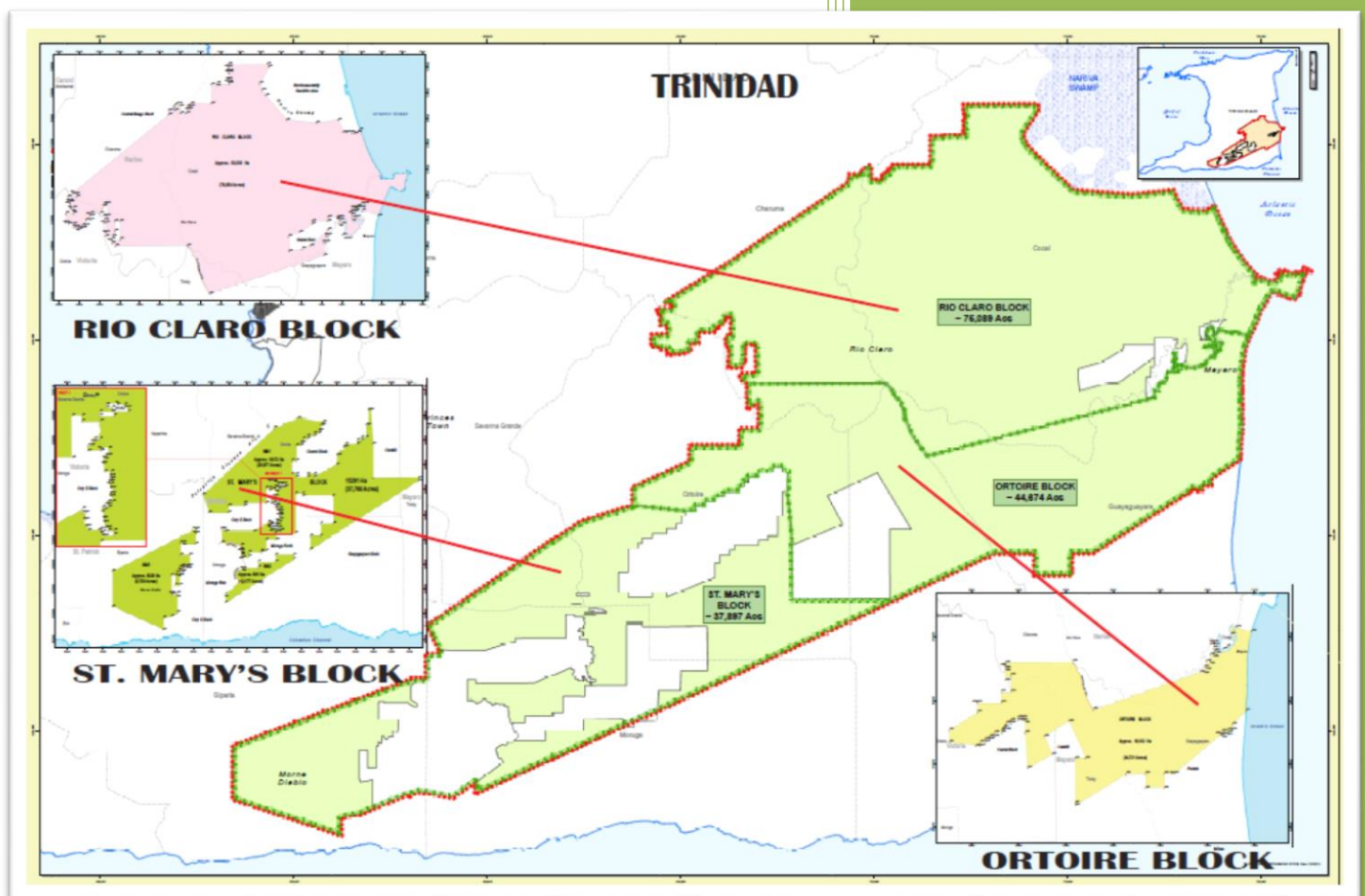




2013

THE MINISTRY OF ENERGY AND ENERGY AFFAIRS

ADMINISTRATIVE REPORT



Fiscal 2013

2013 Onshore Bid Round

Sixty Three Thousand Seven Hundred and Fifteen Hectares of Land on Offer

Preface

The 2013 Annual Administrative Report of the Ministry of Energy and Energy Affairs (MEEA) is submitted in accordance with Section 66 D of Act No. 29 of 1999 cited as the Constitution (Amendment) Act 1999, which states that Government Ministries “*shall submit to the President before 1st July, in each year a report on the exercise of its functions and powers in the previous year, describing the procedures followed and any criteria adopted by it in connection therewith and the President shall cause the report to be laid within sixty days thereafter in each House.*”

The Report also satisfies the statutory obligations of Sections 66A of the Constitution (Amendment) Act 1999 by providing a detailed account of its activities in the fiscal year and the planned initiatives for the future.

Vision

The Ministry of Energy and Energy Affairs (MEEA) will be a world class organization structured to meet and exceed the expectations of the citizens of Trinidad and Tobago by the quality of service and the speed of response.

Mission

The Ministry of Energy and Energy Affairs is in the business of ensuring the efficient and effective management of the energy and mineral sectors of the Republic of Trinidad and Tobago for the benefit of the nation.

Overview

The Ministry of Energy and Energy Affairs is responsible for the overall management of the oil, gas and minerals sectors in Trinidad and Tobago. These sectors are the largest single contributors to the Gross Domestic Product (GDP) of the country and the revenues generated provide the resources for the future development objectives of the GORTT. The Ministry of Energy and Energy Affairs has defined some basic roles and core values for the achievement of the Country's vision. These include:

1. Leveraging the energy sector to create conditions for long-term development.
2. To gain for Trinidad and Tobago, an economic competitive advantage.
3. To set and maintain core values for the energy sector.

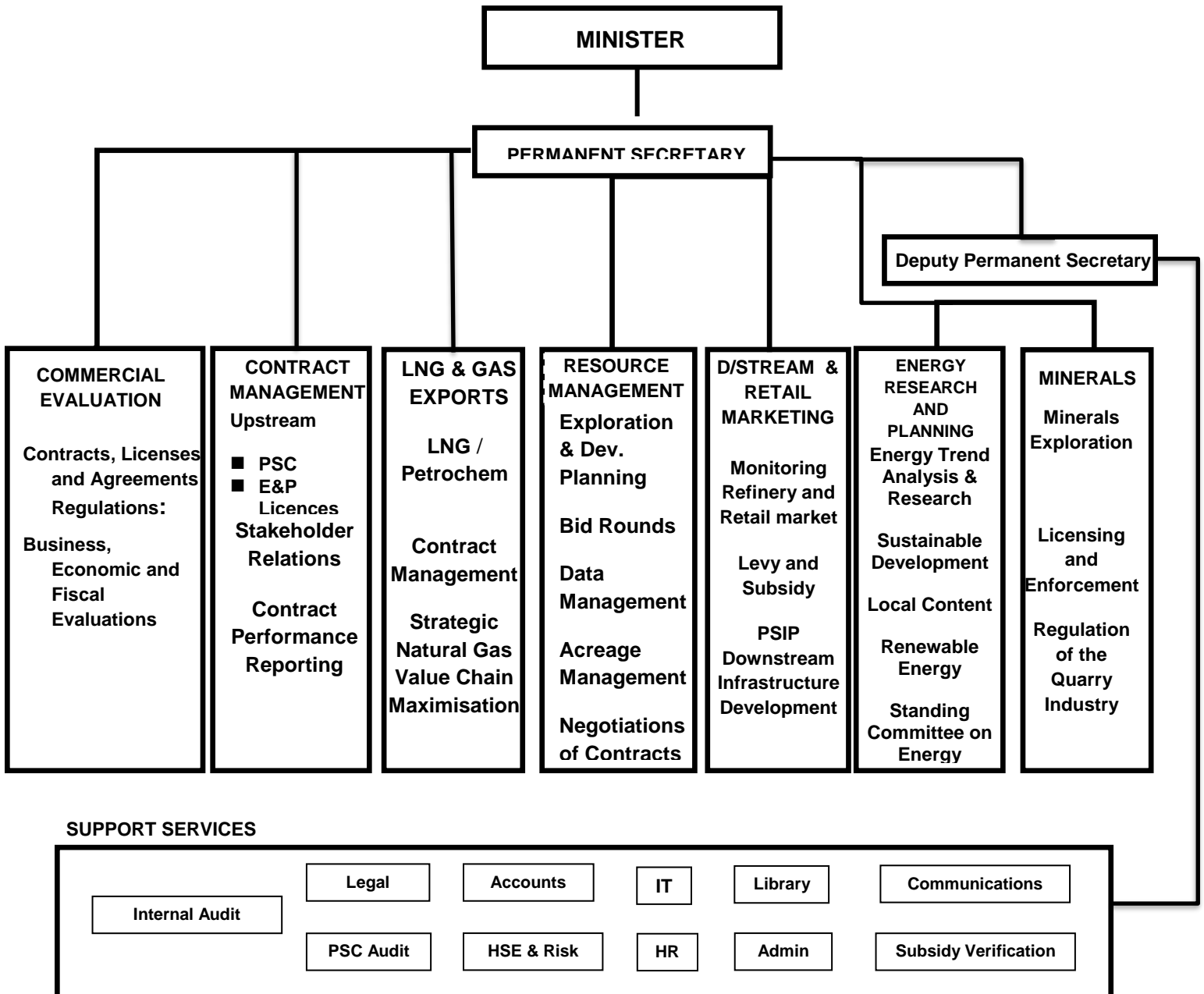
Organizational Structure of the MEEA

The Ministry of Energy and Energy Affairs comprises seven Divisions and eleven Support Groups as follows:

Divisions	Support Groups
Commercial Evaluation Division	Accounts
Contract Management Division	Human Resource
LNG and Gas Exports Division	General Administration
Resource Management Division	Communications
Downstream and Retail Marketing Division	Legal
Energy Research and Planning Division	Information Technology
Minerals Division	Library
	HS&E Measurement
	Internal Audit
	Subsidy Verification Unit
	PSC Audit

ORGANIZATION CHART

Fiscal 2013



ADMINISTRATIVE REPORT

FISCAL 2013

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GLOSSARY

AAPG	American Association of Petroleum Geophysicists
AFROLAC	African, Latin American and Caribbean Energy Ministers
ALNG	Atlantic LNG Company of Trinidad and Tobago Limited
API	American Petroleum Institute
Bayfield	Bayfield Energy Galeota Limited
bbls	barrels
Bcf	Billion cubic feet
BGTT	BG Trinidad and Tobago Limited
BHP	BHP Billiton Trinidad and Tobago Limited
Bopd	Barrels of oil per day
BOSCP	Bi-lateral Oil Spill Contingency Plan
BPTT	Bp Trinidad and Tobago Limited
CALC	Caribbean on Integration and Development
CARICOM	Caribbean Community
CBR	Competitive Bid Rounds
CEC	Certificate of Environmental Clearance
CNG	Compressed Natural Gas
COP	Codes of Practice
COTED	Council for Trade and Economic Development
CPO	Chief Personnel Officer
CREDP	Caribbean Renewable Energy Development Programme
CSO	Central Statistical Office
CTB	Central Tenders Board

ECGPCL	Eastern Caribbean Gas Pipeline Company Limited
EE	Energy Efficiency
EIA	Environmental Impact Assessment
EITI	Extractive Industries Transparency Initiative
ECMA	East Coast Marine Area
EDH	Energy Data Hub
EMA	Environmental Management Authority
EMZ	East Marine Zone
EOR	Enhanced Oil Recovery
E&P	Exploration and Production
ERPD	Energy Research and Planning Division
ESCO	Energy Service Company
EU	European Union
FCCU	Fluidised Catalytic Cracking Unit
FDI	Foreign Direct Investment
FiT	Feed in Tariff
F/O	Farmout Operator
FOB	Free on Board
FOI	Freedom of Information
GECF	Gas Exporting Countries Forum
GEP	Gas Export Platform
GOP	Gasoline Optimisation Programme
GORTT	Government of the Republic of Trinidad and Tobago
GSTT	Geological Society of Trinidad and Tobago

HGA	Host Government Agreement
HRM	Human Resource Management
HSE	Health, Safety and Environment
HSE&M	Health, Safety, Environment and Measurement
IDB	Inter-American Development Bank
IMF	International Monetary Fund
IPSC	Incremental Production Service Contract
ISL	Innovative Solutions Limited
IT	Information Technology
ITU	Information Technology Unit
LABIDCO	La Brea Industrial Development Corporation Limited
LACT	Lease Automatic Custody Transfer
LATT	Lake Asphalt Trinidad and Tobago Limited
L/O	Lease Operator
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
MAC	Mineral Advisory Committee
MBPCD	Thousand Barrels Per Calendar Day
MEEA	Ministry of Energy and Energy Affairs
MERCOSUR	Common Market of the South
MMBO	Millions of barrels of oil
MMbtu	Million british thermal unit
MMscf/d	Millions standard cubic feet per day
Mora Ven	Mora Oil Ventures Limited

