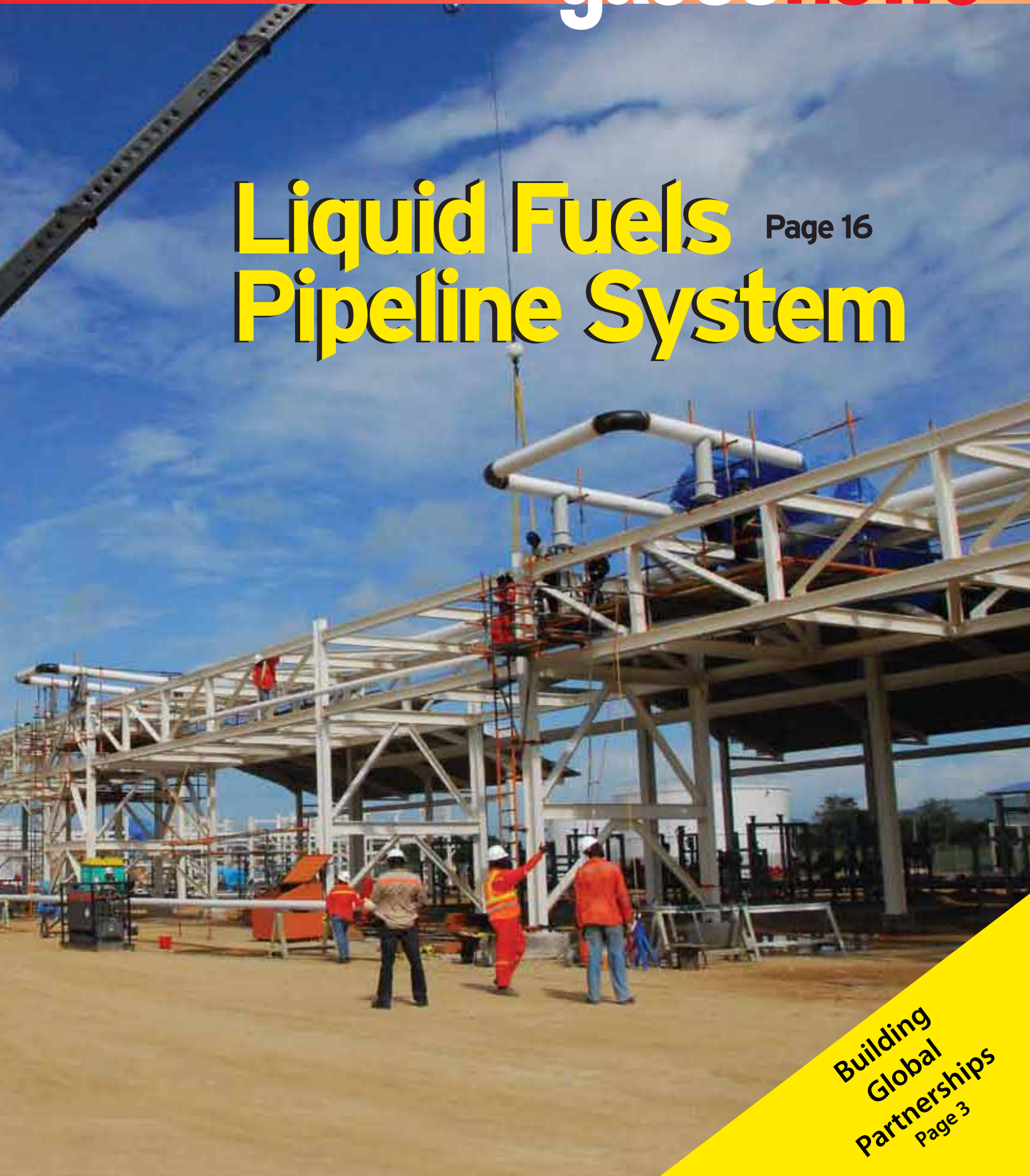


# Liquid Fuels Pipeline System

Page 16



Building  
Global  
Partnerships  
Page 3

April 2011

The National Gas Company of  
Trinidad and Tobago Limited (NGC)  
Orinoco Drive  
Point Lisas Industrial Estate, Couva  
Republic of Trinidad and Tobago  
West Indies

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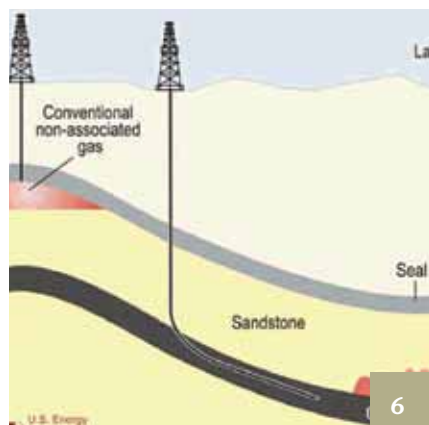
**FRONT COVER:**

Liquid Fuels Pipeline System (LFPS)  
under construction.

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*Frederick Settlement Facility, Caroni – LFPS*



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# MESSAGE FROM NGC'S PRESIDENT

S. ANDREW Mc INTOSH

From humble beginnings as a small state-owned pipeline company in 1975, The National Gas Company Trinidad and Tobago Limited (NGC) has been transformed into a major national enterprise, playing a pivotal role in the execution of a resource-based economic development strategy in Trinidad and Tobago. The year 1991 was a benchmark for NGC as the government of the day formally mandated the Company to be the prime mover in gas-based development. Since that time, the astute application of business growth strategies – *centred around our healthy investment climate, competitive price and location advantages* – has resulted in the emergence of Trinidad and Tobago as a major world exporter of methanol, ammonia and LNG.

Today, NGC's Mission is to create exceptional national value from the natural gas and energy businesses. Our Vision is to become a valued partner in the global energy business. In aligning our business growth strategies with these aspirations, NGC – *in conjunction with our wholly owned subsidiary the National Energy Corporation (NEC)* – will leverage our experience and expertise in all aspects of the natural gas value chain



S. ANDREW Mc INTOSH  
President, NGC

to expand the domestic production possibilities at home while exploiting new opportunities in external markets.

NGC's core operations span the entire gas value chain – purchase, transmission, distribution and sale of natural gas. We own and operate the country's 800km (4.4 bcf/d) pipeline network, both offshore and onshore. We are engaged in major infrastructure expansion projects in anticipation of continued industry growth. These include the construction of the NEO marine pipeline from the BHP Billiton field, a Tobago pipeline that will supply gas to the sister island and a liquid fuels pipeline system

from Pointe-a-Pierre to the Frederick Settlement, Caroni and thence to Piarco International Airport. In addition, NEC is creating new industrial estate and port facilities in support of the anticipated expansion of Trinidad and Tobago's petrochemical sector.

The NEC subsidiary is responsible for the conceptualization, development and facilitation of energy-based investment and the development and construction of industrial sites and marine infrastructure. The company is at various stages of negotiations with prospective investors to establish, inter alia, an ammonia/urea/melamine complex (AUMII), a calcium chloride/caustic soda plant, a maleic anhydride complex, downstream melamine-based projects and a Methanol to Olefins project. Historically, brighter prospects downstream have spawned greater interest in upstream exploration and production, with a knock-on impact on general economic activity.

Given the diverse slate of opportunities, it is without a doubt that I view this period as a very critical and exciting time for the natural gas industry. This April issue of the *Gasco* shares what we do as individual companies within the NGC Group framework for the continued development of our nation, Trinidad and Tobago.

## LAUNCH OF THE CARIBBEAN INVESTMENT FORUM (CIF) IN PORT OF SPAIN

# 'BUILDING GLOBAL PARTNERSHIPS'

### 'PARTNERING WITH TRINIDAD AND TOBAGO TO CREATE A GATEWAY BETWEEN THE COMMONWEALTH AND THE AMERICAS'

A synopsis of the remarks made by NGC's Chairman, Mr. Larry Howai on April 12, 2011

**"N**GC is pleased to be here today as part of this important initiative for our economy. This Caribbean Investment Forum 2011 could not be more timely as Trinidad and Tobago and the wider Caribbean respond to a rapidly changing global economic order that demands, above all else, collaborations and partnerships in order to survive, thrive and prosper.

Today's complex business environment demands much more than mere vertical integration; it requires an ability to explore linkages into the unknown, the courage to enter competitive arenas of a global scale, an enthusiasm to innovate our way to solutions and the confidence to match wits with the best in the



By LARRY HOWAI,  
Chairman, NGC

world and come out on top. This is a world not just for start-ups, but for upstarts who have the willingness to put mind and muscle behind the ideas they believe in. In this world, we will be only as strong as the partnerships we can create between investment and ideas; industry and markets; public and private; national and regional; Caribbean and Commonwealth; Commonwealth and the world. NGC and our partner

sponsors have embraced the Caribbean Investment Forum 2011 because we see it as a premier opportunity for making these connections, as well as for promoting the ethos of strategic collaboration and joint endeavour.

Trinidad and Tobago can take pride in the fact that it can stand firmly on its feet and engage the world with a track record of solid achievement. Through the National Energy Corporation (NEC), NGC continues to explore new markets and industrial terrains that require us to compete with some of the biggest energy names in the world. As we engage the competition, our hope is not merely to grow and expand, but to build 'Brand T&T' as a product of global quality: quality expertise, quality resources, quality opportunity, quality investment, quality experience.

