

PIONEER

BUSINESS

The Opening of Port of Galeota **05**

BUSINESS

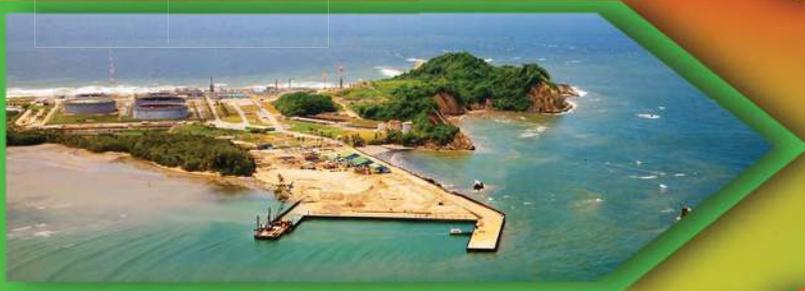
National Energy 35th Anniversary **18**

ENVIRONMENT, HEALTH, SAFETY & SECURITY

Environmental Considerations in Port Master Planning **20**



Initiation



Investment

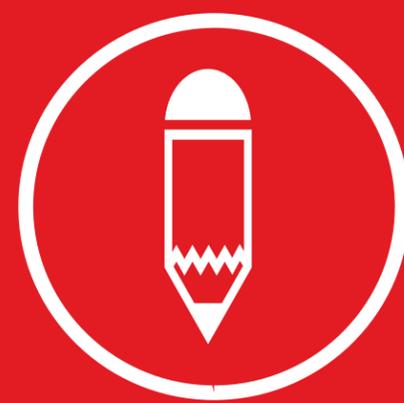


Infrastructure



Implementation





Initiation. Investment. Infrastructure. Implementation.

National Energy functions like no other company in the local energy industry as it is the only company that delivers the full range of energy investment services. We assist investors from the point of idea generation through to project implementation, providing guidance and facilitation at every juncture.

INITIATION

National Energy provides assistance to potential investors in defining as well as refining project concepts. Through the process of technical and economic prefeasibility assessment, we assist in determining the viability of an idea. The size, scope and schedule for implementation for projects are reviewed. The project fundamentals are also assessed against pre-set evaluation criteria, which include the potential impacts of the project on the environment and the community, value added elements, as well as contribution towards local development. Projects that satisfy the requisite criteria can then be given more detailed consideration and a Memorandum of Understanding may be signed.

INVESTMENT

At the investment stage, National Energy works closely with investors to determine whether the project is economically feasible. A myriad of detailed activities are pursued concurrently during this stage. A Project Development Agreement (PDA) may be entered into among the major stakeholders and the financial structure for the project is decided. Decisions with regard to land, gas supply, utilities and raw materials must be made prior to acquiring project financing. As part of its due diligence, National Energy facilitates discussions with the investor pertaining to the types of technology to be used as well as the markets that will

sustain commercial activity. Applications are also made at this stage for the relevant statutory approvals such as a Certificate of Environmental Clearance (CEC) and accompanying Environmental Impact Assessment, if necessary.

INFRASTRUCTURE

Following the Final Investment Decision (FID) construction can begin. National Energy then manages the construction of access roads, port and marine facilities, service corridors and utility installations and other supporting infrastructure to allow the plant to become operational within the targeted timeframe. Plans are also put in place for traffic management, emergency response and security measures to ensure minimal disruption to the neighbouring communities.

IMPLEMENTATION

In the implementation phase, the project is commissioned and operationalized. National Energy continues to play a supporting role, monitoring the project in the interest of the local and national community.

National Energy is cognizant of its accountability to the people of Trinidad and Tobago for the effective and sustainable utilization of the country's natural resources. We will therefore continue to work assiduously towards the enhancement of the national economy through the development of a variety of energy-based projects and related investments.

National Energy functions like no other company in the local energy industry.

PIONEER
EDITORIAL COMMITTEE

S. McIntosh

– EDITORIAL 03
– BUSINESS 12, 18

C. Mahabir

– BUSINESS 10, 14
– PEOPLE 23

D. Ragoonanan

– BUSINESS 07

K. Whitehall-Morren

– BUSINESS 05, 06
– PEOPLE 15, 16, 19

T. Lee

– BUSINESS 08, 09

N. Victor

– ENVIRONMENT 20

The Opening of the Port of Galeota



The Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine and the Minister of Community Development and the Member of Parliament for Mayaro the Honourable Winston Peters cut the ribbon to officially open the much anticipated Port of Galeota on Friday 5th September 2014.

The state of the art facility designed and constructed by National Energy, at a cost of US\$85M, is the first of its kind on Trinidad and Tobago's south-east coast and will be a major logistics hub for emerging energy markets in South America and the Guyana-Suriname basin in particular.

Construction commenced on the Port in October 2011 and the hard working and determined National Energy team, in collaboration with construction experts GLF Construction Limited, worked tirelessly to ensure that the project was completed on time.

This project is a major milestone in the history of National Energy and Trinidad and Tobago as the Port opens the country up to the global energy sector.

Speaking at the opening ceremony, National Energy President, Dr. Vernon Paltoo noted that the Port is expected to generate revenue for the country as well as improve efficiency for upstream Exploration and Production Operators

and service companies located on the south-east coast of Trinidad.

In his Feature Address, Minister Ramnarine congratulated both the Ministry of Energy and Energy Affairs and the National Energy teams on their hard work and commitment to the project and for providing quality infrastructure that will attract foreign direct investment to the upstream and downstream industries. He noted that the Port will support the six deepwater blocks under the Production Sharing Contracts (PSC) as well as bpTT's recently launched Juniper project.

Guests were given a tour of the facility which includes five berths, one of which is dedicated to the Trinidad and Tobago Coast Guard. National Energy's Tug vessels were on hand and sailed by in tribute to the attendees. In addition, the guests were treated to lively entertainment from Mayaro jazz band Bosa Nova, musical legend Mungal Patasar and his band Pantar and calypso veteran Skatie.

This Phase of the project is but the first. The second Phase is expected to commence in 2015.



From left: Chairman of Mayaro/Rio Claro Regional Corporation Mr. Hazarie Ramdeen, Permanent Secretary in the Ministry of Energy and Energy Affairs Mr. Selwyn Lashley, National Energy Chairman Mr. Roop Chan Chadeesingh, Chairman/Managing Director of Junior Sammy Group of Companies Mr. Junior Sammy, Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine, Minister of Community Development and Member of Parliament for Mayaro the Honourable Winston Peters, Minister of Public Utilities Nizam Baksh, Minister of State in the Ministry of Gender, Youth and Child Development Senator the Honourable Raziah Ahmed, National Energy Vice President of Operations Mrs. Marleen Lord-Lewis, and National Energy President Dr. Vernon Paltoo.