MOU	Memorandum of Understanding
MT	Metric Tonnes
MTBE	Methyl Tert-Butyl Ether
mtpa	Metric Tonnes per annum
NCMA	North Coast Marine Area
NICT	National Information and Communication Technology
NICTC	National Information and Communication Technology Centre
Niko	Niko Resources Trinidad Limited
NEC	National Energy Corporation of Trinidad and Tobago Limited
New Horizon	New Horizon Exploration Trinidad and Tobago Limited
NOSCP	National Oil Spill Contingency Plan
NGC	National Gas Company of Trinidad and Tobago Limited
NGV	Natural Gas Vehicle
N&MERL	Neal and Massy Energy Limited
NPMC	Trinidad and Tobago National Petroleum Marketing Company Limited
NUI	Normally Unmanned Installation
NTI	New to Industry
OBC	Ocean Bottom Cable
ODPM	Office of Disaster Preparedness and Management
OEM	Original Equipment Manufacturer
OJT	On the Job Trainee
OLADE	Latin American Energy Organisation
OSHA	Occupational Safety and Health Authority
Parex	Parex Resources Trinidad Limited

PDA	Project Development Agreement
Petrotrin	Petroleum Company of Trinidad and Tobago Limited
PFRC	Petroleum Fiscal Review Committee
PLCC	Permanent Local Content Committee
POGL	Primera Oil and Gas Limited
PSC	Production Sharing Contract
PSIP	Public Sector Investment Programme
PTSC	Public Transport Service Corporation
RE	Renewable Energy
Repsol	Repsol YPF Trinidad and Tobago Limited
RFID	Radio Frequency Identification
RFP	Request for Proposals
RIC	Regulated Industries Commission
RON	Research Octane Number
RTW	Road Tank Wagon
RTWG	Reservoir Technical Working Group
RVP	Reid Vapour Pressure
SCE	Standing Committee on Energy
SELA	Latin American and Caribbean Economic System
SECC	South East Coast Consortium
SOOGL	Sinopec Overseas Oil and Gas Limited Antilles Trinidad Limited
SPG	Society of Petroleum Geophysicists
SPE	Society of Petroleum Engineers
SPT	Supplementary Petroleum Tax

SPV	Solar Photo Voltaic
SVU	Subsidy Verification Unit
SWH	Solar Water Heating
Tcf	Trillion cubic feet
TCPD	Town and Country Planning Division
TED	Trinidad Exploration and Development Company Limited
Ten Degrees	Ten Degrees North Energy Limited (now Trinity Exploration and Production Trinidad Limited)
TIC	Trade and Investment Convention
TOR	Terms of Reference
TTBS	Trinidad and Tobago Bureau of Standards
T&TEC	Trinidad and Tobago Electricity Commission
TVD	Total Vertical Depth
UAN	Urea Ammonium Nitrate
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNIPET	United Independent Petroleum Company Limited
USDOE	United States Department of Energy
UTT	University of Trinidad and Tobago
VGO	Vacuum Gas Oil
Voyager	Voyager Energy Trinidad Limited
WEC	World Energy Council
WPAC	Work Permit Advisory Committee
WPC	World Petroleum Council
WTO	World Trade Organisation

Executive Summary

The Fiscal 2013 Administrative Report of the Ministry of Energy and Energy Affairs (MEEA), outlines the Ministry's vision, mission, organisational structure, the services it provides, finances, operational strategies, as well as its goals and accomplishments.

A landmark achievement for Fiscal 2013 was the publication, on September 30, 2013, of the Trinidad and Tobago's first Extractive Industries Transparency Initiative (EITI) Report. The Secretariat of the TTEITI is located at the MEEA. This report which covered Government's fiscal 2011 operations provided vital information on how and in what amounts the revenue earned from the country's extractive resources were generated and spent. The report was made possible through a Memorandum of Understanding (MOU) signed between the Government, major oil and gas companies and civil society organizations.

Another significant achievement was the launch of the first dedicated onshore bid round in fifteen (15) years in Trinidad and Tobago, involving three (3) blocks namely the Rio Claro, St Mary's and Ortoire. This undertaking was projected to bring in investment of approximately US\$990M for the local economy. An offshore deep - water bid round was also launched in August 2013 in which six (6) blocks located on the North and East coasts were put on offer.

Under the Public Sector Investment Programme (PSIP), work on the Phase I of the Galeota Port project continued along with the Liquid Fuel Pipeline which includes a 10-inch pipeline from Pointe- a- Pierre to a loading gantry at Caroni, which connects via an 8-inch pipeline for transport of jet fuel to Piarco.

With respect to the Minerals sector a survey of 300 acres was completed in the Melajo Forest reserve, Matura and areas in the Northern Range of Trinidad, while an important focus was placed on ensuring stringent compliance with the terms and conditions of Minerals' licenses through the Ministry's monitoring activity.

The importance of sustainable energy to complement the country's natural gas resources, was communicated to the general public through a National Renewable Energy and Energy Efficiency Communication Campaign and initiatives involving the Nation's secondary schools and community centers. In the regional and international domain, the Ministry continued its representation on various bodies such as the Latin American and Caribbean Energy Organization (OLADE), the Gas Exporting Countries Forum (GECF) and the World Energy Council (WEC).

Production statistics for the year revealed a decline in crude oil production from 30,527,007 bbls in fiscal 2012 to 29,536,940 bbls. On the other hand, natural gas production increased from 4,102 MMscf/d in fiscal 2012 to 4,122 MMscf/d, and so too did LNG from 709,639,847 MMBtu to 740,581,691 MMBtu between fiscal 2012 and 2013. Ammonia and Methanol production also experienced small declines when compared to fiscal 2012. Ammonia production declined from 5.3

million MT to 4.53 million MT and methanol production declined from 5.6 million MT to 5.3 million MT.

The Petroleum Company of Trinidad and Tobago (PETROTRIN) processed approximately 41,235,560 barrels of crude oil and produced 40,022,426 barrels of refined and intermediate products, which represented a marginal decline from the previous fiscal year 2012 of 45,736,836 bbls and 43,658,613 bbls respectively.

HUMAN RESOURCE MANAGEMENT UNIT

Vision/Mission

The Human Resource Management (HRM) Unit of the Ministry of Energy and Energy Affairs (MEEA) is to adequately staff the Ministry with people who possess the right skills and competencies to propel the achievement of the Ministry's key deliverables in a harmonious and motivating environment.

Objectives

The goals of the HRM Unit are:

to assist the organization to achieve its objectives through effectively resourcing it with the right people possessing the right skills, abilities and attitudes; to develop well-trained and highly motivated employees and increase employees' job satisfaction and self-actualization and to improve the quality of work life and implement ethical policies and encourage socially responsible behaviour.

Accomplishments

During the period fiscal 2013 the HRM Unit vigorously pursued with the Service Commissions Department, the filling of vacancies on the Ministry's Staff Establishment, consistent with a mandate given to the Director of Personnel Administration to fill all Public Service vacancies. Notwithstanding the Ministry's active pursuit of the filling of all existing vacancies during that period, the Service Commissions Department has still not completely fulfilled its mandate. As a result, the Ministry is still challenged in addressing technical staff shortages in positions such as Geologists, Geophysicists and Petroleum Engineers.

As part of its Corporate Social Responsibility (CSR) initiative, the Ministry engaged fifty (50) students from the University of the West Indies (UWI), the University of Trinidad and Tobago (UTT) and other universities, during the period June – August 2013. These students were exposed to foundational training in the fields of business writing and ethics in the work place. The HRM

Unit also collaborated with the Ministry of Public Administration, Scholarships Division, to accommodate requests to absorb returning scholars, with qualifications in the engineering and geoscience fields. These scholars are called “Associate Professionals”. On-The-Job Trainees with energy-related qualifications were also engaged to provide additional support to all Units and Divisions in the MEEA.

The HRM Unit initiated in-house training in foundational professional development programmes for members of staff. These Professional Development Programmes also served as an orientation for new recruits since they covered areas including Ethics in the Workplace, Technical Report Writing, Cabinet Note Writing, Customer Service, Workplace Mediation and Conflict Resolution, and Time Management. Middle Management and Leadership Training interventions were also facilitated to prepare the staff to execute team-leading duties and responsibilities.

Staff members across the Ministry were exposed to training in technical, professional, administrative, managerial and personal development courses conducted both in-house by suitable and recommended training providers as well as at Institutions including the University of Trinidad and Tobago (UTT), the Arthur Lok Jack Graduate School of Business, the Employers Consultative Association, the Caribbean Institute for Quality and the Human Resource Management Association of Trinidad and Tobago.

Many members of staff also attended energy-related conferences, seminars and training both abroad and locally. These conferences/seminars/training courses were hosted by organizations such as the Trinidad and Tobago Energy Chamber, the Geological Society of Trinidad and Tobago (GSTT), the Society of Petroleum Engineers (SPE), Society of Exploration Geophysicists (SEG), American Association of Petroleum Geologists (AAPG), Conference Connection Pte Ltd and NeoEdge Pte Ltd of Singapore. During fiscal 2013, approximately 92% of the Ministry’s staff were afforded Professional / Personal Development training, 45% received Technical Training, and 35% were exposed to Leadership/ Managerial Skills Training.

A robust Recruitment and Selection Policy employed by the HR Unit resulted in the filling of all existing vacancies in the Communications Unit and the Legal Unit; the filling of 35% of the

positions of Energy Professional Assistant by On-the-Job Trainees and the employment of forty-two (42) Associate Professionals in contract positions on the establishment of the Ministry.

With respect to another key function, namely, Benefits Management, the HRM Unit processed 100% retirement benefits for the Ministry's Public Officers and Daily Rated Employees; 80% contract gratuity in respect of contract officers; 70% Performance Appraisal Reports; 40% Incremental awards to Public Officers and 60% of officers' Pension and Leave Records. Additionally, the HRM Unit prepared and submitted to the Chief Personnel Officer, proposals for the determination of terms and conditions of employment for all forty-two (42) contract employees recruited during fiscal 2013. The Unit also maintained the IHRIS system at 100% capacity, thereby ensuring the payment of salaries and allowances to all members of staff in an error free and timely manner. In an effort to support the MEEA's initiative to motivate staff, a Draft Reward and Recognition Policy was completed and being reviewed.

The Unit successfully maintained its full complement of staff against established permanent positions for the period under review. There were three hundred and fifty (350) personnel on the establishment of the MEEA, of which two hundred and twenty-three (223) were technical staff and one hundred and twenty-seven (127) were professional/administrative staff. The MEEA accommodated fifty (50) returning national scholars as Associate Professionals under the Associate Professional Programme as well as twenty-eight (28) On-the-Job trainees with the intent to mitigate the staff shortage within the MEEA and assist in fulfilling Government's mandate to train and develop the youths through attachment to Ministries/Departments. The MEEA also facilitated national scholars in the fulfilment of their obligatory service within the public sector and in this regard, twenty-five (25) Energy Aides were hired. In addition to the Energy Aides, forty-two (42) existing Associate Professionals were transitioned into entry level technical positions on the contract establishment and seven (7) On-the-Job trainees were placed in the position of Energy Professional Assistant.

GENERAL ADMINISTRATION UNIT

General Administration (GA) provides services to all Units/Divisions of the Ministry and is committed to the provision of effective and efficient administrative services to the Ministry of Energy and Energy Affairs.

Accomplishments

In the fiscal year 2013, General Administration completed the following:

- Acquired three (3) coffee machines which were placed on Levels 24, 25 and 26 of MEEA's Head Office.
- Placed the MEEA's Logo on all official Ministry vehicles.
- Set up a sick-bay room on Level 25 of the MEEA's Port of Spain office.
- Acquired five (5) new vehicles including two (2) Prados, one (1) Navara, one (1) Land Cruiser and one (1) Toyota Camry Hybrid vehicle.
- Erected a large MEEA sign on the Maska compound at the Ministry's South office location.
- Acquired service provider staff to assist in areas where specific services were needed for the efficient running of GA and for the provision of essential support services to the MEEA.
- Enclosed the Library at the MEEA's Head Office and outfitted it with new furniture.
- Repaired and maintained office equipment and procured stationery supplies to facilitate the MEEA's functions.
- Provided training for GA staff.
- Processed documents related to official overseas as well as domestic travel arrangements for staff on a timely basis.
- Distributed mails and performed services related thereto on a timely basis.
- Refurbished and maintained vehicles in order to ensure the smooth operations of the Ministry's business

ACCOUNTS

The financial administration of the Ministry of Energy and Energy Affairs is governed by the Petroleum Act 62:01 of 1969 and Petroleum Regulations of 1970, which regulate the following:

- (i) the Petroleum Impost, which is paid by “*every licensee in respect of all petroleum won and saved, at such rates as the Minister may determine by issue of a Rating Order.*” Funds from the Petroleum Impost are used to recover the recurrent expenditure of the MEEA disbursed by the Ministry of Finance under the various sub-heads for the previous calendar year;
- (ii) royalty payments on oil and gas production; and
- (iii) payments made under the terms of various licenses and contracts, which are administered by the MEEA.

The MEEA also collects revenue on behalf of the Government of the Republic of Trinidad and Tobago (GORTT), through the administration of the related legislative instruments:

- The Petroleum Production Levy and Subsidy Act (62:02 of 1974);
- Production Sharing Contracts (PSCs) with respect to Government’s share of profit from oil and gas produced under the terms of these contracts. From the Government Share of Profit and on behalf of companies operating under the PSC, the MEEA meets liabilities incurred under the following:
 - Petroleum Taxes Act
 - Petroleum Production Levy and Subsidy Act
 - Green Fund Levy and Unemployment Levy

Budget Allocation and Expenditure

For the fiscal year ending September 30, 2013, the MEEA was allocated the sum of TT\$4,672,765,969.00. The breakdown of the allocation is shown at **Table I** below. The actual expenditure was TT\$4,587,223,908.00 as outlined at **Table II**.

