

Fact: there is no shortage of US regas, nor is there likely to be any in the future. This is perhaps the biggest single myth currently propounded regarding LNG: the difficulty seen in adding US regasification capacity, and the idea that this will represent a major bottleneck in the development of the US LNG market.

PEF 001082
DOCK NO. 040817-EI

1. First, currently there is spare capacity in US regasification terminals.

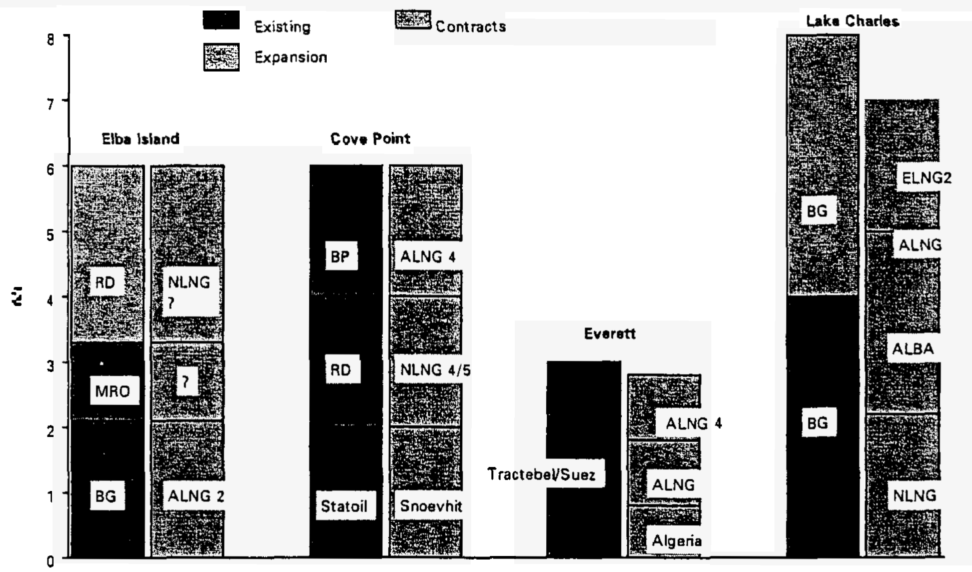
Figure 28: Plenty of spare capacity at existing US regas terminals



Source: Waterborne LNG report, Deutsche Bank

2. Second, even current expansion plans are not filled contractually, with Marathon and BG both holding excess capacity at existing plants. Even ignoring the fact that several major projects are planned without firm supply, existing commitments are not filled. Yet current plans for regasification are seeking to add extremely large quantities of additional capacity, with a further wave of capacity additions in their wake.

Figure 29: Corporate commitments to US regasification terminals, 2006

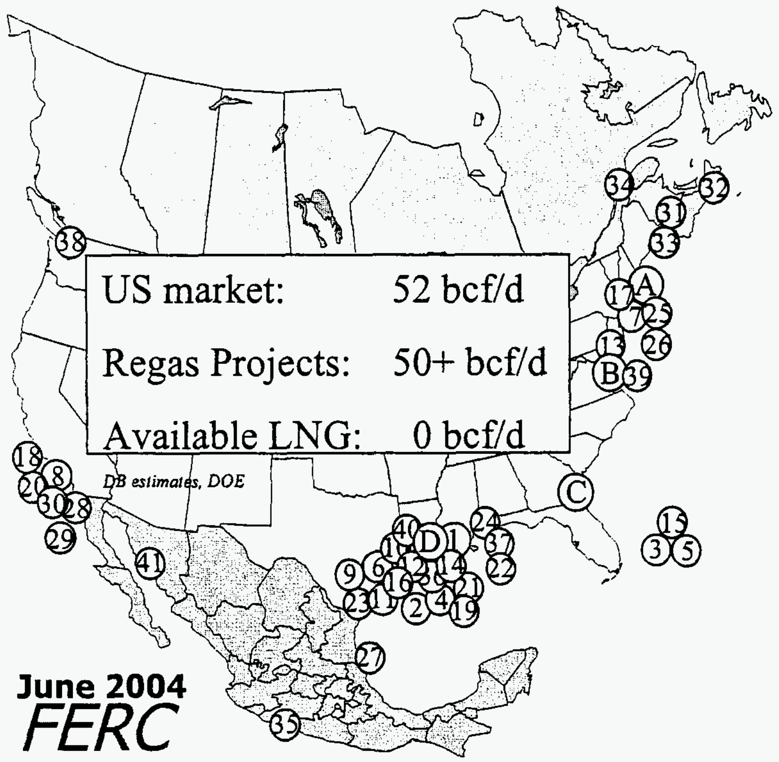


Source: Energy Bar Association, Deutsche Bank estimates

PEF 001083
DOCK NO. 040817-EI

3. Third, with support from the highest levels of US government, both the FERC and the Coast Guard have accelerated, and in the case of FERC relaxed, their permitting requirements. Projects are quickly being approved. In fact, there are far too many regasification projects currently being progressed.

Figure 30: FERC's list of current and future regasification plants: shortage? You're kidding...



Existing Terminals with Approved Expansions

A. Everett, MA : 1.035 Bcfd (Tractebel – DOMAC)
B. Cove Point, MD : 1.0 Bcfd (Dominion – Cove Point LNG)
C. Elba Island, GA : 1.2 Bcfd (El Paso – Southern LNG)
D. Lake Charles, LA : 1.2 Bcfd (Southern Union – Trunkline LNG)

Approved Terminals

1. Hackberry, LA : 1.5 Bcfd, (Sempra Energy)
2. Port Pelican: 1.6 Bcfd, (Chevron Texaco)
3. Bahamas : 0.84 Bcfd, (AES Ocean Express)*
4. Gulf of Mexico: 0.5 Bcfd, (El Paso Energy Bridge GOM, LLC)
5. Bahamas : 0.83 Bcfd, (Calypso Tractebel)*

Proposed Terminals and Expansions – FERC

6. Freeport, TX : 1.5 Bcfd, (Cheniere / Freeport LNG Dev.)
7. Fall River, MA : 0.8 Bcfd, (Weaver's Cove Energy)
8. Long Beach, CA : 0.7 Bcfd, (SES/Mitsubishi)
9. Corpus Christi, TX : 2.6 Bcfd, (Cheniere LNG Partners)
10. Sabine, LA : 2.6 Bcfd (Cheniere LNG)
11. Corpus Christi, TX : 1.0 Bcfd (Vista Del Sol/ExxonMobil)
12. Sabine, TX : 1.0 Bcfd (Golden Pass/ExxonMobil)
13. Logan Township, NJ : 1.2 Bcfd (Crown Landing LNG – BP)
14. Lake Charles, LA: 0.6 Bcfd (Southern Union – Trunkline LNG)
15. Bahamas : 0.5 Bcfd, (Seafarer - El Paso/FPL)
16. Corpus Christi, TX: 1.0 Bcfd (Occidental Energy Ventures)
17. Providence, RI : 0.5 Bcfd (Keyspan & BG LNG)

Proposed Terminals – Coast Guard

18. California Offshore: 1.5 Bcfd, (Cabrillo Port – BHP Billiton)
19. Louisiana Offshore : 1.0 Bcfd (Gulf Landing – Shell)
20. So. California Offshore : 0.5 Bcfd, (Crystal Energy)
21. Louisiana Offshore : 1.0 Bcfd (McMoRan Exp.)
22. Gulf of Mexico: n/a (Compass Port - ConocoPhillips)

Planned Terminals and Expansions

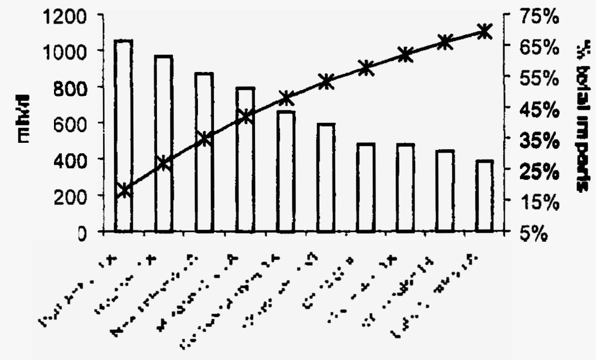
23. Brownsville, TX : n/a, (Cheniere LNG Partners)
24. Mobile Bay, AL: 1.0 Bcfd, (ExxonMobil)
25. Somerset, MA : 0.65 Bcfd (Somerset LNG)
26. Belmar, NJ Offshore : n/a (El Paso Global)
27. Altamira, Tamulipas : 1.12 Bcfd, (Shell)
28. Baja California, MX : 1.0 Bcfd, (Sempra & Shell)
29. Baja California - Offshore : 1.4 Bcfd, (Chevron Texaco)
30. California - Offshore : 0.5 Bcfd, (Chevron Texaco)
31. St. John, NB : 0.5 Bcfd, (Canaport – Irving Oil)
32. Point Tupper, NS 1.0 Bcf/d (Bear Head LNG - Access Northeast Energy)
33. Searsport, ME : n/a
34. St. Lawrence, QC : n/a (TCPL and/or Gaz Met)
35. Lázaro Cárdenas, MX : 0.5 Bcfd (Tractebel/Repsol)
36. Gulf of Mexico : 1.0 Bcfd (ExxonMobil)
37. Mobile Bay, AL: 1.0 Bcfd (Cheniere LNG Partners)
38. Cherry Point, WA: 0.5 Bcfd (Cherry Point Energy LLC)
39. Cove Point, MD : 0.8 Bcfd (Dominion)
40. Port Arthur, TX: 1.5 Bcfd (Sempra)
41. Puerto Libertad, MX: 1.3 Bcfd (Sonora Pacific LNG)
******US pipeline approved; LNG terminal pending in Bahamas*

Source. FERC Deutsche Bank

Ultimately there should be relatively few sites – the 16mmb/d US oil market is served by around 10 major import ports, with more than 50% of imports coming through the Gulf Coast. Given that LNG does not even come close to representing the scale of the oil import challenge, 32 terminal projects for LNG is ludicrous. If the entire current US gas market was imported, it would represent 8mmb/d of oil equivalent – manageable with around 12 ports. Our numbers are conservative – we have not included oil products in our comparison, which account for a further 3mmb/d of imports, through the same channels.