Success at Surimep



National Energy's Vice President of Operations Mrs. Marleen Lord Lewis greets His Excellency Jim Hock, Minister of Natural Resources, Suriname. Dr Vernon Paltoo, President (centre) looks on.

National Energy's delegation to Suriname has declared the Company's participation in the first Suriname International Mining, Energy & Petroleum Conference & Exhibition (SURIMEP 2014) a huge success.

Surimep was a turnkey event focused on Suriname's mining, energy and petroleum industries, their potential and their sustainable development. Suriname's extractive industries are diverse, unexploited and full of potential for investors.

The team, led by National Energy President Dr. Vernon Paltoo, consisted of members of the Energy Industry Development, Operations and Corporate Communication and Administration Departments, who attended the three day exhibit from 17th – 19th June 2014.

The event, of which National Energy was a Platinum Sponsor, took place in Paramaribo, Republic of Suriname and was organized by the Ministry of Natural Resources (Suriname), in partnership with AME Trade Ltd., a UK based organization specializing in the area of trade promotion for the African and Middle Eastern region.

In addition to National Energy's participation in the conference, where the Company hosted an exhibition booth, the team attended round table discussions and seminars with industry leaders from such companies as the National Energy Company of Suriname (EBS) and the Industrial Development Corporation Suriname (IDCS). Included in the team's itinerary was a site visit to the Suriname Dry Dock and Ship Building Facility.

National Energy's Energy Industry Development Vice-President (Ag.) Merlyn Rennie-Brown was also one of the feature speakers, presenting on "Building a Sustainable Energy Industry – The T&T Experience".

It is the Company's intention that this Exhibition will be a springboard for future partnerships and interventions with stakeholders in the Suriname energy industry, as National Energy continues to promote Trinidad and Tobago's energy sector and encourage potential investors to invest in local downstream energy industry development.



Model Solar House - Barbados.

Establishment of a Solar House in Trinidad and Tobago



As part of the Ministry of Energy and Energy Affairs' (MEEA) thrust to promote the use of Renewable Energy (RE) technologies nationwide, National Energy in collaboration with MEEA implemented a number of projects geared towards building awareness and educating the population on the attributes of renewable energy. Projects have included the installation of solar induction lighting systems in 13 community centres and solar stills in 21 schools throughout the country.

Another initiative being undertaken, arising out of a Cabinet decision, is the establishment of a solar house in Trinidad and Tobago. National Energy has once again been given the mandate to develop and implement this project on behalf of the MEEA.

A Renewable Energy Consultant was identified by the MEEA to provide the building design, solar components and project management services for the establishment of the house. It is estimated that the total footprint would be a 1,200 sq. ft. one story house consisting of two bedrooms, a kitchen, a dining area, a living area, a toilet and bath and a patio.

The solar house electric system would be designed to meet the energy needs of an average household in Trinidad and Tobago and the main components will include solar panels, solar water heaters and solar-powered fans and lighting.

On 3rd July 2014 a project initiation meeting was held amongst representatives from National Energy, the MEEA and the RE Consultant. Moving forward, National Energy will work closely with the MEEA to identify an appropriate project site. Concurrently, contractual details are being developed in collaboration with the RE Consultant.

Projects have included the installation of solar induction lighting systems in 13 community centres and solar stills in schools throughout the country.

Port of Brighton: Brighton Port Expansion – The Master Plan



BACKGROUND

The Port of Brighton, which is situated in La Brea (see Figure 1), was originally envisaged as a port to support and cater for the oil industry.

Due to the Port of Brighton's proximity to the oil and gas marine fields in the Gulf of Paria, it is an ideal site for Logistics Services to support the offshore petroleum activities in the area.

There are three berths located in Port of Brighton:

- Berth 1 was re-built in 2006 and is used as a logistics base for a number of oil wells.
- Berth 2, which was constructed in 2004, has a 30m setback which is used for general shipping purposes. Whenever Trinidad Offshore Fabricators Unlimited (TOFCO) completes the fabrication of an offshore platform, the berth is used for platform load-out operations. There are plans to begin the re-construction of Berth 2.
- Berth 3 was constructed for the Alutrinc project in 2011. However, subsequent to the cancellation of the Alutrinc project, it is being used as a multipurpose facility. Labidco

Port Services Limited utilizes the berth for the purpose of offshore rig service and repair. Other users such as Well Services and A de Gas Limited lease Berth 3 for offshore support services.

WHY EXPAND?

In recent times, there has been an increase in investment opportunities. Projects such as Caribbean Gas Chemical Limited (CGCL), Gasfin LNG, Chemtech Limited and Metaldom are currently at different stages of development and are all planned for location at Union Industrial Estate (UIE) and the Port of Brighton.

As such, there is a critical requirement for determining the best and optimal port design/ orientation which would cater for the needs of not only these projects but future industrial plants.

In October 2013, Technital S.P.A. was awarded a contract to provide consultancy services for the Master Plan and Preliminary Design of the Port of Brighton. National Energy received the Master Plan in May 2014. The time horizon envisaged for the Master Plan was 25 years and the study took into consideration the requests of the current and proposed future users of the Port of Brighton.

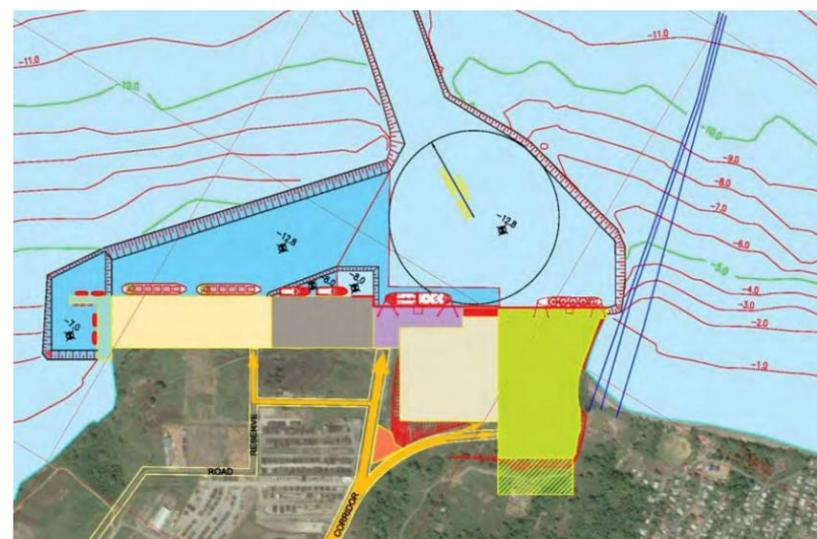


Figure 1. Source: Master Plan and Preliminary Design for Brighton Port - Preliminary Design Report.

