



Government of the Republic of Trinidad and Tobago  
MINISTRY OF ENERGY AND ENERGY AFFAIRS



PETROLEUM COMPANY  
OF TRINIDAD AND TOBAGO LIMITED



## NGC



PHOENIX PARK  
GAS PROCESSORS LIMITED

**National Energy**<sup>N</sup>  
CORPORATION OF TRINIDAD AND TOBAGO



TRINIDAD & TOBAGO NATIONAL PETROLEUM  
MARKETING COMPANY LIMITED



## T&T HOSTS LANDMARK ENERGY MEETINGS

THE MINISTRY OF ENERGY AND ENERGY AFFAIRS  
**ENERGY PAVILION**



LOOKING AT OPTIONS  
FOR THE FUTURE  
Page 4



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# NGC'S SPIRIT OF RESILIENCE, STRENGTH AND INNOVATION

It is always a pleasure to address the many readers of our corporate journal and to provide a comprehensive review of the natural gas sector. This is the first issue for 2015 and it provides an overview of activities being pursued for the sustainability of Trinidad and Tobago's gas-based energy sector. Our diversified and high quality portfolio reflects a truly integrated local energy company participating along all parts of the local hydrocarbon value chain and our results demonstrate that these assets are performing well - this was evidenced by the NGC Group's successful year in 2014. We look forward to surpassing these results not only in terms of profitability, but in driving our strategic goal of globalising our operational footprint by building on our 40 years of business expertise and supported by a robust financial position.



Indeed, in August 2015, NGC will celebrate 40 years as a corporate entity. This is truly a significant milestone.

We have grown from a small gas-based business to one of the leading corporate entities in the Caribbean with an asset base of US\$7 billion. In doing this, NGC has fuelled the growth and economic development of Trinidad and Tobago and is delivering on its ambitious initial mandate to grow and expand the local natural gas industry, as well as to promote and facilitate Trinidad and Tobago as a premier investment location for businesses interested in natural gas-based activities. Much of this achievement is down to the highly skilled and committed people who have worked - and who work - for us. They drove the pioneering mission that we were given 40 years ago and that spirit continues to drive our outlook to present. It is therefore essential to acknowledge, with gratitude, this contribution as we reflect on our achievements.

In my view, the purpose of NGC remains as valid today as it was 40 years ago, namely to actively contribute to a thriving economy, ensure the sustainability of the nation's precious resource of natural gas and fulfil its Corporate Social Responsibility (CSR) to each citizen of Trinidad and Tobago.

All this is within the context of and against a changing, sometimes challenging,



Mr. Indar Maharaj - President, NGC

operating environment, and I am therefore pleased that we can include in this issue a review of the *Petroleum Economist's* Hydrocarbons Strategy Forum and the Energy Chamber's Energy Conference 2015. Both of these fora provided platforms for conversations about the sector's future amongst its players, and proved especially important as the NGC Group is committed to sustaining a healthy business environment here in Trinidad and Tobago whilst also pursuing viable options in prospective attractive global markets.

We also discuss the importance of the completed Trinidad and Tobago and Caribbean Energy Maps, which have become staples in the local energy landscape. A step-by-step discussion on Gas Processing by our subsidiary Phoenix Park Gas Processors Limited (PPGPL) has also been included in this issue, which we think will bring clarity to the enormous role played by the entire NGC Group in the gas value chain.

Also, as you may have noticed, to mark the founding anniversary, we have incorporated a 40-year emblem into the design elements of all communication vehicles and corporate consumables. This will be used over the course of the year and seeks to represent the spirit of resilience, strength and innovation that has made NGC one of the pillars of our national development and prosperity over the last 40 years.

I hope you find this edition informative and rich in insight on the country's world-class natural gas business and on the NGC Group's critical role within the industry.

INDAR MAHARAJ  
President, NGC



# LOOKING AT OPTIONS FOR THE FUTURE - T&T HOSTS LANDMARK ENERGY MEETINGS

The NGC Group is driving a strategy to establish a footing in the international playing field. Cognizant of the fact that the global energy landscape is rapidly changing, it has been paramount for the group to stay abreast of these changes. As such, NGC played a vital role in two recently held meetings of leaders - the Hydrocarbons Strategy Forum hosted by *Petroleum Economist* in December 2014 and the Trinidad and Tobago Energy Conference held in January 2015.



L-R: Dr. Allan Bachan, Chairman, Environmental Management Authority Board; Prof. Andrew Jupiter, Professor of Petroleum Studies, UWI and former President of National Energy; Ms. Anthea Pitt, Executive Editor, *Petroleum Economist*; Mr. Vincent Pereira, President of BHP Billiton Trinidad and Tobago and Dr. Tauseef Salma, Director Operations, Baker Hughes Inc. Trinidad during one of the panel discussions at the *Petroleum Economist's* Hydrocarbons Strategy Forum.

## Facing A Global Future

At the *Petroleum Economist's* Hydrocarbons Strategy Forum, 'Facing a Global Future', the main issue discussed was Trinidad and Tobago's place in the global energy industry. Indeed, Trinidad and Tobago's energy sector has been positioning itself to weather the current volatility in the global oil and natural gas markets. Within this context, over 170 executives, financiers and analysts met at a series of panel discussions that looked at upstream opportunities, the potential for the downstream and midstream industries and the next wave of investment in Trinidad and Tobago.

A number of presentations were provided by key global players and the Minister of Energy and Energy Affairs

of Trinidad and Tobago. Senator the Honourable Kevin C. Ramnarine advised delegates about the current state of the local sector with particular emphasis on the upstream sector and its critical role in ensuring the success of the downstream sector.

The Minister emphasised that Trinidad and Tobago's economic future was tied to the energy sector's upstream performance. This performance was to be seen in light of the fact that the country was producing nine times more natural gas than crude oil on an equivalency basis and so, for quite some time, natural gas was king in Trinidad and Tobago. In this regard, the upstream sector therefore needed to maintain a stable plateau of 4.4 Bcf/d of natural gas production for the next

ten years to keep the economy of the country stable and performing, while new gas provinces were being sought and found.

Given the importance placed in the gas-based energy sector, it is no surprise that the *Petroleum Economist* forum was hosted in partnership with NGC and the Ministry of Energy and Energy Affairs as a high-level, invitation-only event, featuring international guest speakers from major energy companies, finance and academic institutions, as well as representatives from major companies and institutions in Trinidad and Tobago.

Delegates heard that while Trinidad and Tobago - like all energy producing countries - may suffer the effects of the



steep decline in oil prices, the country had a number of advantages which its competitors lacked. With advantages such as being a gas economy with an enviable strategic location, giving easy access to markets in Europe, Asia and the Americas and a business-friendly investment climate, new entrants should be attracted to the country's upstream sector, giving Trinidad and Tobago a degree of flexibility, crucial when the global markets are volatile, thereby helping to better manage the realities of a low oil price environment.

In light of this, the forum featured a number of targeted panel discussions and keynote interviews which looked at a range of issues critical to the energy sector's future. As well as discussing the management of hydrocarbon resources, the forum also looked at Trinidad and Tobago's energy policy, and how best the role of the downstream industry in the country's economy could be both supported and expanded.

"The energy sector is the heart and soul of this country's economy," Senator the Honourable Kevin C. Ramnarine, Minister of Energy and Energy Affairs reiterated. "It is a long-term industry which takes a long-term view of the future. And that is what we are here to discuss." Indeed, he added that investment in the country's upstream sector needed to continue hence the changes to the fiscal regime.

Issues discussed included whether there is scope to increase natural gas production to serve growing markets in Latin America, North Asia and the Atlantic basin; what opportunities exist in the country for investors and other stakeholders; and, what needs to be done in the short, medium and long-term to support further expansion of the country's energy sector.

In addition to the Honourable Minister, speakers included:

- Andrew Walker, Vice President Global LNG, BG Group
- Roly Fisher, CEO, Gasfin



*Senator the Honourable Kevin C. Ramnarine delivering the opening address at The Petroleum Economist Hydrocarbons Strategy Forum*

- Roger Ferguson, Vice President, Commercial and Strategy, Atlantic
- Nobuo Tanaka, Global Associate for Energy Security and Sustainability, Institute of Energy Economics Japan
- Wil Boef, Team Lead Gas and Energy Master Planning, Shell Global Solutions
- Dennis Evans, Managing Director, Caribbean Cluster Head, Citi

Executive Editor of the hosting partner, *Petroleum Economist*, Ms. Anthea Pitt, said: "Trinidad and Tobago's energy sector is at an important juncture. Petroleum Economist is delighted to contribute to the debate about the sector's future. It was a privilege to be able to discuss the country's options with panellists, all of whom brought significant expertise and valuable insight to the issues Trinidad and Tobago faces."