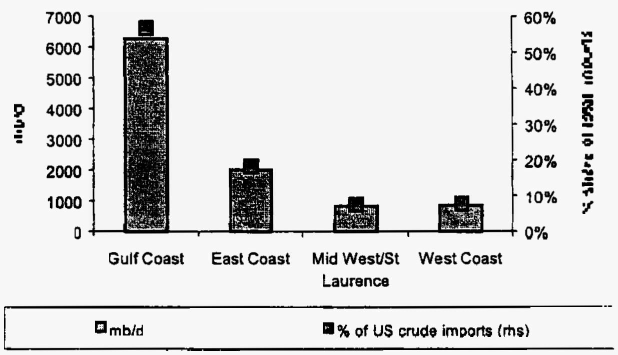
PEF 001084
DOCK NO. 040817-EI

Figure 31: Top 10 US crude oil import ports



Source: EIA

Figure 32: Crude imports by coast



Source: EIA

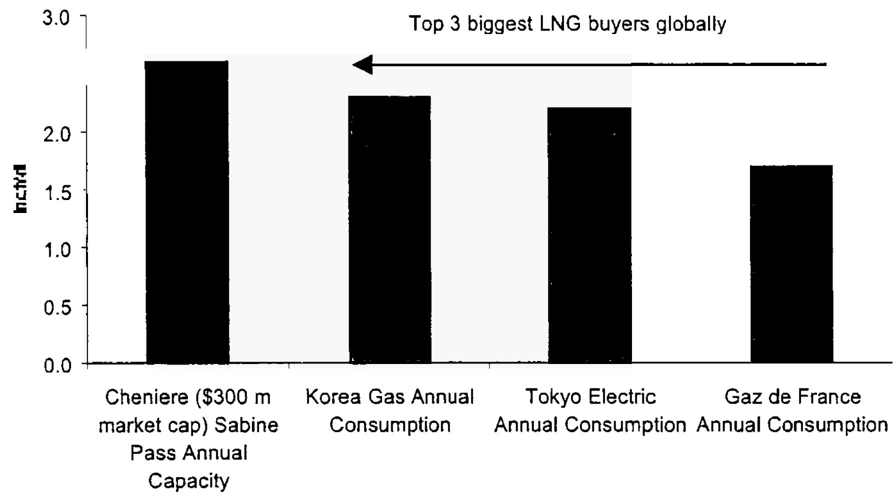
With the four existing LNG sites, and allowing for the at least two sites likely to progress in Mexico, but not allowing for any additions in Canada, there may only be a need for three or four more sites of the scale of current projects. Most US regasfication projects are large to begin with, typically 1.5bcf/d, and talk about expansions to 2.5bcf/d, e.g. ChevronTexaco's Port Pelican; Cheniere's Sabine Pass. The largest oil import port in the US handles the equivalent of 6bcf/d of gas equivalent. Cheniere, planning for 2.6bcf/d, is thinking big.

That means that no more major regas terminals need to be permissioned – beyond those already approved by the FERC. (Canadian projects follow local government permitting and have stronger local support. However, they are distant and require additional pipeline infrastructure to reach US markets.) Certain niche opportunities, however difficult in terms of local opposition and permitting difficulty, such as in the North East US, are likely to be pursued, regardless. That is because the economic opportunity is so overwhelmingly strong. North East markets enjoy an even greater premium price than wider US gas markets, and as such provide enormous potential returns for those who can go through the pain of the NIMBY. Many are currently undertaking that process. Some will surely succeed.

Establishing which terminals progress is a function of which terminals can get supply of LNG. This is where a market leader such as Cheniere may struggle – beyond its tremendous success in signing a full capacity and capex commitment with ConocoPhillips (1bcf/d + all capex undertaken by ConocoPhillips) and Dow Chemical (500mmcfd offtake) for its recently approved Freeport project. Cheniere is now progressing two plants of tremendous scale in LNG terms – at 2.6bcf/d, each one represents a bigger buyer than any existing LNG buyer in the market, such as Korea Gas (2.3bcf/d), Tokyo Electric (2.2bcf/d) or Gaz de France (1.7bcf/d), the three biggest global LNG buyers). Again, this speaks to our key point: regasification is not the issue, supply is.

PEF 001085
DOCK NO. 040817-EI

Figure 33: A new mega-volume player? Cheniere needs one...



Source: Deutsche Bank Volumes shown are LNG purchses. Cheniere is currently progessing THREE major projects for US LNG regasification

Scale is huge because the costs are high, either for projects being developed in the swamps of Louisiana, with the associated construction costs, or offshore Gulf, with the associated higher capital and operating costs. A typical LNG regasification plant in Europe might be a 300mmcfd project with a $250 m cost. Port Pelican is $600m at least, as a major offshore project with attendant construction costs, and therefore must target huge volumes to make unit costs reasonable. Equally, where construction is not hampered by NIMBY-ism, which to date is primarily in Louisiana, the topography is swamp – hence the lack of back yards. Again, construction costs are very high and as a result, major quantities will need to be imported.

To repeat, there is no issue with regasfication capacity in the US market.

PEF 001086
DOCK NO. 040817-EI

Myths: LNG is unsafe and unpopular; the FERC is suspending approvals because of safety issues and LNG ships are ideal for terrorists

Fact: LNG is relatively safe and is supported by locals in sufficient areas of the US to meet the need for additional regas and the FERC recently posted a safety briefing on its website[3] that concluded that it might conceivably be possible to cause an LNG explosion, though extremely difficult.

Subsequently the erroneous story circulated that the FERC would not permit any more regas terminals until more work was done on safety. This is not true and the FERC has subsequently approved Freeport LNG in Texas.

Figure 34: There's a propane canister in every back yard...and they are relatively dangerous

LNG - Liquefied Natural Gas	LPG (Liquid Petroleum Gas i.e. Propane/Gas Canister)
Frozen, liquefied gas - ie not explosive. Unpressurized - ie container not under pressure, ie not explosive	Pressurised gas ie explosive
Lighter than air - ie does not hang in clouds but dissipates quickly. Requires gasification and then containment (ie indoors) as natural gas to present a risk of explosion.	Heavier than air - ie hangs in clouds, does not dissipate naturally. Will explode outdoors.
High degree of safety required under global standards set by Japanese	Fragmented safety standards in industry dominated by emerging markets
Highly maintained fleet of ships	Fragmented, less controlled fleet of older, less maintained ships
Never present in back gardens. Never exposed to naked flames (would extinguish naked flame)	Present in almost every US back yard. Frequently adjacent to exposed to naked flames - ie adjacent to a barbeque

Source: Deutsche Bank estimates

One of the most bizarre objections to LNG has been the possibility that terrorists may use the ships as "Trojan horses" to enter the US. Unfortunately, in a world of pre-9/11 security, it does seem that Al-Qaeda operatives may have used Algerian LNG tankers as a means of entry to the US. However, most of them entered by more conventional means and if anything, LNG tankers are less attractive modes of transport to terrorists because of their high profile and high safety requirements (Coast Guard escort into Boston with a closed harbour. Boston anyway no longer takes Algerian deliveries.) Again, the more fragmented global oil trade would seem to provide a more worrisome potential target. There has to be a recognition that the US cannot depend on imported oil and gas for more than 50% of its needs, and have no ships landing from the Middle East. Security has to be as tight as possible, but no more so for LNG than for any other import ship.

PEF 001087
DOCK NO. 040817-EI

[3] *Consequence Assessment Methods for Incidents Involving Releases from Liquefied Natural Gas Carriers, www.ferc.gov*

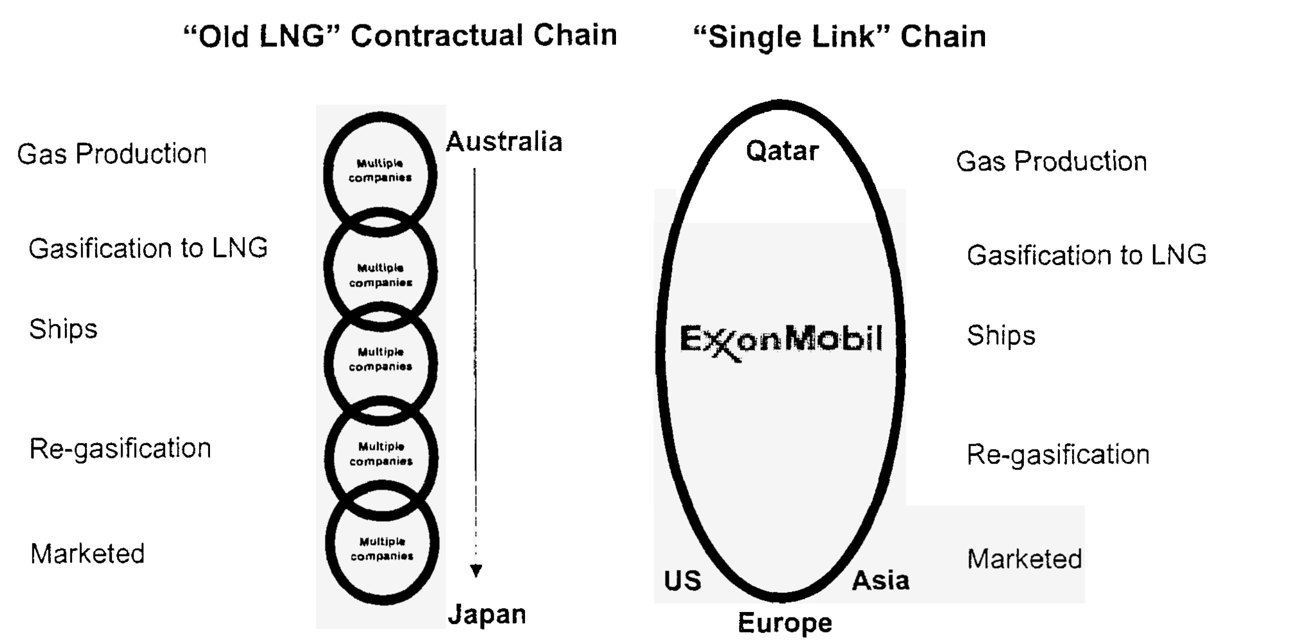
Myths: there is a "new LNG" model that has destroyed the LNG "chain", buyers have the power...and there is a spot market developing in LNG

Fact: the "LNG chain" is now stronger than ever. The cutting edge model is the "single link" chain model. This is a threat to buyers. It also effectively prevents a spot market.

The leading edge of volume growth is now ExxonMobil in Qatar and Shell in Sakhalin II, Russia. These companies are now building the upstream, pipeline, gasification, LNG ships, LNG receiving terminals and marketing the gas themselves. By contrast, the "old LNG" model on the North West shelf was partnership produced gas sold to partnership ships and marketed by Japanese partnerships to multiple buyers. In the ExxonMobil Qatar model, the company is seller and buyer of the gas. BG is using a similar tactic, highlighting not only its position as a major future producer of LNG, but also as a major future buyer.

It is worth noting that a chain, by its nature, is flexible. As such, "single link" players can move LNG to wherever prices are most attractive, potentially leaving uncontracted buyers short of gas, i.e. the US market currently. Under "single link" LNG, buyers must move to secure their own supply. Japanese utilities are increasingly entering the "single link" model themselves, by moving upstream into the model. At ConocoPhillips' Bayu Undan, Tokyo Electric and Tokyo Gas have participated in the "single link" model to supply themselves with gas. This is not a spot market – it is the opposite.