PORT DESIGN OPTIONS

The Master Plan study highlighted various alternative layouts for the Port of Brighton but indicated that the most feasible options are Option Z and Option Za (see Table 1).

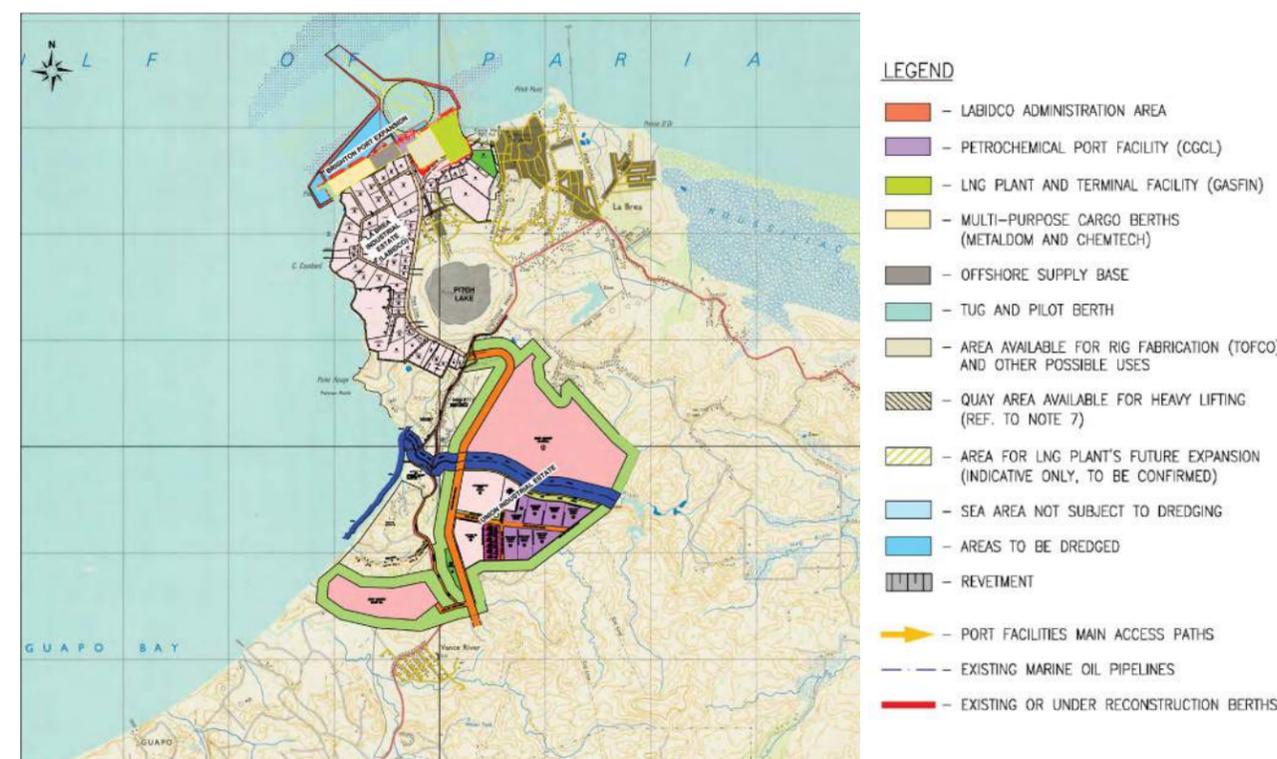
CONCLUSION

The study concluded that Option Za appeared to be the most feasible design for the development of the Port of Brighton based on a technical-economic standpoint. The lower cost estimated for Option Za gives it the economic advantage over Option Z. Subsequent to the review of the Master Plan, preliminary/detailed engineering design will be conducted. Construction is scheduled to commence in 2015, subject to the receipt of a Certificate of Environmental Clearance (CEC) from the Environmental Management Authority.

The following table shows a comparison between the options.

Table 1: Comparison of Port Layouts

Indicators	Options	
	Z	Za
Navigation Easiness and Safety	Good	Very Good
Morphological and Siltation impact	Medium	Low
Impacts on the Existing Port Activities during Construction	Low	Low
Possibility to use the pipeline corridor from the industrial estate that was made available for Alutrinc plant	Yes	Yes
Quays length	1295 m	930 m
Revetments length	435 m	-
Bridge length	200 m	-



Source: Master Plan and Preliminary Design for Brighton Port - Preliminary Design Report.



National Energy's Technical Operations



National Energy owns, operates and maintains a fleet of vessels, consisting of eight tugs and one passenger launch with another Fast Crew Supply vessel expected in November 2014. Over the years, the Company has developed a solid reputation for being a reliable local tug service provider operating on a commercial basis and providing services to all local ports of Trinidad and Tobago, to the offshore oil and gas industry, and to regional markets.

The power of our fleet of vessels ranges from 12 tonnes to 55 tonnes bollard-pull, which allows us to provide mooring/unmooring, harbour towage, rig moves, anchor handling services, deck cargo and personnel transport. The fleet of vessels is: NEC Pioneer, NEC Pride, NEC Legacy, NEC

Empress, NEC Vision, NEC Industry, NEC Majestic, NEC Spirit, and NEC Voyager (Passenger Launch).

In addition to towage activities, National Energy is the designated authority for the maintenance of the Point Lisas Harbour, responsible for ensuring that all navigational aids are fully operational and the dredged depth maintained for safe berthing and unberthing of vessels.

To ensure that our marine assets are fully operational, the Technical Operations Unit is responsible for a number of activities. One such activity is the Preventative Maintenance System (PMS). National Energy utilizes the DAMOS programme as a part of its maintenance programme, in addition to supplying shore based

technical support services. Secondly, National Energy uses the International Safety Management (ISM) system which is an international code for managing shipboard operations and the PMS is a part of this structure. The ISM system ensures that the vessels are compliant with regulatory bodies locally and internationally.

Another important activity of Technical Operations is the management of the crews operating the vessels. The crews on the larger vessels work seven days on-seven days off and 24 hours on, 48 hours off on the smaller vessels. During the handover from one crew to another, it is mandatory that Captains and Engineers follow a specific handover protocol, during which the ISM must be completed to ensure that the incoming crew is aware

of any occurrences arising from the previous shift.

The last crucial aspect of Technical Operations' activities is compliance with the International Ship and Port Facilities Security Code (ISPS) of the International Maritime Organization (IMO). These regulations came about as a result of the terrorist events on September 11, 2001. They are a set of measures used to enhance the security of ships and port facilities. As part of ISPS, the Technical Operations unit is responsible for ensuring that anyone entering the facilities is ISPS certified, and that crews are given refresher training on an annual basis. This is done through National Energy's Loss Prevention and Sustainability Department.