#### **Trinidad and Tobago Context and Challenges**

Our Prime Minister has articulated her Mission for the country, which is to build a socially cohesive, globally competitive society with justice and fairness for all. To this end, a vision of the stages of development of the economy has been developed.

In the short term the focus is on restructuring Government's finances, implementing efficiency and transparency measures in Government's operations and building the required physical infrastructure which will ensure continued economic activity, income generation and employment creation.

In the medium term, projects aimed at diversifying the economy downstream of the energy sector will be the focus and to this end considerable work has been done by NEC over the past few months

**Trinidad and Tobago can take pride in the fact that it can stand firmly on its feet and engage the world with a track record of solid achievement. Through the National Energy Corporation (NEC), NGC continues to explore new markets and industrial terrains that require us to compete with some of the biggest energy names in the world.**

to facilitate the development of the downstream gas sector and to stimulate the development of diverse initiatives in areas such as laminates, coatings, paints, etc, all downstream derivative products of the energy sector.

Finally, in the longer term the migration to knowledge-based industries will be the basis for the further development of the economy and measures are being put in place even now to lay the groundwork for this development.

### **Government Inputs**

While all these initiatives are being progressed, Government still sees the private sector as the main engine of growth, with the Government playing an active role by:

- (1) supporting innovative mechanisms to attract investment and improve infrastructure;
- (2) fostering a business climate that encourages and rewards entrepreneurship; and
- (3) offering transparent laws and regulations that facilitate business development, access to finance and a stable macroeconomic environment.

**We are committed to pursuing policies that allow us to remain a well-regulated and well-respected international business jurisdiction as evidenced by studies undertaken by agencies such as Transparency International.**

### **Gateway to the Americas**

Trinidad and Tobago has much to offer the Commonwealth regarding finding an entry into the markets of the Americas. As a member of CARICOM, Trinidad and Tobago has several trade agreements with leading economies in the Americas, including Canada, USA, Costa Rica the Dominican Republic, Colombia, Venezuela. While a formal trading agreement is yet to be signed with Brazil, Trinidad and Tobago accounts for 90 per cent of regional exports to the leading South American economy.

We are committed to pursuing policies that allow us to remain a well-regulated and well-respected international business jurisdiction as evidenced by studies undertaken by agencies such as Transparency International. There are a number of other salient factors which would make our country an attractive domicile for international businesses including a well-educated and highly skilled workforce, the establishment of a Single Electronic Window (SEW) (one-stop shop); investment laws that are transparent, no restriction on foreign ownership of business and enterprises, an expanding network of double taxation agreements and bilateral investment treaties, modern infrastructure and a well-developed telecommunications and transportation network, and a range of special incentives, including free zone status.

Moreover, we are a country governed by a legal system that is based on English Common Law and principles and we have an independent judiciary that ensures fair and impartial dispute resolution. As such, I believe that the Commonwealth Caribbean is in an excellent position to use its various trading arrangements with Trinidad and Tobago to facilitate and promote intra and extra-regional trade and investment opportunities with the rest of the world, and particularly with the private sector and the Americas.”

**The Commonwealth Caribbean is in an excellent position to use its various trading arrangements with Trinidad and Tobago to facilitate and promote intra and extra-regional trade and investment opportunities with the rest of the world, and particularly with the private sector and the Americas.**

# REVIEW OF THE 21<sup>ST</sup> WORLD ENERGY CONGRESS

The World Energy Council is a global and inclusive forum for thought leadership and tangible engagement committed to sustainable energy future. It has a network of over 90 National Member Committees represents over 3,000 member organizations, including governments, industry and expert institutions. Its mission is to promote a sustainable energy future.

The World Energy Council (WEC) works in six main areas: energy and climate policy assessment, energy policy scenarios, energy resources and technologies, rural energy access, urban innovation, and last but not least, global energy frameworks, including energy trade rules and Conference of the Parties (COP).

Every three years, the World Energy Council hosts a major international energy event, the World Energy Congress. The Congress brings together thousands of energy leaders from around the globe. The 21st World Energy Congress was held in Montreal, Canada in September 2010 with its theme being “Responding NOW to global challenges.” It was attended by over six thousand delegates from 137 countries including some 70 ministers.

The theme of WEC Montreal 2010 Congress provided a framework to address the four major challenges facing the energy community, global leaders and the general public. The four challenges termed the four ‘A’s – Accessibility, Availability, Acceptability, and Accountability – have become WEC’s core Values.

The core values were used to develop the following topics at the congress:

- The increasing global energy hunger and its supply with a mix of conventional generation (fossil, nuclear) and renewable energy

By ARDEN RODRIGUEZ,  
Business Analyst,  
Business Development, NEC.

- The dramatic changes on the supply side by unconventional gas
- The urgently needed energy infrastructure only faces one real challenge: That is finance

## Accessibility

Accessibility focused on the need to manage the planet’s growing energy demand. Nearly two billion people today have no access to reliable energy supplies for their basic needs. Danial Yergin (HS CERA) and Khalid Al-Falih, President of Aramco (Saudi Arabia) addressed plenary sessions where they stressed their views about the long lead time of energy systems and that fossil fuels will continue to dominate the world energy scene for decades to come.

Energy poverty was highlighted and the point was raised that adequate supplies of energy, particularly electricity, are essential for sustainable development especially those of low income developing countries.

## Availability

The theme of Availability stressed findings that fossil fuels will continue to dominate the world energy supplies for decades to come, while renewables will significantly grow year after another, however, since they are starting from low base their contribution will be modest by 2035. However Faith Birol (International Energy Agency) painted a picture of the challenges plaguing energy markets, like the growing insensitivity of oil markets to price changes. He also called on governments to get involved more.

An important component in future energy supplies will be shale gas. Mr. Yergin termed this a “shale-gale” and stated that shale gas has enhanced global reserves probably for few centuries. One benefit of shale gas is that it is abundant and more evenly distributed over many regions of the world; it will slowly but surely improve the share of gas and its availability in the energy balance of different world regions.

Nuclear expansion was emphasised under this area and it was suggested that growth in nuclear energy will be mainly in China, India, Korea, and few other developing countries.

## Acceptability

Sustainability and acceptability are now the prerequisites for any long-term energy strategy for our planet. It was pointed out that energy strategy must now include complete assessments and management plans for environmental or social impact. The development of efficient, sustainable energy policies and practices is a complex task involving many parties. The risks that production of fossil fuels pose to the environment, like recent events in the Gulf of Mexico, was also mentioned and that technology will need to play a major role in managing these threats.

## Accountability

The Final value dealt with at the congress was Accountability that is financing energy projects requires clear policies and stable regulatory frameworks to ensure optimal use of resources and good rates of return on investment. Unprecedented levels of public-private cooperation and new forms of government partnership will be needed. Pascal Lamy (World Trade Organisation) stressed the importance of regulations in responsibly managing the markets.



The main topics that repeated throughout the congress were:

- China,
- Shale Gas, and
- Energy Efficiency

### China and the Global Energy Scene

China is now the world's largest greenhouse gases emitter. Its investments and energy decisions affect global energy more than any other country. Hence, what is happening in China is going to affect the world's energy scene and its future technologies.

It was realised that a large proportion of China's energy is utilized in production of exports. This increases China's consumption but reduces that of the importers. China is thus a "virtual energy" exporter.

### Shale Gas

Only recently, through advances in geology and technology has made shale gas exploitation possible and economical via modern drilling technologies like combined horizontal drilling with hydraulic fracturing.

A recent study by the WEC mentioned that the resources base (gas-in-place) in the USA amount to 3760 Tcf of which 475 Tcf considered to be economically recoverable. Similarly over 5400 Tcf resource base exist in the Former USSR while the Sub-Saharan Africa and the Middle East and North Africa regions each hold over 1000 Tcf. Production costs in the USA, with environmental precautions, are expected to be in the range of \$6 – 8 per MMBtu.