**Table I: Ministry of Energy and Energy Affairs Budget Allocation
(October 2012 - September 2013)**

Head 40: Ministry of Energy and Energy Affairs	TT\$
01: Personnel Expenditure	31,942,500.00
02: Goods and Services	146,098,930.00
03: Minor Equipment Purchases	5,553,445.00
04: Current Transfers and Subsidies	4,468,171,094.00
09: Development Programme	21,000,000.00
TOTAL	4,672,765,969.00

**Table II: Ministry of Energy and Energy Affairs Actual Expenditure
(October 2012 - September 2013)**

Head 40: Ministry of Energy and Energy Affairs

Sub-Head	Revised Estimates TT\$	Actual Expenditure TT\$	Variance TT\$
01: Personnel Expenditure	36,619,250.00	29,855,948.00	(6,763,302.00)
02: Goods and Services	139,222,180.00	70,251,230.00	(68,970,950.00)
03: Minor Equipment Purchases	5,553,445.00	3,157,473.00	(2,395,972.00)
04: Current Transfers and Subsidies	4,468,171,094.00	4,465,747,951.00	(2,423,143.00)
09: Development Programme	23,200,000.00	18,211,306.00	(4,988,694.00)
TOTAL	4,672,765,969.00	4,587,223,908.00	(85,542,061.00)

Calculation and Reconciliation of Royalty

A breakdown of revenue collected for the last four (4) fiscal years is shown at **Table III**. During the period under review, the Ministry collected TT\$2,380,977,922 in royalties. Royalties decreased by approximately TT\$68,745,953 from the previous year.

**Table III: Revenue Collected by the Ministry of Energy and Energy Affairs
(October 2012- September 2013)**

	2009/2010	2010/2011	2011/2012	2012/2013
	TT\$	TT\$	TT\$	TT\$
Royalties Collected	1,900,514,127	2,424,275,033	2,449,723,875	2,380,977,922
Other Sources of Revenue	1,004,456,971	300,103,302	136,884,734	800,000,000
Total Revenue Collected	2,904,971,098	2,724,378,335	2,586,608,609	3,180,977,922

**Other Sources of Revenue are the Oil Impost, Retail Marketing Licences, CNG Licences and Bunkering Licence*

Revenue and Disbursements under Government's Share of Production Sharing Contracts

Receipts from Production Sharing Contracts (PSCs) included the profit share from Production Sharing Blocks as well as financial obligations including administrative charges, training contributions, payment towards research and development and scholarship funding. Disbursements under PSCs comprised the transfer of funds from the Government's Share of Profit account to meet tax obligations, other Government liabilities of the contractor and payments and expenses for scholarships, training, research and development.

The excess of disbursements over receipts in a fiscal year relates to the payment of the contractors' tax liabilities from the Government's Share of Profit and is met from the brought forward surplus from previous year. **Table IV** below provides a breakdown of the receipts and disbursement from fiscal 2010 to the fiscal year under review.

Table IV: Production Sharing Contracts: Government's Revenue and Disbursements

	2009/2010	2010/2011	2011/2012	2012/2013
	TT\$	TT\$	TT\$	TT\$
Receipts	3,393,206,597	3,901,760,817	5,967,179,794	3,302,537,566
Disbursements	3,748,715,782	3,179,668,166	6,460,167,894	3,302,537,566

INTERNAL AUDIT

Internal Audit is an independent appraisal function intended to examine and evaluate the financial as well as the operational activities of government entities. It exists as a support to Accounting Officers in the effective discharge of their pecuniary responsibilities. Internal Audit provides an objective assurance designed to help the organization accomplish its objectives and adds value by adopting a systematic disciplined approach to the evaluation and improvement of the effectiveness of controls, risk management and governance.

Internal Audit provides reasonable assurance with respect to the financial controls operating within the Ministry. Provision of a high quality internal audit service is a fundamental aim of the Unit's service delivery methodology. In addition, compliance with the mandatory standards as outlined by laws and regulations is central to the Unit's approach. The Internal Audit Unit is staffed as follows:

- One (1) Auditor II
- One (1) Auditor I
- Two (2) Auditing Assistants

To fulfill its mandate, the Internal Audit Unit has developed certain key functions to assist management in discharging its responsibility. They include the following:

- Review and appraisal of the soundness and application of accounting, financial and other operating controls (both existing and proposed) to promote effective and efficient internal control and make necessary recommendations with respect to:
 - the reliability and integrity of accounting and other data developed within the organisation;
 - the extent of compliance with established legislative and procedural guidelines and policies in all activities;
 - Safeguarding the assets of the organization;
 - Economical and efficient use of resources;

- Maximum utilisation of the knowledge, skills and abilities of the Internal Audit Unit to facilitate the continuous improvement operations of the Ministry of Energy and Energy Affairs which is geared toward enhancing the effectiveness and efficiency of the activities and operating procedures under management's control.
- Alignment of mission and key functions to stakeholder needs.
- Provision of timely information geared at facilitating decision making and improvement of public accountability.
- Effective, investigative and advisory approach to evaluating whether the resources of the Ministry of Energy and Energy Affairs are being used for the intended purpose and that value is being received for funds expended.
- Contribute to a rigorous and effective management of resources by promoting a culture of professional and successful management within the various departments of the Ministry of Energy and Energy Affairs.

Accomplishments for Fiscal Year 2013

For the fiscal year 2013, the recording of all expenditure under the various Heads, Sub-Heads, Items and Sub-Items of the Ministry of Energy and Energy Affairs were checked, cross checked and verified to ensure that proper procedures were being followed. Verification of the Ministry's expenditure also served the dual purpose of ensuring the accuracy of the Appropriation Account for fiscal 2013. The system of revenue accounting continued to operate in a competent manner and in compliance with policies, procedures and Treasury directives.

COMMUNICATION

Mission

The Corporate Communications Unit (CCU) is responsible for efficiently managing communications with all the Ministry's stakeholders, both internal and external. The promotion of the Ministry's initiatives, strategies and plans which include, the management and coordination of ceremonies, functions and programmes also fall under the Unit's remit.

During the period under review the Corporate Communications Unit assisted to make the following meetings/conferences/functions a success:

Meetings/Conferences/Functions

- Launch of the Results of Ryder Scott Gas Audit for the year 2012 – July 2013
- Opening of COTED Meeting
- Launch of the Mitsubishi Project – April 2013
- 8th Latin American and Caribbean Forum
- Signing of Production Sharing Contracts by BHP Billiton
- Hosting of Cocktail Commemorating Oil Find – 48 Million Barrels – April 2013
- Launch of Land Based Bid Round – May 2013
- Setting up of an Energy Pavilion at Energy Conference – January 2013

Public Education

Energy Capsule

The Energy Capsule is a one-minute on-going series with different themes that the Communications Unit used as a vehicle to promote the many initiatives of the Ministry, to the public, during the review period.

Energy Report

The Corporate Communication Unit facilitated the placement of five (5) three-minute Energy Reports during the period fiscal 2013.

External and Internal Publications

In de Loop – The CCU continued its quarterly In de Loop newsletter publication the goal of which is to foster camaraderie and share information as it highlights the work of various Units/Divisions within the Ministry.

Facebook–The CCU updated/populated the Ministry’s Facebook account with information/photos related to energy related events/projects/initiatives.

External– Another issue of the Energy Platform was produced and published. This was distributed to the Ministry’s stakeholders in the Energy Sector and various State Agencies which fall under the purview of the MEEA.

Website – The CCU was charged with updating the MEEA’s website during the review period. This consisted of posting news releases, speeches, notices and Ministry related photographs.

INFORMATION TECHNOLOGY UNIT

Mission

The mission of the Information Technology Unit (ITU) is to strategically integrate cutting-edge technologies in all MEEA's business processes in adherence with world class standards to ultimately provide superior services to clients. We deliver services to our clients while maintaining our core values of integrity, mutual respect, innovation, teamwork, service-oriented and professionalism.

Objectives

The key functions of the IT Unit are to design, develop and implement integrated information systems; to provide networking and telecommunications infrastructure and services; to provide IT client services and support to internal and external clientele; to acquire and manage the IT assets and inventory of the Ministry; to make accessible to users relevant MEEA's applications, data and information systems; to ensure security of all MEEA's networked digital information resources; to provide a common network architecture for all MEEA's offices and to maintain a high-performing, service-oriented IT organization.

Accomplishments

During the period October 2012 to September 2013, the Information Technology Unit (ITU) completed the implementation of a number of major infrastructure upgrade projects and other telecommunications enhancement projects. Steps were also taken to begin the design and planning and equipment acquisition for other systems and infrastructure upgrade projects. These were done with the aim of meeting the Unit's performance goals and objectives as detailed in its strategic and operational plans 2013-2016.

During this period, approximately three hundred and twenty-nine (329) requests were completed by the IT unit to accommodate HR requests for access for MEEA users to access control, email, desktops /laptops and other networked computing resources, for new staff; changes in staffing based on extensions, renewals and staff relocations as well as the hiring of Energy Aides. An estimated number of three thousand, eight hundred and seventy-five (3,875) service desk incident tickets were resolved by the ITU for the period. Approximately one hundred and thirty-five (135)

new desktops and laptops were deployed at both the Head Office and the South Branch Office of the MEEA.

In addition to ongoing ‘lights-on’ activities related to the provision of technical support for all hardware, software and database systems, network expansion and maintenance, voice systems maintenance, multimedia support, IT assets and inventory management and control, systems administration and support, IT facilities management, IT management and administration, the ITU also completed major IT infrastructure projects in the short term. These included the following:

- Replacement and upgrade of the defective voice-over-IP PABX system in the La Romaine branch office
- Redesign and content updating of the Ministry’s website
- Implementation of a modernized integrated online IT service desk system
- Acquisition of fifty-six (56) high end workstations for technical officers
- Deployment of forty (40) workstations and ninety-five (95) desktops and laptops and project management of an expanded and upgraded security camera system.

On the systems side, desktop and laptop security protection were implemented; server upgrades and patching were completed and this included, *inter alia*, the anti-spam server upgrade, the wide area network link upgrade, and a direct fiber cable to Maska which resolved an ongoing problem with the telephone service to the South Office.

MEEA’s technical support to Petrotrin eventually resulted in the successful resolution of an internal issue with the Company’s ability to access the MEEA’s online data portal. Work was initiated on the continuation of the energy sector private network. Initial activities were also completed on long-term projects that were earmarked for completion in 2014-2015. The projects and phases completed include the following:

- Planning, design and acquisition for a precision in-row cooling system in the IT datacenter to address an issue of inadequate cooling of the server equipment;
- Planning, design and implementation of the connectivity solution for expansion and upgrade of the videoconferencing facilities in the Port of Spain offices;

- Planning, solution architect, design and implementation of the hardware platform for the upgrade of the petroleum data management system;
- IT core infrastructure solution design and planning;
- Solution design planning for BYOD and corporate wireless solutions, hardware solution design and acquisition for the upgraded seismic interpretation system.

Work was also done on the installation of a server-based ArcGIS hardware and software solution based on an identified urgent need to make Lider data from the SEIA project accessible to stakeholders. The ITU staff also participated in MEEA's restructuring exercises and supported the ICT initiatives of the wider public service.

LIBRARY SERVICES

Vision: To be the leading information hub and repository in the energy and mineral sectors in Trinidad and Tobago.

Mission: To be the main information provider for clients, internal and external, by acquiring, managing and disseminating relevant and authoritative resources.

During fiscal 2013 the library continued with its mission to provide a pertinent information service for the Ministry of Energy and Energy Affairs by aligning the course of its activities in accordance with the MEEA's vision and mission, and in keeping with industry activities. The Library continued to be utilized by both officers of the MEEA and external users. Queries for both Head Office and South Office Libraries for the fiscal year were approximately six hundred and five (605) for the Head Office Library and five hundred and ninety-five (595) for the South Office Library.

During fiscal 2013 the Library staff continued to re-classify and re-catalogue items as per updated standards. This activity served as a means of auditing the Head Office Library collection to reconcile the collection on the shelves with that on the database. Items to be weeded out of the collection were determined during the course of this activity.

The Library staff and MEEA officers were involved in the planning process of setting up of actual library space for both the North and South Office Libraries. The North Office staff was also involved in sourcing physical library furniture and fittings for the creation of the Library layout. In the South Office, Library staff cleared the backlog of journals which were to be indexed and updated and printed the Library Thesaurus and the UDC précis booklet.

LEGAL UNIT

Vision

The vision of the Legal Unit of the Ministry of Energy and Energy Affairs is to be a highly valued and well respected team within the Ministry of Energy and Energy Affairs and by other stakeholders, through the provision of first class legal services.

Mission

The mission of the Legal Unit of the Ministry of Energy and Energy Affairs (MEEA) is to provide specialized legal expertise to the Ministry, on matters pertaining to the oil, gas, minerals and petrochemical sectors, in a proficient, expedient and professional manner.

Function

The key functions of the Unit include:

- Advising the Government of the Republic of Trinidad and Tobago (GORTT) on legal issues in the energy and minerals industry;
- Preparing contracts, licences, deeds, Agreements, Memoranda of Understanding (MOU); negotiating as part of GORTT's team, with international and local energy companies;
- Revising and updating petroleum and minerals legislation.

For the fiscal year 2013, the Legal Unit undertook a wide range of projects/assignments including the preparation of Production Sharing Contracts (PSCs) and the provision of comments on international agreements.