Some notable activities that have occurred in the Technical Operations Unit include:

- March 2013: Flat rate charges were

introduced for users of the Point Lisas Port.

- April 2013: National Energy replaced its three older and less efficient vessels with two new custom built additions. These additions are the NEC Pioneer and the NEC Voyager (Passenger Launch).

Future plans for Technical Operations include exploring Offshore Support Vessel opportunities in Port of Galeota.

To ensure that our marine assets are fully operational, the Technical Operations unit is responsible for a number of activities.

Opening Limitless Possibilities - How will the Port of Galeota Impact the Mayaro/ Guayaguayare Community?



On Friday 5th September 2014, Senator the Honourable Kevin Ramnarine, Minister of Energy and Energy Affairs officially opened the new Port of Galeota located at Galeota Point, Guayaguayare. The Port of Galeota is the first dedicated energy port to be built in this country and represents an investment by the Government of Trinidad and Tobago in the future of the energy sector as well as the potential of the south-eastern peninsula. For National Energy, the Port of Galeota is a marquee achievement, having been conceptualized, designed and built on time and within the \$85 million budget. It was therefore fitting that the Port was opened under the theme 'Limitless Possibilities' which denotes the economic and social benefits expected to be realized during operation of the Port.



Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine addresses the audience at the Opening of the Port of Galeota.

National Energy recognizes, however, that the success of the new port will depend to a large extent on the acceptance it receives from the local communities of Mayaro and Guayaguayare, as the Company's profitability goals can only be achieved through cooperation and collaboration with the residents and corporate citizens of the area. Hence, the Pioneer spoke with some members of the community to get their views on how they believe the port would impact their community.

Ms. Hermyline Baptiste, Secretary of the Guayaguayare Village Council, was also hopeful for economic progress in the area. However, she articulated some of the concerns which were echoed by many members of the community, indicating, "We hope the community will have use of and benefit from the Port." She also suggested that more public education needs to be undertaken so that the residents could better understand the nature of the energy port operations and the ways it may differ from general cargo operations.

During our discussions with residents, one overwhelming view was noted: everyone we spoke with shared the opinion that the Port of Galeota is a positive development for the Mayaro/Guayaguayare area and the initiative was welcomed by all. Ms. Ava Casmire, a resident of Guayaguayare, stated, "I hope companies will come back to Guayaguayare now that the Port is opened." She also expected to see an overall increase in commercial activity and in particular, small business as a result of the port activities.

Ms. Baptiste's sentiments were reflected by Mrs. Arvolon Wilson-Smith, as she is also looking forward to progress in the community as a result of increased activities and the implementation of infrastructure required to support such activity. She noted certain projects which have started, such as the new hospital and the fire station, but believes that there is still much to be done to improve the lives of residents. Mrs. Wilson-Smith is President of the Black Deer Foundation, a non-governmental organization dedicated to educating young people on



Mrs. Wilson-Smith, President, Black Deer Foundation and children from the Mayaro community.

National Energy remains committed to the principles of good corporate citizenship which require ongoing community involvement and stakeholder engagement.

the preservation and conservation of the environment for sustainability.

fishing nets by vessels."

She expressed concern about the possible negative impact the Port might have on the mangrove and shrimp hatcheries. She explained, "Further studies need to be conducted and an efficient preventative maintenance system for storage of materials and fuels at the Port needs to be put in place." She was thankful for the consultations the Company has been holding with residents, but noted, "National Energy needs to hold continuous consultation with the community and also needs to meet with the fishermen to discuss mitigation measures to prevent possible loss of their livelihoods."

Another recurring theme which emerged in our talks with residents was that of employment. The residents are concerned that members of the communities of Mayaro/Guayaguayare would not have opportunities to be employed when jobs become available at the Port. Mrs. Wilson-Smith explained, "The people are grateful for the training that National Energy has been providing. However, the Company should also show the young people how they can use this training to market themselves in and outside of Mayaro/Guayaguayare."

President of the Guayaguayare/Ortoire Fisher Folk Association, Mr. Francis Arjoon, agreed that a consultative, collaborative approach is needed before the frequency of shipping activity increases. He stated, "The Port is good and will help the community, especially as support businesses like catering and transportation start to develop. However, discussions should be held among the fisher folk, National Energy, Fisheries Division and the Coast Guard on how we can work together to prevent damages to fishermen or

In general, the people of Mayaro and Guayaguayare are pleased with the opening of the new port and optimistic that future benefits will redound to the community. They appreciate the efforts National Energy has made so far, but would like the Company to continue to consult with the people on matters that affect them. National Energy remains committed to the principles of good corporate citizenship which require ongoing community involvement and stakeholder engagement. To this end, we will continue to engage in meaningful dialogue and work with residents and businesses for the sustainability of the community of Mayaro/Guayaguayare.



National Energy At The Caribbean South America Energy Summit 2014



Other business areas highlighted included projects under development, the role of the organization in the local energy sector, and the thrust towards natural gas diversification and the industrial development required to support such initiatives.

The Caribbean South America Energy Summit, a two-day conference and exhibition hosted by Oliver Kinross Limited, was held on 9th – 10th June 2014, in Miami, Florida.

The conference gave attendees the chance to:

- Explore and learn about the recent developments driving opportunities in the oil, gas, power and renewable energy sectors.
- Network with senior-level energy professionals from Governments, International Oil Companies, National Oil Companies and Utilities from the region and beyond.
- Participate in one of the few energy forums to cover the energy industries of the Caribbean and northern Latin America.

On Day 1 of the conference, National Energy's President Dr. Vernon Paltoo was the keynote speaker.

His presentation was entitled, "Development of a Sustainable Natural Gas Industry – A Trinidad and Tobago Perspective." Dr. Paltoo's presentation focused on the following:

- The current state of the Energy Industry in Trinidad and Tobago.
- Mechanisms and strategies used for the development of the natural gas based sector.
- Status of current projects and the rationale for future planning.
- Industrial development planning for the future.

As National Energy continues to promote the local energy sector and engage stakeholders in order to diversify the energy sector in Trinidad and Tobago, Dr. Paltoo used the opportunity to highlight National Energy's mandate. Other business areas highlighted included projects under development, the role of the organization in the local energy sector, and the thrust towards natural gas diversification and the industrial development required to support such initiatives.

As National Energy continues to promote local energy sector and engage stakeholders in order to diversify the energy sector in Trinidad and Tobago, Dr. Paltoo used the opportunity to highlight National Energy's mandate.