There are some yet unresolved, controversial issues related to shale gas production. Such issues are related to emissions as well as pollution of deep water aquifers. Competition between LNG and gas shale was also discussed since the shale gas can be much cheaper. However it will be some time until these issues are cleared and their economies are ascertained

### Energy Efficiency

Energy efficiency was stressed as the

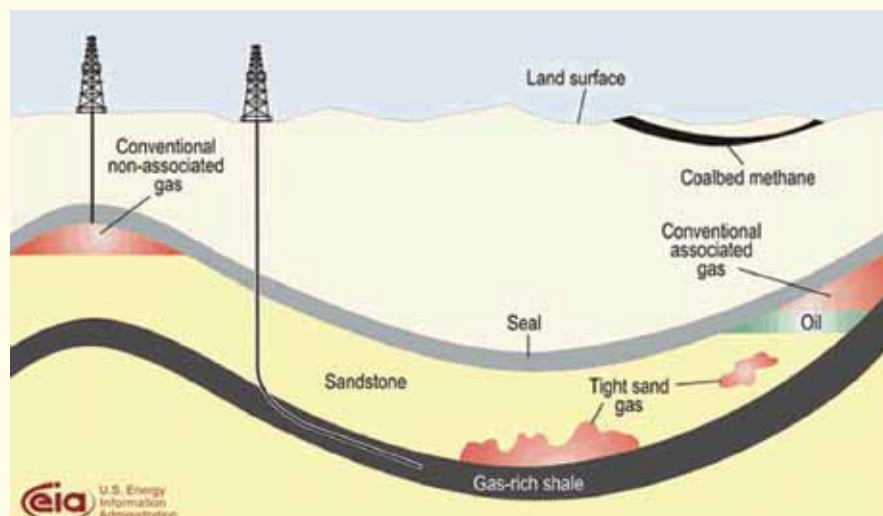


Figure 1: Schematic Geology of Natural Gas Resources

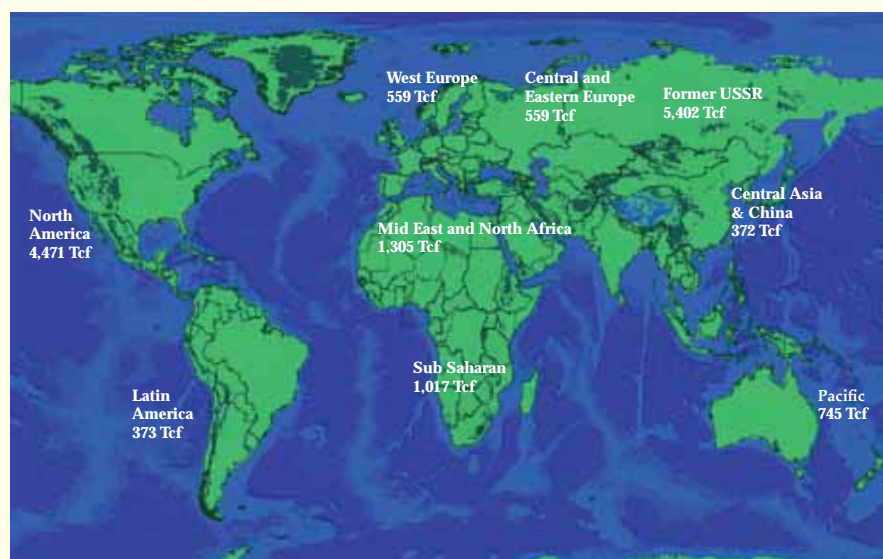


Figure 2: Estimated Shale Gas Resource Potential - 2010

win-win scenario. It is the most effective way to manage limited energy supplies and curb emissions. The benefits of most efficiency measures out-weigh costs and the pay-back period can be rather short, sometimes in month. The delay in applying efficiency measures is caused by a lack of knowledge and information to consumers as well as shortage of initial investment capital.

According to IEA and US-DOE electricity consumption expected to grow at an average rate of 2.3%

annually over the next 25 years.

Global average efficiency in electricity production amount to only 30-33% due to the long life of old inefficient vintage plant burning coal. However with the increasing introduction of modern CCGT and higher efficiency coal burning facilities this efficiency is expected to gradually improve year after another to over 40% in 2035.

Below is a comparison of measures that governments can apply to improve energy efficiency in their respective countries.



## Conclusion

The congress concluded by stating that the end-goal has to be sustainable growth. Energy accessibility and availability contribute concretely to improving the living standards of people. However, the kind of growth experienced in the past leads us to address three issues: The first issue is security of supply. The second issue is environmental protection and climate change. Finally, the issue of inequalities within and across countries is another major concern, as energy goes hand in hand with development.

Additionally, sustainability also means more social equity. The need to invest to develop: Generation 4 nuclear, carbon capture and storage, more efficient photovoltaic technologies, electricity storage, and second-generation sustainable bio fuels was brought forward.

The Congress' declaration highlighted that on earth there is enough natural resources to meet demand. The real issue is not so much their overall level, but their uneven distribution across nations, and the fact that ensuring security of

energy supply will necessarily lead to an increase in energy prices.

Further, the declaration went on to address two all-important factors at different levels: at a national level: energy policy, and at a worldwide level: international cooperation.

Another critical point pounded home is that energy players require long-term horizons. Energy industry timeframes are long term: investments are made over periods of 3 to 15 years, and plants are built to last for 30 to 60 years. In our sector, 2030-2050 is a much more relevant horizon than 2020.

In order for sustainable growth, there needs to be more than ever cooperation and dialogue between all stakeholders – governments, businesses, researchers and NGOs.

Finally, at the very centre of the transition of the global energy industry, is a need for financing (over US\$20 trillion by 2030) clear policies and stable regulatory frameworks. Effective national policies that benefit from international convergence and linkage through international frameworks, regional infrastructure interconnection, urban

innovation, more smart mobility and energy efficiency are key parameters to manage the energy transition.

The next World Energy Congress would take place in Daegu, South Korea in 2013. Before that date there would be numerous working groups and committees formed to flesh out and deal with the issues facing the global energy industry (shale gas, oil demand price insensitivity and energy efficiency). It would be in our best interest if we continue to and actively participate in Council meetings and events. Trinidad and Tobago participation in the World Energy Congress is vital for the sustainable development and growth of our energy sector.

### Sources:

- World Energy Council. 2010. "Pursuing sustainability: 2010 Assessment of country energy and climate policy."
- World Energy Council. 2010. "Survey of Energy Resources: Focus on Shale Gas."
- Teyssen, Johannes. 2010. "Report concerning the 21st World Energy Congress 2010 Montreal: 12th – 16th September 2010."
- Khatib, Hisham. 2010. "The World Energy Congress Review: Montreal, Canada 12 – 16 September 2010."

Table 1: Energy Efficiency Measures – Comparison

| APPROACH                          | ADVANTAGES  | DISADVANTAGES   |
|-----------------------------------|---|---|
| Education campaigns               | <ul style="list-style-type: none"> <li>• Inexpensive</li> <li>• Engagement with the next</li> </ul>   | <ul style="list-style-type: none"> <li>• Unlikely to have much impact by themselves /in the generation short term</li> </ul>  |
| Subsidies/investments/tax credits | <ul style="list-style-type: none"> <li>• Ability to focus on areas with greatest potential</li> </ul>   | <ul style="list-style-type: none"> <li>• Can be expensive if too high and inadequate if too small</li> <li>• Risk of free riders</li> <li>• Quality control issues</li> </ul> |
| Incentive/market mechanisms       | <ul style="list-style-type: none"> <li>• Flexibility for industry responses</li> <li>• Incentives and penalties can be adjusted at regular intervals</li> </ul> | <ul style="list-style-type: none"> <li>• Complex administration</li> <li>• Some uncertainty around results</li> </ul>   |
| Taxation                          | <ul style="list-style-type: none"> <li>• Simple application</li> <li>• Revenue generation can subsidise green economy</li> </ul>                                | <ul style="list-style-type: none"> <li>• Often ultimately regressive in impact</li> <li>• Negative impacts on industry competitiveness</li> </ul>                             |
| Voluntary Industry agreements     | <ul style="list-style-type: none"> <li>• Flexibility for industry responses</li> </ul>  | <ul style="list-style-type: none"> <li>• Weak ability for enforcement or strengthening</li> </ul>   |
| Compulsory standards              | <ul style="list-style-type: none"> <li>• Clarity regarding targets</li> <li>• Stimulation of innovation</li> </ul>  | <ul style="list-style-type: none"> <li>• Potential negative economic impact on industry</li> </ul>  |



# UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS


For six months ended 30 June, 2010

## CHAIRMAN'S REPORT

I am pleased to report that The National Gas Company of Trinidad and Tobago Limited (NGC) maintained its profitability for the first six months of 2010 with Sales turnover of TT\$6.7 billion and after tax profits of TT\$1.5 billion.

Whilst 2009 was a challenging year for NGC, commodity prices for the first half of 2010 were more favourable than the comparative period for 2009. As a result, NGC's core business of purchase, transportation and sale of natural gas remained stable despite the negative impact of the global financial crisis. NGC also continued its infrastructure development works to expand its pipeline capacity, whilst maintaining its key strategic investments in the liquefied natural gas (LNG) and natural gas liquids (NGL) business.

In addition, NGC continued to maintain its international reputation and credit ratings consistent with 2009.