Strategic Objectives

The Strategic Objectives of the Unit are listed as follows:

- Preparation of legally sound and accurate contracts and agreements which include inter alia PSCs, Guarantees, and IT Contracts;
- Preparation of legally sound and accurate Licences which include Exploration and Production Licences, Retail Marketing Licences;
- Provision of legal opinions on Energy Sector matters;

- Reformation of energy legislation;
- Review of the legislative framework in the Minerals Sector;
- Preparation of draft legislation for Chief Parliamentary Counsel (CPC) such as Orders;
- Modernisation of the model PSC;
- Participation in negotiations as part of MEEA's team;
- Review of documents submitted by State Agencies (e.g. Petrotrin, NGC etc.), providing advice and collaborating as needed;
- Vetting and drafting of documents that require legal input e.g. Cabinet Notes, letters etc.;
- Serving on/providing assistance to Cabinet appointed and other Committees including Minerals Advisory Committee, Technical Evaluation Committee;
- Attending and participating in meetings with respect to the Energy Industry;
- Provision of timely legal advice;
- Establishment and maintenance the Petroleum Register as required by the Petroleum legislation
- Establishment of a legal database to better manage all legal documentation and afford better access and record keeping; and
- Ensuring adherence to legislative requirements and contractual obligations.

SHORT, MEDIUM AND LONG TERM GOALS

Short Term Goals are listed as follows:

- To ensure that all contracts and agreements prepared are 100% legally sound and accurate;
- To ensure that all licences prepared are 100% legally sound and accurate;
- To ensure that all legal opinions prepared are 100% legally sound and accurate;
- To ensure that all energy and mineral sector legislation and any amendments are effected in a timely manner; and
- To ensure that the legal aspects of the matters are adequately identified and addressed in a timely manner.

Medium Term Goals are listed as follows:

- To modernize the PSC by enhancing its core provisions where possible;
- To build capacity by identifying appropriate attorneys (based on interests and specific training) to review and provide advice; and
- To build capacity by identifying appropriate attorneys (based on interests and specific training) to serve on or assist committees.

Long Term Goals are listed as follows:

- To review the petroleum and minerals legislation and identify where new legislation ought to be introduced;
- To research and undertake comparative analyses of Energy Legislation from different jurisdictions so as to adopt best practice in Trinidad and Tobago; and
- To ensure the passing on of "institutional memory" to junior officers through the hosting of 'talkshops'.

Achievements:

- Execution of four Production Sharing Contracts in respect of Blocks TTDA 5, TTDA 6, TTDA 28 and TTDA 29 on June 12, 2013.
- Execution of the Project Development Agreement dated April 8, 2013 for the establishment of a natural gas to petrochemicals complex by and among the Republic of Trinidad and Tobago, NGC, NEC, Neal and Massy Holdings Ltd. and Mitsubishi Consortium.
- The 'Agreed Minutes' dated September 11, 2013 concerning the Unit Operator for Loran Manatee Unit Area finalised and executed by Hon. Minister of Energy and Energy Affairs and the Minister of Petroleum and Mines of the Bolivarian Republic of Venezuela for execution.
- Execution of a Memorandum of Understanding dated June 7, 2013, between the GORTT represented by the MEEA, eight (8) civil society organizations and seventeen (17) local and foreign operating oil and gas companies under the Extractive Industries Transparency Initiative.
- Execution of the Ministerial Consent to an Assignment of Interest in the Southwest Peninsula Block, Onshore Trinidad by Trinidad Exploration and Development Company Unlimited to Beach Oilfield Limited dated August 27, 2013.

SUBSIDY VERIFICATION UNIT

Key Responsibility

The Subsidy Verification Unit (SVU) was established on March 05, 2012 with the mandate to increase the efficiency of the monitoring of the diesel supply chain. The Unit comprises four (4) members of staff in the following positions:

- One (1) Auditor
- Two (2) Statistical Analysts
- One (1) Subsidy Clerk

Accomplishments for Fiscal Year 2013

The following measures which were implemented by the Unit upon its inception in 2012 to increase the efficiency of the diesel supply chain, continued into the period under review:

- Processed, verified, approved and recorded applications submitted to the MEEA for approval to purchase diesel at the subsidised price by the end consumers.
- Continued to administer the mechanism established by the Ministry of Food Production (MFP), Fisheries Division, on June 1, 2012, for the various types of fishing vessels registered and operating locally, to purchase a specified volume of diesel per month at the subsidised price. The approvals granted were based on a study conducted by the MFP in the year 2000, which estimated the maximum volume of fuel to be used by the different types of fishing vessels for a one month period. The SVU monitored the volumes supplied to various customers on a weekly basis, using the sales reports submitted by the peddlers who supply diesel to the approved fishing vessels.
- Continued the implementation of an approval process in which marine vessel owners were requested to submit a fuel request each time fuel was required for use in their vessels. The fuel requests were verified and pre-approved before the assigned peddler could deliver fuel to the vessel. Guidelines were also established for the purchase of diesel at the subsidised price by a marine vessel operator. The savings achieved on the petroleum subsidy cost for diesel for fiscal 2013 for marine vessels are outlined in Table I below.

Table I

Savings in Petroleum Subsidy Cost for Diesel Sold

Total volume of diesel applied for	19,680,821
Total volume of diesel approved	16,908,677
Savings in volume of diesel applied for	2,772,145
Savings in subsidy costs	TT\$M 11.3

PSC AUDIT UNIT

The PSC Audit Unit was established by authority of Cabinet in January 1999 to provide assurance to the Minister that the Contractors are in compliance with the terms and conditions stated in the PSCs (Production Sharing Contracts). At that time there were fifteen (15) active PSCs and a staff of seven (7) members, comprised of one (1) Audit Manager, two (2) Senior Audit Analysts and four (4) Assistant Audit Analysts.

Vision:

To be the Model PSC Audit Unit applying auditing techniques and practices, consistent with requirements of the PSCs which meet and exceed International Standards.

Mission:

To consistently ensure Contractors' compliance with the requirements as outlined in the Production Sharing Contracts (PSCs) through the conduct of timely and thorough audits.

Objective:

To provide assurance to the Minister that the contractors are in compliance with the PSCs by ensuring that:

- Financial Obligations with respect to Administrative Charges, Research and Development and Training Contributions, Technical Bonus and Minimum Lease Payment, have been satisfied by contractors.
- The Minister's Share of Profit Petroleum is accurately calculated in accordance with the provisions of Articles 18.11 and 18.14 of the PSCs.
- Sales of Petroleum Products are made at arms' length prices and all amounts are brought to account.
- Amounts claimed for Cost Recovery are properly classified and supported by adequate audit evidence.

Activities:

During Fiscal year 2013 (October 1, 2012 to September 30, 2013) four (4) deep water Production Sharing Contracts were signed bringing the number of active PSCs to twenty-seven (27). At the end of the fiscal year there were seven (7) members of staff in the Unit, comprised

of two (2) Senior Audit Analysts, three (3) Assistant Audit Analysts and two (2) Service Providers.

Achievements

The following were new audits conducted during the period under review:

- 24 quarterly expenditure audits
- 4 quarterly revenue audits
- 3 yearly audits of expenditure incurred during the Market Development Phase
- 18 yearly audits of contractors financial obligations towards the Minister.
- 1 production bonus audit

The following were ongoing audits from previous years which were completed during the period:

- 20 quarterly expenditure audits
- 18 quarterly revenue audits

At the end of the fiscal year the audits conducted by PSC audit staff resulted in added value of approximately US\$3Mn which translates into a reduction in the cost available for cost recovery which then results in upward adjustments to the Minister's share (cash benefit).

The following are the companies by Blocks for which audits were conducted during Fiscal 2013:

- Parex Resources – Central Range Shallow
- Parex Resources – Central Range Deep
- Centrica Resources - NCMA 4
- Centrica Resources – Block 1A
- Centrica Resources – Block 1B
- BHP Billiton – Block 2C
- BHP Billiton – Block 3A
- British Gas – NCMA 1
- British Gas – Block 5D
- British Gas – Block 5A
- NIKO Resources – NCMA 2, NCMA 3, 4B, 2AB, Guayaguayare Shallow and Deep

Inventory counts were also conducted for the following companies:

- British Gas
- BHP Billiton
- Centrica
- EOG
- NIKO

In addition, the PSC Audit Unit was also engaged in the following activities during fiscal 2013:

- PSC Audit staff attended 20 inventory counts held by Production Sharing Contractors.
- Commenced an Audit of “sole costs” incurred by one PSC operator for years 2007 to 2012 commenced during the fiscal year.
- Prepared audit work paper files for each audit conducted.
- Reviewed the audit work paper files and the issuance of audit reports for same.
- Provided templates of receipts of revenue in respect of Petroleum operations to facilitate a Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI) reconciliation exercise.
- Served on the Evaluation Committee to hire both an Administrator to conduct the TTEITI reconciliation exercise as well as a Validator to assess the TTEITI Reconciliation Report.

TECHNICAL DIVISIONS

ENERGY RESEARCH AND PLANNING DIVISION (ERPD)

The Energy Research and Planning Division (ERPD) has the overall responsibility for undertaking research to inform general policy and planning of the domestic energy sector, including forecasting energy sector trends and building scenarios for the evaluation of sector/industry performance. In this regard, the ERPD supports the strategies identified by the Government to ensure the growth and development of the local energy sector. This includes the provision of secretariat support to the Standing Committee on Energy (SCE), the Permanent Local Content Committee (PLCC) and the Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI).

Standing Committee on Energy

The ERPD provides logistical and secretariat support to the Standing Committee on Energy (SCE). The SCE was appointed by Cabinet to consider strategic energy related issues that are referred to it by the Cabinet or Ministers of Government. The objective of the SCE is to facilitate transparency, accountability, participation and effective representation in the energy sector. As such, the ERPD provided support to the SCE as follows:

- Notified members of SCE meetings.
- Prepared minutes of all SCE meetings.
- Prepared Notes for Cabinet based on recommendations of the SCE, followed-up and communicated Cabinet decisions.
- Monitored and reviewed all SCE decisions and took necessary action to facilitate and support the implementation of said decisions.
- Maintained an electronic database containing a record of all actions and decisions taken by the SCE, for future reference.

Permanent Local Content Committee (PLCC)

The PLCC was commissioned in April 2004 to develop a Local Content Policy and promote the use of local goods and services in the upstream, mid-stream and downstream energy sector. The Local Content Policy was approved by the Cabinet and launched in February in 2006. In fiscal 2013 in keeping with its mandate, the committee continued the dialogue with energy sector stakeholders to

ensure that local content issues were meaningfully addressed and the interest of local stakeholders, adequately represented. There was active discussion on ways and means to increase the effectiveness of the committee in implementing Local Content Policy and in this regard the committee started to give consideration to developing local content legislation based on experiences of other countries.

The Work Permit Committee

The Division also has the mandate to represent the MEEA on the Work Permit Advisory Committee. In executing this function, the key responsibility of the Division was to advise the Minister of National Security on recommendations for work permits in the energy sector. In fiscal 2013, there was an increase in the number of applications for work permits due to increased activity in the energy sector. During that period sixteen hundred and eighty (1,680) work permit applications were processed by the Division compared to twelve hundred and twenty-eight (1,228) applications in the previous period.

Bilateral/International Relations

The ERPD continued to be the interface between the MEEA and its local, regional and international stakeholders. In that context the ERPD prepared briefs, Cabinet Notes and working documents for meetings with regional organizations including:

- Latin American Energy Organisation (OLADE);
- Latin American and Caribbean Economic System (SELA)
- Latin America and the Caribbean Summit on Integration and Development (CALC)
- Caribbean Community (CARICOMs)
- Council of Trade and Economic Development (COTED) on Energy.

The Division also participated in scheduled meetings throughout the region which focussed on energy matters. The ERPD continued to monitor, update and evaluate the strategic opportunities with respect to MEEA's membership in various organizations including:

- Gas Exporting Countries Forum (GECF)
- World Energy Council (WEC)
- World Petroleum Council (WPC)
- Latin American and Caribbean Energy Organisation (OLADE)

Trade Agreements

This Division provided technical and operational support in pursuit of Memoranda of Understanding, Bi-lateral, Multilateral and Partial Scope Agreements. A review of the operations of the energy sector was undertaken and policy recommendations were proposed with respect to reciprocity regarding the laws of Trinidad and Tobago Customs Act, Chapter 78:01.

Reports/Research Papers/ Data Management

During the period under review the Energy, Research and Planning Division undertook exercises with respect to forecasting energy sector trends and building scenarios for the evaluation of industry performance and future direction. The Division also carried out research in the course of preparation of reports, research papers, technical briefs, responses to questions raised in Parliament, and speeches for the Minister/Permanent Secretary at various fora. The Division also provided Trinidad and Tobago energy data to local, regional and international, organizations including Government Ministries, State Enterprises, CARICOM, SELA, CALC, EU, USDOE, GECEF, WEC, WPC, OLADE, IDB, World Bank, IMF, WTO, MERCOSUR, Andean Community, Southern Cone Countries, Petrocaribe, OAS, and AFROLAC.

Public Sector Investment Programme (PSIP)

The ERPD is responsible for managing the funding of capital expenditure projects under the Public Sector Investment Programme (PSIP) in the energy sector. During fiscal 2013, the Division undertook the following with respect to PSIP projects:

- Monitored projects to ensure disbursement of budgetary allocations based on claims submitted for projects
- Conducted site visits to determine the status of projects
- Prepared Notes for Cabinet in respect of PSIP projects
- Prepared reports inclusive of Reconciliation Reports for the Comptroller of Accounts
- Reviewed and submitted Budget Projections from State Enterprises to the Ministry of Planning and Sustainable Development for PSIP projects.