The conference was co-hosted by NGC and sponsored by Atlantic LNG, Citi, Republic Bank, Shell and Trinidad Generation Unlimited.

The Minister highlighted topics under the Natural Gas Master Plan earmarked for completion in 2015, emphasising the following:

- The role of NGC in the future of the energy sector
- Optimising the distribution of gas between Point Fortin and Point Lisas
- Examining the future of development for cross-border reserves between T&T and Venezuela

The Forum also featured panel discussions on:

- upstream opportunities
- the potential for the downstream and midstream industries
- the next wave of investment in Trinidad and Tobago

### **Energy Chamber - Energy Conference: Powering Development and ensuring sustainability**

Crucial issues including the fall in oil and gas prices, suggested removal of the fuel subsidy, penetration of new global markets and options for greater collaboration among stakeholders, were some of the leading topics that were discussed by analysts, executives, government ministers and academics at the recent Energy Conference which was held at the Hyatt Regency Hotel, Port-of-Spain, Trinidad.

NGC was a platinum sponsor of the three-day event, "Powering Development and Ensuring Stability", which was hosted by the Energy Chamber of Trinidad and Tobago, from 26th to 28th January.

Feature speakers included Senator the Honourable Minister of Energy and Energy Affairs, Kevin C. Ramnarine; Senator the Honourable Minister of Finance, Larry Howai; former CEO of BP, Lord John Browne; President of BHP Billiton, Vincent Pereira; CEO of the



Energy Chamber, Dr. Thackwray Driver; President of NGC CNG Company Limited, Curtis Mohammed; and Managing Director of PCS Nitrogen, Mr. Ian Welch, among many others.

At the Energy Conference, President of BGTT, Mr. Garvin Goddard explained that companies can use the impact of declining oil prices as an opportunity to re-examine operations and to review capital, as well as expenditure, in order to ensure greater operational efficiency.

“We have to become innovative,” he told the more than 700 delegates. “In 2015, the company looks to its completion of Starfish, a field with plans for two wells, an appraisal well and an exploratory well to come online by the second quarter of this year.”

Non-Resident Senior Fellow at the Peterson Institute for International Economics, Professor Avinash Persaud postulated that “low energy prices are here to stay” and he expects that the oil price will hover at approximately US\$30.00 per barrel rather than US\$60.00.

In this challenging market, many of the local and global players, including CEO of Trinity Exploration and Production, Mr. Monty Pemberton, and Business Unit Director, Repsol, Mr. Luis Polo Navas, suggested greater collaboration among stakeholders so that resources can be shared and operating costs lowered.

Vice President, Exploration and Production, Petrotrin, Mr. Jamaludin Khan noted that despite falling oil prices, the Company’s upstream business was profitable in 2014. Khan said that, after a decline in 2014, production has stabilised and is beginning to grow, mainly because of its third-party partnerships. Khan also spoke of plans to spend \$2 billion on its drilling programme for 2015, which includes 28 wells on land and eight wells in Trinmar.

“We stand poised to grow... there’s cautious cause for optimism.”

### Going Green

On day one, Mr. Curtis Mohammed, President of NGC CNG Company Limited, a subsidiary of NGC, was commended for his positive outlook during the “Update on Compresses Natural Gas (CNG)” presentation, which was part of the Fuels-Future Trends session. He gave the audience an overview on the objectives and recent advancements of the company. Some of the milestones shared included the commissioning of another state-of-the-art CNG Service Station at Point Lisas, the on-going Maintenance Technical Training programmes being provided, the incentives and competitive pricing available for CNG and hybrid vehicles, as well as the commissioning of CNG public transport vehicles and the public educational campaign, aimed at sharing the benefits of CNG being a “cheaper, cleaner, safer and greener” fuel.

Alternative energy seems to have gained interest by investors and consumers alike.

On day three of the conference, the “Green Energy Day”, one of the more popular sessions featured opportunities for “environmentally-friendly” initiatives in Trinidad and Tobago and the Caribbean region.

With the solar manufacturing sector being estimated at US\$100 billion in 2013 with 20 percent of global demand in the Americas and with Trinidad and

Tobago’s advantages of having very low production costs, easy access to key markets, access to energy and quality raw material as well as industrial infrastructure and skill sets, alternative energy seems to have gained interest among investors and consumers alike.

Speakers included General Manager of PowerGen, Mr. Fitzroy Harewood; President and CEO of International Emissions Trading Association, Mr. Dirk Forrister; Senior Manager, Strategy and Business Development/Advisor to the President, Petrotrin, Mr. Imtiaz Ali; and Mr. Johan Sydow, Managing Director, SiTek Ltd.

Sydow explained that silicon and Solar-PV industries are keen to establish new low-cost locations for manufacturing that were ideally close to markets in the Americas and the Caribbean. He added that the Trinidad and Tobago Solar Technology Park, with InvestTT as the lead agency, received Cabinet support last November for its promotion.

The Solar Technology Park, Phase 1, which may be established at Point Lisas, will include four industrial plants: a Float Glass, Metallurgical Silicon, Polysilicon and Solar-PV. The benefits of Trinidad and Tobago becoming a solar manufacturing hub could lead to industrial diversification, more jobs and revenue per unit of gas. He noted that Trinidad and Tobago also has well developed industrial infrastructure and ports and that the country’s close proximity to the Panama Canal was another asset. The annual conference closed on a high note with an enthusiastic panel discussion on “The Way Forward”.



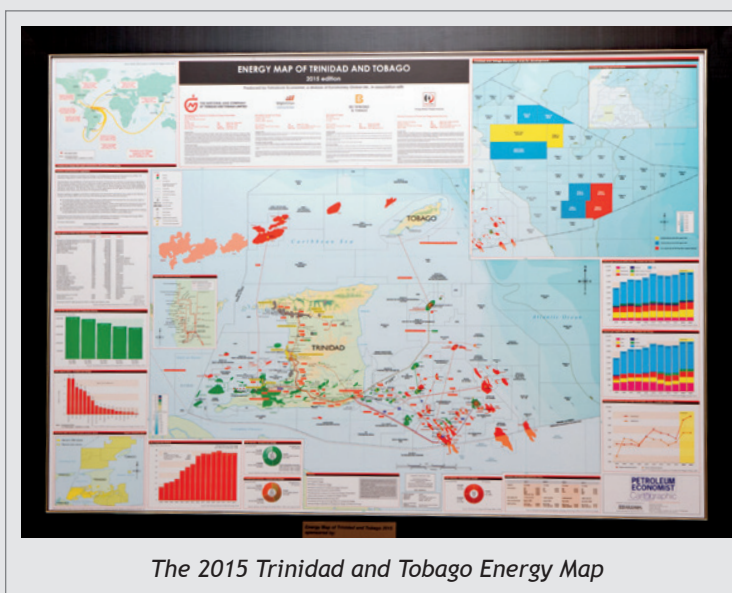
# UNVEILING ENERGY TOOLS FOR T&T AND THE CARIBBEAN

Since the first oil well was drilled in Trinidad in 1857, in the vicinity of the Pitch Lake in La Brea, by the Merrimac Company, T&T has been a long standing member of the global oil and gas fraternity. In keeping with the country's esteemed history, NGC and its partners have had an interest in securing the very best cartographic services to record and highlight the natural gas and oil landscape of the country.

## T&T Energy Map

One such cartographic company, the Petroleum Economist of London, England, recently completed an Energy Map of Trinidad and Tobago (2015 edition), which was launched in December 2014. Produced by Petroleum Economist, a division of Euromoney Global Limited, the map was sponsored by NGC, BHP Billiton, BG Trinidad and Tobago and Petrotrin. It provides comprehensive topographical information on the natural gas fields, oilfields, related pipelines, oil refineries, platforms, ports (including those for general cargo and LNG) and existing, as well as proposed industrial estates, among other energy related information for Trinidad and Tobago.

The Permanent Secretary of Ministry of Energy and Energy Affairs, Mr. Selwyn Lashley welcomed officials to the ceremony, conveying the Ministry's thanks to the sponsors for making the production of the map possible. During the programme, he called on the Minister of Energy and Energy Affairs, Senator the Honourable Kevin C. Ramnarine to unveil the map. Witnessing the unveiling were representatives of the sponsor companies, Mr. Vincent Pereira



*The 2015 Trinidad and Tobago Energy Map*

- Country Manager at BHP Billiton; Ms. Carla Noel Mendez - Director, External Affairs and Community at BHP Billiton; Mr. Garvin Goddard - President & Asset General Manager at BG TT; and Mr. Jamaludin Khan - Vice President Exploration & Production at Petrotrin. The Petroleum Economist was represented by Ms. Anthea Pitt, Executive Editor.