Larry Howai  
Chairman

## CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION (UNAUDITED) (Expressed in Trinidad and Tobago dollars)

|                                     | 30 Jun 2010<br>\$'000 | 31 Dec 2009<br>\$'000 |
|-------------------------------------|-----------------------|-----------------------|
| <b>Assets</b>                       |                       |                       |
| Non-Current Assets                  | 13,994,165            | 13,242,607            |
| Current Assets                      | 14,427,992            | 13,482,962            |
| <b>Total Assets</b>                 | <b>28,422,157</b>     | <b>26,725,569</b>     |
| <b>Equity and Liabilities</b>       |                       |                       |
| Stated Capital                      | 1,752,848             | 1,752,848             |
| Capital Subscribed                  | 102,418               | 102,418               |
| Reserves                            | 1,517,926             | 1,381,004             |
| Retained Earnings                   | 14,626,950            | 13,458,830            |
| Equity attributable to:             |                       |                       |
| - Equity holders of the Parent      | 18,000,142            | 16,695,100            |
| - Minority Interests                | 451,311               | 333,610               |
| <b>Total Equity</b>                 | <b>18,451,453</b>     | <b>17,028,710</b>     |
| Non-Current Liabilities             | 5,917,874             | 5,758,486             |
| Current Liabilities                 | 4,052,830             | 3,938,373             |
| <b>Total Equity and Liabilities</b> | <b>28,422,157</b>     | <b>26,725,569</b>     |

## CONDENSED CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (UNAUDITED) (Expressed in Trinidad and Tobago dollars)

|   | 30 Jun 2010<br>\$'000 | 30 Jun 2009<br>\$'000 |
|---|-----------------------|-----------------------|
| Sales   | 6,731,315             | 3,593,402             |
| Gross profit  | 1,771,208             | 502,977               |
| Other operating income                                | 33,722                | 64,502                |
| Interest and other Investment Income                  | 333,295               | 502,280               |
| Share of profit from joint venture                    | 409,477               | 163,282               |
| Finance costs   | (142,461)             | (100,410)             |
| Administrative, maintenance & general expenses        | (229,522)             | (181,643)             |
| Other   | (27,579)              | (13,671)              |
| Profit before tax                                     | 2,148,140             | 937,317               |
| Income tax expense                                    | (675,061)             | (245,403)             |
| Profit for the period                                 | 1,473,079             | 691,914               |
| <b>Other comprehensive income</b>                     |                       |                       |
| Available-for-sale financial assets                   | 143,868               | (43,473)              |
| Foreign currency translation                          | 5,796                 | 55,033                |
| Other comprehensive income for the period, net of tax | 149,664               | 11,560                |
| <b>Total comprehensive income for the period</b>      | <b>1,622,743</b>      | <b>703,474</b>        |
| Attributable to:                                      |                       |                       |
| - Owners of the Parent                                | 1,505,042             | 623,055               |
| - Non-controlling interests                           | 117,701               | 80,419                |
|   | <b>1,622,743</b>      | <b>703,474</b>        |

**CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (UNAUDITED)**  
**(Expressed in Trinidad and Tobago dollars)**

|   | Attributable to Equity Holders of the Parent |                                 |                           |                             |                                | Total<br>\$'000          | Minority<br>interests<br>\$'000 | Total<br>equity<br>\$'000 |
|---|--|---------------------------------|---------------------------|-----------------------------|--------------------------------|--------------------------|---------------------------------|---------------------------|
|   | Stated<br>capital<br>\$'000                  | Capital<br>subscribed<br>\$'000 | Reserve<br>fund<br>\$'000 | Other<br>reserves<br>\$'000 | Retained<br>earnings<br>\$'000 |                          |                                 |                           |
| Balance as at 1 January 2009  | 1,752,848                                    | –                               | 438,192                   | 536,459                     | 12,529,611                     | 15,257,110               | 315,496                         | 15,572,606                |
| Total comprehensive income for the period                               | –  | –                               | –                         | 10,181                      | 612,874                        | 623,055                  | 80,419                          | 703,474                   |
| Transfer of depreciation for offshore plant and equipment and pipelines | –  | –                               | –                         | (12,000)                    | 12,000                         | –                        | –                               | –                         |
| Dividends   | –  | –                               | –                         | –                           | –                              | –                        | –                               | –                         |
| Balance as at 30 June 2009  | <u>1,752,848</u>                             | <u>–</u>                        | <u>438,192</u>            | <u>534,640</u>              | <u>13,154,485</u>              | <u>15,880,165</u>        | <u>395,915</u>                  | <u>16,276,080</u>         |
| Balance at 1 January 2010   | <b>1,752,848</b>                             | <b>102,418</b>                  | <b>438,192</b>            | <b>942,812</b>              | <b>13,458,830</b>              | <b>16,695,100</b>        | <b>333,610</b>                  | <b>17,028,710</b>         |
| Total comprehensive income for the period                               | –  | –                               | –                         | 149,055                     | 1,355,987                      | 1,505,042                | 117,701                         | 1,622,743                 |
| Transfer of depreciation for offshore plant and equipment and pipelines | –  | –                               | –                         | (12,133)                    | 12,133                         | –                        | –                               | –                         |
| Dividends   | –  | –                               | –                         | –                           | (200,000)                      | (200,000)                | –                               | (200,000)                 |
| Balance as at 30 June 2010  | <u><b>1,752,848</b></u>                      | <u><b>102,418</b></u>           | <u><b>438,192</b></u>     | <u><b>1,079,734</b></u>     | <u><b>14,626,950</b></u>       | <u><b>18,000,142</b></u> | <u><b>451,311</b></u>           | <u><b>18,451,453</b></u>  |

**CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)**  
**(Expressed in Trinidad and Tobago dollars)**

|   | 30 Jun 2010<br>\$'000   | 30 Jun 2009<br>\$'000 |
|---|-------------------------|-----------------------|
| Cash flows from operating activities                  |                         |                       |
| Net profit for the period                             | <b>2,148,140</b>        | 937,317               |
| Adjustment for non-cash items                         | <b>(221,323)</b>        | (100,493)             |
| Operating profit before working capital               | <b>1,926,817</b>        | 836,824               |
| Changes in working capital                            | <b>(535,581)</b>        | 284,513               |
| Cash generated from operations                        | <b>1,391,236</b>        | 1,121,337             |
| Net taxation, interest and pension contributions paid | <b>(562,555)</b>        | (389,236)             |
| Net cash generated from operating activities          | <b>828,681</b>          | 732,101               |
| Net cash generated from investing activities          | <b>512,383</b>          | 467,455               |
| Net cash used in financing activities                 | <b>(456,082)</b>        | (415,683)             |
| Net increase in cash and cash equivalents             | <b>884,982</b>          | 783,873               |
| Net foreign exchange differences                      | <b>79,336</b>           | 4,972                 |
| Cash and cash equivalents beginning of year           | <b>2,415,650</b>        | 1,428,978             |
| Cash and cash equivalents at end of period            | <u><b>3,379,968</b></u> | <u>2,217,823</u>      |

**NOTES TO THE SUMMARISED FINANCIAL STATEMENTS FOR THE YEAR PERIOD ENDED 30 JUNE, 2010**
**1. Incorporation and business activities**

The National Gas Company of Trinidad and Tobago Limited and its subsidiaries ("the Group") is a diversified company primarily engaged in the purchase, transmission and distribution of natural gas in Trinidad and Tobago. The Company is wholly owned by the Government of Trinidad and Tobago (GORTT). The Company's registered office is located at Orinoco Drive, Point Lisas Industrial Estate, Point Lisas, Trinidad.

The Group's subsidiaries, joint venture and associate are as follows:

| Name of Company  | Country of<br>Incorporation | Percentage<br>Equity Interest |
|--|-----------------------------|-------------------------------|
| <b>Subsidiary Companies</b>                                      |                             |                               |
| National Energy Corporation of Trinidad and Tobago Limited (NEC) | Trinidad and Tobago         | 100%                          |
| NGC Pipeline Company Limited                                     | Trinidad and Tobago         | 100%                          |
| Trinidad and Tobago LNG Limited                                  | Trinidad and Tobago         | 100%                          |
| La Brea Industrial Development Company Limited (LABIDCO)         | Trinidad and Tobago         | 83%                           |
| NGC NGL Company Limited  | Trinidad and Tobago         | 80%                           |
| NGC Trinidad and Tobago LNG Company Limited                      | Trinidad and Tobago         | 62.16%                        |
| <b>Associated Company</b>  |                             |                               |
| Trinidad and Tobago Marine Petroleum Company Limited (TRINTOMAR) | Trinidad and Tobago         | 20%                           |
| <b>Joint Venture</b>   |                             |                               |
| Phoenix Park Gas Processors Limited*                             | Trinidad and Tobago         | 51%                           |
| <b>Others</b>  |                             |                               |
| Atlantic 1 Holdings LLC**  | United States of America    | 10%                           |
| Atlantic LNG 4 Company of Trinidad and Tobago Unlimited***       | Trinidad and Tobago         | 11.11%                        |

\* owned by NGC NGL Company Limited

\*\* owned by NGC Trinidad and Tobago LNG Company Limited

\*\*\* owned by Trinidad and Tobago LNG Limited

**2. i. Basis of preparation**

These condensed financial statements have been prepared under the historical cost basis, except for the revaluation of the Group's offshore plant and equipment, pipelines and available-for-sale investments, which have been measured at fair value. The financial statements are presented in Trinidad and Tobago dollars (TT\$).

**ii. Statement of compliance**

The condensed interim financial statements of the Group have been prepared in accordance with International Financial Reporting Standards (IFRS). They do not include all of the information required for full annual financial statements and should be read in conjunction with the consolidated financial statements of the Group as at and for the year ended 31 December 2009.



# IMPROVING THE CONTRACTOR SELECTION PROCESS THROUGH TENDER EVALUATION WEIGHTED CRITERIA

The National Gas Company is highly reliant on contractors and other providers for the supply of a variety of goods and services for all aspects of its operations. As such, it is important to select the most suitable contractors, and suitability is based not only on the tendered cost, but also on technical competency, management skills, reliability, safety and timeliness.

At NGC, the selection process begins with the production of high quality bid documents, including a clearly defined project scope and unambiguous contract terms and conditions, and the best procurement method for the project. It is also important that the capabilities of the prospective tenderers be established when inviting tenders or bids.