Figure 35: The "LNG chain" is strengthening as scale increases



Source: Deutsche Bank estimates

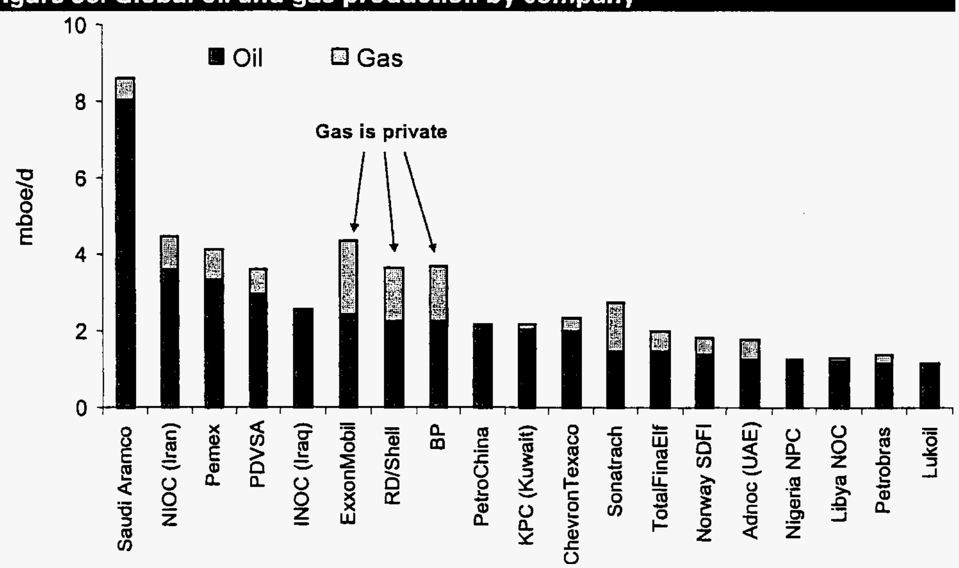
PEF 001088
DOCK NO. 040817-EI

One of the key reasons that the chain is strengthening in LNG is that the scale of individual projects is increasing, making the need for certainty in terms of commitments absolutely vital. Seven million tonne trains and $1bn regas proejcts cannot be built on a speculative basis. The relatively small scale of energy delivered in LNG compared to the capital commitment means that a spot market will only develop amongst those who get their developments wrong. Those who hope to buy LNG on a spot basis from ExxonMobil are certainly getting it wrong.

Myth: the next development is Gas OPEC

Fact: no governments could cartelise an early-phase market in development without killing it. Global gas is developing as a private opportunity. The real question is whether we are on the cusp of the development of a gas Standard Oil – as global gas transport monopolies are currently under development. Nodes of production and means of transport to controlled points of distribution are all absolutely necessary to allow for the development of global LNG in this first phase. As we have already stated, in viewing LNG as the oil of the 21st Century, it must be recognised that we are still at the beginning of the century. The chained model described above, where, for example, ExxonMobil dominates the lowest cost supply from Qatar and has the lowest cost delivery of that gas anywhere globally, will allow companies to dominate their own LNG supply routes to their own advantage. This is absolutely necessary because of the scale of the capital requirement. The consumer will benefit from lower priced cleaner energy than is currently available. Companies are moving to supply a major global need for clean fuel, and are can only do that by contractually protecting their financial commitment.

Figure 36: Global oil and gas production by company



Source: PIW and Deutsche Bank

The latest move by the FERC, in attempting to encourage more US regasficiation development, has been to remove the need for new US regas terminals to offer open access. This is a classic example of local government encouraging early phase market development, by making it extremely attractive to developers, by facilitating the protection of their return on investment.

PEF 001089
DOCK NO. 040817-EI

Of course, that may ultimately lead to a major low cost producer, such as Venezuela or Qatar, delivering into one huge monopoly terminal to the exclusion of other suppliers. A supplier could then theoretically make a monopoly profit while driving out alternative supplies. According to the major potential suppliers from Qatar, such as ExxonMobil and ConocoPhillips, this model should be in place by 2010 – at which point the FERC will need to exercise extremely close scrutiny on gas market behaviour. Equally, in the much longer term, excess profits from LNG may come under scrutiny from needy host governments – this would be Gas OPEC. According to the schedule of the oil market, that should occur from around the beginning of 2060.

PEF 001090
DOCK NO. 040817-EI

Myth: the LNG industry has made a breakthrough on costs

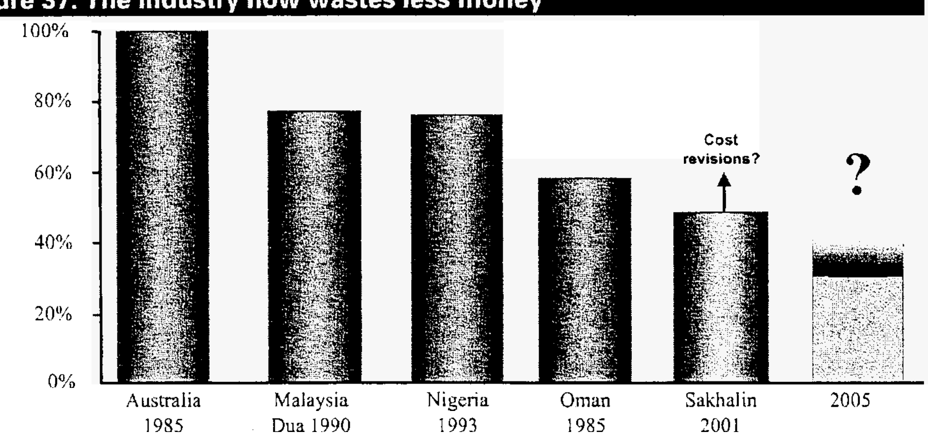
Fact: the industry has just stopped wasting money. The original "new LNG" model, which we identified in 1999, was a means of highlighting how the Trinidad LNG project was different from previous LNG projects built under the Japanese utility model. The primary 'difference' regarding "new LNG" was lower costs. Through several initiatives, the Trinidad plant had lower capital costs than had become the LNG norm. There was no technological breakthrough, there was no major innovation other than in driving down costs to the very minimum, mostly simply by applying standard operating procedures in the oil business to the arcane world of Japanese-utility-dominated Asian LNG. With Japanese utilities selling gas at $24 per mmbtu, and primarily concerned with security of supply, cost was low on the list of priorities. The North West Shelf gas project was a high watermark in terms of excess cost and poor returns for LNG. Shell now uses it to benchmark its improved cost performance.

1. At Trinidad, netback pricing was introduced whereby the price received by the gas producers was set by back-calculating from the price at which the gas was sold. While totally standard practice in the oil market, this was a LNG innovation. The risk of netback pricing (because of fluctuating US gas prices) meant that costs became a priority. Previously they had not been.

2. Competitive tendering was introduced at Trinidad for the technological process and for the first time since the late 1960s. The "Phillips Cascade" method was chosen as the LNG process, and by re-introducing competition amongst technologies, costs at Trinidad took a step down. Competitive tendering was hardly a stunning innovation...what was stunning was that it wasn't being used until the late 1990s in the LNG business.

3. Where Trinidad got it wrong was scale. Cautiously put together, the project did not have a very large site and was developed as a niche plant. The developers did not realise how high the US gas price would go. In fact, the higher US gas price, and global gas price, is a bigger factor in the competitiveness of LNG than any reduction in costs. US gas prices have risen 200% from long-term historical averages in 2004, LNG costs have been driven down, but primarily future cost savings will be due to scale. At best, we estimate unit costs may have another 20% to fall.

Figure 37: The industry now wastes less money



Source: Shell

Chart shows EPC cost, normalised on location relative to NWS project
Source: Shell., Wood Mackenzie

PEF 001091
DOCK NO. 040817-EI

Myth: there is excess LNG supply

Fact: the LNG market is tight and there is no major supply overhang developing, far from it. Historically, the LNG trade was based on security of supply, with Japanese utilities leading the development of the industry as a reaction to oil price shocks. As a result, the industry was built with a considerable amount of spare capacity, with the Japanese running contracts to buy gas over a 20 or 25-year period with around 10% flexibility on annual volume offtake. Broadly speaking, as a result, the LNG business developed with around 10% spare capacity at mid-cycle.

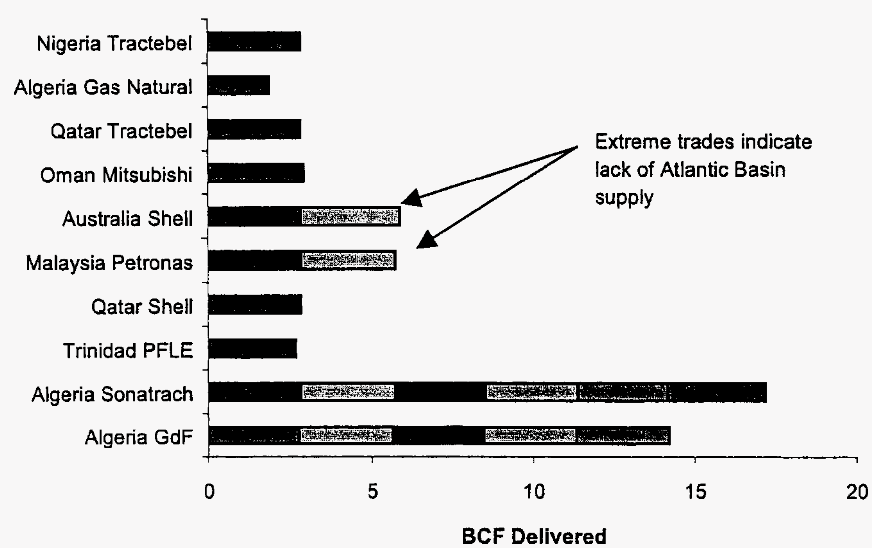
Three major factors have tightened global LNG supply over the past five years.

1. Having found itself with huge excess quantities of LNG in the Asian economic crisis of 1998, South Korea began to run down its excess contracted LNG volumes. South Korea optimised its position in the supply and demand balance by offtaking spare Japanese cargoes on a spot basis. However, the major nuclear scandal at Tokyo Electric shut down 17 nuclear reactors and resulted in a tightness of LNG supply into the cold winter of 2002/03, which left the Koreans scrabbling for LNG volume. As a result of the energy shortage the country found itself in, the Koreans and Japanese have moved to commit to more volumes, and there has been relatively little spare LNG available.

2. More extreme weather in Europe, particularly the super-hot summer of 2003, and normal winters have sucked in LNG to supply strong demand for gas.

3. On the supply side, a surprising number of plant outages. These started with a pipeline issue at Bontang in 2002, continued with an explosion and outage at the brand new Malalysia Tiga project in 2003, then saw a major explosion at the Algerian Skikda plant in 2004, and outages in Qatar and most recently in Trinidad. All these elements have conspired to tighten the global LNG balance just as oil has become an expensive alternative fuel. At the same time in 2004, there is no new project start up, but the first demand from India and US terminals such as Cove Point. That is, demand is outstripping supply.

Figure 38: January to June 2004 LNG deliveries to Lake Charles



Source: Waterbourne LNG report

PEF 001092
DOCK NO. 040817-EI

There are around four LNG ships currently idled – indicating, when combined with spare capacity at US regasification facilities, that there is a lack of available supply. Equally, an analysis of the provenance of LNG currently being delivered into the US markets shows some extremely distant trades, and to that extent implies that Atlantic Basin LNG supply is short.