"The map is used by NGC as a communication and educational tool which helps to raise awareness and enhance the international energy profile of Trinidad and Tobago," Ms. Christine Punnett, Head of External Communications at NGC explained recently. As noted in the remarks

conveyed at the launch of the map, Ms. Punnett reiterated, "The map provides companies such as NGC with a platform to showcase its brand to an international audience."

Ms. Punnett has been coordinating various editions of the map on behalf of the sponsor companies since 1994 when the first edition of the T&T Energy Map was produced. Ms. Punnett explains that the production process usually spans six months, involving graphic and editorial inputs from a committed team that consists of representatives from the

sponsor companies and the Ministry of Energy and Energy Affairs, in particular its Draughting Department. The latter is headed by Ms. Carol-Ann De Peaza who worked closely with NGC's External Communications team comprising Ms. Punnett and Ms. Natasha Harrichand Kooarsingh - Public Information Assistant.

The sponsors are in agreement that the aesthetically-designed finished product has become a very popular item, not only in the energy sector, but also with secondary and university level students, technical teams from various state companies and visiting prospective investors.



Available in both print and digital formats, the printed maps in particular, are in high demand here in Trinidad and Tobago, as well as abroad. Copies may be obtained from the Petroleum Economist e-commerce site.

Of interest is that with each edition, the coordination team attempts to improve on the previous edition by the deepening of information carried, as was the case this year when the “Trinidad and Tobago Deepwater Area for Development” segment was expanded and highlighted as the area of most interest to the energy sector of the future.

Noteworthy is that the current 2015 edition also includes sponsor company profiles, charts that share key information on Gas Production History, LNG Exports, Crude Oil and Condensate Production History, Oil Reserves (Proven, Probable and Possible) 2011, and Natural Gas Demand (2005-2015).

### Caribbean Energy Map

What about the Caribbean archipelago? It was not to be left out. In 2014, an Energy Map of the Caribbean was also sponsored but this time by NGC and Petrotrin only. Produced in March 2015, it marked the second occasion an energy map featuring Caribbean energy was produced, the first having been done in 2005.

At the unveiling of the Caribbean Energy Map, the Minister of Energy and Energy Affairs, Senator the Honourable Kevin C. Ramnarine took the opportunity to give a brief history of petroleum production in Trinidad and Tobago. He said he was happy that the country was able to document, whether in books, or by maps, the strides made by a small nation in the world of energy.

Ms. Victoria Behn, Director, Events at Petroleum Economist was also on hand to bring remarks on behalf of her company and to recommit its

availability to continue to provide excellent quality maps of the country.

Mr. Tickaram Roopchandsingh, Vice President - Gas Transmission & Distribution (GTD) of NGC, the map's main sponsor said, “The map targets the entire Caribbean region and its energy potential vis-à-vis the rest of world. However, unlike the T&T Energy Map, which is petroleum focused, the Caribbean Energy Map provides statistics, on a per country basis, detailing the petroleum and other non-petroleum and petroleum energy resources such as hydroelectric power (HEP) and coal found respectively in the region.”

Mr. Roopchandsingh added, “NGC hopes this Map will be an invaluable tool to assist the nation's youth to develop a basic knowledge of petroleum assets and other energy facts that are key drivers of economic development in the Caribbean. The map was also designed as a premier promotional tool to assist NGC in broadening and



VP GTD, Mr. Tickaram Roopchandsingh brought remarks on behalf of NGC at the launch of the 2015 Caribbean Energy Map



*From left to right: Mr. Alastair Harris of FIRST Magazine; Mr. Barton Russell, Ministry of Energy and Energy Affairs' GIS Unit; Mr. Selwyn Lashley, Permanent Secretary, Ministry of Energy and Energy Affairs; Senator the Honorable Minister Kevin C. Ramnarine with The Black Gold Book; Ms. Carol-Ann Frontin De Peaza, Ministry of Energy and Energy Affairs' GIS Unit; Ms. Victoria Behn, Director Events, Petroleum Economist, Mr. Khalid Hassanali, President, Petrotrin; Mr. Jamaludin Khan, VP Exploration and Production, Petrotrin.*

building its brand in the Caribbean Region as a whole and stimulating investment awareness in the Region.”

Like its counterpart map, the Caribbean Energy Map provides pertinent informative comparisons of:

- Oil, natural gas and electricity production and consumption per country
- Major oil and gas fields and pipelines, including planned pipeline projects in Trinidad and Tobago and the Caribbean
- Natural gas transmission infrastructure
- Trinidad LNG destination routes

Those who wish to view the maps can visit (<http://ngc.co.tt/wp-content/uploads/pdf/publications/energy-map-of-caribbean-2015.pdf>) to learn more

about the energy of the country and the Caribbean Region.

## The Black Gold Book

The March 2015 unveiling of the Caribbean Energy Map also doubled as the launch of the Trinidad and Tobago - The Black Gold Book published by FIRST Magazine of London, which chronicles the history and development of the local energy landscape from 1857 to 2013 and pays tribute to local energy stalwarts such as Doddridge Alleyne, Barry Barnes, Trevor Boopsingh, Barry Carr-Brown, Walton James and Kevin Ramnath.

The book's Executive Publisher and Editor of FIRST Magazine is Mr. Alastair Harris who is well known in the energy publishing world and no stranger to Trinidad and Tobago. Mr. Harris paid special tribute and acknowledged the

assistance of the Ministry of Energy and Energy Affairs, Senator, the Honourable Kevin Ramnarine and staff of his ministry.

Many individuals also contributed to the publication, including NGC's Head, External Communications and Gasco Managing Editor, Ms. Christine Punnett who was given special thanks for invaluable advice and support that made the book possible.



# THE INTEGRATED NATURE OF GAS PROCESSING

INTERVIEW WITH: Bhim Roopnarine, Process Superintendent, PPGPL

Gas processing is intricate. It involves many stakeholders working collaboratively to extract the raw, 'wet natural gas', transmit this product via cross country pipelines, process and re-deliver the 'clean dry' natural gas to the end-users. The gas processing operation at Phoenix Park Gas Processors Limited (PPGPL) is considered to be in the mid-stream of the 'gas value chain,' posited Mr. Bhim Roopnarine, Process Superintendent, PPGPL. Roopnarine was interviewed by *GASCO News* to provide some insight into what is involved in gas processing, the extraction of natural gas liquids (NGLs), and delivering the products to the end-users. He emphasised that gas processing at PPGPL is part of an integrated process involving different stakeholders, inputs and outputs.

**GN:** *What is natural gas processing?*

**BR:** Very simply put, natural gas processing is a complex operation that removes impurities and 'heavy' hydro-carbons from the natural gas flow to leave the natural gas in a more usable state for downstream industries. It begins at the well-head on the production rigs. Oil and natural gas are often found together in the same reservoir. The natural gas produced

from oil wells is generally classified as associated-dissolved gas which means that the natural gas is associated with or dissolved in crude oil. Natural gas found in the absence of crude oil is classified as non-associated gas. Natural gas plants purify raw, natural gas from either underground gas fields or from well-heads with associated gas by removing common contaminants such as water, carbon dioxide and hydrogen sulfide. A fully operational

gas processing plant delivers pipeline quality, dry, natural gas that can be used as fuel by residential, commercial and industrial consumers and as feedstock by industrial consumers.

Fractionation is a process used for the separation of mixtures of light hydrocarbons into individual or industrially pure components or substances for use by industrial consumers or for use in other



*Aerial view of the PPGPL Plant site*

commercial processes. The separation of the hydrocarbon mixtures is performed by fractional distillation in columns referred to as distillers or distillation columns.

**GN:** *What makes PPGPL and NGLs hub?*

**BR:** PPGPL's core business is gas processing, aggregation and fractionation of Natural Gas Liquids (NGLs) to produce propane, butane (Isobutane and normal) and natural gasoline. NGLs are naturally occurring elements found in natural gas. Our natural gas processing facility is straddled between the extractors or "upstream gas suppliers" namely, bpTT LLC, BG T&T, etc. and the users "downstream gas consumers" such as PCS Nitrogen Trinidad, Yara Trinidad, PowerGen, to name a few. These downstream gas consumers use the clean, dry natural gas as feedstock to manufacture products such as anhydrous ammonia, methanol and granular urea and as fuel stock for the generation of electricity.

At PPGPL, we process raw wet natural gas that is intended for use by the downstream industries as well as aggregate the NGLs. Aggregation refers to the process by which NGLs extracted from the natural gas stream are collected and comingled with other sources of NGLs such as those from Atlantic and then fractionated into the components - propane, butane and natural gasoline.