NGC's tender process is supported by several approved processes and guidelines, including its tender rules, Delegation of Authorities Manual (DOM), prequalification for its contractors, and explicit guidelines for evaluation.

The ultimate goal of the tender evaluation process is to help NGC select the tender (bid) or proposal that offers best value for money in the procurement of goods, works and services in accordance with the requirements of the specific tender.

## **Tender Evaluation Using Weighted Criteria (TEWC)**

While it is usual that the lowest priced acceptable bid is selected, there are instances when the non-cost factors are as important as, or even more important than, the price. In such cases, the Tender Evaluation Using Weighted Criteria (TEWC) method can be used,

By DANFORD MAPP, BSc,  
MSc, PMP  
Manager, Project Management  
Control Unit, NGC.

which allows for the award of contract based on pre-established point values for quantitative and qualitative bid components. As a result, the more suitable tenders can be determined not just on price, but on a series of criteria which can impact the quality and timeliness of the delivery of the goods or services in question.

## **Basic principles of the TEWC**

According to the principles of the TEWC, criteria reflecting critical elements of the project, which can significantly impact its outcome, are assigned weightings that reflect their importance.

Scores assigned to each criterion should be based on information submitted with the tender. The scores given for price and non-price criteria are normalized to allow for the full benefits of the weighting system to be derived.

The weighting distribution between cost and non-cost items are determined by risk factors that can impact the

project. The weighting for price should be lowest for projects requiring innovative technology or methodology, thus minimizing the impact that a high price can have on the overall score. This brings a high tender price into better perspective during the tender evaluation.

The system recognizes contractors who have demonstrated better performance in terms of quality, time, cost and safety performance, the caveat being that one's assessment of the contractor's capability should be based as far as possible on objective criteria that can be measured, e.g. an assessment of the contractor's experience can be the number of projects that he has completed that are of a similar size and scope to the one in question.

## **Selection of criteria**

The criteria are intended to assess the competence of the tenderer to achieve the required project outcome. They should also be selected so that they comprehensively cover all information required to facilitate a satisfactory tender evaluation. Generally a maximum of six relevant criteria may be applied.

Criteria which might result in an unfair advantage or disadvantage to any tenderer should be avoided.

Where tenderers are selected from a list of pre-qualified contractors, some of their capabilities would already have been determined. However, the capabilities of the contractors must also be evaluated within the context of the project's particular time period, as capabilities may fluctuate under certain circumstances. This must be reflected in the tender document.

In cases where the projects are highly

**Criteria which might result in an unfair advantage or disadvantage to any tenderer should be avoided.**

technical, emphasis should be placed on the weightings of the total of the non-cost criteria and the attributes of technical skills and methodology. For projects made up of several separable parts or elements, and which require a number of trade skills as sub-contracts, emphasis (and thus a higher weighting) should be placed upon management skills. A minimum pass mark for the technical aspects of the tender may be included.

Among the criteria frequently used in the TEWC process are:

- Relevant experience, both for company and personnel: this must be assessed in relation to the fields of experience required for the completion of the job, and taken in the context of the size and scope of the current job. Recent experience is valued over historical experience.
- Methodology: the contractor must demonstrate that he has a clear appreciation of the task at hand and also access to and the ability to use appropriate methodology.
- Past performance: areas to be considered are compliance with standards, on-time completion, claims filed, EHSS record, project management, project value, and adherence to budget.
- Management skills and systems: contractors must be able to support appropriate management personnel with effective systems and methods.
- Technical skills: the management, technical and professional persons the contractor proposes to employ must have the skills required for the satisfactory completion of the project.

Also important:

- Resources: equipment, finances, facilities, intellectual property, etc. must be available and sufficient for the size of the project.
- EHSS record.

- Price: the price quoted must cover all costs over the duration of the project.

Evaluation committees assigning a weight of less than 50% for price must give a clear justification for this decision.

The best practice is for the evaluation criteria to be determined before the tender is issued, and, for purposes of transparency, included in the tender document. It is also recommended that the weightings be indicated. The drawback to this practice, however, is that tenderers may then choose to formulate their tender or proposal in a way that best satisfies the criteria and weightings in question, which may lead to tenders that give a false impression of their capabilities. The onus is then upon the evaluators to get past these smoke screens to find the true essence of the tender and determine what exactly is being offered.

The sum of all weights must be 100%, and the weighting distribution must reflect the relative importance of each criterion.

### Tender evaluation process

Prior to the evaluation of the tenders, the evaluation team should meet. Here they should review the evaluation criteria, set objective targets for each area and, if required, establish minimum pass percentages in each area. The final part of this step is to review the tender evaluation methodology.

The next step is to review each tender for contractual compliance, and, if information needs to be verified, it should be done at this time. Exceptions, omissions and arithmetic errors should be reviewed or clarified at this point, and care must be taken to determine whether these might ultimately add to the eventual cost, delay the completion of the project or are at odds with the spirit and intent of the tender. The evaluation team must ascertain whether the exceptions or omissions render a

tender non-compliant. The mandatory submittals for tender acceptance should be clearly stated in the tender documents.

The onus is on the evaluation team to do the necessary follow-ups and background checks to verify information given by the contractor. While much of this information is usually covered by the pre-qualification process, there are instances in which non-prequalified contractors may be asked to submit a bid. In this case, tenderers may be required to submit the needed information with their bids. This information can be evaluated separately, and only those who meet the necessary standards will have their tenders considered. This is sometimes referred to as a post-qualification process.

Generally, the tender evaluation committee should consist of three members selected by the Project Manager. Evaluations conducted by one person are discouraged, to reduce the likelihood of subjectivity influencing the outcome. Group bias, on the other hand, can be avoided by having each evaluator assign their individual score, with an average being arrived at when these scores are combined. Where the individual scores vary widely, the team should review their process in order to determine whether all information has been considered.

The tenders are then scored according to the information provided. If clarification is needed from any contractor, these requests should be passed through the Secretary of the Tenders Committee.

### Scoring Non-Price Criteria

Once the average score from the three evaluators has been determined, each criterion is given a score ranging from 0 (poor) to 10 (excellent), with increments of 0.5. The scores are then multiplied by the weight, giving the weighted score. For example, a criterion may be calculated as  $8 \times 30\% = 2.40$ .

The sums of non-price scores are then normalized to 10, meaning that a transformation is applied uniformly to each element in a set of data so that the set has statistical property.

The formula applied to normalize non-price scores is:

$$\frac{\text{Sum of non-price score for each tender} \times 10}{\text{Highest sum of non-price scores}}$$

The result is adjusted for the total weighting of all non-price criteria to obtain the overall weighted non-price score. Here is an example of the process:

### Scoring Price

Here is the process for scoring price:

$$\text{Normalised price score} = \frac{\text{lowest tender price} \times 10}{\text{tender price}}$$

This results in a higher score for the lowest price.

| Tenderer   | Tenders (in ascending order) | Normalized Price |
|------------|------------------------------|------------------|
| Tenderer 1 | \$1,282,000.00               | 10               |
| Tenderer 2 | \$1,333,000.00               | 9.62             |
| Tenderer 3 | \$1,925,000.00               | 6.66             |

If tender prices received vary greatly from the in-house Engineer's Estimate the reasons for such disparity should be carefully examined and a determination made as to whether the prices are still acceptable.

### TOTAL SCORES

#### Equivalency rule

If the difference in scores between the first and second ranked tenderers is less than 5%, the lowest priced tender is deemed the preferred tender unless there are specific reasons to choose otherwise.

### Alternative tenders

If, under the Conditions of Tendering, and alternative tender is submitted, (providing a conforming tender is also submitted), the evaluation method will be similar. However, only one tender is usually evaluated for each tenderer; The alternative is either accepted or rejected. Where the alternative is accepted, the conforming tender is put aside, and the evaluation made on the price and information submitted with the alternative.

### Evaluation Report

The evaluation committee is required to submit a report, which describes the tender evaluation process, the selection criteria, the scoring methodology for all valid tenders and recommends a preferred tender. All members of the committee must endorse both the report and the recommendation, and it is then forwarded to the appropriate committee for review and approval.

### Greater transparency and fulfilled expectations

With so many large and important projects ongoing, in its future, NGC will find that the Tender Evaluation Using Weighted Criteria (TEWC) method will serve it well during evaluations of tenders of all sizes.