PEF 001093
DOCK NO. 040817-EI

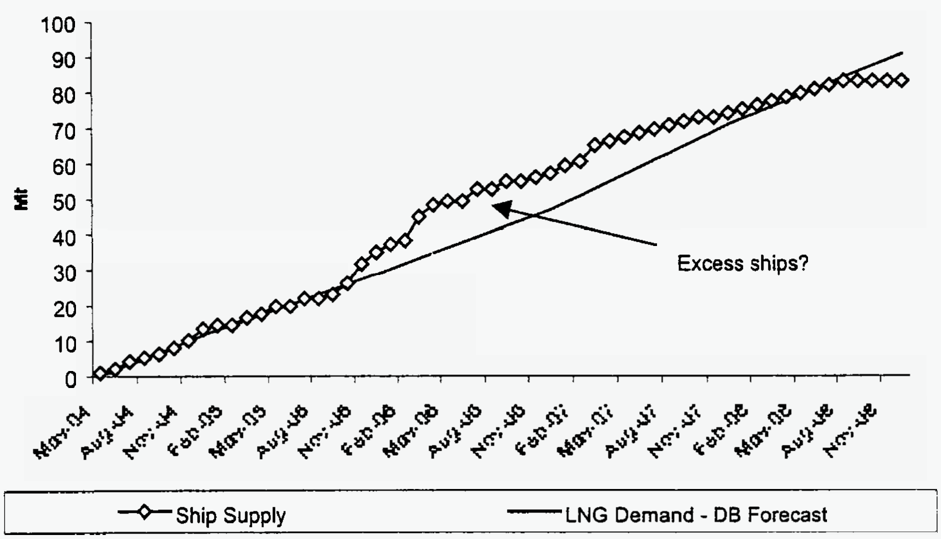
Myth: there are insufficient ships to meet future demand for LNG

Fact: there is currently a surplus of ships and arguably there is a bigger surplus developing in the near future (see Figure 39). The "speculative build" has been much faster to develop in the world of shipping – with its higher risk capital – than in the world of LNG supply.

It has to be said that precise matching of the ship capacity vs. demand line is not possible as ships can deliver more or less LNG depending on the length of their voyage. An alternate explanation of Figure 39 would be that the LNG industry is entering a phase of longer ship voyages, which fits with the development of such trades as Egypt-USA and Qatar-USA, rather than the more logical, economic and profitable Trinidad-USA or Venezuela-USA.

As an aside, the failure of Venezuela to develop LNG for the delivery into the US market is one of the great missed opportunities of recent times. Venezuela's LNG industry has been on the drawing board since the early 1970s – and it was potentially profitable then! It is rightly to the embarrassment of Venezuelan petroleum executives that smaller Trinidad, with less gas reserves and a less established oil industry, has succeeded in developing the largest Atlantic Basin LNG plant over the past seven years. Having said that, Trinidad itself was many years at the development stage before commitment was made to the plant development.

Figure 39: LNG ship supply and Deutsche Bank's global LNG demand forecast



Source: Clarksons, Deutsche Bank estimates

PEF 001094
DOCK NO. 040817-EI

Myth: LNG will crash (or cap) the US gas price

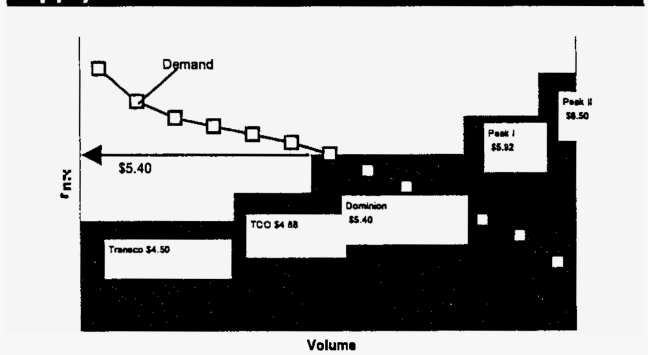
Fact: insufficient supply potential into the US markets makes LNG a marginal, regionalised fuel until beyond 2010. Shorter term, the price impact of LNG onto the highly regionalised US gas market is impossible to predict. A marginal cost of supply curve is extremely difficult to create accurately into a declining gas market that is rapidly shifting in terms of cost of supply and price of demand.

1. Existing incumbents are leaving their production behind (i.e. ExxonMobil, ChevronTexaco selling out of US onshore). However, aggressive newer players (XTO, Encana) are entering to re-vitalise many mature areas. Whilst production per well and other measures are clearly falling, the new era of aggressive investment in US domestic gas – at a higher gas price assumption – is only beginning.

2. Furthermore, the impact of new infrastructure on marginal price curves is large and unpredictable. There is an argument that says that Enron and its impact on the US gas transmission business has prevented the development of sufficient US pipeline infrastructure to meet supply and demand efficiently, hence today's extreme price environment. Major price disconnections are possible, but are unlikely to last long. BG is quite open that it was surprised at the price impact individual cargoes of LNG had on Lake Charles' local pricing, but that they would add infrastructure to alleviate the problem of a single offtake pipeline.

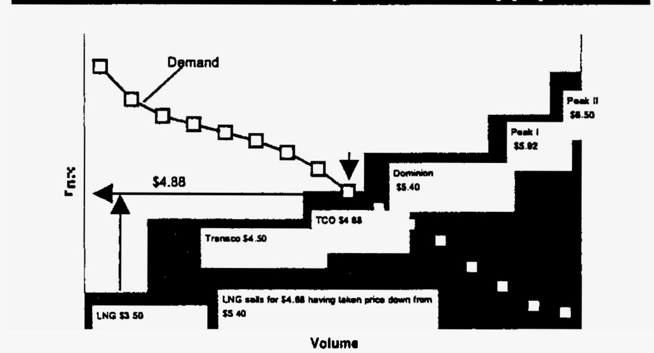
3. Regionally speaking, LNG is likely to have a fairly dramatic impact on prices, at times disproportionate to the additional volumes being delivered, because it will shift the marginal supply curve, potentially away from a relatively small volume of gas production at a relatively high price (see Figures 38 and 39). Equally, the net effect may simply be to free up relatively high priced gas that may not find a market elsewhere.

Figure 40: Before LNG, gas prices to marginal supply



Source: Energy Bar Association

Figure 41: After LNG, a potentially significant shift as it enters at the lowest part of the supply curve



Source. Energy Bar Association

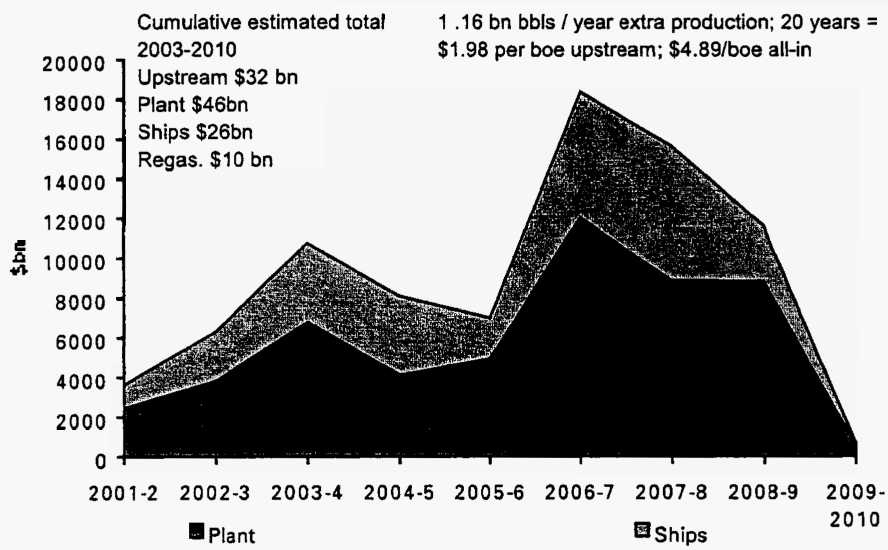
PEF 001095
DOCK NO. 040817-EI

Who wins?

With gas prices high and volumes tight, who can deliver?

With LNG deliverable globally at $3 per mmbtu, the higher US gas price represents a huge opportunity that we think companies will rush to fill. We reiterate our long-standing forecast of major increases in LNG capital spending over the coming years (and decades). Companies with exposure to this are Buy-rated stocks: Halliburton; Technip; Chiyoda, and Air Products. Additional plays on the theme are Snam (SRG.MI, EUR 3.5, Hold), Chicago Bridge and Iron (CBI, not rated), and Daewoo Shipbuilding (Not Rated).

Figure 42: Estimated capex in global LNG 2001-2010E



Source: Deutsche Bank estimates

Euphoria over some of the lower return elements of the business may be over-stated. We deny the emergence of a major traded spot market in LNG and consider the "LNG chain" to be strengthening and tightening in future, as projects become bigger, more capital intensive, and therefore more bound by contractual links. If the speculative, or spot, market was really here, surely one of the permissioned US LNG regasification greenfield projects would have started construction – they have not.

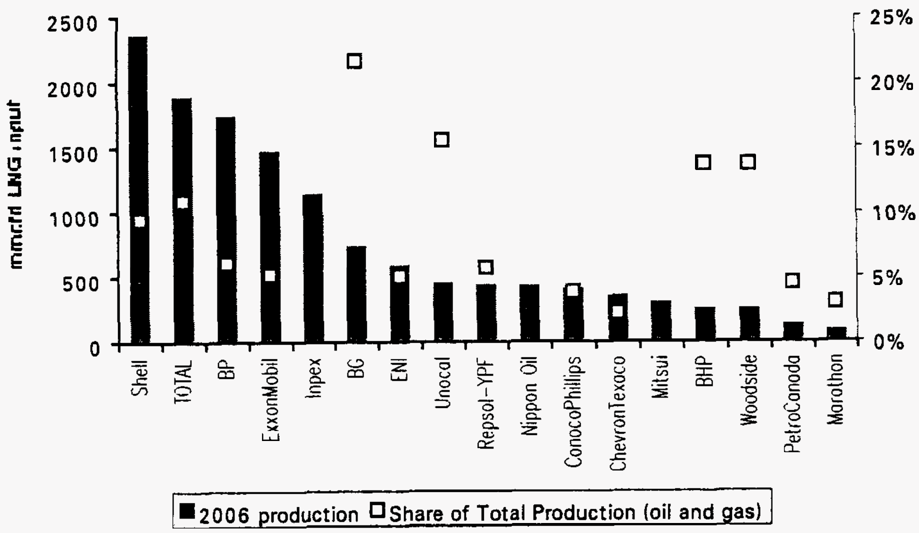
Certain LNG-exposed companies will make no more money from higher gas prices, and will be threatened by rapid growth, as they are essentially utility businesses. These are LNG shippers (Golar LNG, not rated; Teekay shipping, not rated) and LNG regasification plays (Cheniere LNG.A, not rated). However, these companies may be attractive take-out candidates within the theme of more tightly integrated contractual chains, e.g. if ExxonMobil needs a quick fix to its lack of US regasification capacity and if organic development proves too time consuming and frustrating.