Take Your Kids to Work – Bring Back the Old Time Ways



National Energy considers its employees to be the Company's most valuable asset. The Company therefore implemented various initiatives to boost employee morale and encourage employee participation, including a movie night hosted by the Company's Employee Committee and the well-received "football lime" hosted by the Human Resources and Strategic Planning Department (HR&SP).

In keeping with the Company's focus to further engage employees and following the success of the 2013 Take Your Kids to Work Day, National Energy hosted the 2014 edition of Take Your Kids to Work Day for children of employees, under the theme "Bring Back the Old Time Ways" on Thursday 31st August in the Company's Wellness Centre.

Over 20 children between the ages of four and 12 participated in the day's activities, which included a morning session that focused on teaching them the importance of manners in their everyday lives. The session, facilitated by a team from S&L Productions, emphasized and reinforced basic manners through drama and interactive play.

As is customary, the children were also taken on a tour of National Energy's Head Office where they met with the various Department Heads and learned about the Company's business.

Despite the inclement weather, the afternoon's activities were all fun and games. The participants once again

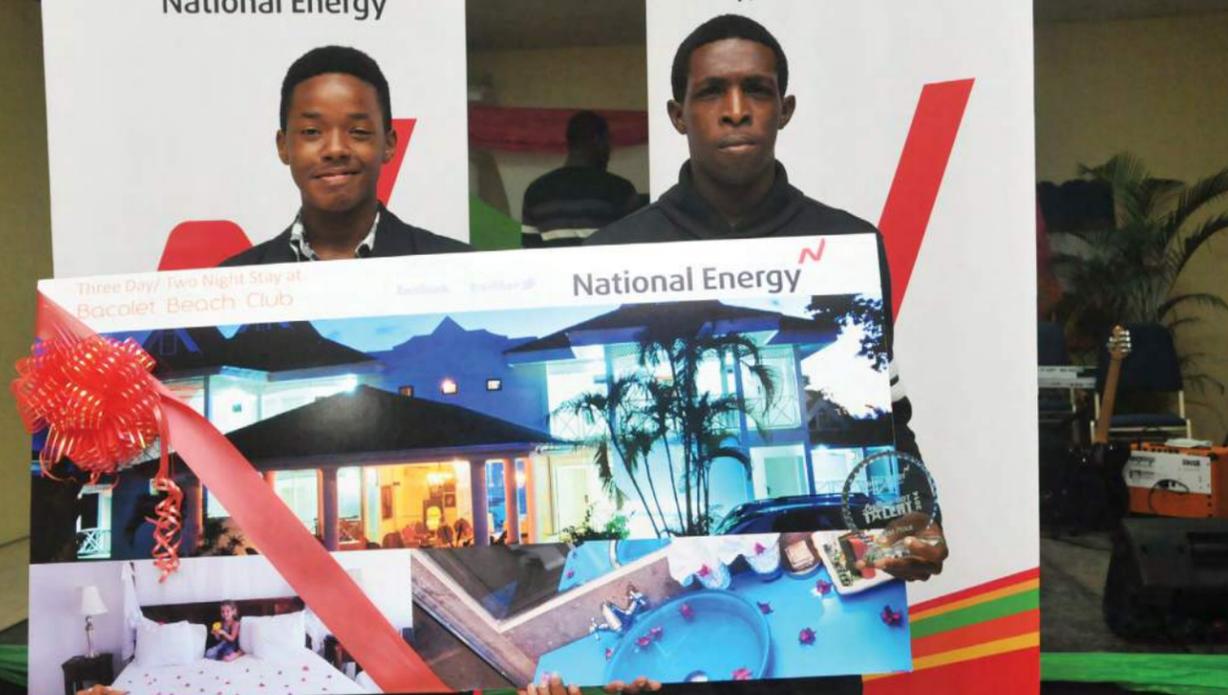
engaged in "Old Time Games" including favourites such as the hoola hoop, musical-chairs, jacks and Simon Says. The session, facilitated by Presny Management Services, was a huge hit with the kids who thoroughly enjoyed the games.

The day ended with a snow-cone treat after which special prizes were awarded. The Most Enthusiastic Award was won by Deniscia Simon, Joy Blackett was presented with an award for the child who participated in most if not all of the activities while Tishell Thomas won Most Disciplined. The Best Overall Boy prize was presented to Raul Boodram while The Best Overall Girl went to Faith Arjun. All of the participants were presented with branded school bags, complete with back to school items.

From the looks of pure joy on the faces of the attendees and the general appreciation expressed by the parents, it is safe to say a good time was had by all.

Until next year...

Over 20 children between the ages of four and 12 participated in the day's activities, which included a morning session that focused on teaching them the importance of manners in their everyday lives.



The A-Team, winners of the 2014 La Brea Got Talent Competition.

The "A Team" Wins La Brea Got Talent



La Brea answered the question of whether or not the community has talent with a resounding "yes" by putting on a fantastic show as the final curtain came down on National Energy's La Brea Got Talent Competition.

Eleven of La Brea's brightest stars took to the stage, at the National Energy Skills Centre in Vessigny on Saturday 23rd August, to compete in the competition after successfully competing in the auditions and the semi-final round.

The contestants, including dancers, vocalists and musicians, performed at their very best to the packed house giving the judges quite a difficult task. After much deliberation, it was the guitar skills and vocals of duo "A Team" that won the hearts of the judges and the audience. The young men performed a beautiful version of Jon Legend's "This Time," moving the thrilled audience to give a standing ovation.

Second place winner interpretive dancer Nicholas Bernard wowed the audience with his dramatic presentation "Let it Go," while calypsonian Tameka Darius, who was a guest performer at last year's finals, placed third with her rendition of The Mighty Sparrow's "Slave".

Last year's winner Bertille Hunte was also on hand to perform his composition "Victorious," a song from his upcoming album while guest artist Khadija Jeremiah performed an amazing version of "Have You Ever" followed by Destra Garcia's "Good Love".



Second Place winner interpretive dancer Nicholas Bernard.



National Energy Community Relations Liaison Khadija St. Louis and third place winner Tameka Darius.

The competition, which is in its second year, was born out of National Energy's Pan in the Village Concerts held in 2012 to commemorate Trinidad and Tobago's 50th anniversary of Independence. The first competition was held in 2013 and based on the positive feedback, National Energy hosted the competition once again.

National Energy continues to be a proud supporter of the culture of Trinidad and Tobago and is committed to hosting other cultural initiatives in the Company's fenceline communities.

Reading for Enjoyment... Reading for Success!



Participants in National Energy's 1st Annual Reading Competition.

Research has shown that educators can increase the learning potential of children simply by making books an integral part of their lives. In fact, there are several benefits that can be derived from children being exposed to the merits of reading, including academic excellence, better communication skills, more logical thinking skills and enhanced concentration and discipline.