PPGPL currently owns and operates 3 natural gas processing facilities (Phase 1, Phase 2 & Phase 3 Gas Plants) capable of processing up to 1.95 billion standard cubic feet per day (Bscf/d) of raw natural gas. The company also owns and operates 3 fractionation facilities (Fractionators 1, 2 and 3) that separate the NGLs into propane and butane (together referred to as LPG) and natural gasoline. The fractionators are capable of



*Our natural gas processing facility is straddled between the extractors or "upstream gas suppliers" namely, bpTT LLC, BG T&T, etc. and the users "downstream gas consumers" such as PCS Nitrogen Trinidad, Yara Trinidad, PowerGen, to name a few.*

fractionating up to 70,000 barrels per day (bp/d) of NGLs produced from the gas plants as well as additional NGLs purchased from the Atlantic

LNG facility at Point Fortin. The Fractionator 3 also includes a butane splitter with a capacity of 7,000 barrels per day (bp/d) for splitting of mixed butane into normal and iso-butanenes.

It is important to note that, even though we have the gas processing capacity of 1.95 Bscf/d, PPGPL's gas processing throughput or flows are dictated by the demand for our processed gas by consumers on the estate. Our fractionation capacity is governed by the volumes of NGLs produced on our gas plants together with NGLs purchased from Atlantic. All products are stored and delivered to local markets via pipeline (in the case of iso-butane and LPG), road tanker-wagons (in the case of LPG), and via ships to our foreign markets such as those in the western Caribbean and South America. To facilitate the delivery of product onto ships for the foreign markets, PPGPL operates two dock facilities both located in the Pt. Lisas Industrial Estate which have a total discharge capacity of 15,000 barrels per hour (bp/h).

**GN:** *What are the inputs of the PPGPL process?*

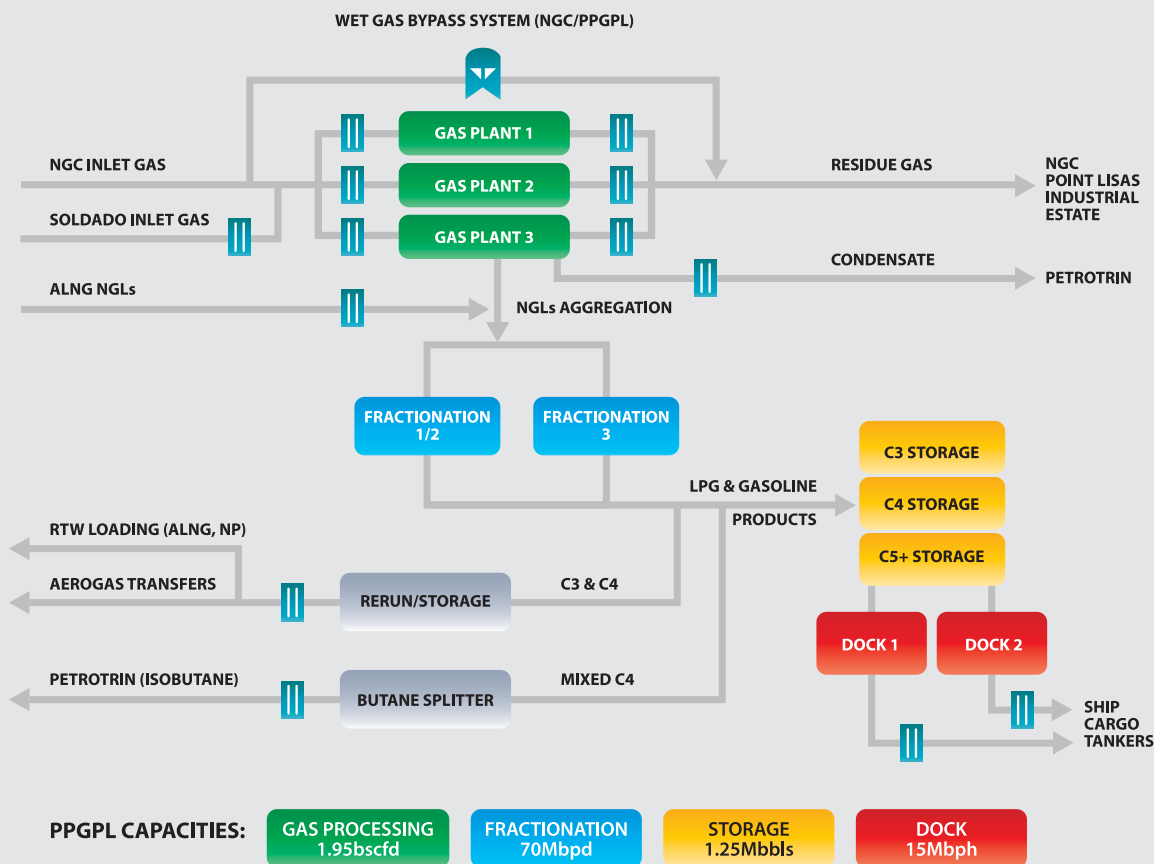
**BR:** PPGPL mainly receives raw and wet natural gas (gas rich in NGLs containing moisture and other contaminants) from The National Gas Company of Trinidad and Tobago Limited (NGC) and Petrotrin. This gas enters our facility via pipelines (owned and operated by NGC and Petrotrin respectively) that connect to the upstream production or extraction companies. Additional NGLs are received from Atlantic LNG via an 8" pipeline that connects the PPGPL plant facility to Atlantic's facilities.

**GN:** *Briefly explain what happens to the natural gas once it enters PPGPL's facility.*



## GAS PROCESSING - THE MIDSTREAM

**Figure 1: PPGPL SIMPLIFIED FLOW DIAGRAM**



**BR:** The best way to describe this would be via a diagram.  
See Figure 1 above.

In a nutshell, this diagram shows the PPGPL process from the moment the natural gas enters our compound.

**GN:** What other sectors depend on PPGPL's products?

**BR:** Some of the major downstream sectors that require our processed gas include:

- Ammonia
- Granular urea
- Methanol
- Steel
- Power generation

Due to the unique nature of where PPGPL sits in the natural gas sector, and along the hydrocarbon value

chain, our operations rely heavily on both the upstream and downstream businesses.

We receive the majority of the natural gas to be processed (around 98 percent) from NGC which is the natural gas supplier with responsibility for the transmission and distribution of the natural gas produced by the upstream companies or producers. After the gas is processed at PPGPL, “residue gas” (that portion of the natural gas stream which remains after the extraction) is returned to NGC for distribution to all of the downstream companies on the Pt. Lisas Industrial Estate and all other small consumers. In effect, PPGPL can only process gas that is required for consumption at the downstream plants. In the event that gas is not required or consumptions are

curtailed, PPGPL's throughput will be affected. If PPGPL is not in a position to receive the gas for processing, for instance during shutdowns for maintenance, then the wet gas would continue to be delivered to the downstream consumers via NGC's and PPGPL's wet gas bypass systems.

However, in the event of unplanned shutdowns at PPGPL for safety or other reasons, our processing plants have been designed with layers of protection, interlocking systems and controls to safely shutdown and protect our facility. If such an eventuality occurs, the wet gas would bypass our facility as previously explained. This constitutes a significant aspect of the integrated nature of PPGPL's business.

PPGPL also receives NGLs from Atlantic on a continuous basis via pipeline. In the event of PPGPL's inability to receive these NGLs, Atlantic's business can be negatively affected owing to limited storage capacity for NGLs at their facility. Hence, it is critical to ensure high availability and reliability of our fractionation facilities to mitigate any potential implications of this integration. We must ensure that we operate our facilities with very high levels of reliability and uptime in order to deliver products and services to our customers according to our contracts and delivery schedules.

**GN:** *How does PPGPL ensure that this interrelated process is managed efficiently and successfully?*

**BR:** One of the first elements to manage our risks is in the design of our gas processing plants, and by extension all of our plant facilities. PPGPL's philosophy is to mitigate risks from the front end and engineering design (FEED) stage. From conceptualisation to construction, PPGPL is involved at every critical juncture to ensure that what is designed and constructed is done safely and can operate efficiently over the long-term. In so doing, we take into consideration the interrelated nature of what we do and how others may be affected. This approach to projects allows us to ensure satisfactory service and satisfied customers. We believe in beginning with the end in mind.

Indeed, in order to coordinate and plan activities amongst our key stakeholders, PPGPL hosts routine coordination meetings with NGC, Atlantic and Petrotrin. In these meetings, everyone is updated on what is happening with each other and in the sector. This allows for all stakeholders to have the opportunity to plan, ask questions and obtain solutions for any issues that may arise. Through the Pt. Lisas Energy

Association (PLEA) and Trinidad and Tobago Mutual Aid Scheme (TTEMAS), we are able to share additional information and plan better for eventualities. Memberships in these two organisations are committed to ensuring the safety of our people and our operations.