Amongst conventional gas producers, where the highest returns and highest leverage to higher gas prices are to be found, the relative growth is with the traditionally dominant plays. These are Shell, BP, BG, TOTAL, ExxonMobil, Eni,

PEF 001096
DOCK NO 040817-EI

ConocoPhillips – companies that have invested heavily over the past five years and should now reap the rewards.

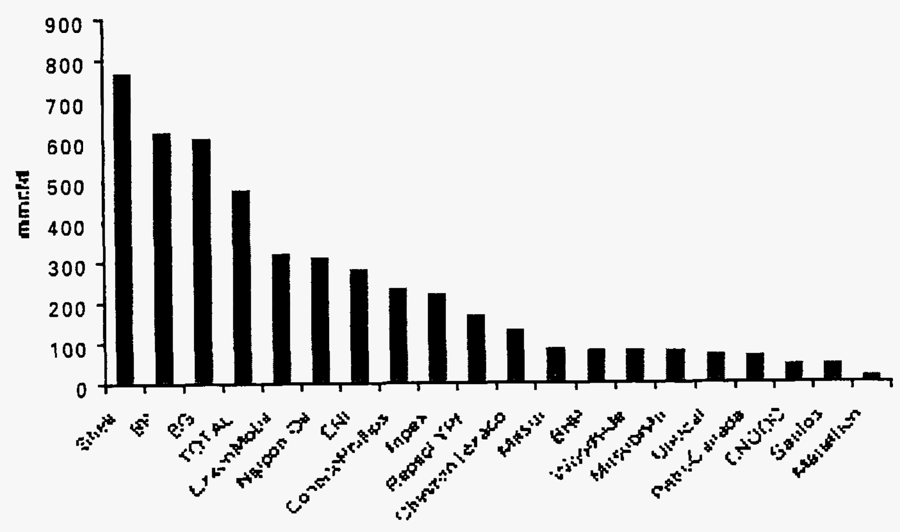
Figure 43: Gas into LNG production 2006E



Source: Deutsche Bank

Key growth names in LNG are the same names that dominate the industry in terms of overall value. The exception is the rise of ConocoPhillips and the lack of growth from Unocal. Our analysis shows that Repsol and ChevronTexaco also show growth in the 2007E timeframe.

Figure 44: Growth in gas into LNG 2003-07E

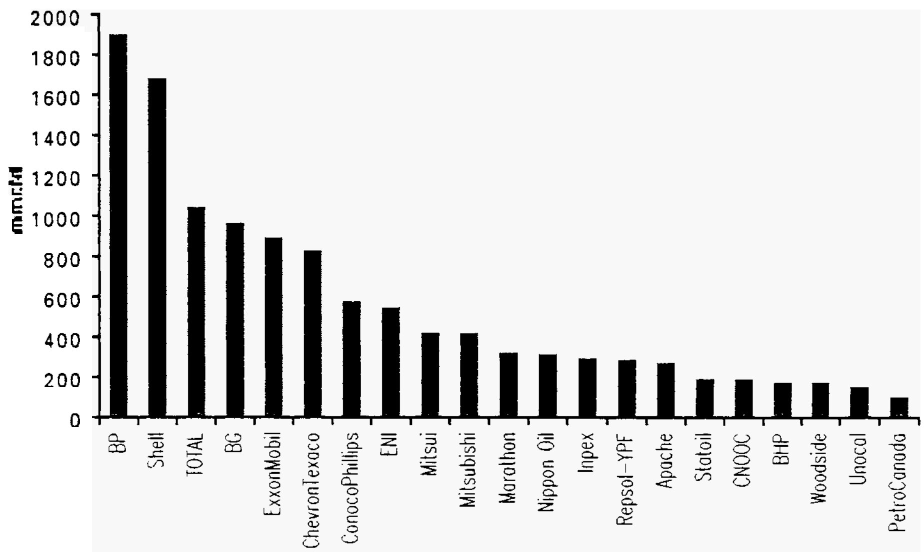


Source: Deutsche Bank

PEF 001097
DOCK NO. 040817-EI

Longer-term growth stories present some interesting additional companies. There is clearly a higher degree of uncertainty surrounding project deliveries in these numbers, but they provide our best-informed view of longer-term growth. BP is a winner through additional gas into Egypt's SEGAS project, which is by no means a certainty. Equally, BP will need to convert Trinidad 5 into a producing project before 2010 (not to mention Tangguh), for these numbers to be proved representative.

Figure 45: Growth 2003-2010E in gas into LNG production



Source: Deutsche Bank

Certain companies simply do not appear in the top 20 names in LNG. Occidental has no position before 2010, while Amerada Hess has such a small stake in Snoevhit that it does not register on the leader board. Marathon is very clearly the mid-cap US play on LNG. The US large caps accelerate their performance, but remain well behind their European counterparts in terms of LNG.

If the US gas market develops as expected over the period 2010-2020, then it may well be the US names, not least the US independents such as Apache from Egypt, EOG and PetroCanada from Trinidad, and possibly Oxy, Hess and ConocoPhillips from Libya, that will rise through the top names. However, these companies themselves would admit that they are playing catch up to such first movers as BG and the super-cap Europeans.

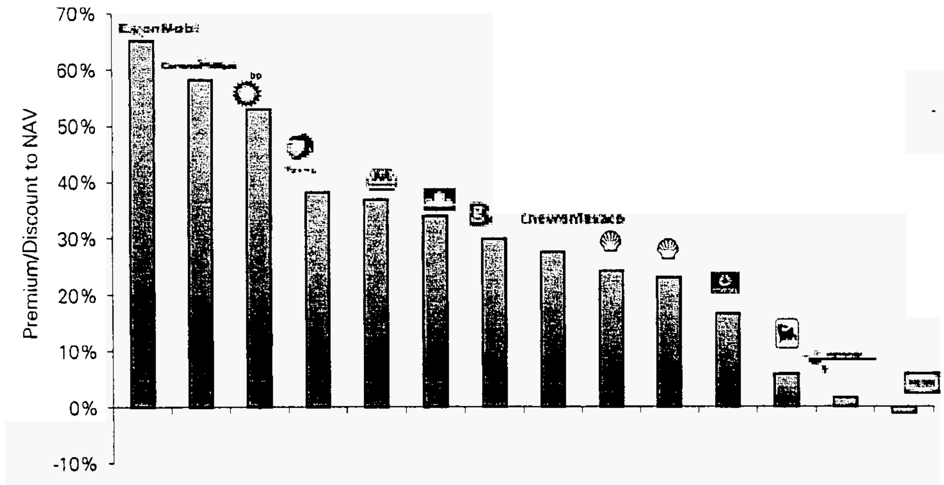
Risks: project development and management

Mismanagement could lead to enormous value destruction

Companies need to invest billions and must successfully manage the process, otherwise value destruction will be enormous. Projects are in risky places, either technically – such as the extreme Northerly Barents Sea for Statoil's Snoevhit, politically – such as Angola, the Middle East (Qatar), or from a labour dispute point of view – such as Trinidad. Companies that mismanage projects in development and operation are likely to cost shareholders literally billions. Investors must be convinced that they are entrusting their money to top quality managements, or be rewarded with an appropriately risked entry price. Unable, as we are, to judge managements objectively (at least in print), we point to NAV premium discount as the market's valuation of management quality.

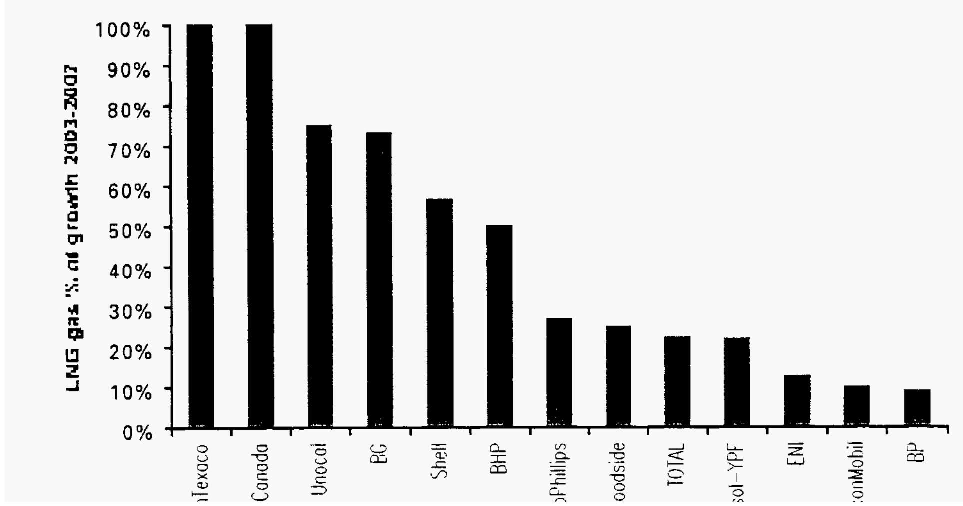
PEF 001098
DOCK NO. 040817-EI

Figure 46: NAV premium/discount – market's view of management quality



Source: Deutsche Bank, companies shown only integrated majors with LNG project exposure

Figure 47: Who needs LNG? Relative exposure to growth from LNG



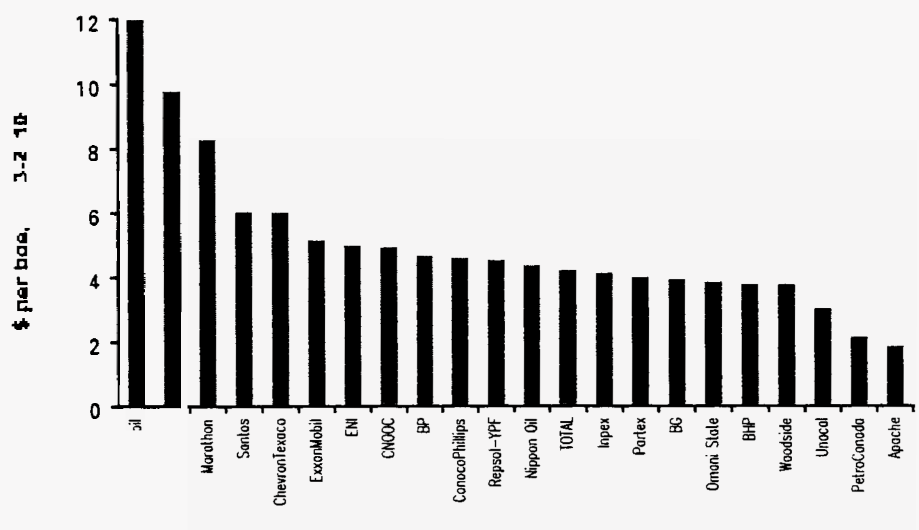
Source: Deutsche Bank

Who *needs* the LNG? As above, companies reliant on LNG growth and have few alternative volume growth drivers are most leveraged to LNG – ChevronTexaco and PetroCanada reveal themselves to be dependent on LNG for providing any kind of growth.