During the period under review the following PSIP projects were monitored:

Development of New Industrial Sites

Point Lisas North

A Note was prepared seeking the approval of Cabinet for the vesting of the site in National Energy as well as funding under the PSIP for the conduct of the survey, engineering, planning and design. A survey of the site was completed and 214.5 Ha of land was identified for use.

Development of New Port Facilities

Port of Galeota

The Port of Galeota project includes the construction of a multi-purpose port and related infrastructure facilities to serve petroleum exploration and production companies. The Port of Galeota is comprised of two phases-: Phases I and II. Phase I was on-going while temporary fenders were being used in the Berth 1 area to facilitate use by vessels from upstream operators. The pre-casting of the utility trenches and sheet piling at Berth 2 continued during fiscal 2013. Galeota Phase II, is an expansion of the Port of Galeota to include more berth space and a deeper draft for accommodating larger vessels. Tender evaluation for the Preliminary Design for Galeota Port Phase II was completed in August 2013.

Brighton Port, La Brea

National Energy together with project stakeholders concluded that a port study was to be undertaken to obtain a concept which would be used as the basis for port modifications. The modifications would facilitate use of the port by industries that are earmarked to use the facilities. The project was still in the inception stage with tenders being received in September 2013.

Construction of Pipeline Facilities

Liquid Fuel Pipeline Project

The Government mandated that the National Gas Company of Trinidad and Tobago Limited (NGC) construct a multi-fuel liquid fuel pipeline and related infrastructure from the Petrotrin Refinery at Pointe a Pierre to Caroni. The related infrastructure include petroleum storage facilities and top loading gantry at Caroni, and an 8-inch pipeline for jet fuel to Piarco. The pipeline was to improve security of supply to the two (2) locations and minimize the congestion on the roads from Road Tank Wagons. This project is overall 95% complete.

Renewable Energy (RE) Energy Efficiency (EE)

The Ministry of Energy and Energy Affairs (MEEA) pursued several Renewable Energy (RE) and Energy Efficiency (EE) initiatives. Many of these were a continuation of previous ventures aimed at capacity building, awareness creation and creating an enabling environment. The following highlights the initiatives undertaken during fiscal 2013.

National Energy Communication Campaign

The MEEA embarked on a Communication Campaign “*My Energy, My Responsibility*”, which was directed at the general public. This 3-phase campaign seeks to increase the public’s awareness about the energy sector, Energy Efficiency and Renewable Energy, through a series of public service announcements/advertisements (TV & Radio) and newspaper columns/articles endorsed by the MEEA. Phase I of this campaign addressed the question - “*where does my energy come from?*” It also focused on informing the citizenry about traditional forms of energy and provided information about the energy sector.

Phase II of the Communication Campaign, which focused on energy efficiency, started on July 13, 2013 with the launch of the “*Lightbulb Exchange Initiative 2013*” at the Penal Rock Road Hindu Primary School. Consistent with similar programmes in other jurisdictions, citizens were encouraged to replace their traditional incandescent light bulbs with more energy-efficient compact fluorescent light (CFL) bulbs provided by the Government. A monitoring and evaluation programme to determine the impact of this intervention is to be undertaken. Phase III of the campaign would address Renewable Energy.

Other activities incorporated in the campaign included the purchasing of a Prius Hybrid in October 2012, to promote cleaner and more efficient energy usage in the Transportation Sector. Additionally, the MEEA participated in RE and EE Educational Seminars in Schools’ Outreach Programme in collaboration with the National Energy Corporation (NEC) during the period October - November, 2012. A total of twelve (12) schools participated in the programme.

Pilot Projects to Introduce RE Technologies

In accordance with the draft RE/EE Policy Green Paper, the Government proposes to lead by example through the promotion of RE and EE in its buildings. In this regard, during the period under review, RE and EE pilot projects were being launched in community centres and schools.

I. Renewable Energy and Energy Efficiency Community Centres

The installation of exterior solar lighting at community centres was launched at the Malabar Phase IV Community Centre in March 2013. The “***RE and EE in Community Centres***” Project is a pilot involving the installation of PV lighting for the exterior of fifteen (15) Community Centres for security purposes. Eleven (11) of the fifteen (15) Community Centers have been completed. These Centers highlight the practical use and benefits of RE and EE to the national community, while simultaneously facilitating the growth of a knowledge base. The centers would also be used as natural disaster relief shelters and data collected through continuous monitoring and evaluation of their operations would inform an expanded initiative.

II. Renewable Energy (RE) and Energy Efficiency (EE) in Secondary Schools

The Government continued to collaborate with the University of the West Indies (UWI), the University of Trinidad and Tobago (UTT), and the Ministry of Education (MOE), in the facilitation of RE/EE related education, training and ongoing curriculum support over the short and long term. Thus far, eighty-five (85) teachers, from twenty-five (25) secondary schools throughout the eight (8) educational districts in Trinidad and Tobago, have been trained. In addition to a teacher training component, the “***RE and EE in Secondary Schools***” Project introduced practical usage of RE technologies through the installation of off-grid solar PV systems and solar distillation units in selected schools. Contractors conducted site visits to the schools from 18- 25 April, 2013 and submitted tenders which were evaluated on June 27-28, 2013. The contract was awarded on September 17, 2013.

IDB Sustainable Energy Programme

The Government of Trinidad and Tobago entered into a Policy Based Loan Agreement with the Inter-American Development Bank (IDB) with respect to the development of a Sustainable Energy Framework. In support of this loan facility, the IDB engaged the services of an international consultancy consortium to provide the MEEA with policy and technical support for its Sustainable

Energy Program, which includes RE and EE. The programme was officially launched on 30 November 2012. Activities undertaken within the ambit of this programme are:

Energy Audits Pilot initiative

The Inter-American Development Bank (IDB) assisted the MEEA with the procurement of services to undertake energy audits in selected Government buildings in both Trinidad and Tobago. Three local companies were contracted for the conduct of the energy audits which were conducted on the following buildings during September 2013:

- Tower C of the International Waterfront Center (EDL)
- The Port Authority of Trinidad and Tobago (PATT) Administrative Building (EDL)
- Port of Spain General Hospital (SEL)
- National Treasury Building, Port of Spain (TISS Limited)
- Tunapuna Administrative Complex (EDL)
- University of Trinidad and Tobago San Fernando Campus (SEL)
- Speyside Secondary School, Tobago (EDL)
- Tobago House of Assembly (THA) Building (TISS Limited)

The completed Audit Reports inclusive of recommendations were submitted to the management of the respective buildings to consider implementation of the recommendations.

Global Environmental Facility (GEF) Funding

The IDB Consultants also assisted with the design of a Global Environmental Facility (GEF) project that targets the social housing Sector. This initiative was pursued in collaboration with stakeholders including the Ministries: the Environment and Water Resources, Planning and Sustainable Development, Housing and Urban Development and Land and Marine Resources.

Regional Renewable Energy Research Center

The MEEA held discussions with the United States Department of Energy (USDOE) on the establishment of a Regional RE Research Center. The major focus was on capacity building, policy and regulation. A Memorandum of Understanding (MOU) between the MEEA and USDOE was signed in Trinidad and Tobago in May 2013. There are plans to engage an international consultant to conduct a needs assessment for this facility.

International Renewable Energy Agency (IRENA)

In June 2013, the MEEA submitted an application for membership with the International Renewable Energy Agency (IRENA). Membership in IRENA offers many benefits to Trinidad and Tobago, including inter-alia: capacity building, technical and policy support related to Renewable Energy. IRENA supports countries in their transition to a sustainable energy future, and serves as the principal platform for international cooperation, a centre of excellence, and a repository of policies, technologies, resources and financial knowledge on renewable energy.

Wind Resource Assessment Programme (WRAP)

The Wind Resource Assessment Programme (WRAP) for Trinidad and Tobago involves three (3) Phases. Phase 1 of the Program, which is preliminary area identification, is being funded under the Public Sector Investment Program (PSIP) while Phases 2 and 3 are proposed to be funded by the Green Fund. Phase 2 involves the actual wind resource evaluation and Phase 3 involves selection of five (5) candidate sites for wind development.

Energy Services Companies (ESCO) Certification Committee

The ESCO Certification Committee, which was established in January 2012, and chaired by the MEEA, has as its major focus, to approve/register Companies that may wish to provide energy audits to commercial and industrial undertakings, and facilitate the offer of fiscal incentives for Energy Efficiency. The Committee has been developing a framework in which ESCOs will generally operate for the conduct of energy audits and also for the implementation of the 150% Tax Allowance which was provided in the Finance Act No. 13.

During fiscal 2013, the ESCO Certification Committee continued to review and develop guidelines and procedures for the registration of ESCOs. Research was conducted and a working guideline document was developed for the following:

- The definition of an ESCO for the purpose of obtaining the incentive, tailored to the needs of Trinidad and Tobago;
- A cap on allowable expenditure;
- Revenues to be forgone as a result of the implementation of the tax incentive
- A minimum level of savings that must be achieved in order to qualify for the incentive;

- A monitoring and verification protocol for determining energy savings
- Requirements for the registration of ESCOs/ Energy Auditors
- A statutory and administrative framework to govern the implementation process

Extractive Industries Transparency Initiative (EITI)

The tri-partite cabinet-appointed Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI) Steering Committee, supported by its operational arm, the TTEITI Secretariat, continued to spearhead the implementation of EITI in the local energy sector and worked towards satisfying the requirements for compliant country status in fiscal 2013.

Accomplishments for Fiscal 2013

In fiscal 2013, the TTEITI Secretariat undertook a number of initiatives which significantly advanced EITI implementation in the domestic energy sector. These include the following:

- ***Baseline Perception Survey***

In February 2013, a consultant was contracted to conduct a Baseline Perception Survey of the extractive sectors. The objective of the survey was to assess the level of awareness of communities adjacent to extractive industry operations on environmental and extractive industry issues.

- ***Memorandum of Understanding (MOU)***

In June 2013, an MOU was signed by the country's major oil and gas companies, Civil Society Organizations and the Government agreeing to full disclosure of revenues earned from the oil and gas sector by way of the EITI reporting process.

- ***Publication and dissemination of the first EITI Report***

In accordance with the EITI standards, the first TTEITI Report (for fiscal 2011) was published on September 30, 2013. A number of mechanisms were implemented to facilitate the dissemination of the Report including:

- the development of a special Mobile Application.
- the hosting of an Open Data Workshop for Open Data enthusiasts, software programmers and journalists on the potential of Open Data Technology as a tool for promoting the EITI Report and other documents.

- ***Stakeholder engagement***

Given the importance of stakeholder engagement in EITI implementation, a number of consultations were held during fiscal 2013. These include:

- a series of workshops with Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs) to enhance public awareness, engage NGOs and CBOs in the TTEITI process and establish a collaborative focus group in the TTEITI.
- an EITI Caribbean Outreach Workshop entitled “*Natural Resource Management in the Caribbean – an introduction to the EITI*” which brought together a cross section of participants from neighbouring countries to share experiences and learn from experts about the EITI.
- An inaugural Youth Advisory Forum (YAF) at the St. Augustine Campus of the University of the West Indies designed to bring together young persons to expose them to the EITI concept with the aim of winning their support for and their assistance in promoting the EITI among their peers.
- Launch of a Civil Society Engagement programme with a workshop in the Mayaro community where much of the country’s oil and gas production comes from offshore fields.

RESOURCE MANAGEMENT DIVISION

The Resource Management Division is mandated to manage the nation's hydrocarbon resources and its main mission is to ensure timely and sustainable development of the nation's petroleum resources and reservoirs. The Division is divided into two main sections-: Exploration and Production Planning and Acreage Management and is responsible for the following core functions:

- Management of Competitive Bid Rounds
- Management of Oil and Gas Audits
- Optimizing Production

For the fiscal year 2013 the Division completed the following:

Management of Competitive Bid Rounds

In 2013, negotiations were finalized with BHP Billiton for Production Sharing Contracts for four (4) blocks- TTDA 28, TTDA 29, TTDA 5, and TTDA 6. The MEEA launched another Deepwater bid round on August 16th 2013 with an expected closing date five (5) months later in January 2014. Nominations of blocks were received from companies and six (6) offshore blocks- TTDA 30, TTDA 31, TTDA 1, TTDA 2, TTDA 3, and TTDA 7 would be offered. These blocks are highlighted in green in figure 1.0 on **page 45**.

The MEEA also opened the 2013 Land Bid Round in April 2013 with a closing date six (6) months later in October 2013. Three (3) blocks were available for bid and the location of these blocks are highlighted in figure 1.1 on **page 46**. All three (3) blocks are surrounded by producing fields with an estimated seven (7) million barrels of oil (MMBO) to one hundred and fifty (150) million barrels of oil (MMBO). Details of the blocks are outlined in Table 1.1 on **page 46**.

In addition to the increase in cost recovery from 50% to 80% for the last deep-water bid round, a number of incentives were introduced in the 2013 budget to stimulate interest and give investors further confidence in bidding for blocks. Some of these incentives include:

- Harmonization of the SPT rate for activity in the marine environment.
- Introduction of a Special SPT rate for new field development.
- Provision of 140% capital uplift for exploration in deep horizons – deep being defined as 8000 feet or more for land and 12,000 feet or more in marine areas.