As an advocate of education and youth development, National Energy has worked in partnership with several educators and community partners over the years to ensure that young people in the Company's fenceline communities receive every educational advantage, including the opportunity to read quality books.

In keeping with its continued commitment to developing educational, creative community programmes, the Company introduced

its first Annual Reading Competition on 24th May in the fenceline community of La Brea.

The competition, which was open to children from La Brea and environs between the ages of 6 to 14, was extremely well attended with 69 children participating in the semi-finals held at the Brighton Sports Club.

The participants competed in three age categories:

- 6 – 8 years
- 9 – 11 years
- 12 – 14 years

Competitors were allowed to pre-read an age appropriate reading passage and, once completed, were tested on their diction, clarity, sense of expression and physical presence, as well as comprehension of the passage. The scores from both categories

were then combined to give the overall score.

Six children from each category qualified to move on to the finals held on Saturday 31st May at the National Energy Skills Centre (NESC) in Vessigny. After a highly contested final round of competition, with all of the competitors making it extremely difficult for the judges, eight year old Terrisha Alexander, ten year old Kernique Marshall and twelve year old T'Shra Ali won first place in their respective categories.

National Energy was applauded for hosting the competition by both the parents and teachers present and the Company was thanked for its efforts in promoting education in the community.

It is the intention of National Energy to host this competition annually.



Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine presents former Minister of Petroleum and Mines Mr. Errol Mahabir, with a token of appreciation.

35 Years Later, Still Going Strong!



There was an atmosphere of pride and celebration in the Grand Ballroom of the Trinidad Hilton on Saturday 13th September 2014. Employees past and present, as well as energy industry executives came together to celebrate the 35th anniversary of incorporation of National Energy Corporation of Trinidad and Tobago Limited (National Energy) at a gala event. All present shared a sense of accomplishment for the many pioneering projects the Company has delivered since its formation in 1979, and look forward to the bright future still to come.

President of National Energy Dr. Vernon Paltoo opened the formal programme by expressing gratitude to all employees who had contributed to the success of National Energy through the years. He paid tribute to the Company's past Presidents and CEOs, making special mention of Eldon Warner, National Energy's first CEO, who was present at the dinner.

In his day, Mr. Warner was well known and appreciated by employees for his

stern but fair leadership style. He served as CEO from 1983 – 1988 when National Energy owned and operated Trinidad and Tobago's first methanol plant and owned and managed the urea plant. These early state investments served as a catalyst for this country's prominence in the global petrochemicals industry, a position we still enjoy today.

In delivering his feature address, Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine acknowledged the contribution made by energy stalwarts, Errol Mahabir, former Minister of Petroleum and Mines, as well as former CEO Eldon Warner and President Andrew Jupiter. He also noted the 40 years of history connecting Mahabir, the country's first energy minister to himself, the youngest Minister of Energy.

The highlight of the proceedings came when Mr. Mahabir was presented with a commemorative photograph of the Port of Galeota which was officially opened on 5th September 2014. Minister Ramnarine explained that

the Port of Galeota is expected to become a logistics hub connecting Trinidad and Tobago to Latin America and the wider Caribbean. In accepting the gesture, Mr. Mahabir informed the audience that early in his tenure Minister Ramnarine had sought his (Mahabir's) advice and that the two have since remained in contact. The senior energy veteran stated that he believes the future of the energy sector is in good hands under Ramnarine's leadership.

Following the formal segment, the celebrations continued well into the night as the audience danced to the music of Roy Cape Allstars. Based on the response of the crowd, it is clear that everyone had an enjoyable time.

The Pioneer congratulates National Energy on the achievements of the past 35 years. We recognize the pioneering spirit of the Company from which the name of this magazine has been derived. May National Energy continue to conquer new frontiers and break new ground in energy and energy-related industries for the benefit of the people of Trinidad and Tobago.



New Business Manager Mr. Nigel Woodsley congratulates former Estate Coordinator Hayden Baird on his retirement.

Saying Goodbye



HAYDEN BAIRD

A retirement function was held in honour of Estate Coordinator Hayden Baird at the LABIDCO office on the industrial estate.

The theme of the retirement function, which was held on 30th June 2014, was inspired entirely by Mr. Baird. An avid horse lover and horse race enthusiast, Mr. Baird was known to regale his colleagues with tales of the Santa Rosa Race Track. Therefore, the theme of the event was all about horses.

Mr. Baird was presented with a retirement plaque on behalf of National Energy and LABIDCO by Vice-President Operations Mrs. Marleen Lord-Lewis, along with various tokens of appreciation for his seven years of dedicated service.

National Energy and LABIDCO thank you, Mr. Baird, for your hard work and dedication and we wish you all the best on your new journey!

JOHN JONES

"When the history of Point Lisas is written (if ever it is written) the name of John Jones would figure very positively in that history." This statement by former President of National Energy Mr. Prakash Saith as he summarized the sentiments expressed by all at the retirement function held in honour of John Jones, Manager – Business Technical Support on Friday 26th September 2014 at the Trinidad Hilton.

Family and friends came together to pay tribute to Mr. Jones who retired from National Energy after 17 years of service. Mrs. Marleen Lord-Lewis, Acting President



Operating Assets Manager Ms. Michelle Scipio-Hosang, presents former Business Technical Support Manager John Jones with a token of appreciation.

welcomed guests and highlighted some of the many capital projects which had been completed under Mr. Jones' supervision over the years. These include: the design and construction of Port of Galeota; the modification of Savonetta Pier No. 3 and Savonetta Pier No. 2 North; and the conceptualization, design and construction of Union Industrial Estate. She also mentioned some of the positions Mr. Jones held during his tenure at National Energy, including Head, Marine Operations; Head, Capital Investment Projects; Superintendent, Engineering Design & Construction (EDC); and Manager, EDC.

As the programme continued, congratulatory remarks were given by Mr. Vijai Lal on behalf of the Business Technical Support Department. Mr. Prakash R. Saith and Mr. Andrew Jupiter, both former presidents of National Energy, recalled Mr. Jones' passion for his work and his commitment to delivering on projects. Mrs. Lauren Francis spoke on behalf of the Jones family, thanking those present for their support of her father during his career.

In his reply, Mr. Jones made a presentation which highlighted some of his favourite project experiences at National Energy. In particular, he expressed gratitude to all the employees who had worked with him during his tenure at the Company.

The programme came to a close with the presentation of gifts and dinner. Entertainment for the evening was provided by calypsonian, Skatie and pan virtuoso, Dan Gulston.

We wish Mr. Jones all the best for the next phase of his life's journey!