PEF 001099
DOCK NO. 040817-EI

An alternative risk calculation is capex per boe of production. Of course, this is problematic because pure boe production numbers do not capture returns on capital expenditure, nor investment this decade for growth next. Nevertheless, a first glance of approximate capex dollars per boe of additional production 2003-2010 throws up some interesting exposure to relatively high levels of capex for relatively little production over the next 10 years, particularly for Statoil and Shell. However, we stress that current pressure on book returns is likely to lead to longer-term high free cashflow as LNG drives gas delivery in the 21st Century. In other words, high capex for the next decade is not *necessarily* a bad thing, assuming projects are on time, on budget, and perform with long lives. However, history says the market will pay for growth now, not capex now.

Figure 48: LNG capex per boe of LNG gas production 2003-2010



Source: Deutsche Bank

PEF 001100
DOCK NO. 040817-EI

Appendix 1

Important Disclosures

Additional information available upon request

For disclosures pertaining to recommendations or estimates made on a security mentioned in this report, please see the most recently published company report or visit our global disclosure look-up page on our website at http://equities.research.db.com.

Analyst Certifications

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst about the subject issuers and the securities of those issuers. In addition, the undersigned lead analyst has not and will not receive any compensation for providing a specific recommendation or view in this report.

Paul Sankey

Rating key

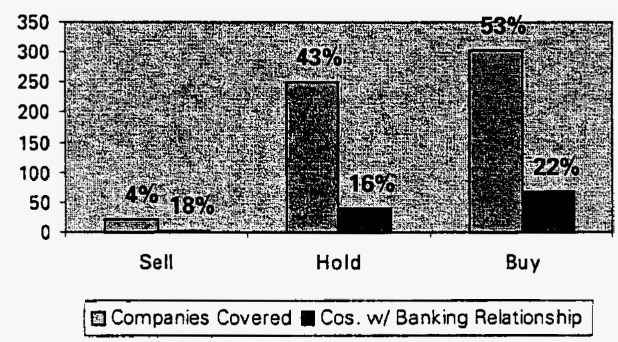
Buy: Total return expected to appreciate 10% or more over a 12-month period

Hold: Total return expected to be between 10% to –10% over a 12-month period

Sell: Total return expected to depreciate 10% or more over a 12-month period

The target prices of shares mentioned in the accompanying text are based on the assumed investment horizon of 12 months. If company notes are published on these shares in the future, the target prices mentioned in the subsequent notes will have priority.

Rating dispersion and banking relationships



North American Universe

PEF 001101
DOCK NO. 040817-EI

Deutsche Bank Securities, Inc.

North American locations

Deutsche Bank Securities Inc.
60 Wall Street
New York, NY 10005
(212) 250 2500

Deutsche Bank Securities Inc.
225 Franklin Street
25th Floor
Boston, MA 02110
(617) 988 8600

Deutsche Bank Securities Inc.
222 West Adams Street
Suite 1900
Chicago, IL 60606
(312) 424 6000

Deutsche Bank Securities Inc.
3033 East First Avenue
Suite 303, Third Floor
Denver, CO 80206
(303) 394 6800

Deutsche Bank Securities Inc.
1735 Market Street
24th Floor
Philadelphia, PA 19103
(215) 854 1546

Deutsche Bank Securities Inc.
101 California Street
46th Floor
San Francisco, CA 94111
(415) 617 2800

International locations

Deutsche Bank Securities Inc.
60 Wall Street
New York, NY 10005
United States of America
Tel: (1) 212 250 2500

Deutsche Bank AG London
1 Great Winchester Street
London EC2N 2EQ
United Kingdom
Tel: (44) 20 7545 8000
Fax: (44) 20 7545 6155

Deutsche Bank AG
Große Gallusstraße 10-14
60272 Frankfurt am Main
Germany
Tel: (49) 69 910 41339

Deutsche Bank AG
Level 18, Grosvenor Place
225 George Street
Sydney, NSW 2000
Australia
Tel: (61) 2 9258 1555
Fax: (61) 2 9258 1550

Deutsche Bank AG
Level 55
Cheung Kong Center
2 Queen's Road Central
Hong Kong
Tel: (852) 2203 8888
Fax: (852) 2203 6921

Deutsche Securities Limited
Tokyo Branch
Level 20, 2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Japan
Tel: (81) 3 5156 6701
Fax: (81) 3 5156 6700

-----Original Message-----
From: Hopping, Albert [mailto:Albert.Hopping@pgnmail.com]
Sent: Thursday, June 03, 2004 5:44 PM
To: Rhodes, Rick
Cc: McCallister, Joseph; Li, Yong
Subject: NG Supply to Hines (LNG)

Important: This analysis does not show all risks of these contracts. This analysis is primarily a response to a request for information and is not a full risk assessment.

[redacted]

<<Values.xls>>
Thank you.

Albert Hopping
ERM - Risk Analytics

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 001150
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

[redacted]

Costello, Jeanne

From: [redacted]
Sent: Wednesday, July 07, 2004 3:07 PM
To: Rhodes, Rick; Murphy, Pam (CP&L)
Cc: Hughes, Bruce H; Francis, Patricia S; Holmes, Norman G
Subject: [redacted]

Rick - after our conversation on Friday regarding [redacted]

I hope this information will be helpful in your analysis. Please feel free to give me a call if you have any questions regarding this data.

[redacted]

Regards

[redacted]

[redacted]

sender.
****

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 001181
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Hopping, Albert [Albert.Hopping@pgnmail.com]
Sent: Monday, June 28, 2004 6:44 PM
To: Boulmay, Ramon
Cc: McCallister, Joseph; Rhodes, Rick; Murphy, Pam (CP&L)
Subject: RE: Hines long-term NG supply valuation

PEF 001332
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Adams, Melanie [Melanie.Adams@pgnmail.com]
Sent: Friday, June 25, 2004 7:46 AM
To: Rhodes, Rick
Subject: FW: PEF GAS Options_'[redacted]

-----Original Message-----
From: Adams, Melanie
Sent: Friday, June 11, 2004 4:05 PM
To: Kilgore, Tom
Cc: Boulmay, Ramon; Murphy, Pam (CP&L)
Subject: PEF GAS Options [redacted]

<<PEF GAS Options_[redacted]
Here is the presentation that you discussed with Ramon for your Monday [redacted] If you should have any questions on the PEF FT Requirements slide please call Pam Murphy.

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Rhodes, Rick [Rick.Rhodes@pgnmail.com]
Sent: Wednesday, June 30, 2004 8:16 AM
To: Rhodes, Rick; Caldwell, Rob; Murphy, Pam (CP&L); Adams, Melanie; Boulmay, Ramon
Subject: RE: Gas Strategy - Updated

Per Ramon, I added the [redacted] to the following spreadsheet.

[redacted]

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

-----Original Message-----
From: Rhodes, Rick
Sent: Tuesday, June 29, 2004 7:08 PM
To: Caldwell, Rob; Murphy, Pam (CP&L); Adams, Melanie; Boulmay, Ramon
Subject: Gas Strategy - Updated
Importance: High

Attached is the updated presentation and [redacted]

<< File: Gas Strategy V8.ppt >> << File: [redacted]

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 001386
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: Rhodes, Rick [Rick.Rhodes@pgnmail.com]
Sent: Tuesday, July 20, 2004 8:52 AM
To: Rhodes, Rick; Murphy, Pam (CP&L); Adams, Melanie
Subject: RE: Updated LNG Project Comparison

Updated with edits...

<<LNG Alternative Analysis10.xls>>

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

-----Original Message-----
From: Rhodes, Rick
Sent: Monday, July 19, 2004 5:59 PM
To: Murphy, Pam (CP&L); Adams, Melanie
Subject: Updated LNG Project Comparison

Attached is the updated [redacted] comparison with the revisions from our meeting.

<< File: LNG Alternative Analysis10.xls >>

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

PEF 001411
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

-----Original Message-----
From: [redacted]
Sent: Thursday, April 01, 2004 6:41 PM
To: Spence, Peggy
Cc: Rhodes, Rick; Evans, Mark; Migura, Chris
Subject: Florida Power Corporation, dba Progress Energy Florida, Inc. and Carolina Power & Light Company, dba Progress Energy Carolinas, Inc. NAESB s with [redacted]
Importance: High

Peggy,

part 2 of 3

PEF 001500
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

-----Original Message-----
From: Rhodes, Rick [mailto:Rick.Rhodes@pgnmail.com]
Sent: Wednesday, June 23, 2004 5:16 PM
To: [redacted]
Cc: Jim Jeffries; Murphy, Pam (CP&L); Adams, Melanie; Trimble, John; Larger, Pam
Subject: [redacted]
Importance: High
Sensitivity: Confidential

[redacted]

Per our discussion, attached are red-lined versions of the Gas Contract and Guaranty. I will call you to discuss.

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

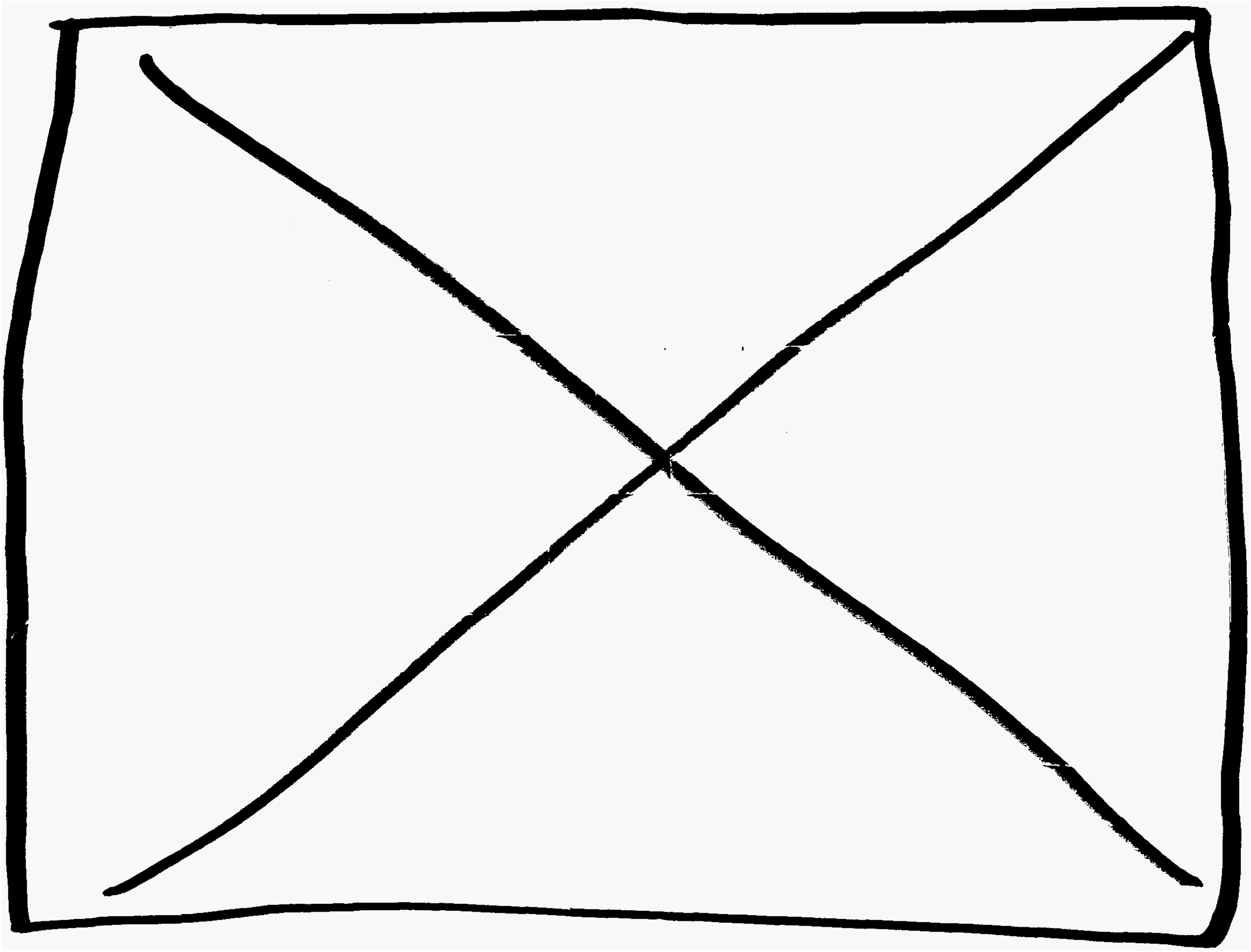
REDACTED

REDACTED

REDACTED

-----Original Message-----
From: [redacted]
Sent: Thursday, June 03, 2004 10:50 AM
To: Rhodes, Rick
Cc: [redacted]
Subject: Revised Progress Proposal