In safety circles, it is said that "your people are your last stage of risk mitigation," meaning that your facility and safety systems should be so designed to operate safely and automatically without human intervention, if and when needed. At PPGPL, our people are continuously trained, with access to the most up-to-date information regarding gas processing and all other aspects of our operations. Having competent staff is imperative to ensuring that our process runs safely and smoothly. As the saying goes, "maintain the things that are working for you and adjust or change the ones that aren't."

PPGPL's strategic business goal of international expansion also places more emphasis on the need to ensure that its facility is reliable and processes are robust. Planning and communication are key elements to managing any relationship and will be vital to maintaining the relationships that are already in place. The company makes every effort to ensure understanding and "buy-in" to the need of strategic alliances with our stakeholders, and this is something that we will continue in the future.

**GN:** *What are some of these training programmes that you mentioned earlier?*

**BR:** As a minimum for process technicians, regardless of his or her work experience, background or qualifications, the candidates will participate in a rigorous on-boarding and technical training programme for approximately six months with follow-up refresher training every year. This is a standard requirement of Process

Safety Management (PSM) which is the backbone for all of PPGPL's safety programmes. Another critical element of PSM is the Management of Change (MOC) which becomes applicable when something is changed with respect to the processing plants. Following the change, mandatory training is conducted about the new procedure and new equipment to be used by affected personnel.

Along with this, engineers, operating technicians, business development professionals and safety personnel attend conferences and training abroad to learn more about new and emerging technologies. Apart from this, specific developmental training is conducted as part of employees' personal development plan on an ongoing basis.

The company's intention has always been to develop in-house expertise and competencies as a starting point, and to enable in-house training and transfer of knowledge along the way.

As stated previously, our operation at PPGPL is very much an integrated one which relies on the expertise of every entity that participates in the energy value chain. Without close collaboration and cooperation, no part of this chain can function efficiently and successfully. As we grow our business, we expect to continuously improve our systems toward achieving our vision - to be the best in class NGLs business now and beyond.



# THE NGC COMMUNITY AWARENESS AND EMERGENCY RESPONSE (CAER) PROGRAMME

NGC continues its commitment to safety and environmental protection in a rapidly evolving industry.

One of NGC's Core Values and Guiding Principles is to maintain the "highest global standards for health, safety and environmental preservation." What has been the Company's record in terms of health and safety for the past 40 years? The question was put to Ms. Antonia Lucky, Corporate Lead of Environment, Health and Safety (EHS) at NGC.

In terms of global rankings, NGC may be placed "in the medium end of the scale of global standards, as we have not fully addressed our habit of reactive threat management." Yet, the outlook is a positive one. NGC has developed a comprehensive, strategic plan for health, safety and environmental protection which includes monitoring

of the environment and staff training, as well as community outreach and educational programmes.

"We have indeed reduced our Preventable Vehicular Accidents, Loss Time Accidents and First Aid cases significantly over the years, thanks to Emergency Health and Safety (EHS) Behaviour Based Trainings aimed at sustaining the Health and Safety effort amongst all staff and contractors," Lucky explained.

In 2006, the EHS and then Public Relation Departments co-operated, created and developed what is known as the CAER (Community Awareness and Emergency Response) Programme, specifically for NGC. NGC's CAER programme is aimed at ensuring the safety of communities along our

pipeline routes by equipping them with the necessary tools and knowledge to prevent accidents or respond to unforeseen emergencies.

Due to the nature of natural gas transportation, maximum priority is given to safety and emergency preparedness. NGC's CAER programme was derived from our "duty of care" for communities adjoining our pipeline network or impacted by our pipeline construction and operational activities. CAER provides communities and schools located close to critical installations with information on natural gas safety, the inherent risks, mitigation measures and response techniques in the event of an unforeseen natural gas-related emergency. Our representatives visit these schools and communities and provide safety assessments, follow up drills, safety equipment and training workshops which comprise basic Fire-Fighting, First Aid and CPR.

NGC uses multiple methods of local outreach in the communities in which construction is taking place to ensure that residents are informed and have a forum to voice any concerns. One way of doing this is through the use of communication centres during major construction projects. These centres provide points of contact for one-to-one discussion and a convenient way for communities to voice any concerns that arise. NGC regularly holds community meetings and distributes brochures, flyers and other documents containing important safety information to areas in which we are carrying out works.



CAER firefighting activities

NGC has also worked in partnership with various regional corporations and the Office of Disaster Preparedness and Management, by inviting Disaster Management Teams (DMTs) to attend lectures about the gas industry and by forming Community Emergency Response Trained (CERT) Volunteers. These volunteers are trained by Trinidad and Tobago Voluntary Emergency Response Trainers (TTVERT) over 5-day periods in modules such as Disaster Medical Operations, Fire Safety, Search and Rescue, CERT Organisation, Disaster Psychology, Terrorism and a Disaster Simulation Exercise/Drill.

Similarly, in terms of the wider community, the NGC outreach programme focuses on the building of a positive relationship with the residents - with the main goal being to give them the necessary awareness to prepare for and appropriately respond to natural gas emergencies.

This community initiative is being achieved via meetings with designated community leaders; interactive presentations for community organisations on emergency awareness; assessment of the existing ER community capabilities; and the facilitation of a limited scale ER exercises for the community.

The training and access to educational information within the Company is even more thorough. In 2008, an EHS portal was created to afford staff a wealth of information easily accessible via the intranet. The Portal also gives staff the opportunity to gain access to the latest NGC, local and international EHS-based news, views, policies, legislation, trainings and briefs.

This issue of safety and environmental protection has grabbed the attention of the industry as well as Governments, here and around the world.

In 2013, the Government of Trinidad and Tobago's Ministry of Energy and Energy Affairs led the charge to revise the 1977 National Oil Spill Contingency Plan (NOSCP) which was developed by the Cabinet-approved, National Hydrocarbon and Chemical Spills Contingency Plan (NHCSCP) Committee.

The Honourable Minister Kevin C. Ramnarine explained at the Congratulatory Luncheon for committee members, "In April 2010 the world witnessed the high profile 'attention-grabbing' deep water oil spill in the Gulf of Mexico. This event propelled the Government to revise the 1977 National Oil Spill Contingency Plan."

"Some of you may not be aware of the fact that some of the employees from BP in Trinidad were part of the solution in the Gulf of Mexico. It was believed at the time that the previous NOSCP, approved by Cabinet in 1977, was not fully designed to address oil spills under the current Trinidad and Tobago oil and gas development scenario. Of course, a lot has changed since 1977.

The Minister went on to explain that one of the major new initiatives of the revised NOSCP was the adoption of the Incident Command System (ICS) for the management of national oil spills. It is a system that was utilised in the Gulf of Mexico Oil Spill and is used by the major oil and gas companies operating in Trinidad and Tobago today.

"It is viewed as the best system to integrate response mechanisms of the Government of Trinidad and Tobago and the industry," he explained.

Another major initiative of the Plan is the Tier 2 Oil Spill Response Organization (Tier 2 OSRO) for Trinidad and Tobago. The Tier 2 OSRO System

which is based on the Cooperative Concept is not a new concept. It is being used in both North America and South America for the management of Tier 2 Oil Spills.

We have all seen the images of the after-effects of some of the more serious environmental disasters in the energy industry over the years, both at home and abroad, including the Texas City and Deep-water Horizon accidents, the explosion at a local catalytic cracker and the coastal oil spill of 2013; some of these accidents have led to the loss of life, destruction of local habitat and/or economic stress in affected communities.

## Energy Sector

Lucky describes the situation as complex and challenging, saying that "as humans we can create industrial risks but I believe NGC has the talent to address as much as we can to anticipate potential risks and run a safe business in a sustainable manner."

In November 2014, there was the NGC leakage incident in the 56" cross-island pipeline; some members of the media and general public felt that the problem was resolved quite quickly. Ms. Lucky also agrees. "I think the right moves were made to fix the problem."

Antonia Lucky concluded that ultimately we can celebrate success when "we know our staff, contractors and stakeholders are adopting and demonstrating the desired safety culture of choice" that is visible throughout their everyday attitudes, work practices and work performance.

"We are successful as a company when we ensure everyone is working safely and doing so in a safe workplace, and when they go home safely to their respective loved ones."



## Fostering Awareness, Empowering Communities

NGC's Community Awareness and Emergency Response (CAER) Programme in La Horquetta



NGC's duty of care involves empowering communities and schools adjoining critical gas installations and pipelines, through our Community Awareness and Emergency Response (CAER) Programme. This includes instruction and training in mitigation measures and response techniques using emergency drills, safety equipment and workshops in firefighting, first aid and CPR.