Figure 1.0: Trinidad and Tobago's Upstream Activity Map

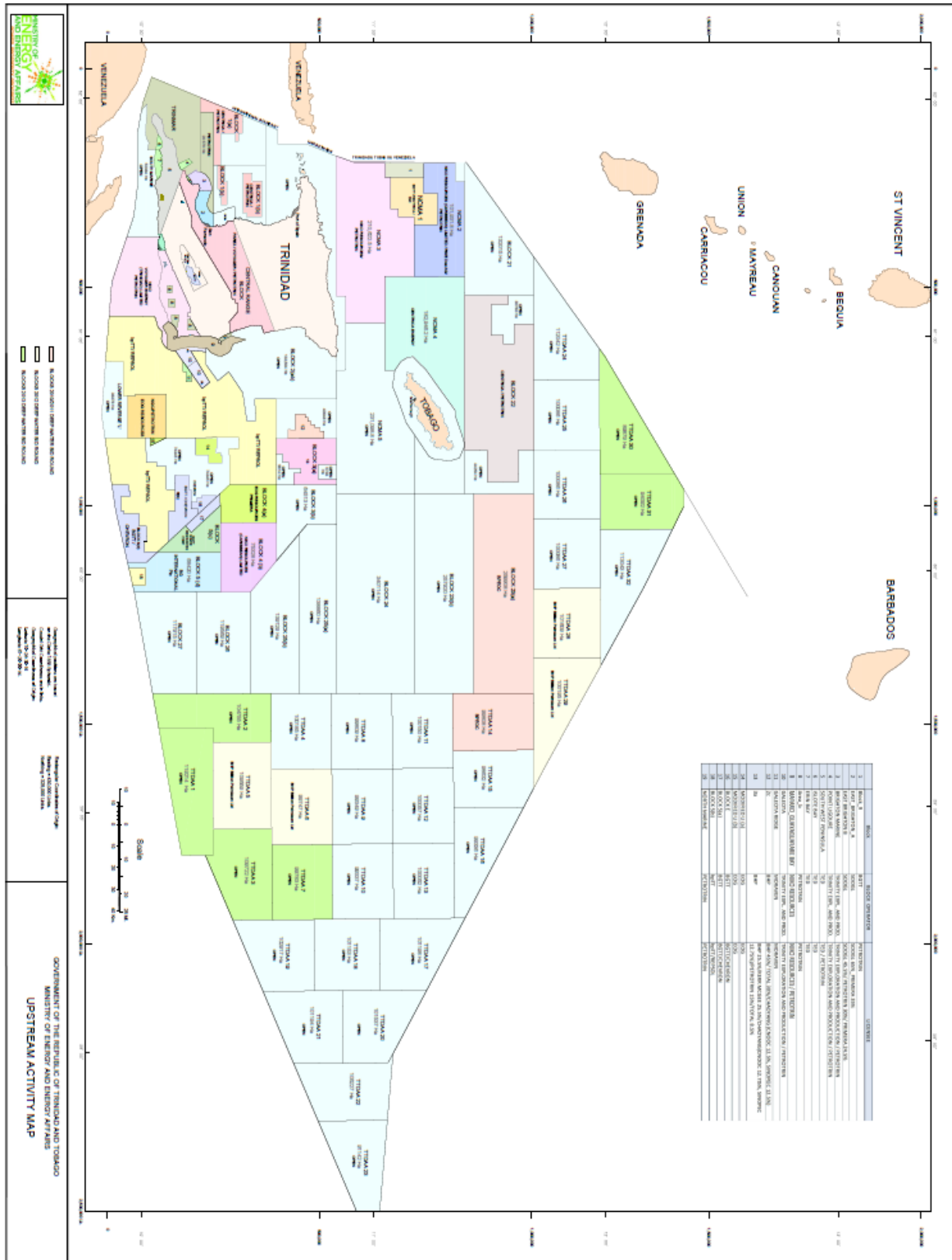


Figure 1.1: Trinidad and Tobago’s Onshore Bid Round Blocks

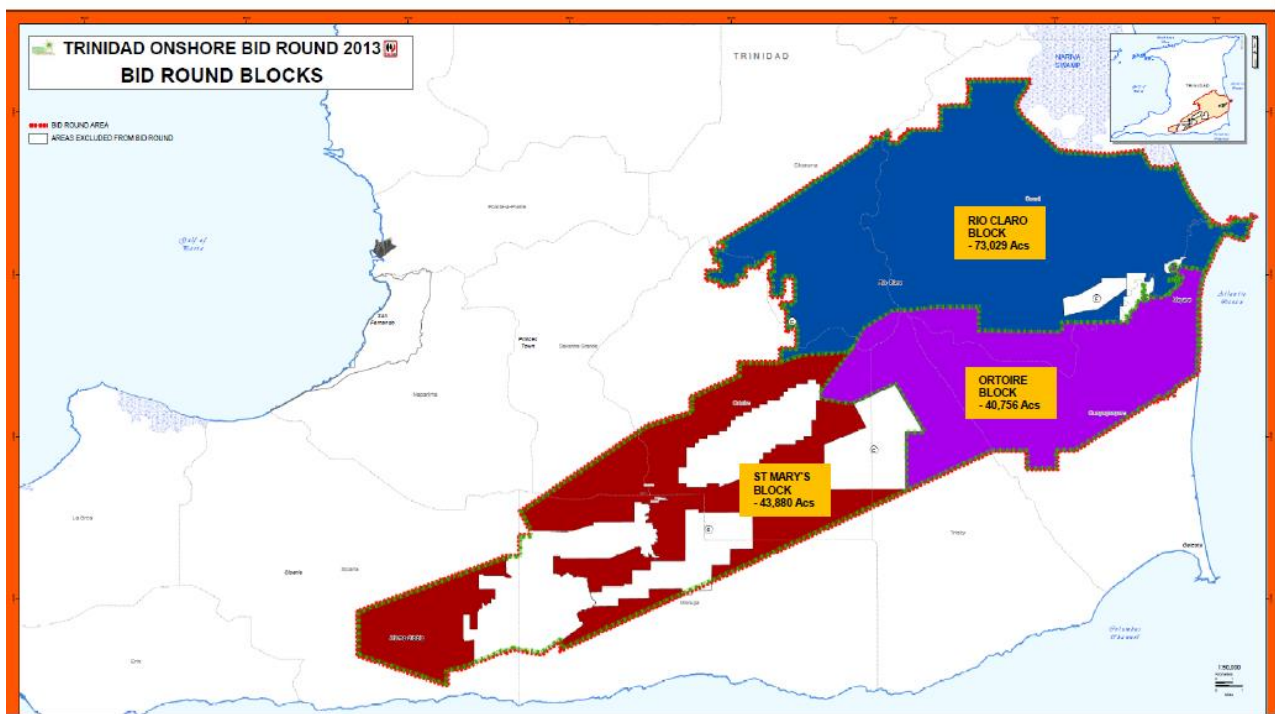


Table 1.1: Trinidad and Tobago’s Onshore Blocks

Block	Area, acres	Statistics
Rio Claro	73,029	East of Petrotrin Barrackpore field and south of the Central Range block which is under exploration via an E&P License.
St Mary’s	43,880	Southeasterly block lying east and on a trend with the Rock Dome/Catshill Inniss field.
Ortoire	40,756	Southwesterly block lying south of Petrotrin’s Barrackpore field and adjacent to the Rock Dome/Catshill Inniss field.

Management of Oil and Gas Audits

National Non-Associated Natural Gas Reserves Audit

The audit of Non-Associated Natural Gas Reserves year-end 2012 was initiated in March 2013 with Ryder Scott Company of Houston, Texas. The Consultant had onsite reviews of the data supplied by the operating companies with the Ministry of Energy and Energy Affairs providing data for open areas and for LNG exports. The NGC provided data on the domestic gas demand outlook. Members of staff from the Ministry of Energy and Energy Affairs were assigned to manage the project as well as to provide quality assurance and to ensure all required data was supplied to the Consultant. The project was successfully completed in July 2013 and the results of the audit are highlighted in table 1.2 below.

Table 1.2: Results of YE 2012 independent Non-Associated Natural Gas Audit

Year End	Proved (BCF)	Probable (BCF)	Possible (BCF)	3P (BCF)	Exploration (BCF)
2000	19,674	7,693	5,468	32,835	30,330
2001	20,348	8,117	5,857	34,322	29,100
2002	20,758	8,280	6,062	35,100	29,377
2003	18,809	8,627	5,890	33,326	28,030
2005	18,775	9,029	7,066	34,870	32,184
2006	17,052	7,760	6,225	31,037	37,094
2007	16,997	7,883	5,888	30,768	31,253
2008	15,374	8,451	6,286	30,111	29,641
2009	14,416	7,837	5,893	28,146	25,990
2010	13,460	7,642	5,995	27,097	25,978
2011	13,257	6,035	6,158	25,450	30,452
2012	13,106	6,142	5,987	25,237	31,617

National Crude Oil Reserves Audit.

The audit of the Crude Oil Reserves of the Republic of Trinidad and Tobago as at 31st December 2011 was initiated on July 16th 2012 and undertaken by Netherland, Sewell and Associates Inc. The audit commenced with onsite reviews of the data supplied by the operating companies during the period July 23-27, 2012 and August 6-10, 2012. Members of staff of the Ministry of Energy and Energy Affairs were assigned to manage the project and facilitate onsite review meetings with the Consultant and the operators, as well as provide quality assurance and any other assistance required by the Consultant. The project was completed on 26th March 2013 when the MEEA received the final report from Netherland, Sewell and Associates Inc.

Table 1.3: Results of YE 2011 Independent Crude Oil Reserves Audit

Reserves Category	Proved	Probable	Possible	Total (3P)
Gross Unrisked Reserves (MMBBL*)	199.54	85.46	124.77	409.77

* MMBBL – million barrels

Optimizing Production

Cross Border Unitization

The second Meeting of the Joint Steering Committee for the Unitization of Cross Border Hydrocarbon reservoirs that extend across the delimitation line between the Republic of Trinidad and Tobago and the Bolivarian Republic of Venezuela was held in June 2013. The meeting was co-chaired by the Permanent Secretary, MEEA and Vice Minister of Hydrocarbons for Venezuela. The objective of the meeting was to finalize the draft Functional Structure and Governance of the Unit Operator for the Loran-Manatee Unit Area. The next step would be the preparation of development plans for the blocks.

Oil and Condensate Production Forecasting

Oil production forecasting is undertaken annually by the Resource Management Division as it forms part of the Division's portfolio and is required by the Ministry of Finance and the Economy to compute royalty estimates for the fiscal budgets. These forecasts are determined by decline curve analysis and production trends by companies and their respective fields. Companies' work programs are also reviewed to understand future operational plans and their impact on production. The Annual Technical Meetings (ATMs), Coordination Committee meetings (CCMs), Technical Committee meetings (TCMs), Oil and Gas Reserves Audits review meetings, monthly production data in the energy bulletins and the well production data are the major sources of information for these forecasts.

COMMERCIAL EVALUATION DIVISION

The role of the Commercial Evaluation Division (CED) is to conduct the commercial and fiscal evaluation of this country's hydrocarbon and downstream energy related projects so as to optimize value and returns to the nation, throughout the life of the contract/agreement.

Production Sharing Contract Negotiations

During the period under review negotiations were concluded with BHP Billiton for (4) four deep water Blocks- TTDA 5, TTDA 6, TTDA 28 and TTDA 29 and all four PSCs were signed on June 12, 2013. Negotiations were also conducted with BHP Billiton and Repsol for the deep water Block 23(b) and with BHP Billiton, Chaoyang Petroleum and the National Gas Company of Trinidad and Tobago (NGC) with respect to an extension of the Block 2 (c) Production Sharing Contract.

Review of the Petroleum Fiscal Regime

A Petroleum Fiscal Review Committee (PFRC) comprising representatives from Ministry of Energy of Energy Affairs and the Ministry of Finance and the Economy, was established by Cabinet in March 2013. The PFRC had a mandate to review and make recommendations in respect of the fiscal regime for the upstream petroleum sector to ensure this country's competitiveness as well as to propose measures that would stimulate exploration and development on land and shallow marine areas.

The CED represented the MEEA on the PFRC, provided the committee with analyses and reports on the financial impact of the various recommendations and also provided the necessary secretariat services. During the course of its deliberations the PFRC concluded that to attract investment in the oil and gas sector, additional measures and incentives that targeted a desired investment or desired activity were necessary. Accordingly, the following recommendations which came out of the deliberations of the PFRC were submitted to Cabinet for consideration:

I. Investment Tax Credit

Under the Supplemental Petroleum Tax regime, an Investment Tax Credit was introduced by Act 13 of 2010 and took effect from 1st January 2011. This incentive allows companies to claim 20% of the expenditure on development activity for mature fields and enhanced oil recovery projects as a credit against their Supplemental Petroleum Tax Liability. The credit is only available for use in the financial year in which the expense is incurred and any un-used tax credit cannot be carried forward or backward for offset against tax liabilities of any other financial year. To ensure continuity of these activities and increase new investments, it is now proposed that the un-used tax credits be allowed to be carried forward for one year.

II. Capital Allowances

Capital allowance relief provides a mechanism that de-risks and allows for earlier recovery of investments. It was proposed that the capital allowances for the upstream energy sector be simplified and accelerated as follows:

Exploration

The existing initial and annual allowances to be replaced by a new allowance of 100% of exploration costs to be written off in the year the expenditure is incurred. This incentive will be applicable for the period 2014 to 2017.

Development

To grant a first year allowance of 50 % of the expenditure; a second year allowance of 30% and third year allowance of 20% of the expenditure. This will be applicable to both plant and machinery (tangible) and the drilling of wells (intangible) expenses.

Workovers and Qualifying Side-Tracks

An allowance of 100% of the total costs of work-overs and qualifying side-tracks in the year incurred.