The method not only heightens the transparency of the tender process, but also improves the likelihood that the best contractor is selected and that project delivery is improved, thus fulfilling the expectations of both the contractor and the Company.

|                          |                | Tenderer 1     | Tenderer 2     | Tenderer 3 |
|--------------------------|----------------|----------------|----------------|------------|
| Criteria 1, weight 20%   | Score          | 9.00           | 8.00           | 9.00       |
|                          | Weighted score | 1.80           | 1.60           | 1.80       |
| Criteria 2, weight 10%   | Score          | 7.00           | 8.00           | 7.50       |
|                          | Weighted score | 0.70           | 0.80           | 0.75       |
| Criteria 3, weight 10%   | Score          | 7.00           | 6.00           | 9.00       |
|                          | Weighted score | 0.70           | 0.60           | 0.90       |
| Total weighted sum = 40% |                | 3.20           | 3.00           | 3.45       |
| Total non-price criteria |                |                |                |            |
| Normalized non-price     |                | 3.20 x 10/3.45 | 3.00 x 10/3.45 | 10.00      |
|                          |                | 9.28           | 8.70           | 10.00      |
| Weighted non-price       | 40%            | 3.71           | 3.48           | 4.00       |

|                          |                | Tenderer 1    | Tenderer 2 | Tenderer 3 |
|--------------------------|----------------|---------------|------------|------------|
| Criteria 1, weight 20%   | Weighted score | 1.80          | 1.60       | 1.80       |
| Criteria 2, weight 10%   | Weighted score | 0.70          | 0.80       | 0.75       |
| Criteria 3, weight 10%   | Weighted score | 0.70          | 0.60       | 0.90       |
| Total non-price criteria | 3.20           | 3.00          | 3.45       |            |
| Normalized non-price     | 3.2 x 10/3.45  | 3.0 x 10/3.45 | 10         |            |
|                          | 9.28           | 8.70          | 10         |            |
| Weighted non-price       | 40%            | 3.71          | 3.48       | 4.00       |
| Normalized price         |                | 10.00         | 9.62       | 6.66       |
| Weighted Price           | 60%            | 6.00          | 5.77       | 4.00       |
| Totals                   | 100%           | 9.71          | 9.25       | 8.00       |



# IMPACT OF DIGITAL TECHNOLOGY ON COMMUNICATIONS AND THE FUTURE

Ask employees in an office poll what the most important resource is in their area of work. While the answers may be wide and varied, they all cost money. Ask most managers or supervisors the same question and you just might get a politically correct response like “the people”. On more careful consideration, the answers for both groups reside in the same place: money! In the attempt to satisfy most, if not all of the competing interests in corporate governance, the area of digital technology is often undervalued. It can, after all, be quite an expensive undertaking.

Digital technology generates, stores, and processes data. It is used primarily with new physical communications media-like satellite and fiber optic transmissions and really represents the evolution of analog technology to bits and bytes, megabytes and gigabytes. However, before this advancement in digital technology, there existed moving pictures on video and still pictures on film. Going digital is going cutting edge; it is an upgrade. It reduces storage space and preserves data with no loss in quality. New technologies have also facilitated

By MICHAEL LONDON,  
Production Co-ordinator, NGC.

the rapid progression of globalization and an increasingly borderless world. It has even allowed us to create our own virtual realities and journey into the world of cyberspace.

With this in mind, a business now has another invaluable resource at its disposal: its history. Put another way, its memories, its archives, its legacy—and how it uses this to communicate its vision, product, strategy and even its people internally and externally. After all, these are arguably the elements that drive us in our personal lives. Even though the moment is often lost on us or, worse yet, sacrificed for more immediate and gratifying pursuits like the bottom line, long after the days of here and now are faded—the snapshots in that dusty album lodged below the coffee stand in our living room or put away somewhere towards the back of the closet cupboard become the true treasures of our life’s work.

Over time the memory fades, but if a picture paints a thousand words, video tells the story as it is and the way you

want to tell it. The still picture causes the mind to wonder, and the imagination to fantasy, but video can paint the picture you want and communicate information you choose and control. This may or may not be your present-day ambition, but it is the way of the world. Those of us not on the bus will be left behind. Some, recognizing the power of video as it relates to digital technology, but resistant to making the monetary investment, may still commission videos to be made, but do nothing with them for the moment. But the ones who don’t share the vision will have lost moments that are never to be had again.

Now that we have the images committed to contemporary media, the question is: What do we do with them? The answer is simple...share them! This allows us to let others discover who we are. In the world of business, this is of strategic importance for many obvious reasons. And whether at home or at work, we are all discovering just how much we like to see ourselves. The “new” world of digital social media makes this possible with no barriers of time or space. Social media represents low-cost tools that are used to combine digital technology with social interaction. These tools are typically Internet- or mobile-based. You might have heard of some: Twitter, Facebook, MySpace and YouTube.

One advantage of social media is the huge marketing potential that it provides when companies try to communicate with existing and potential customers, as well as their peers. It allows for a more personalized brand, while putting the message across in a relaxed and conversational way. It presents a great platform for a business to advertise – much cheaper than running ads through traditional media like press and television. Coverage can be limitless, cost

**Going digital is going cutting edge; it is an upgrade. It reduces storage space and preserves data with no loss in quality. New technologies have also facilitated the rapid progression of globalization and an increasingly borderless world. It has even allowed us to create our own virtual realities and journey into the world of cyberspace.**

is competitive, speed is almost immediate and effectiveness can be more accurately measured.

Some of the companies that have become involved in digital social media in very innovative ways include Absolut Vodka, BMW and Dunkin' Donuts.

Closer to home at NGC, the multimedia revolution is very much a part of our business life with the setting up of a Production Unit in the Corporate Communications Division in 2008. This unit has been providing production solutions for the company's multimedia platforms: digital screens, Internet, Intranet and e-newsletter – as well as graphic designs for print publications. This growing area is intended to support the Corporate Communications function of supporting the NGC brand to stakeholders – internal and external.

NGC has installed over twenty LCD screens across the Company to link locations with general and specific communication needs that ensure that the NGC internal public is kept abreast of the company's activities and successes.

Other digital strategy such as the social media is being integrated. NGC's future communication thrust will look at the benefits of Facebook, mindful of possible negative impacts on employee productivity yet seeking to capitalise on the innovation for the corporate good.

In 2010, NGC created a mini site on its internet website to promote the 2010

**Today's digital technology is “many to many”, and epitomized by the Internet where everyone is connected but no one is in control.**

Gas Rush Competition to secondary schools. The linking of the mini site to Facebook provided the Company with student feedback and an advertising tool that proved to be both targeted and inexpensive when compared to other advertising strategies.

Today's digital technology is “many to many”, and epitomized by the Internet where everyone is connected. A school in France has been digitizing its old film photos and posting them on Flickr.com. Every year just before graduation, the Fessenden School takes a class picture in front of the main school building. They turned this annual tradition into a Flickr “set”. What happened next was something no one could have predicted. Internet hits on its admissions page skyrocketed. The school was introduced to a whole new world, through Flickr, as web surfers stumbled upon the school's fascinating sense of fashion over the years. It is definitely a case of unintended consequences, but one that underscores the power of social media. We can use the example of the Fessenden School to ask two important

questions going forward: What else can we do with our digital image files? And who else might be a potential audience? This could be of some relevance to NGC which has a vast photographic archive developed over the past 36 years.

If you still have any doubt as to the power of digital social media, then consider how it helped Barack Obama become the world's most powerful man. He has been seen as a leader in the use of Twitter during the last U.S. presidential election.

“The now famous ‘Yes We Can’ video on YouTube was not made by the Obama campaign, but by hip hop star Will.i.am who produced it and uploaded it onto the Web. The video quickly went viral, and before Obama won the election, it had been viewed 20 million times.”<sup>2</sup>

The takeaway for businesses then, is to go where your customers are. It's important to join their groups, share in their conversations, and become a part of their communities.

We are somewhat challenged in T&T; Internet access is still not available to every household. Certainly, Internet on the go and wi-fi hot spots are not as commonplace as in the United States. And while some digital social networks like Facebook and YouTube are clicking crazily for a growing number of people in this country, there are many local social networks that are yet to effectively integrate. We have a long way to go, but we are getting there fast!

#### References:

- 1 *The Curious Incident of the French Using Flickr for Fashion*, By Travis Warren | April, 2011.
- 2 *Throwing Sheep in the Boardroom: How Online Social Networking Will Transform Your Life, Work and World* (Wiley, 2008, ISBN: 0470740140).

**This unit has been providing production solutions for the company's multimedia platforms: digital screens, Internet, Intranet and e-newsletter – as well as graphic designs for print publications. This growing area is intended to support the Corporate Communications function of supporting the NGC brand to stakeholders – internal and external.**

## NGC Rating

Moody's said it expects NGC profile, strategic direction and financial policies to remain largely unchanged over the next 12-18 months. This follows Moody's confirmation of NGC's Baa1 senior unsecured bond rating with a stable outlook which is supported by the NGC's monopoly operation in the wholesale transmission and distribution of natural gas for the country's gas-based energy sector.

## NGC Makes \$1.5b Profit in First Six Months of 2010

NGC maintained its profitability for the first six months of 2010 with a sales turnover of TT\$6.7 billion and After Tax Profit of \$1.5 billion. Conversely, up to same period in 2009, NGC had posted an After Tax Profit of \$623 million, mostly because commodity prices for the first half of 2010 were more favourable than the comparative period in 2009. "As a result, NGC's core business of purchase, transportation and sale of natural gas remained stable despite the negative impact of the global financial crisis," Chairman Larry Howai said. NGC also continued its infrastructure development works to expand its pipeline capacity while it maintained investments in the liquefied natural gas and natural gas liquids business, he added.

## Occupational Safety & Health Week 2011

This year's Occupational Safety & Health Week 2011 theme is "Zero Accidents – Mission ImPossible". OSH Week will take place from 26-29 April, 2011. NGC's EHS goal is to achieve a zero EHS footprint. This philosophy is not merely about the absence of accidents, but the "presence of safety".