Environmental Considerations in Port Master Planning



BACKGROUND

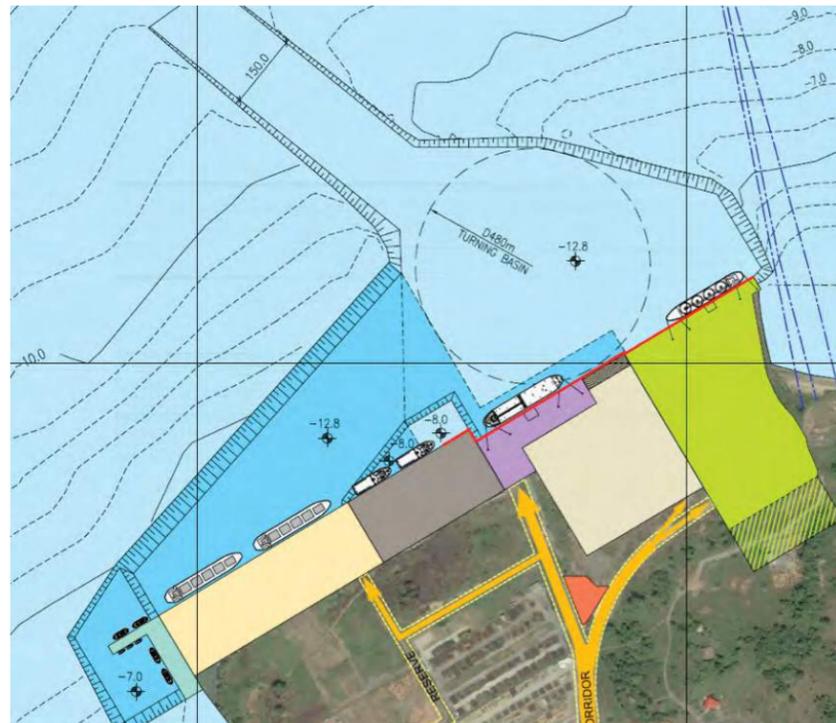
In keeping with GORTT's mandate to develop marine infrastructure to facilitate the development of energy and energy-based industries, National Energy has embarked upon a plan to expand the existing facilities at the Port of Brighton.

The expansion was deemed necessary due to the anticipated requirements for future investors, namely CGCL, a methanol to di-methyl ether plant, Metaldom, GasFin (a mid-scale LNG Facility) and Chemtech.

In order to guide the future expansion of the Brighton Port Expansion Project, National Energy embarked upon a Master Planning exercise. This article reviews the approach used in the development of the preferred Master Plan and highlights the importance of the inclusion of environmental factors in determining the preferred layout option.

Comprehensive port master planning has been regarded as essential to port development as it can lead to improved productivity outcomes, increased investor confidence and greater environmental protection.

Port master planning typically includes technical details of site layout, infrastructure requirements, trade forecasts, port efficiency analysis and strategies, and potential development footprints of port operational areas. In the case of the Port of Brighton Expansion Project, the study focused on characterizing the existing physical environment (oceanographic and meteorological), reviewing the operational requirements for each potential investor and the environmental impact of each of the proposed layouts in terms of dredging



Source: Master Plan and Preliminary Design for Brighton Port - Preliminary Design Report.

requirements and coastal morphological impact. Several alternatives were conceptualized based on the basis of functional and operational requirements of the existing and prospective users, as well as local physical conditions.

Port development projects can potentially result in a range of environmental impacts, notably that of reduced water and sediment quality, changes in coastal processes, reduced air quality, noise and vibration, ecosystem impacts and invasive species. In the case of the Port of Brighton, the two major environmental issues of concern that were taken into consideration during the master planning process were impacts to coastal processes and impacts to water quality from dredging.

MINIMIZATION OF IMPACTS TO COASTAL PROCESSES

Port development projects usually entail activities such as land reclamation and dredging as well as the construction of breakwaters and groynes and other coastal protection structures. All these activities can potentially impact upon coastal processes in the area and result in changes in sediment dynamics (erosion and accretion).

To determine the layout that exerted the least impact on existing coastal processes, numerical modeling studies were conducted. Numerical models are essentially software programmes designed to simulate the impact of a change in the environment based on a proposed development. Within this category of numerical models, the use of hydrodynamic models or circulation models to simulate the impact of the various options on the circulation was included. Wave models, to simulate the impact of the various layout options on the wave climate in the area and sediment transport models to simulate

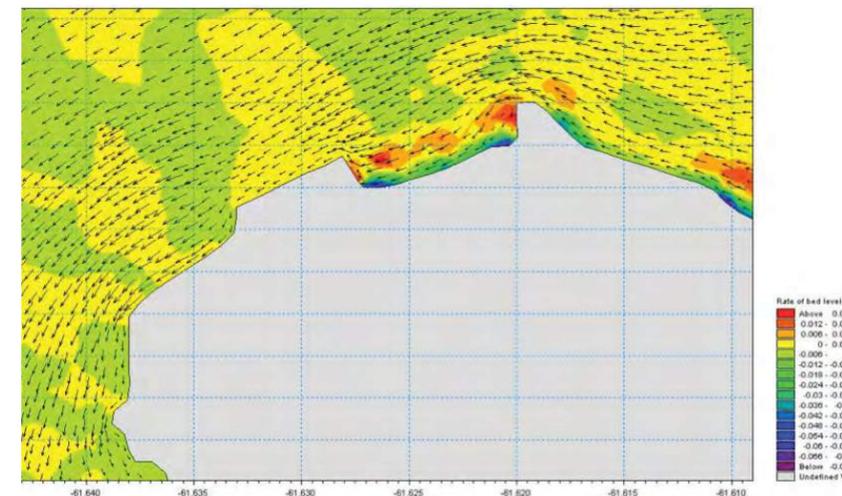


Figure 1: Snapshot of Output of Sediment Transport Modelling of the Proposed Area. Source: Master Plan and Preliminary Design for Brighton Port - Preliminary Design Report.

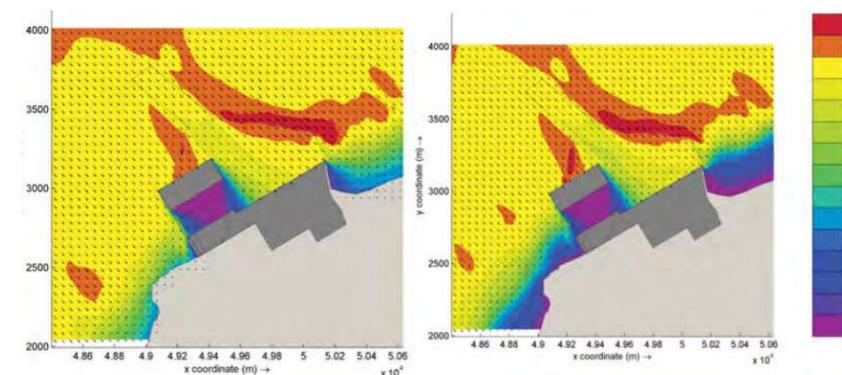


Figure 2: Output of Wave Modelling for Port Layout Option. Source: Master Plan and Preliminary Design for Brighton Port - Preliminary Design Report.

the movement of sediment, were also included. Figure 1 above illustrates the output of sediment transport modeling in the proposed area.