Rick,



REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

Subject: FW: Draft Agreements

Importance: High

-----Original Message-----
From: [redacted]
Sent: Thursday, June 03, 2004 12:39 PM
To: Rhodes, Rick
Cc: Murphy, Pam (CP&L)
Subject: Draft Agreements
Importance: High

The following draft agreements are attached:

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

-----Original Message-----
From: Rhodes, Rick [mailto:Rick.Rhodes@pgnmail.com]
Sent: Monday, June 14, 2004 3:21 PM
To: Murphy, Pam (CP&L); Adams, Melanie; Larger, Pam; Trimble, John; Mccluskey, Edward; Richardson, John; Lewis, Robert; Jim Jeffries
Subject: [redacted]
Importance: High

Attached are the latest [redacted] for everyone's review. I'll set up a meeting to discuss.

[redacted]

[redacted]

[redacted]

<<Revised Progress Proposal>>
<<Florida Power Corporation, dba Progress Energy Florida, Inc. and Carolina Power & Light Company, dba Progress Energy Carolinas, Inc. NAESB s with [redacted]

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

PEF 001633
DOCK NO. 040817-EI

PEF 001638
DOCK NO. 040817-EI

PEF 001646
DOCK NO. 040817-EI

PEF 001649
DOCK NO. 040817-EI

PEF 001686
DOCK NO. 040817-EI

Costello, Jeanne

From: [redacted]
Sent: Friday, August 20, 2004 4:01 PM
To: Murphy, Pam (CP&L)
Cc: Rhodes, Rick; Dowden Jr., Jimmy
Subject: [redacted]
Importance: High

Pam,

Attached is an updated service proposal which reflects the modifications we discussed yesterday:
[redacted]
Please call me at 713-853-6154 if you have questions or wish to discuss.

<<Progress Service Proposal 3.doc>>

REDACTED

REDACTED

REDACTED

-----Original Message-----
From: [redacted]
Sent: ~~Tuesday, June 08, 2004 2:22 PM~~
To: Murphy, Pam (CP&L); Adams, Melanie; Rhodes, Rick
[redacted]
Subject: RE: Progress/Southern PA's

Please find attached revised copies of the precedent agreements that we sent to you last Wednesday, June 2 . I made the revisions necessary to incorporate the [redacted] The revisions are the same in each document. Please contact us as soon as possible if you have any comments or questions. psf

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: [redacted]
Sent: Wednesday, September 29, 2004 5:09 PM
To: [redacted], McQuade, Mark; Murphy, Pam (CP&L); Rhodes, Rick
Cc: [redacted]
Subject: Revised Agreements
Importance: High

The attached drafts reflect acceptance of all changes submitted by Progress in the e-mail from [redacted] Friday Sept. 24th.

[redacted]

Please call when you are available to discuss.

[redacted]

REDACTED

REDACTED

September ~~21~~30, 2004

Progress Energy Florida, Inc.
Attn: Ms. Pamela Murphy
410 South Wilmington St. PEB10
Raleigh, NC 27601

Re: [redacted]

Dear Ms. Murphy:

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From: [redacted]
Sent: Friday, June 11, 2004 6:40 PM
To: ~~Rhodes, Rick~~
Cc: [redacted]
Subject: Financial Information Requested

Rick,

[redacted]

[redacted]

PEF 001788
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

-----Original Message-----
From: [redacted]
Sent: Thursday, June ^?, 2004 10:50 A^M
To: Rhodes, Rick
Cc: Spomer, Elizabeth
Subject: Revised Progress Proposal

Rick,

Attached you will find the revised proposal based on the meeting last week in Raleigh.

Revisions:

[redacted]

Please call me if you have any questions, we look forward to your response.

Regards,

[redacted]

IMPORTANT NOTICE:
The information in this email is confidential and may be legally privileged. It is intended solely for the addressee. Access to this email by anyone else is unauthorized. If you are not the intended recipient, any disclosure, copying, distribution or any action taken or omitted to be taken in reliance on it, is prohibited and may be unlawful.

[redacted]

Indicative Terms for Proposed Definitive Agreement

Seller: [redacted]

Buyer: Florida Power Corporation d/b/a Progress Energy Florida Inc.

Definitive Agreement: [redacted]

Supply Date:

Contract Term:

[redacted]

Delivery Point:

Alternative Delivery Point:

Title and Risk:

Daily Contract Quantity:

PEF 001868
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

-----Original Message-----
From [redacted]
Sent: Thursday, April 01, 2004 6:41 PM
To: Spence, Peggy
Cc: Rhodes, Rick; Evans, Mark; Migura, Chris
Subject: Florida Power Corporation, dba Progress Energy Florida, Inc. and Carolina Power & Light Company, dba Progress Energy Carolinas, Inc. [redacted]
Importance: High

Peggy,

In response to your drafts sent to me on March 11, and our teleconference with Rick today, attached are revised drafts. Note that these drafts also include deletion of quite a few provisions as we have recently revised our standard provisions. We discussed these deletions with Rick and they are agreeable. Rick also advised that [redacted]

Note the following:

* [redacted]

* [redacted]

* [redacted]

* [redacted]

* [redacted]

* [redacted]

* [redacted]

PEF 001873
DOCK NO. 040817-EI

* [redacted]

Rick,

The language that you and Chris discussed regarding [redacted]

[redacted]

<<NAESB.04012004.Blacklined.doc>> <<NAESB.04012004.Clean.doc>> <<Special Provisions.FPC.Blacklined.04012004.DOC>> <<Special Provisions.FPC.Clean.04012004.DOC>>
<<NAESB.04012004.Blacklined.doc>> <<NAESB.04012004.Clean.doc>> <<Special Provisions.CPL.Blacklined.04012004.DOC>> <<Special Provisions.CPL.Clean.04012004.DOC>>

[redacted]

[redacted]

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Long-Term Natural Gas Supply for Hines Energy Facility

Summary
At the request of PV-RCO, Enterprise Risk Management - Risk Analytics is assisting in valuing and assessing the risk of select long-term, natural gas (NG) supply and transportation deals for the Hines Energy Facility.

The deals valued in this document are the following:

[redacted]

This valuation takes all of the following into account given the caveats and assumptions to follow:

- The costs, volumes, and general terms and conditions of the deals.
- Volatility of NG prices (Henry Hub (HH) and [redacted]

Although this valuation is extensive, its results are not all inclusive. The following are several significant risks outside the scope of this valuation:

- Locational NG Supply Diversity
- Pipeline Project Success (construction of pipelines expected for transportation under several of these deals may be delayed or canceled)
- Credit Risk (this is to be done by the Credit group)

General Assumptions

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002007
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From:

Sent: Friday, May 28, 2004 11:17 AM

To: Rhodes, Rick

Cc:

Subject: Latest Proposal and and draft Precedent Agreement

Rick,

Attached please find the following items for review by you and your team:

REDACTED

Several revisions to the Proposal and NAESB have been made based on our meeting and discussions. The comments from you and your team have been very helpful for us to better understand your requirements. Please review these items, and let us have your feedback. If we have overlooked something, or if new comments have come up, just let us know. We will respond quickly to accomodate your tight schedule. We are hoping that this information combined with our experience and success building, operating, and expanding facilities and transactions, especially when compared to our current competitors, provides everything that you are looking for.

Also, unless you and your team are completely satisfied that all of your questions and comments have been adequately addressed here, we are prepared to come back to your office early next week to discuss any further changes. Using this approach, we should be able to finalize any further questions or issues that you may have in the quickest possible manner. Again, our objective is to always be as responsive as possible to your needs and requirements.

The project timeline that you requested will be forwarded separately to you later today.

Thanks again, and as always we appreciate the opportunity to work with you on this.

PEF 002030
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

EDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Costello, Jeanne

From:
Sent: Friday, June 11, 2004 6:23 PM
To: Rhodes, Rick
Cc:

REDACTED

Subject: Latest Proposal and

Rick,

Attached for review by you and your team are clean and blacklined versions of the Proposal and

REDACTED

Take a look at these, and let us have your comments. Thanks again for all your help this week.

Part 3 of 3

PEF 002138
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002198
CK NO. 040817-EI

PRECEDENT AGREEMENT
BY AND BETWEEN

AND

REDACTED

DATED: ~~June 11~~July 29, 2004

PEF 002199
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002205
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002220
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002227
DOCK NO. 040817-EI

PRECEDENT AGREEMENT
BY AND BETWEEN

AND

REDACTED

DATED: ~~June 11~~July 29, **2004**

PEF 002228
DOCK NO. 040817-EI

DRAFT 6-2-2004

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

EDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From:
Sent: Tuesday, September 21, 2004 4:27 PM
To: Murphy, Pam (CP&L)
Cc: Rhodes, Rick
Subject: Draft Agreements
Importance: High

The following draft agreements are attached:

REDACTED

PEF 002258
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From:
Sent: Tuesday, July 13, 2004 12:41 PM
To: Murphy, Pam (CP&L); Rhodes, Rick
Cc:
Subject:

REDACTED

I understand that we had an email transmission problem yesterday. In case you did not receive the documents, I am resending them. Sorry for the problem.

Regards

REDACTED

From:
Sent: Monday, July 12, 2004 6:03 PM
To: Rhodes, Rick ; 'pam.murphy@pgnmail.com'
Cc:
Subject.