Residents of Phases 1 & 2, La Horquetta, living in the vicinity of a natural gas pipeline which supplies light industrial consumers in the area, recently participated in NGC's CAER Programme. On Saturday 22nd November, NGC hosted a meeting with residents to educate them on the best practices for 'Living Safely in a Pipeline Community'. The session also provided residents with an understanding of NGC and its operations, including natural gas risks and the safety measures that are an intrinsic part of its pipeline operations.

NGC also visited the La Horquetta North Government Primary School and the La Horquetta South Government Primary School, to conduct an assessment of their Emergency Response Plan and Procedures, with the ultimate goal of equipping staff and students to respond effectively to an emergency.

1. Fofi George, Community Relations Officer, NGC and Elana Thompson, EHS Assistant, NGC address La Horquetta residents.
2. La Horquetta residents giving valuable feedback at CAER meeting
3. Community members in attendance at NGC CAER meeting, La Horquetta

4. La Horquetta resident delivers opening prayer for CAER meeting
5. Ayinde Small, Lands Officer, NGC interacts with community member
6. Mahindra Maharaj, Supervisor Surveillance and Inspection (Ag), NGC presents on NGC's pipeline maintenance



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## NGC Sanfest 2014 - Mighty Sparrow Tribute

In 2013, NGC became the title sponsor of Sanfest, the annual National Junior Arts Fest managed by the San Fernando Arts Council. Support for the festival falls under NGC's Corporate Social Investment (CSI) programme. Via its CSI initiatives, NGC ensures and encourages the advancements and sustainability of the arts. NGC Sanfest allows for

children at primary and secondary school level to display their talents in Visual Arts, Music, Dance and Drama.

As patron of the festival, NGC ensured the 44th edition was a resounding success. This year, the Pan Ensemble Competition paid tribute to Slinger Francisco, popularly known by his sobriquet, The Mighty Sparrow. The

highly-regarded calypsonian known as the Calypso King of the World showed his support to the students by making a guest appearance, much to their delight.

NGC is proud to facilitate the excitement and excellence that NGC Sanfest embodies.



*The Mighty Sparrow treats the NGC Sanfest to a rendition of one of his calypsoes*



*Students wholeheartedly cheering on their schoolmates*

## NGC Pavilion at Energy Conference

The Annual Trinidad and Tobago Energy Conference, hosted by the Energy Chamber of Trinidad and Tobago, was held from 26th January - 28th January, 2015 at the Hyatt Regency Hotel, Port-of-Spain. The theme of this year's conference was 'Powering Development and Ensuring Stability'. NGC was a platinum sponsor.

The Conference is the premier Energy Conference in the Caribbean and promotes vigorous debate and discussion among leaders of industry, government and academia. The conference highlighted and guided discussions around the challenges facing the T&T energy sector and solutions to these challenges. Topics such as gas supply curtailments, the risk-reward balance

of the gas value, Caribbean energy integration and even green economy policy development were addressed.

NGC was well represented at this year's conference as the Company participated in the 'Energy Pavilion' along with other local energy players including National Energy, PPGPL, Petrotrin, NP and the Ministry of Energy and Energy Affairs.





# NGC SANFEST: NURTURING

NGC Sanfest, the annual National Junior Arts Festival managed by the San Fernando Arts Council, is one of NGC's Corporate Social Investment (CSI) initiatives through which the company supports the advancement of and distinction in the arts, and encourages excellence from the next generation.

NGC Sanfest is a festival that gives children in primary and secondary schools the opportunity to compete and develop in all aspects of the arts including the Visual Arts, Music, Dance and Drama. As a proud patron of the festival, NGC seized the opportunity to partner more closely with the San Fernando Arts Council by becoming the festival's title sponsor in 2013.



Specially invited guest, The Mighty Sparrow, poses with students at the NGC Sanfest 2014 Pan Ensemble finals at Skinner Park, San Fernando.



Young pannists display their talent at the NGC Sanfest 2014 Pan Ensemble finals.



Students participate in the Drama category at NGC Sanfest 2014 finals.

**We are proud to  
and excellence th**



THE NATIONAL GAS COMPANY  
OF TRINIDAD AND TOBAGO LIMITED



San Fernando Arts Council



# ING TALENT, SHOWCASING YOUTH

Bringing the 44th edition of Sanfest to fruition is an expression of NGC's dedication to uplifting the positive energies of young people through their participation in the arts. Year after year, the goodwill that underpins NGC's commitment to CSI is matched by the immense talent and energy of the nation's youth.



Art pieces on display in the Visual Arts category at NGC Sanfest 2014



Participants compete in the finals of Mr. & Miss Sanfest Teen Talent Competition 2014.



Two schools compete in the finals of the Music category at NGC Sanfest 2014.



Performers take the stage at the finals in the Dance category at NGC Sanfest 2014.



facilitate the excitement  
at NGC Sanfest embodies.





## NGC Bocas Lit 2015 Preview

The NGC Bocas Lit Fest is an annual celebration of books, writing, and writers. Now in its fifth year, the NGC Bocas Lit Fest in Port-of-Spain will run from 29th April to 3rd May, 2015.

Four years ago, NGC leaped at the opportunity to be title and corporate sponsor of this festival. NGC looks forward to working with the Festival's organisers again this year to offer a platform for and to celebrate the talent that abounds in the Region.



## Offshore Platforms Restoration

In October 2014, NGC undertook restoration of one its offshore platforms. The project entailed the removal and installation of the existing deck floor sheets on the Poui Offshore Gas Platform compressor deck.

It was undertaken for the following reasons:

- The Poui compressor deck floor sheets were corroded and had suffered significant, visibly noticeable material loss and therefore it was deemed unsafe
- Safety of platform personnel

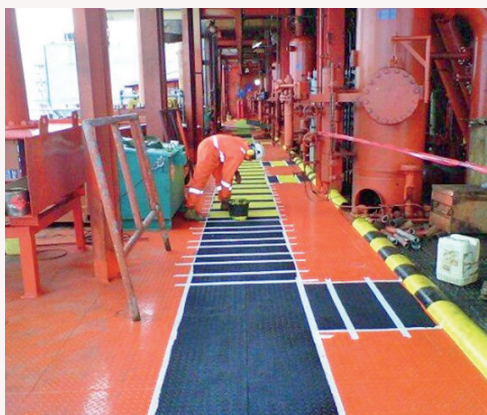
Three contracts were awarded for the execution of the project -

- Main Construction Contractor (Damus)
- Pressurised (Habitat) Enclosure Provider (Stork)
- Stand By Vessel Provider (Inter Continental Shipping)

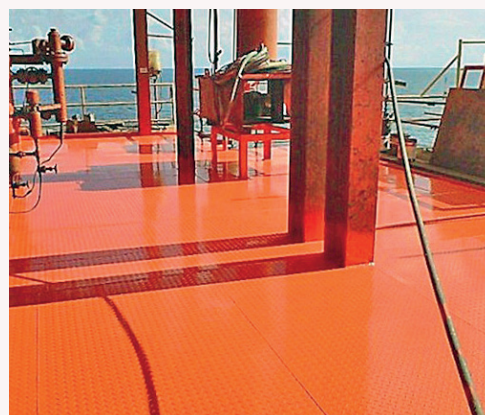
Throughout the duration of the project, the CSD QA/QC and Inspection sections performed quality assurance, quality control checks and audits to verify that the specifications were met.

The stand-by marine vessel was used for mobilisation, erection of the scaffold (over the sea) and for demobilisation.

Mr. Bertrand Soondar, Construction Engineer, noted that although there were numerous challenges with the project, it was completed safely and successfully. He extended his sincere congratulations to all those who participated and supported this project. The project lasted 75 days, incurring 15,708 contractor man hours with no lost time injury.



*Painting works in progress*



*Completed restoration works*

## Installation of an Odorizer Unit at UTT Point Lisas Campus

The project scope of works for the installation of an odorizer at the University of Trinidad and Tobago's (UTT's) Point Lisas Campus, entailed the modification of the existing metering station and the removal and installation of the necessary spools and odorizer unit. This installation was necessary to odorize the natural gas supply that runs to the University's laboratory and canteen.

Odorization of natural gas is undertaken to allow leaks to be detected easily. Mercaptan is the preferred odorant and is easily identified by its pungent smell. This project was undertaken to meet the OSH requirements, to ensure Public Safety and was done at the request of GTD.

Two contracts were awarded for the execution of the project:

- Main Construction Contractor (Super Industrial Services Limited - SISL)
- Non-Destructive Testing Provider (Trinidad Inspection Services Limited -TIS)

The Construction Services Division's (CSD) quality assurance system was applied to verify applicability to Code and certify integrity of the system. Fabrication and welding of the new odorizer spools were conducted in accordance with API 1104.