Gas Compression Facilities (Mid-Stream Energy Sector)

The wear and tear allowance for compression facilities acquired for use in the mid-stream natural gas sector to be increased from 25% to 33.3% under the relevant legislation.

On Shore Bid Round 2013

The Onshore Bid Round which opened on May 16, 2013 offered some 63,715 hectares of acreage in the country's southern basin, specifically the Rio Claro, St. Mary's and Ortoire Blocks. CED would be involved in the evaluation of the bids

Deep Water Competitive Bid Round 2013

The Government of Trinidad and Tobago by Petroleum regulations (Competitive Bidding) Order 2013 contained in Legal Notice 164 dated August 14, 2013, invited petroleum companies to present proposals via competitive bidding for the conduct of exploration and production operations in six deep water blocks. These blocks, TTDA 1, TTDA 2, TTDA 3, TTDA 7, TTDA 30 and TTDA 31 are all located offshore the North and East coasts of Trinidad and Tobago. CED will be involved in evaluating the Government's Profit Share submitted by the respective bidders as part of their bids.

Block 2 (c) Crude Oil Marketing Arrangements

Under an agreement dated June 30, 2005 the MEEA appointed BHP Billiton Marketing Inc. as the sole agent for the marketing and sale of its lifting entitlements under Block 2c PSC. During fiscal 2013 CED monitored this agreement and ensured that the Government's account was credited accurately and on time. For the fiscal year 2012/2013 nine cargoes were sold; from which Government realized revenues of US\$178.6 million. The accumulated Government receipts to date from the disposal of the crude stood at US\$ 1,986.2 million.

CONTRACTS MANAGEMENT DIVISION

The focus of the Contract Management Division is the management of the contracts of all major oil and gas operators in terms of reporting and compliance to ensure that there is a single point of contact and expertise assigned to each of the major operators, including BHP Billiton, bp Trinidad and Tobago (bpTT) and BG Trinidad and Tobago (BGTT). The Division brings together a combination of business and technical multi-disciplinary teams and skills. Also included in this Division is a finance function with responsibility for determining the Minister's share of profit oil and gas; financial obligations and royalty computation.

The key roles of the Contract Management Division are as follows:

- Management of all oil and gas contracts - cost recovery, cost tracking, cost benchmarking, data confidentiality, calculation of profits, royalties and cost streams and marketing arrangements;
- Appraisal of exploration and development well programmes, field development plan review and approval in conjunction with other divisions;
- Interface with LNG and Gas Exports Division and Commercial Evaluation Division;
- Administration of technical aspects of contracts e.g. drilling, workovers, completions, well testing work programmes;
- Input into existing Technical and Operations Divisions to finalize approvals;
- Management of Production Sharing Contracts and Exploration and Production licence with regard to compliance, local content and the national oil spill contingency plan.
- Monitoring of crude oil production.

Operators

The following Operators operated under E&P licences:

- Petroleum Company of Trinidad and Tobago (Petrotrin): Lease, Farmout and Incremental Production Service Contracts Operatorships (LO, FO and IPSC's), Joint Ventures (JV's) and Trinmar

- bp Trinidad and Tobago (bpTT)
- BGTT - Central Block
- New Horizon Trinidad and Tobago
- Ten Degrees North (now Trinity Exploration)
- Trinidad Exploration and Development
- Neal and Massy Energy Resources Limited (NMERL)
- SOOGL – East Brighton
- Primera Oil and Gas Limited
- Voyager
- Moraven
- Enron Oil and Gas Resources Ltd (EOG) - SECC Block
- Bayfield Energy Limited
- Moraven
- Repsol
- Advance Oil

The list below provides details of the operators with PSC obligations and their respective assets:

- Enron Oil and Gas Resources Ltd (EOG) – 4(a), U(a) and U(b)
- BHP Billiton - Blocks 2(c) and 3(a), TTDA 5, TTDA 6, TTDA 28 and TTDA 29
- bp Trinidad and Tobago (bpTT) - Block 5b, Block 23a and TTDA 14
- BGTT - NCMA 1, Blocks 5(a), 5(b), 5(c), 6, 6(b), 6(d) and Block E
- Parex Resources (Trinidad) Ltd (PetroAndina) – Central Range Shallow and Deep, Cory-E/Moruga Block
- Centrica - Blocks 1(a), 1(b), 22 and NCMA-4
- NIKO Resources - NCMA 2, NCMA 3, Block 4b, Guayaguayare (Shallow and Deepwater) and Mayaro-Guayaguayare Bay Blocks

Activities

The following is a summary of the drilling, workover, production and geological studies undertaken by operators under Production Sharing Contracts (PSCs) and Exploration and Production (E&P) licences for the fiscal 2013.

Wells Spudded

In fiscal 2013, a total of eighty-six (86) wells were spudded which included eighty-one (81) development wells and five (5) exploration wells. This represented a small decrease (approximately ten percent, 10%) in drilling activity when compared to the period fiscal 2012, during which a total of ninety-six (96) wells were spudded inclusive of eighty-nine (89) development wells and seven (7) exploration wells.

Workover Activity

Workover activity saw an increase in fiscal 2013 when compared to the corresponding period in fiscal 2012. In fiscal 2013, a total of two hundred and one (201) workovers were performed with the majority comprising recompletions, abandonments, conversions and sand controls. The total number of workovers performed in this period represented an increase of approximately twenty-seven percent (27%) when compared to the corresponding period in fiscal 2012 when one hundred and fifty-eight (158) workovers were done.

Crude Production

Total crude production in fiscal 2013 was 29,536,940 barrels of oil at an average of 80,923 bopd. This represented a minimal decrease of approximately three percent (3%) when compared to production in fiscal 2012 which amounted to 30,513,178 barrels of oil at an average of 83,369 bopd. The fall in production could be attributed to natural decline. However, this decline was less than the nine percent (9%) decrease experienced when a comparison was made between fiscal 2012's average production of 83,369 bopd to fiscal 2011's average production of 91,913 bopd. Increased production levels from the Petrotrin's Farmout Operators and its Incremental Production Services Contracts (IPSCs), Moraven and Bayfield Energy contributed in reducing the overall decline rate.

LNG AND GAS EXPORTS DIVISION

The LNG and Gas Exports Division is comprised of three sub sections:

- LNG
- Supply and Transmission (S&T)
- Downstream Gas Utilization Group (DGUG)

LNG

The short, medium and long term plan of the LNG sub-section is to verify that the revenues from Train 4 LNG sales and Trains 2 and 3 LNG sales from PSC contracts are in accordance with LNG sales contracts. This sub section also has a responsibility to recommend to management possible actions to remedy any discrepancies in the LNG sales contracts. The group also advises management on the expected revenue from any LNG sales contracts being re-negotiated under new commercial terms. LNG's performance objectives are to monitor 100 % of LNG contracts under the responsibility of the MEEA and to provide all analysis and recommendations within stated deadlines.

Supply and Transmission

The performance objective for the supply and transmission sub-section is to maintain a reliable natural gas supply/ demand balance throughout the year within the country. This is achieved by monitoring, regulating and assisting in the coordination of stakeholder activities which impact on natural gas supply and utilization for both domestic use and export. These activities include natural gas production by the upstream suppliers, transmission, distribution and sale of gas by the NGC and utilization of gas by the downstream consumers.

Downstream Gas Utilization Group

The Downstream Gas Utilization Group's short, medium and long term plans are:

- Completion of the Downstream Industry Annual Report for 2012 (by end of Q1, 2013),
- Monitor existing gas based industries with respect to plant production, commodity exports and natural gas usage,
- Maintain the statistical database (Gas Based Industries Monitor),
- Monitor and maintain a data base for the petrochemical market,

- Respond to internal and external requests for information,
- Submission of 2013 Consolidated Monthly Bulletins for posting on the MEEA Website (on a monthly basis)
- Finalize the draft Petrochemical Licence and return to Cabinet for approval of the updated legal instrument,
- Finalize the LPG regulations and submit for final approvals.
- Enable the following project developments along agreed implementation paths:
 - Methanol Fuel Blending Project.
 - Methanol-DME Complex at Union Industrial Estate.
 - PCS Nitrogen Facilities Expansion at the PLIE.
 - Steam Supply Project between Powergen-PCS Nitrogen on the PLIE.

DGUG performance objectives are to complete the tasks for which it has responsibility and provide all analyses and recommendations within agreed deadlines.

Natural Gas Production and Utilization

The average gas production and utilization for Fiscal Year 2013 showed no significant changes to that of Fiscal 2012. Production was 4122 MMscf/d while Fiscal 2012 average gas production was 4102 MMscf/d, as seen in figures I and II on **page 57** and Table I on **page 58**. Utilization increased from 3799 MMscf/d to 3828 MMscf/d in Fiscal 2013, as seen in Table II on **page 60**. This stability was established through great effort by the downstream gas companies (including Atlantic), upstream gas companies, the National Gas Company (NGC) and the Ministry of Energy and Energy Affairs in coordinating the timing of major planned maintenance work on their facilities. Curtailments in the supply of natural gas which began in Fiscal 2011 continued through Fiscal 2012 and also in Fiscal 2013. However, the effect of supply shortfalls from the upstream companies due to their planned platform maintenance was mitigated by the scheduling of turnarounds (TAR) at the downstream companies at the same time. The maintenance work was carried out to ensure continued safe and efficient operations and to be in compliance with industry standards for integrity management.

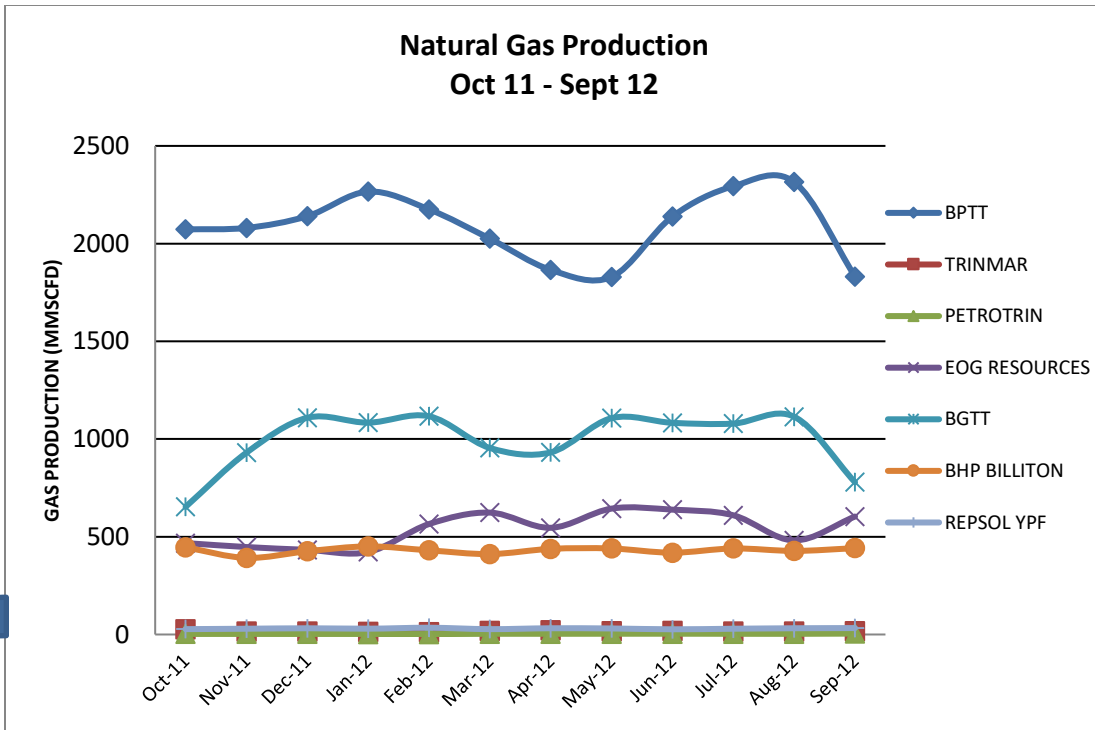


Figure I: Natural Gas Production for October 2011 to September 2012

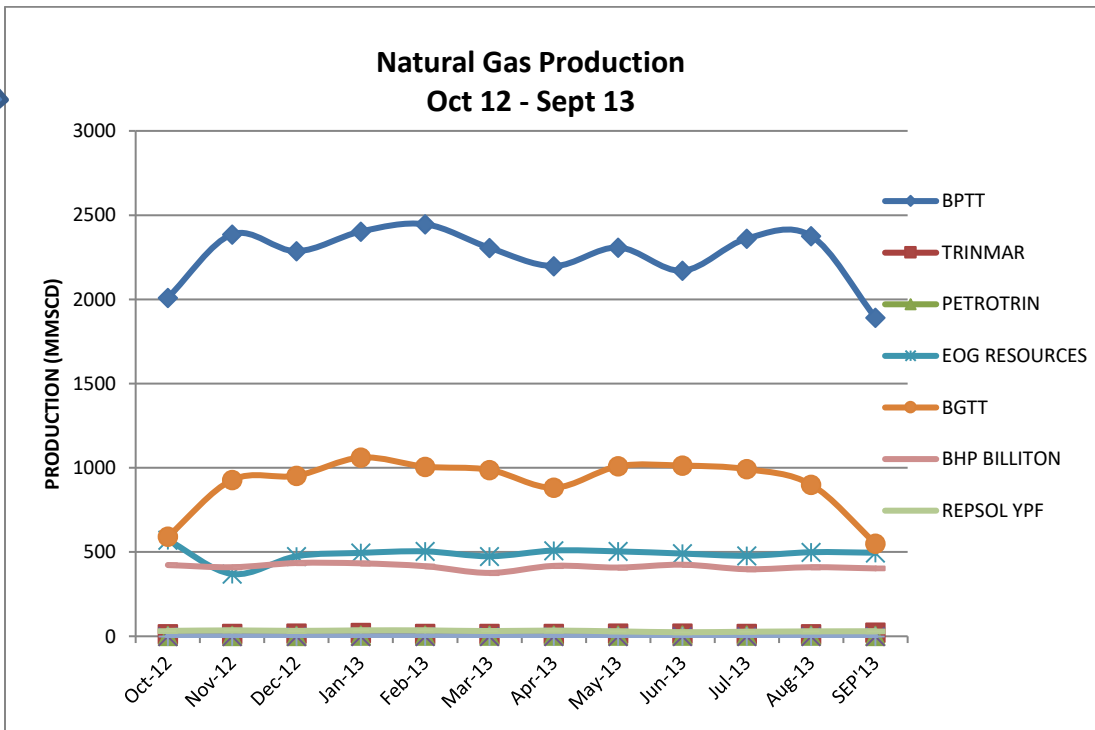


Figure II: Natural Gas Production for October 2012 to September 2013

**Table I: Average Natural Gas Production
Million Standard Cubic Feet per Day (MMscf/d)**

Company	Natural Gas Production (MMscf/d)	
	2011-2012	2012-2013
BPTT	2087	2262
TRINMAR	17	16
PETROTRIN	3	5
EOG	540	489
BG	995	906
BHP	430	413
REPSOL	30	31
TOTAL	4102	4122