REDACTED

Please find attached comments to the comments that you sent us on June 25. Please let us know if you have any further comments and when you would like to discuss. I have made parallel changes to system supply agreements. psf

---

From:
Sent: Friday, June 25, 2004 12:20 PM
To:
Subject:
Importance: High

REDACTED

-----Original Message-----
From: Rhodes, Rick [mailto:Rick.Rhodes@pgnmail.com]
Sent: Friday, June 25, 2004 11:56 AM

PEF 002278
DOCK NO. 040817-EI

To:
Cc:
Subject: '
Importance: High

REDACTED

Bruce,

Attached are FPC's red-lined suggested changes for the Feel free to give us a call with any questions

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

REDACTED

PEF 002279
DOCK NO. 040817-EI

September 21, 2004

Progress Energy Florida, Inc.
Attn: Ms. Pamela Murphy
410 South Wilmington St. PEB10
Raleigh, NC 27601

Re [redacted]

Dear Ms. Murphy:

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Li, Yong [Yong.Li@pgnmail.com]
Sent: Friday, June 04, 2004 8:55 AM
To: Rhodes, Rick
Cc: Hopping, Albert
Subject: Simulation results

Rick:

As you know, I ended up working over night to get these together. The reason is that I usually don't run the simulation out to 2028. Therefore, I had to create the correlation matrix that goes this far, which took me a few hours.

Any way, here are the preliminaries. I second Albert's caveats about our numbers thus far. It's a very rushy work. More closer and careful check is needed to make sure all details are done perfectly. Also, there seem to be a few things that we will need to investigate.

Will be around for the next hour or so and will then go home and catch up with some sleep.

Call my cell is needed: 919-272-0811

Yong

<<SimulationResults.xls>>

PEF 002301
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: [redacted]
Sent: Thursday, July 29, 2004 12:37 PM
To: Rhodes, Rick
Subject: [redacted]

Rick,

[redacted]

PEF 002306
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: [redacted]
Sent: Wednesday, June 02, 2004 8:59 AM
To: Rhodes, Rick
Subject: FW: Progress Agreements

PEF 002328
DOCK NO. 040817-EI

REDACTED

REDACTED

PEF 002330
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002336
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Spence, Peggy [peggy.spence@pgnmail.com]
Sent: Thursday, July 08, 2004 3:38 PM
To: Murphy, Pam (CP&L)
Cc: [redacted]
Subject: [redacted]

[redacted]

Peggy Spence
Contract Administration

PEF 002377
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: McQuade, Mark [Mark.McQuade@pgnmail.com]
Sent: Monday, August 30, 2004 4:53 PM
To: Murphy, Pam (CP&L); Rhodes, Rick
Subject: #217326 v1 - [redacted]

<<6K7X01_.DOC>>

PEF 002382
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Hopping, Albert [Albert.Hopping@pgnmail.com]
Sent: Thursday, August 26, 2004 4:12 PM
To: Boulmay, Ramon; Rhodes, Rick; Murphy, Pam (CP&L)
Cc: Daly, John
Subject: ERM Hines Supply Cost Analysis (Official)

This is a little dated now, but I wanted to give you an official copy, without the draft watermark, for your records. As you know, the numbers in this analysis are the same as in the "draft" copy distributed in early July. The difference is the wording and structure of the text portion. Please contact me if you have any additional questions. Thank you.

<<ERM Risk Analysis 07-09-04.pdf>>

Albert Hopping
ERM - Risk Analytics

PEF 002402
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Bechard, Gary [Gary.Bechard@pgnmail.com]
Sent: Wednesday, September 08, 2004 11:11 AM
To: Rhodes, Rick; Murphy, Pam (CP&L)
Cc: [redacted]
Subject: FW: Draft Precedent Agreement

In section 5 (b), viii, [around page 21]. There needs to be a definition of "Creditworthiness". We should not allow [redacted] to dictate whether or not they believe or under what conditions they would consider Progress Energy as creditworthy. If they will not allow us to use the an agency ratings based definition we will have to find acceptable language.

Please let me know what you think

Gary A. Bechard
Enterprise Risk Management-Credit
Progress Energy Service Company, LLC
410 South Wilmington Street, PEB 19
Raleigh, NC 27601

Phn: 919.546.5161
Fax: 919.546.7809
Cell: 919.812.0463

-----Original Message-----
From: Rhodes, Rick
Sent: Tuesday, September 07, 2004 10:05 AM
To: [redacted] Bechard, Gary
Subject: FW: Draft Precedent Agreement

Per our conversation, please comment.

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

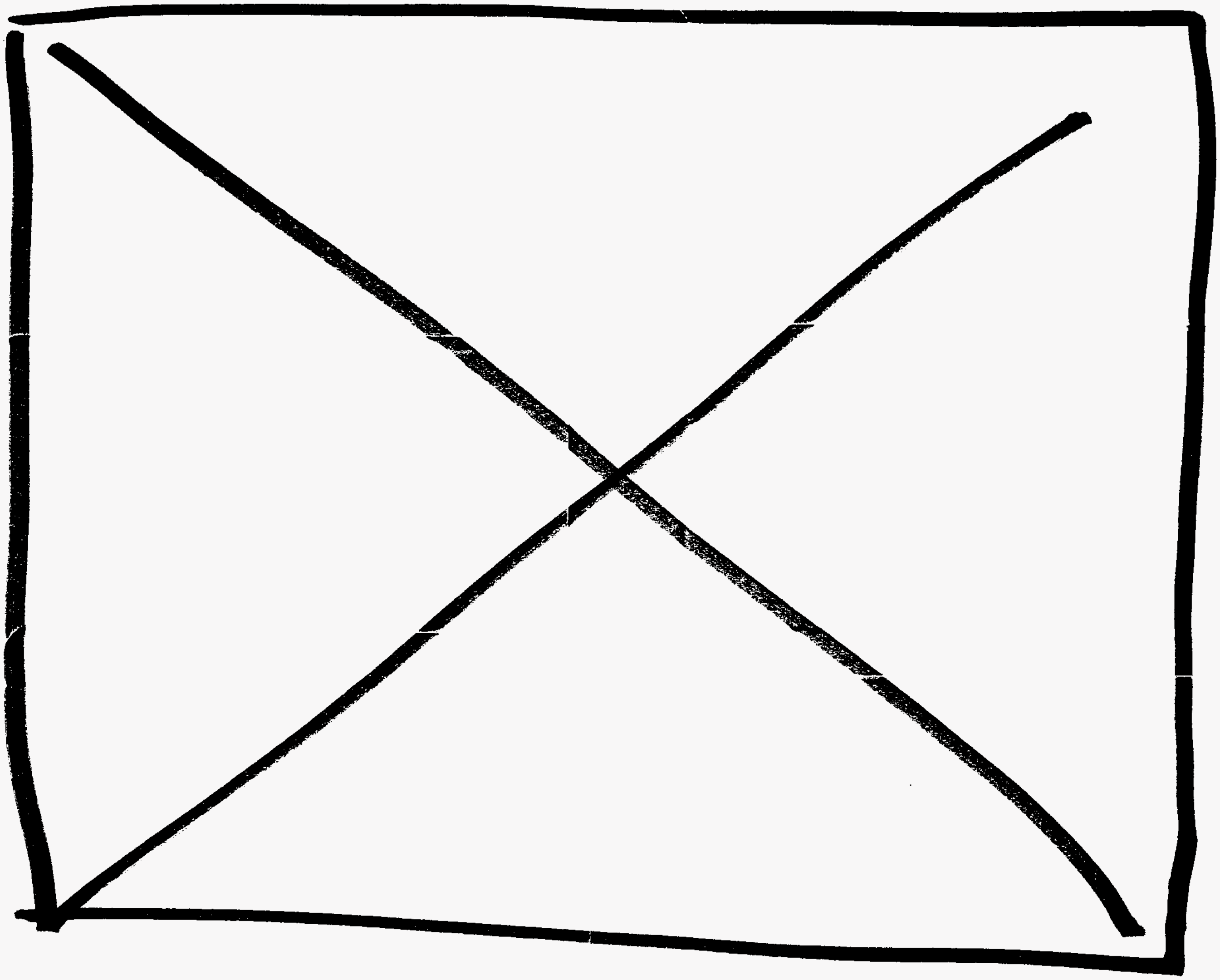
-----Original Message-----
From: Murphy, Pam (CP&L)
Sent: Friday, September 03, 2004 3:52 PM
To [redacted]
Cc: [redacted]
Subject: RE: Draft Precedent Agreement

Here is the copy of the draft Precedent Agreement that we will be working from on Tuesday

PEF 002421
DOCK NO. 040817-EI

-----Original Message-----
From: [redacted]
Sent: Wednesday, September 01, 2004 3:08 PM
To: [redacted]
Cc: [redacted]
Subject: Draft Precedent Agreement

Attached for your review is our latest version of the draft Precedent Agreement between [redacted] and Progress Energy Florida, Inc. for Hines IV. We believe this version reflects most of the changes that we have been discussing over the last several days. We are also working on a conforming [redacted] and should have that document available for your review before the end of the week. We look forward to sitting down with you face to face in Raleigh next week to hammer out any remaining differences. Please feel free to call me or if you have any questions.



PEF 002422
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

[redacted]

Moore, Priscilla

From: Murphy, Pam (CP&L) [pam.murphy@pgnmail.com]
Sent: Thursday, September 09, 2004 3:21 PM
To: [redacted]
Cc: Adams, Melanie; Rhodes, Rick; Trimble, John
Subject: [redacted]
Importance: High

[redacted]

Attached is my redline version. I accepted all your changes so what is reflected in the attached draft are my suggested changes.

[redacted]

Thanks
Pam

[redacted]

PEF 002456
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Murphy, Pam (CP&L) [pam.murphy@pgnmail.com]
Sent: Friday, October 01, 2004 4:47 PM
To: Rhodes, Rick
Subject: FW: Revised [redacted]
Importance: High

REDACTED

PEF 002488
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002522
DOCK NO. 040817-EI

REDACTED

Moore, Priscilla

From: McQuade, Mark [Mark.McQuade@pgnmail.com]
Sent: Wednesday, September 01, 2004 2:54 PM
To: Murphy, Pam (CP&L); Rhodes, Rick; Adams, Melanie; Trimble, John
Subject: FW: [redacted]

-----Original Message-----
[redacted]
Sent: Tuesday, August 31, 2004 9:45 AM
To: McQuade, Mark
Subject: [redacted]

Mark:

REDACTED

PEF 002524
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

Moore, Priscilla

From: Rhodes, Rick [Rick.Rhodes@pgnmail.com]
Sent: Friday, June 25, 2004 12:56 PM
To: [redacted]
Cc: Murphy, Pam (CP&L); Adams, Melanie; Trimble, John; Larger, Pam; Jim Jeffries
Subject: Cypress Precedent Agreement
Importance: High

[redacted]

Attached are FPC's red-lined suggested changes for the [redacted] Note that the same structural changes we suggested for this [redacted] Feel free to give us a call with any questions.

Rick Rhodes
Term Gas Lead
Progress Energy
919.546.7613
rick.rhodes@pgnmail.com

PEF 002557
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

PEF 002564
DOCK NO. 040817-EI

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED

REDACTED