*Filling the Odorizer with Mercaptan*



*Modification works in progress*

The spools were NDE and hydrotested to ensure integrity of the system according to good engineering practices. A three-coat (primer, intermediate and final) paint system was used for the coating works. The system was safely commissioned and filled with odorant on 23rd November, 2014 using Automation and Measurement's odorization procedure PPO-ATM-029.

According to Construction Engineer, Mr. Bertrand Soondar of Construction Services, the project lasted 15 days, incurring 719 contractor man hours with no lost time injury.

"The project was completed on time and within budget. There were some design challenges with the project, but the team rose to the challenges and the project was completed safely and successfully."



*Odorizer station installed*



## NGC VP elected to Energy Chamber Board

The Energy Chamber of Trinidad and Tobago elected a new board at its Annual General Meeting held in October 2014. Added to the list of industry leaders on the Energy

Chamber's Board is one of our own, Mr. Anand Ragbir, VP Finance and Information Management.



## Cricket Update

In 2014, NGC announced its recommitment to national cricket by the disbursement of TT\$4.45 million annually from 2014 to 2016 to the Trinidad and Tobago Cricket Board (TTCB).

A portion of NGC's sponsorship was targeted to support TTCB's Grassroots Development Programme, which provides good coaching and access to sporting equipment to young enthusiasts. Therefore, in the last quarter of 2014, NGC launched the 2014 edition of the NGC/Trinidad and Tobago Cricket Board (TTCB) Youth Academy. The NGC/TTCB Youth Academy is part of the sponsorship of the TTCB by NGC, which is an integral part of the Sport component of NGC's CSI programme. The programme catered to 18 cricketers between the ages of 17 and 20 years old.

Beginning in mid-September and running for ten weekends, the programme took the form of a live-in

weekend camp. In all, the inductees were exposed to approximately 30 contact hours per weekend amounting to 300 hours for the entire programme.

The Academy is intended to be a "finishing school" for the most talented young cricketers and aims to bridge the gap between cricket at both the youth level and senior levels.

On 3rd January, 2015, NGC and TTCB hosted a graduation ceremony for 18 young participants who took part in the 2014 edition of the NGC/TTCB Youth Academy.

NGC Community Relations Officer commented about the outcome of this initiative: "The end result is a group of athletes who are physically and mentally equipped to deal with challenges on and off the field; capable of interacting with the media; knowledgeable about protocol when meeting members of government and other officials; understand the role



*NGC's Community Relations Officer, Mr. Fofi George delivering a congratulatory message at the Graduation Ceremony*

of managers and agents and, most important, have what it takes to take the T&T name overseas."

A few days after the graduation, on 6th January, 2015, NGC hosted a press conference to announce both its continued sponsorship of the T&T Red Force Team, as well as to officially handover the new NGC branded Stellavista Titan open panel video scoreboard to the Queen's Park Cricket Club.

The installation of this TT\$2.4 million state-of-the-art digital video scoreboard on behalf of the Queen's Park Cricket Club, and the official sponsorship of the Trinidad and Tobago Red Force Team, were more than just a financial commitment. NGC Chairman, Mr. Roop Chan Chadeesingh, noted: "The National Gas Company has always had a very close relationship with the Trinidad and Tobago Cricket Board (TTCB). From 2011 to 2013, NGC sponsored the TTCB's developmental programme and its participation in the Champions League, as part of (an approximate) TT\$10 million agreement that came to



*The Graduates of the NGC/TTCB Youth Academy 2014*



be called 'the ultimate power play'. Upon its expiration, a new agreement was formed, which covers the period from 2014 to 2016, and will see us contributing over TT\$13 million to the TTCB.

This funding is channelled to many aspects of cricket development in T&T, from large international programmes, the Regional Super 50 tournament and local and regional T20 competitions, to domestic programmes such as zonal cricket. Financing also goes to Women's cricket and the TTCB's Grassroots Development Programme, which exposes young players to the game.

We at NGC look forward to continuing to work together to push T&T's game to even greater heights.



*The official handover of the state-of-the-art scoreboard*



*Executives of the TTCB and NGC with members of the T&T Red Force Team at the January Press Conference*



## The Joy of Pan and Innovation: NGC sponsors three Steelbands

On the eve of the national Panorama semi-final competition, 29th January 2015, NGC announced its substantial commitment to three steelbands. The NGC La Brea Nightingales (large band) and NGC Couva Joylanders (medium band), both from Trinidad, and NGC Steel Xplosion (medium band) from Tobago received TT\$4 million, over a period of three years, from October 2013 to October 2016.

NGC's President, Mr. Indar Maharaj, also added that the Company will provide support to Gonzales Sheikers, a single pan band from Belmont, and the Valley Harps Steel Orchestra from Petit Valley, under "Designated Donation Agreements".

At a media briefing at Jaffa Restaurant, Queen's Park Oval, Port-of-Spain, Mr. Maharaj congratulated the bands,

not only for their prize-winning performances, but for their distinctive work ethic and commitment to the development of music appreciation and literacy in their communities.

"If we want to build stronger communities and strengthen the Pan movement, we must fund bands and music education and also encourage the bands to be self-sustaining," Maharaj explained.

The President stated that the bands were selected not only on their proximity to NGC's critical installations and their own high standards of performance, "but also because of the close ties we have formed with their respective communities over the years".

The funds provided have been designated for specific purposes,

which include music literacy training, the purchase of instruments and uniforms, restocking of instruments, transport to and from concert venues, and the maintenance of panyards and meeting places. Furthermore, the agreements are governed by a specific set of guidelines that articulate NGC's expectations as to financial and managerial accountability, as well as performance in various competitions.

Over the past two years, innovative courses such as Capacity Building Workshops for management teams provided these music groups, along with Police Youth Clubs which also receive NGC sponsorship, with a better understanding of Human Resource Management, Financial Accounting, Conflict Resolution, as well as other business development skills.



*From left: Mr. Richard Gill, NGC Couva Joylanders; Mr. Tyrelle Marcelle, NGC La Brea Nightingales; Mr. Indar Maharaj, President, NGC and Mr. Aaron Reid, NGC Steel Xplosion, meet and greet at the sponsorship announcement.*



*Mr. Indar Maharaj, President of NGC, makes his remarks*

Other initiatives from NGC are Music Literacy Workshops to enhance the ability of musicians and elevate their playing as a team, as well as to ensure they are able to capitalise on opportunities for employment, locally and internationally.

The bands are encouraged to devise wealth generation projects and small businesses to help them become self-sustaining.

One of several inspirational examples is that of the NGC La Brea Nightingales. Last year, they developed a computer and training centre in La Brea by offering their premises for training, community events and an Internet café at a fee.

NGC's relationship with the steelpan began in the late 1990s, with the launch of the Unsponsored Steelbands programme which assisted several

community bands that were unable to get full sponsorship on their own.

"The financial support we offered has helped many bands acquire what they needed to participate in Panorama and other competitions, as well as take their music on the road. Such sponsorship falls under the umbrella of our Corporate Social Investment Programme, through which we aim to have a positive impact on the national community in the areas of Sport, Empowerment, and Civic Life," Mr. Maharaj explained.

At the Briefing Session, the bands were congratulated for having performed in notable cultural events such as Point Fortin Borough Day, Music Festival and Pan Jazz, as well as in the case of the three sponsored bands that qualified for the Semi-Finals of Panorama 2015.

In fact, at the Finals of Panorama, NGC Steel Xplosion gained third place overall with 276 points, just six points fewer than the winning band, Pan Elders. Noteworthy, both NGC Joylanders and Valley Harps placed in the top ten of the Panorama competition.

Special guests, Mr. Richard Gill, Manager of the NGC Couva Joylanders, Mr. Marquise Richardson, Vice Captain of the NGC La Brea Nightingales, and Mr. Aaron Reid, Manager of the NGC Steel Xplosion, spoke of their commitment to the development of their communities and the national musical instrument and also thanked NGC for their continued support over the years.



## Welcoming Ceremony for the *National Energy Explorer*



*The National Energy Explorer*

National Energy welcomed its new Fast Crew Supply Vessel - the *National Energy Explorer* - to its reliable and technologically advanced fleet which comprises three workboats, five tugs and one passenger launch vessel.

A Welcome Ceremony was held at the Hyatt Regency Trinidad on Wednesday 3rd December, 2014 under the patronage of the Minister of Energy and Energy Affairs, Senator the Honourable Kevin C. Ramnarine.

The vessel, which is 53.25m in length and has a speed of 22 knots with a maximum draught of 3.20m, can

accommodate 88 persons on board inclusive of eight crew members. Accommodation for crews include a captain's cabin, an officer's cabin, six crew cabins, cold storage, a pantry and a mess.