What does it mean to have a culture of "zero footprint"?

- Zero "footprint" means **Excellence**.
- Excellence requires **Change**.



*Pipelaying in the marine environment.*

- Change requires **Trust**.
- Trust requires **Leadership**.
- Leadership requires **Ethical Behaviour**.

There is somewhat of a gap at the Contractor level, where some of our key contractors' management systems appear not to engender a generative culture. Recognizing that we needed to reaffirm with our contractors that NGC drives toward to a "zero-incident" culture, the President suggested that we facilitate a one-day Contractor forum. This will be the main focus of our OSH Week 2011.

Staff need not fear about being excluded from the Week's activities, as we will facilitate, with the assistance of HR Training Department, an internationally recognized First Aid and CPR training course

## PPVS Project Headed Toward Million-Man-Hour Mark

The Phoenix Park Valve Station (PPVS) project moves cautiously forward, as staff and contractors alike look forward to achieving the landmark of 1,000,000 man-hours without a Lost Time Accident. At present, it stands at 924,000 man-hours, with completion

at 83%. The Site Interface Building is approximately 50% completed, and should be finished by early May. It is being constructed by Super Industrial Services (SIS) and has been progressing well. The electrical kiosk, which will house all electrical equipment and wiring, was finished in January. Works by the mechanical contractor, Trinweld, are just 60% completed, primarily because of recent rains and some degree of rework to be done. The slug catcher is completed, and two scrubbers have been installed at the top to remove light ends.

The 180-foot-high flare stack has been tied in to the system and is awaiting testing. In May, hot taps will be done to tie the new facility into the existing live facility. Preparations for this operation are being performed, including the relevant documentation and authorizations. While all major civil works have been done, there are still a few minor tasks to be performed in this area. These will be done in due course, when related elements, such as pipes, are being installed. The contractor is preparing for pre-commissioning activities. Test packs for all systems are currently being prepared, so that all elements of the project can be tested at



the same time. This testing is due to take place by July.

## NEO On Stream for Completion

In April, the NEO project team will undertake and complete the hydro-test of the 10.4km NEO Onshore pipeline segment. This will culminate 12 months of difficult and tiring work given the many associated challenges, including rugged terrain, and poor weather conditions up to the end of March. However, the pipeline has been built to exceed international standards and codes. The schedule is now to complete the last two "tie-in" welds to the offshore pipeline (golden welds) by end of April and commence the dewatering and N2 packing of the entire 94-km pipeline. NGC should be able to receive gas from BHP Billiton by May.

## Union Industrial Estate Pipeline Commissioned

The Union Pipeline Project, excluding the HDPE distribution pipeline to LABIDCO, has been completed and was commissioned on April 20, 2011. A supply of gas to the Trinidad Generation Unlimited (TGU) power plant is now available and NGC will commence distribution as soon the power plant is ready.

The project comprised a 24-inch-diameter supply pipeline connected to the 56-inch pipeline at Grant's Trace and continuing on to the Union Industrial Estate (UIE) at La Brea. It also included a pig launcher at Rousillac and a pig receiver at the main facility at Union, as well as liquids separation and storage, a gas metering and pressure regulation system.

The second part of the project, an 8-inch High Density Polyethylene (HDPE) distribution pipeline to users on the Union and LABIDCO Industrial Estates, has now begun. The contractor, API, has received formal notice to

**Other civil works include the construction of dykes around the tanks and foundations for machinery such as pumps.**

proceed. The mobilization process, including the training and certification of workers, commenced in late April. This part of the project is included within the scope of the original contract.

In keeping with NGC's policy to minimize disturbance to environmentally sensitive or high-traffic surfaces, the company will be performing a Horizontal Directional Drilling (HDD) under the Southern Main Road at the roundabout at LABIDCO.

Being made of polyethylene, the pipes do not require welding, but the 12-metre-long lengths will be joined in a fusion process, in which they are heated, pressed together and allowed to cool.

The HDPE pipeline will be ready for use by the 3rd quarter of 2011. NGC's first client on this line will be Lake Asphalt.

## Liquid Fuels Pipeline System (LFPS)

NGC is constructing an 8-inch liquid fuels pipeline to transport liquid fuels (gasoline, diesel and jet fuel) from Petrotrin, Pointe-a-Pierre to the Frederick Settlement Facility, Caroni. From here, the jet fuel will continue on to Piarco International Airport via another 8-inch pipeline segment. This system will allow liquid fuels to be transported underground safely and quickly, and eliminate the need for transportation by tanker from Petrotrin to Sea Lots. It will also eliminate the use of tank wagons to transport jet fuel to the airport.

The main LFP pipeline has been constructed and the project team is

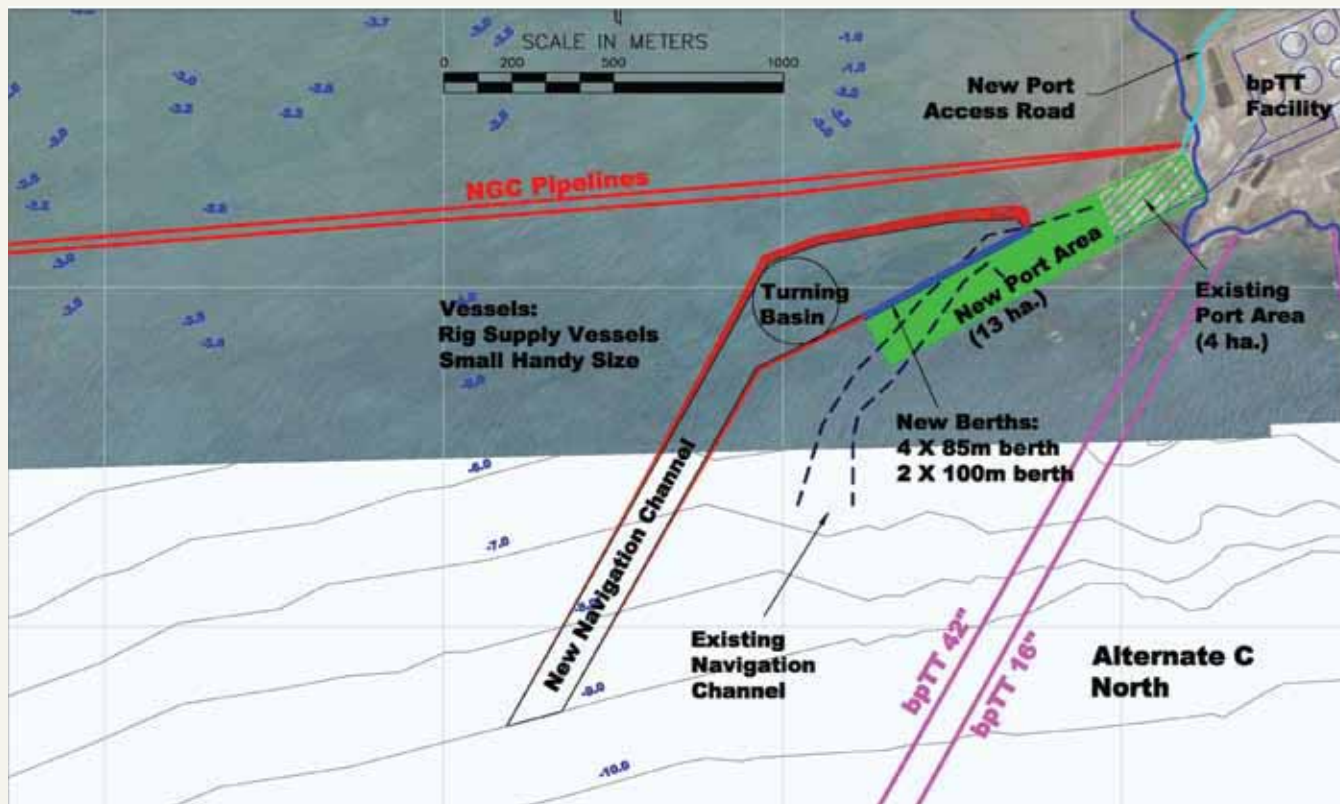
in the process of installing motor-operated valves at the Couva, Caroni and Guayamare rivers. The valves will allow for the quick and effective response to leaks and other emergencies. Installation will take about six weeks, and the line will be pigged thereafter.

**Petrotrin**, the State-owned oil company, is due to install a short cross-refinery pipeline internal to its compound to connect the LFPS, which starts at the Gasparillo gate at the eastern side, to the tanks, which are located at the western side of the compound. Underground and civil works are ongoing, although tank foundations are finished. Other civil works include the construction of dykes around the tanks and foundations for equipment such as pumps. Electrical works continue. Construction of the tanks on the Petrotrin compound is in progress, and is about 60% completed.

**At the Frederick Settlement Facility in Caroni**, all storage tanks are completed. The foundations, on which various pieces of equipment such as tanks will be placed, are finished and piping works are in progress. Smaller buildings are in varying stages of completion, while the main control building, electrical and security buildings have been constructed, with roofs installed. Finishing works on these are being done. After this, Electrical and Instrumentation systems, including fibre optic cables, will then be put in. NGC is also in the process of constructing access roads into the facility.