The subsequent decision is based on the results of the model simulations on the various layout options.

MINIMIZATION OF IMPACTS DREDGING

Another major impact of port development projects relates to that of dredging activity. Marine dredging can be characterized as either large scale "capital" dredging for the creation of new ports or deepening waterways and occasional "maintenance" dredging that serves to maintain existing channel depths. Typical impacts of dredging activities usually include a decrease in water quality due to increased turbidity

levels, decreasing light availability for photosynthesis, decreased oxygen levels, increased levels of contaminants being released in the water column and smothering of organisms that dwell on the ocean's sea floor. In this regard, it is critical that the impacts of these activities are minimized as far as possible. Generally, the impact of dredging activities can be successfully mitigated. However, best practice dictates that avoidance and minimization are the preferred approach.

In the case of the Port of Brighton, the dredging requirements were identified as key criteria in the evaluation of alternatives and, as such, were a major determining factor in the selection of the optimal layout. Wave and sediment transport modeling were conducted to refine aspects of the layout to reduce

siltation and maintenance dredging requirements.

Ultimately, the layout requiring the least amount of capital and maintenance dredging was selected, thus demonstrating how the inclusion of environmental considerations during the master planning process can result in a minimization of environmental impacts.

Although the master planning process can be used early in the port development cycle to identify the environmental constraints imposed by expanding port developments, it must be noted that this is the preliminary stage of development. Following the detailed design of the port, the development would be subject to an Environmental Impact Assessment. It is during the stage of the Environmental Impact Assessment phase that more detailed, project level environmental impacts and their associated mitigation measures and monitoring plans for the construction and operational life of the facility will be determined.

Master planning enables the early identification of environmental impacts and hence provides an opportunity for ports to avoid and mitigate them. The master planning process can also serve to focus the EIA process as early identification of issues can result in the development of more robust mitigation and management strategies for the project.

In conclusion, by engaging in comprehensive Port Master Planning to guide the development of its port projects, National Energy is ensuring its commitment to the sustainable development of Trinidad and Tobago for future generations.

ENERGY MINISTER OPENS THE PORT OF GALEOTA - LOGISTICS PORTAL TO THE AMERICAS

National Energy Corporation of Trinidad and Tobago Limited (National Energy) under the patronage of Senator the Honourable Kevin Ramnarine, the Minister of Energy and Energy Affairs, officially opened the Port of Galeota on Friday September 5th 2014.

Why is this Port important to Trinidad and Tobago?

- 85% of the country's natural gas is produced off the south-east coast of Trinidad and Tobago
- Port Operators can expect faster access to offshore facilities and a reduction in operating costs
- The Port will facilitate the new Juniper project
- The Port will generate revenue for Trinidad and Tobago
- The Port will support Trinidad and Tobago's deep water campaign
- The Port will be a logistics hub for emerging energy markets

THE PORT OF GALEOTA... LIMITLESS POSSIBILITIES



Above Left Photo:
Bird's-eye-view of Port of Galeota.

Above Right Photo:
Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine tours the Port of Galeota with NGC Director Mulchan Lewis, National Energy President Dr. Vernon Paltoo.

Below Left Photo:
From left: Chairman of Mayaro/Rio Claro Regional Corporation Mr. Hazarie Ramdeen, Permanent Secretary in the Ministry of Energy and Energy Affairs Mr. Selwyn Lashley, National Energy Chairman Mr. Roop Chan Chadeesingh, Chairman/Managing Director of Junior Sammy Group of Companies Mr. Junior Sammy, Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine, Minister of Community Development and Member of Parliament for Mayaro the Honourable Winston Peters, Minister of Public Utilities Nizam Baksh, Minister of State in the Ministry of Gender, Youth and Child Development Senator the Honourable Raziah Ahmed, National Energy Vice President of Operations Mrs. Marleen Lord-Lewis, and National Energy President Dr. Vernon Paltoo.

Below Right Photo:
Minister of Energy and Energy Affairs Senator the Honourable Kevin Ramnarine greets the Minister of Community Development and Member of Parliament for Mayaro the Honourable Winston Peters while touring the Port of Galeota with National Energy President Dr. Vernon Paltoo.

10 Questions with Cheryl Ramsamooj



As National Energy continues to highlight our employees, Ms. Cheryl Ramsamooj will be featured in this Pioneer issue. Cheryl has been employed with the Company for several years in Finance and Accounting. She shares with us what she does and what she likes most about it, and advice for entering her field of work.

Pioneer: How long have you been at National Energy?

Cheryl: I started here in November 2006. This year will be eight years.

Pioneer: Can you describe your current position?

Cheryl: My current position is Accountant – Financial Reporting and Planning. This section is responsible for all financial data, providing audited financial statements for statutory requirements, financial information for decision making both internally and externally, preparation of budgets and forecasts, and analysis of corporate financial performance.

Pioneer: What advice would you give to young persons interested in entering your field?

Cheryl: For young persons entering the field, my advice would be that they have to start at the bottom. Regardless of qualifications, they have to be willing to start at the lowest level and work their way up. Also, it is important to like what you do.

Pioneer: What do you like most about your job and National Energy?

Cheryl: One thing I like about my job is that, because of having to review corporate financial performance, I have gained an appreciation for all aspects of the business. And what I like most about National Energy is that it is a small-medium company and there are opportunities for growth and development in the organization.

Pioneer: What is a motto you live by?

Cheryl: Make the best of every opportunity.

Pioneer: What are your hobbies?

Cheryl: Shopping and reading.

Pioneer: What are your pet peeves?

Cheryl: Dishonest people.

Pioneer: Who in your life has influenced you the most? How did they do so?

Cheryl: There is no one specific person. However I admire people who overcome obstacles and still achieve greatness.

Pioneer: What is something most people do not know about you?

Cheryl: Many people say that I am unapproachable, but what they don't know is that I am an easy going person.

Pioneer: What ability /skill do you most wish you had (that you don't already have)?

Cheryl: I would like to learn how to swim.

National Energy

CORPORATION OF TRINIDAD AND TOBAGO

Corner Rivulet and Factory Roads
Brechin Castle, Couva
Republic of Trinidad and Tobago, West Indies
(t) 868 679-1156; 1061; 1138; 2453 or 636-8471
(f) 868 636-2905

nationalenergy.tt