Speaking at the function, Minister Ramnarine noted that the new vessel would be an asset to operators located on the south east coast of the National Energy-constructed and operated Port of Galeota. The vessel will reduce the time taken for operators to travel to and from the offshore platforms by eight hours.

The formal commissioning of the vessel was executed by Operating Assets Manager, Michelle Scipio Hosang, who broke the champagne bottle against the vessel's stern signalling the inclusion of the Explorer to National Energy's Fleet.

National Energy has over 14 years of providing reliable quality tug services to all the ports in the Gulf of Paria and will continue to live up to its reputation as the premier towage provider in Trinidad and Tobago.



## Activity on the Union and La Brea Industrial Estates Continues to intensify in 2015

bpTT's Juniper project, currently underway at the La Brea Industrial Estate, has been abuzz with activity with component load off and fabrication operations for the platform taking place at the Trinidad Offshore Fabricators Company's (TOFCO) Fabrication Yard. In addition, temporary warehousing has also been constructed to facilitate the project and, notably, there has been an increase in employment, 30 to 40 percent of which includes persons from the La Brea community. The Juniper project involves five subsea wells that are expected to produce roughly 590 million cubic feet of gas per day from more than one trillion cubic feet of reserves. Both the oversight and project coordination committees have been finalised for this Project.

In recent years, aggregate importation has been LABIDCO's main source of revenue with vessels regularly utilising the Port of Brighton. Since Brazilian firm - Construtora OAS - began operations at the Port in 2003, the frequency and quantity of aggregate has increased. The shipments of aggregate average quantities of 30,000 metric tonnes each and vary in size from dust screenings to boulders. On 10th March, 2015, OAS's vessel MV WUCHOW arrived at the Port with 30,000 tonnes of aggregate. The type of aggregate that customarily travels through the Port includes road paving, iron ore and construction material.

British Gas (BG) has also finalised its agreement with National Energy to accommodate the company's pipe-yard at the Union Industrial Estate. BG is currently transferring pipes from its Chaguaramas location to the facilities at La Brea.



*The Port of Brighton is the major hub for LABIDCO*

Project planning for the reconstruction of Berth 2 also continues as the project moves into the reconstruction phase. French company, Soletanche Bachy, has been contracted to undertake the reconstruction of the Berth.

LABIDCO expects that the activity will intensify in the coming months.



## NGC CNG Company Limited signs Memoranda of Understanding (MoU)

### ...with National Energy Skills Centre (NESC)

In October 2014 NGC CNG Company Limited signed a Memorandum of Understanding (MoU) with National Energy Skills Centre (NESC) to undertake training of CNG Technicians. NGC CNG will identify and engage the international certified body/bodies to conduct and certify the NESC's Instructing staff to deliver the CNG Maintenance Technician Training Programme in the first year

only: outfit the workshop facilities with the requisite equipment; enter into discussion with respect to NESC being recommended by NGC CNG, the sole certifying body for the CNG Maintenance Technician Training Programme for the period of three years commencing from the date of the agreement, and assist with the promotion of the CNG Maintenance Technician Training Programme.

### ...with Public Transport Service Corporation (PTSC)

In November 2014 NGC CNG Company Limited signed a Memorandum of Understanding (MoU) with the Public Transport Service Corporation (PTSC) for the purpose of expanding the use of CNG as a transportation fuel especially in mass transit vehicles by identifying a way forward to fulfil PTSC's mandate by government to migrate its current fleet to the use of CNG which involves conversion of the vehicles.

## NGC CNG launches its 2015 CNG Campaign with the sponsorship of the TT International Marathon

NGC CNG, in a media release, noted that: "In keeping with the mandate of NGC CNG Company Limited (NGC CNG) to promote CNG usage in the transportation sector, and with the Corporate Social Investment initiative of reducing the nation's carbon footprint consistent with cleaner air and a healthy lifestyle, NGC CNG was delighted to be one of the main sponsors of the Trinidad and Tobago International Marathon held on Sunday 25th January, 2015."

This year's Marathon comprised two segments - the marathon and a half marathon. The marathon saw participants journey from St. Mary's Junction in Freeport to Queen's Park Savannah opposite Whitehall in Port-of-Spain, while the half marathon started in Caroni.

NGC CNG Ambassadors - Anisa Mohammed and Jehue Gordon - were on hand at the event to assist the organisers with the prize giving.



Anisa Mohammed greets a young visitor on board the CNG Bus on display



NGC CNG's Brand Ambassadors Anisa Mohammed (left) and Jehue Gordon (right) pose with T&T International Marathon winners, Juan Carlos Cardona Rios (second from left) and Truphena Busieni (second from right).

Participants and supporters also had the opportunity to view a brand new CNG 30-seater bus on site, which was loaned to the organisers to transport the runners to the start of the event.

During 2015, NGC CNG will continue to raise awareness of CNG and promote events that can highlight CNG as a transportation fuel.

## PPGPL Officially Opens its New Administrative Offices



*The new PPGPL Head Office*

With azure skies, decorated tents and the morning sun, employees of Phoenix Park Gas Processors Limited (PPGPL) and specially invited guests gathered to witness the official opening of the company's Administrative Offices on Rivulet Road, Pt. Lisas on 7th January, 2015.

In attendance were Senator the Honourable Kevin C. Ramnarine, Minister of Energy and Energy Affairs who delivered a poignant feature address and the Honourable Rudranath Indarsingh, Member of Parliament for the constituency of Couva South. Other specially invited guests included the senior management and board members of The National Gas Company of Trinidad and Tobago Limited (NGC), officials from other subsidiaries of NGC,

CEOs and heads of the members of the Pt. Lisas Energy Association (PLEA) as well as members of the media.

In his remarks, Chairman of the PPGPL Board of Directors, Mr. Gordon Ramjattan stated that the building was a beacon of things to come for the company as it heads toward international growth and continues to be a gas processor of choice locally. He also noted that as, with any growing business, additional office space was required. PPGPL's Acting President, Mr. Dominic Rampersad reiterated the point by noting that when he had started with the organisation in 1994, the company had 60 persons in its employ and by January 2015, there were over 180, necessitating significantly more space.

The new office is designed to be energy-efficient making use of elements such as large glass windows to allow for natural light to enter as well as significant reductions in electricity costs. Other benefits of the new design allow for more employee and inter-departmental collaboration in modern open floor office spaces and faster head counts during evacuation procedures.

From ergonomics to energy conservation, much thought went into the design of the building with the main purpose of ensuring employees' safety, productivity and efficiency while adding value to the PPGPL brand.



## Trinidad and Tobago becomes Full Member of the EITI

As of January 2015, Trinidad and Tobago is now a full member of the Extractive Industries Transparency Initiative (EITI). Described as “a most historic accomplishment” by the Minister of Energy and Energy Affairs, Senator the Honourable Kevin C. Ramnarine, T&T joins the ranks of 32 EITI Compliant Countries (members that have implemented and have been confirmed to have met all EITI requirements).

The Extractive Industries Transparency Initiative (EITI) is a global standard

to promote open and accountable management of natural resources. It seeks to strengthen government and company systems, inform public debate, and enhance trust. In each implementing country it is supported by a coalition of governments, companies and civil society working together.

Mr. Ramnarine lauded the achievement, “This is great news for our country. It means we are now part of a prestigious global standard. This is the culmination of four years of hard work. I commend

the EITI steering committee led by Victor Hart. The Ministry of Energy and Energy Affairs was the lead Government agency on EITI and we were supported by the Ministry of Finance and the Office of the Attorney General. I also wish to thank the World Bank, the Inter-American Development Bank and the European Commission for all their assistance.”

## First Gas from BG Group’s Starfish Marine Field

In its 25th year of operations in Trinidad and Tobago, Mr. Garvin Goddard, BGTT’s President, confirmed in December 2014 his company had delivered first gas from its Starfish marine field located on the east coast marine area of Trinidad. The natural gas from Starfish is earmarked for delivery to the domestic market and the ALNG facility at Point Fortin.



*Starfish platform located in the east coast marine area of Trinidad*

## Renewable Energy and Efficiency

The Government of Trinidad and Tobago is developing a Green Paper on National Energy Policy recognising renewable energy as an important alternative to the utilisation of petroleum. There

are barriers to be overcome such as high upfront costs in relation to the promotion of renewable energy. However, the following are some of the measures being employed:

- Fiscal support - tax credits, import duty exemptions, etc.
- Legislative support
- Education and training initiatives

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



Photo: Kibwe Braithwaite for NGC Archives

The beauty of the Trinbagonian spirit - one of resilience and determination - is captured as runner Tonya Nero nears the finish line of the NGC CNG-sponsored Trinidad and Tobago International Half-Marathon held in January 2015.





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