**At Piarco** the tanks have been completed and hydro-tested, and mechanical works are in progress.

Site acceptance tests on the operator training simulator were completed in April. NP will schedule further training sessions where appropriate. Pre-commissioning and preservation procedures are ongoing. The Liquid Fuels Pipeline System is expected to be completed by the 3rd quarter of 2011.



*Galeota Port schematic drawing*

## Galeota Fish Landing Facility

Work continues at the Galeota Fish Landing Facility, which NEC is developing as a corporate contribution to the fishing community of Mayaro/Guayaguayare. The facility will alleviate problems being experienced by fisherfolk in the area due to the lack of facilities for boat repair and landing of fish catch. Preparation of the area, such as filling, piling and rock revetment, are almost 100% complete, and construction of the buildings will begin soon. The new facility will include a large landing area, cleaning areas, storage and refrigeration, and change and bathroom facilities for the fishermen. There will also be an area for net and engine repairs, and boat users will be able to fill up on gasoline and diesel on site.

The facility is expected to be ready for use in July, at which time NEC will hand it over to the relevant Regional Authority, who will then assume responsibility for it.

## Galeota Port

NEC expects to come to an arrangement soon with bpTT, which now holds the lease for the Galeota Port, to transfer the parcel of land earmarked for the construction of the new port facility to them so that construction can begin. This arrangement will involve excision of about eight acres of land from bpTT back to the state.

The new facility will allow the users of marine blocks off the east coast such as NGC, bpTT, BHP, Repsol and BG, to perform their logistics shipping

operations from Galeota rather than rely on the facility at Chaguaramas as is now the case.

This will be particularly useful given the recent emphasis being placed on deep water drilling off the southeast coast, and will save parties involved in Exploration and Production much time and expense.

The existing structure, which is now unfit for use, will be removed. The new port will consist of five berths with a depth of 7.6 m (25 ft.) to accommodate Rig Service Vehicles (RSVs). The buildings and related structures such as loading and unloading equipment will be constructed by contractors.

Once all approvals from bpTT are in place, NEC expects to begin work by the end of May. This project will take between 18 and 24 months to complete.



*Brighton Port and Fabrication Yard*

## **Brighton Port and Material Storage and Handling Facility**

Capital dredging, which began at the La Brea Harbour in August 2010, was completed at the beginning of February this year. The scope of the operations included the deepening of the existing access channel and turning basin to a depth of -12.8m chart datum, and the widening of the turning basin to a diameter of 500 metres.

Following these operations, the Port will be able to accommodate both Panamax (not exceeding 50,000 dwt) and Handymax (30,000 dwt) vessels at the 300 m long dock (completed in December 2009), with a maximum of

one Panamax and one Handymax at any given time.

Following the cancellation of the Alutrint project by the new GORTT, the Alutrint Material Storage & Handling Facility (AMSHF) at the Brighton Port has been scaled down and can now be considered to accommodate, among other things, materials such as iron ore and aggregate for road construction, specifically materials destined for use in the highway construction project to Point Fortin.

The 8.5 hectare area, of which approximately five hectares were reclaimed by NEC, which was originally earmarked for the AMSHF project, currently includes warehouses of differing sizes, offices, and a network of

roads and drains, a firefighting system, and all other basic utilities.

In order to minimize losses and contractor claims associated with the cessation of the Alutrint project, the construction of the abovementioned items continued, with items such as the pneumatic ship unloader, conveyor system and storage silos deleted from the contract.

As at the end of March, the project was substantially completed. Minor works to close out the project are under way, and the contractor is expected to hand it over to NEC soon.

NEC is now seeking tenants for the materials handling facility, and so far some parties have indicated their interest. The Brighton Port project first began in 2008.





### **Business Opportunities in Photovoltaic Cell Manufacturing**

The Energy Chamber recently hosted an energy luncheon on April 20, 2011 to highlight business opportunities in photovoltaic cell manufacturing, which is projected to be a growing industry, globally.

A Solar Park proposed by SiTek Ltd, is an opportunity for local energy services companies to move into solar manufacturing/renewing energies. Their concept is to develop a solar energy-focused manufacturing cluster producing high tech products primarily for export to the USA and Europe and other

emerging markets such as India, Canada and Southeast Asia.

### **More Transparency in Energy Revenue Reporting**

The Government of Trinidad and Tobago intends to implement new policies which will make information on energy revenue earned by the State more readily available to the public. This comes after T&T's acceptance into Candidate Country Status by the Extractive Industries Transparency Initiative (EITI) during the fifth global conference. The theme of the conference held in Paris, France, was "Transparency Counts".

The EITI is a coalition of governments, companies, civil society groups, investors and international organizations, and sets the global standard for transparency of oil, gas and mining revenues.

As one of its newest members, Trinidad and Tobago will be given two years to successfully implement new policies, including the annual disclosure of taxes and non-tax revenues paid to the state by local energy companies. After being independently audited, this data will be published by the Government.

If at the end of two years T&T attains the necessary standards in this regard, the country will be granted the status of EITI Compliant Country.

## New Nigeria-TT Chamber of Commerce Launched

A new Nigeria-Trinidad and Tobago Chamber of Commerce has been created to facilitate the expanding bilateral trade and partnerships taking place between the two countries.

The Chamber of Commerce was launched in February by Nigerian Minister of State, Niger Delta, Samuel Ode, and Nigerian High Commissioner to Trinidad and Tobago, H.E. Musa John Jen, who considered the timing especially appropriate in view of the UN's declaration of the year 2011 as the year of People of African Descent.

High Commissioner John Jen said he saw great business opportunities for parties in T&T and Nigeria which could be facilitated by the new Chamber, which was created by several Nigerians based in the country.

Among the sectors expected to benefit from closer linkages are energy, agriculture, education, technology, tourism and transportation.

## T&T Confident About Deep Water Blocks

As bidding for 11 deepwater blocks closed in February, there is renewed confidence that new oil and natural gas opportunities will arise out of the exploration.

At present, the Ministry of Energy is seeking companies to explore T&T's deep water blocks in an effort to maintain the country's competitiveness with other countries such as Mexico, Brazil and Indonesia. The tax rate has been lowered from 50 to 35 percent as an incentive to investors, who, like everyone, are facing economic challenges in the current climate, especially with the high capital costs deep water exploration entails.

The Ministry has been pursuing international investors, and this has attracted some attention. The blocks



*H.E. Musa John Jen – High Commissioner for Nigeria in Trinidad*

were selected based on the interests expressed. Some of those who indicated their interest were companies which, at some time or other, have operated within Trinidad and Tobago. Among those identified are Total, Chevron, bpTT and British Gas.

It is anticipated that once the bids have been evaluated and contracts signed there is likely to be exploration activity in the deepwater areas in 2011. Another advantage of looking to drill in deeper waters would be that the local services sector would develop additional skills and expertise.

## Light Oil and Natural Gas – Onshore Moruga

The first discovery of light oil onshore in Trinidad in 50 years was announced by Primera Energy Resources. Drilling in the Cory Moruga block suggests rates of up to 1,450 barrels of oil per day and natural gas up to 6.2 MM cubic feet per day.

After the necessary agreements and approvals are attained, Primera expects to get this promising new well on stream and to do some follow-up drilling.

Primera also has several additional "high impact" prospects that have been seismically identified on the block and is seeking regulatory approval to conduct future exploratory drilling. Primera is majority owned by the CL Financial group, and is one of several CL Financial

companies which the Government is looking to divest.

## T&T LNG

Low LNG prices in the US and the resulting low netback prices here in T&T have lead the Minister of Energy and Energy Industries to seek Cabinet approval to renegotiate the formula on which netback prices are calculated. The Minister sees the proposed changes to the formulae for the calculation of netback prices as a remedy to current inequities, which favour the LNG marketing companies rather than all parties in the value chain.

Minister Seepersad-Bachan explained that the increasing reliance on shale gas by LNG-importing countries has significantly changed the face of the LNG industry. This is particularly so in the United States, a major consumer of T&T's LNG. The oversaturation within the US has resulted in LNG cargoes being deployed to Europe and Asia instead.

## Trinidad and Tobago Energy Conference

According to Energy Chamber President, Mr. Charles Percy, at the opening of the Trinidad and Tobago Energy Conference held in February, while the last two years had been challenging for the oil sector, the petrochemicals sector had grown steadily since 2008, with improving methanol and ammonia global prices and the coming on stream of MHTL's AUM facility. In fact, when the petrochemicals sector was compared to the oil sector, he said the latter had underperformed, despite high global oil commodity prices.

However, Mr. Percy confirmed that while the energy services sector was small when compared to the exploration, production and petrochemicals sectors, the sector was a significant employer, comprising mainly small to medium-sized locally-owned companies.



one  
moment  
please

to reflect on the beauty  
that surrounds us here  
in Trinidad and Tobago

A bougainvillea basks in the sunlight from the balcony of a beach house overlooking Yarra Bay, north Trinidad. Named after French admiral and explorer Louis Antoine de Bougainville, the plant was discovered by botanist Philibert Commerçon in 1768 in Brazil.

Bougainvillea comes in several different species and colours, ranging from bright red to crimson, magenta, purple, pink, orange, yellow, and cream, white, as well as pastels and blends, and is a common sight, especially during the dry season in Trinidad and Tobago.

*Photo by Kevin Reis*





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