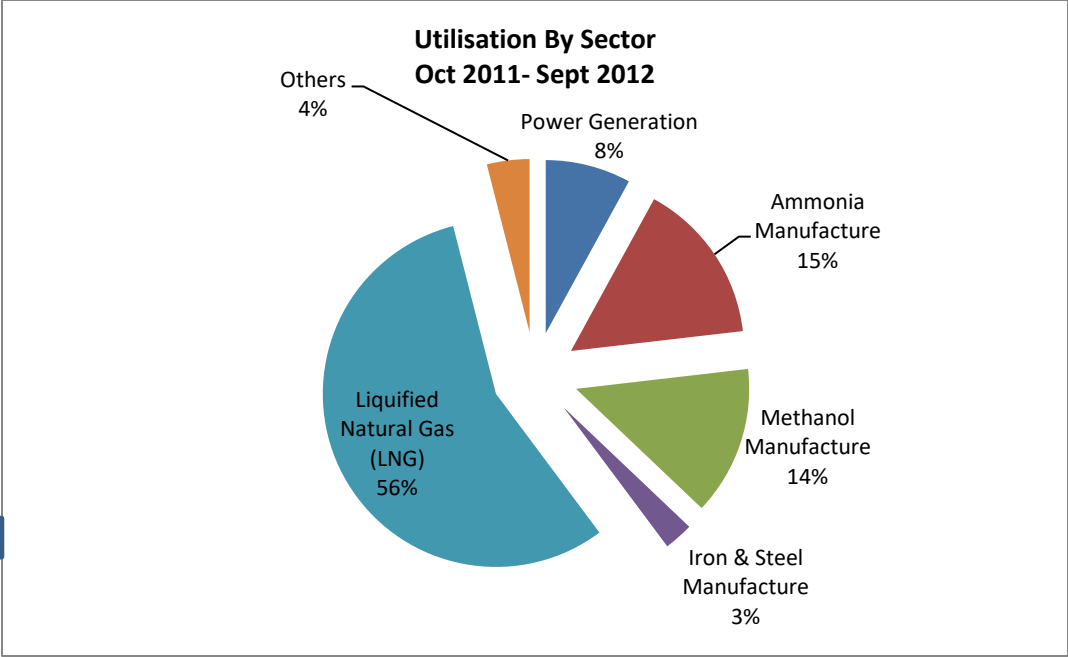


Figure 1 : Sector Utilization for October 2011 to September 2012

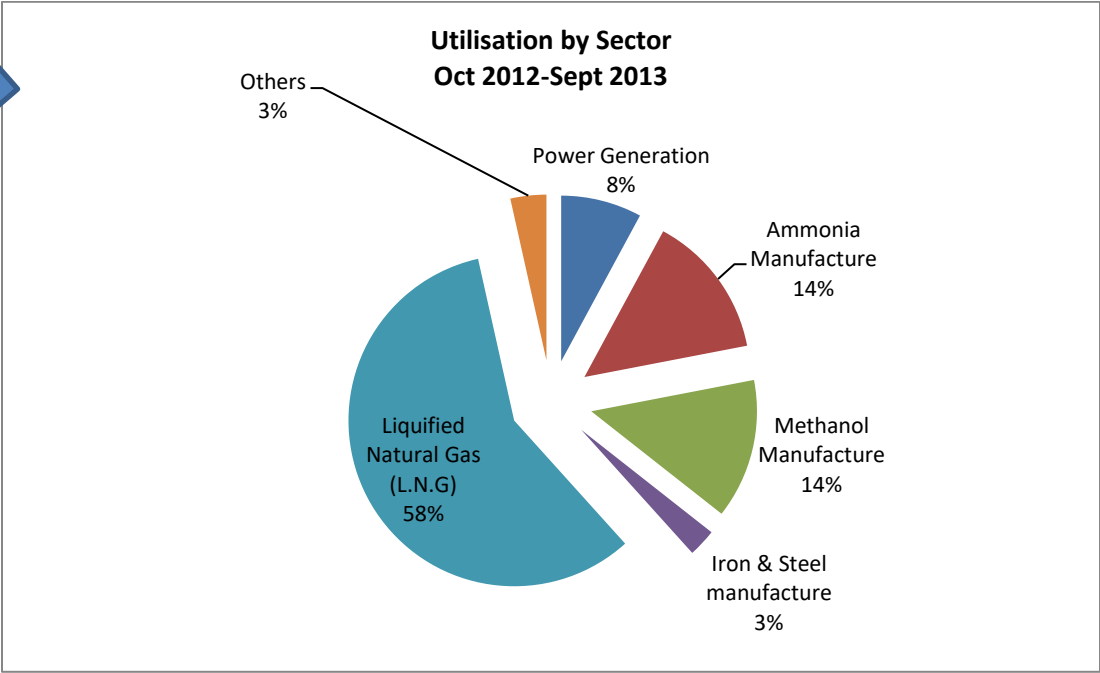


Figure 2 : Sector Utilization for October 2012 to September 2013

**Table II: Average Natural Gas Utilization
Million Standard Cubic Feet per day (MMscf/d)**

Sector	Natural Gas Utilisation (MMscf/d)	
	2011-2012	2012-2013
Power Generation	303	302
Ammonia Manufacture	577	539
Methanol Manufacture	529	522
Iron & Steel Manufacture	103	104
Liquefied Natural Gas (LNG)	2136	2227
*Others	151	134
TOTAL	3799	3828

**Note: Others include Refinery, Cement, Urea and Melamine Gas Processing and Small Consumers*

Liquefied Natural Gas

In fiscal year 2013, the country's Liquefied Natural Gas (LNG) activities increased due to decreased downtime which came about as a result of improved facility operations and gas supply. This resulted in an increase in LNG production and exports when compared to the previous fiscal period. In fiscal 2013, 740,581,691 MMBtu of LNG was produced from ALNG Trains 1 to 4. This increase of 30,941,844 MMBtu in production represented an increase of 4.4% over the quantity of LNG produced in fiscal 2012, which amounted to 709,639,847 MMBtu.

In fiscal 2013 total LNG exported was 743,897,694 MMBtu, an increase of 36,469,541 MMBtu or 5.2% over the previous fiscal period, when total LNG exported was 707,428,153 MMBtu. The difference between production and exports in fiscal 2013 was due to an increase in the quantity of LNG held in ALNG's storage tanks at the end of the year compared to the inventory levels at the beginning of the year. Production is counted when LNG is placed into inventory and export is counted only when LNG is taken out of inventory. ALNG cargo destinations in fiscal 2013, as in previous years, continued to be global. The main export destinations in order of magnitude were Argentina, Chile, USA, Brazil and Spain.

Downstream Gas Based Industries

Downstream investments serve as economic drivers for our economy. The Government's energy policy is to further diversify the energy sector by promoting the establishment of downstream industries that maximise the multiplier effects and value added through the creation of linkages between the energy sector and the rest of the economy, such as manufacturing. Potential gas based petrochemicals and manufacturing projects range from dimethyl ether (DME) to derivative melamine products.

Ammonia

Trinidad and Tobago is currently the world's largest exporter of ammonia. The largest portion of the US offshore ammonia supply, about 70%, comes from Trinidad and Tobago. Ammonia demand is primarily driven by urea consumption, which is mainly a function of fertiliser demand. Population and economic growth are key drivers for fertiliser consumption. The total production from the eleven (11) ammonia plants (including the ammonia plant of the AUM I complex) for Fiscal 2013 was 4.53 million metric tonnes (MT). Total ammonia export for Fiscal 2013 was 4.23 million MT.

Methanol

Methanol manufacturing accounts for 45% of gas-based petrochemical production capacity. Trinidad and Tobago is the world's largest exporter of methanol. There are seven (7) methanol plants, including two (2) of the largest methanol plants in the world, namely, Atlas Methanol and M5000. The total methanol production from the seven (7) methanol plants in Fiscal 2013 was 5.38 million MT and total exports amounted to 5.48 million MT.

Urea

Urea is the most widely-produced and commonly-traded nitrogen fertilizer. Production amounts to around 160 million MT, of which about 50 million MT are traded internationally. It is produced in nearly fifty countries worldwide and consumed in every developed agricultural market.

An estimated 10-15% of urea manufactured is used in industrial processes, such as urea-formaldehyde resins, the synthesis of melamine, in adhesives and paints, and for laminates, moulding compounds, impregnating paper and textiles. The remainder is used in agriculture.

The urea sector accounts for approximately 5% of gas-based petrochemical production capacity in Trinidad and Tobago. The urea plant has a nameplate production capacity of 0.73 million MT per year. Urea production for Fiscal 2013 from the single urea plant (at PCS Nitrogen) was 0.49 million MT. Urea exports for the same period was 0.47 million MT.

Urea-Ammonium Nitrate

Urea-ammonium nitrate (UAN) is made by dissolving urea and ammonium nitrate in water. This results in an aqueous solution usually containing 28% nitrogen by weight (a more concentrated product containing 32% is also available). Liquid UAN solution is popular because of the versatility of a liquid source, as well as widespread availability. UAN production from the Ammonia-UAN-Melamine (AUM) I complex for Fiscal 2013 was 1.11 million MT and total UAN exported from the AUM I Complex for Fiscal 2013 was 1.15 million MT.

Melamine

The construction and automotive industries are strong growth drivers for melamine. Moulding powder is made from melamine, and this is used to make dinner ware, coatings in cars, fan coils and appliances. Other uses include adhesive resins, which are used for making wood panels for construction of kitchens, bathrooms, furniture and flooring. The total melamine production from the AUM I complex for Fiscal 2013 was 27,000 MT and total melamine exported from the AUM I complex was 27,000 MT.

Suppliers

BpTT

Major Activities Undertaken in Fiscal Year 2013

In Fiscal 2013, there was a continued period of heightened offshore maintenance and drilling activities. This negatively impacted production in the short term, leading to shortfalls in supplies to the NGC. However, it is expected that in the medium to long term, due to these activities, there would be a favourable increase in production as well as equipment reliability.

Production Impacting Activities

The Kapok TAR continued from September 2012 to October 2012. Work done included an upgrade of the control system, vessel inspections and non-routine maintenance. While the Kapok

platform was offline, an opportunity to conduct the inspection and repair of 12” liquid line from Mahogany B to Terminal was taken. This resulted in the acquisition of additional information on the current state of the line.

The Cassia TAR occurred in September 2013. This was partially sheltered by the ALNG Train 3 planned outage over the same period. The work done included a control system upgrade, vessel inspections and the installation of bypass piping. Several platforms were all online and on bypass while this work was ongoing to minimize the effect on the downstream market. The Cassia Hub has a throughput of approximately 1.2bcf/d.

The Serrette platform was converted to a Normally Unmanned Installation (NUI) in October-November 2012.

Drilling Activities

In the Savonette field, the Sav-04 well was drilled and put on production in May 2013. The Sav-05 well followed and was put on production in July 2013. The Imm-17 and Imm-22 side-tracks were completed in January and June 2013 respectively and put on production.

Major Planned Activities for Fiscal Year 2014

Production Impacting Activities

There is expected to be a tapering off of the maintenance activities which have been experienced since 2010. This does not mean there will be no supply disruptions, only that the planned disruptions would be for a shorter period and have a lesser impact on the gas supply. These disruptions are part of normal operations.

Additional TARs are planned for the Galeota Terminal and Mahogany B platforms in 2014. Their dates and duration are currently still under discussion. The Kapok and Savonette platforms would be converted to NUIs in June and July 2014, respectively. Efforts are underway to minimize the impact on the downstream industry by the co-ordination with the onshore plants for their required maintenance activities. The overall result would be a simultaneous decrease in the supply and demand for natural gas, therefore minimizing the impact of a shortfall.

Drilling Activities

The Kapok drilling program will occur with three wells. Drilling in the Savonette related reservoirs is expected to continue with Sav-06 to be drilled and put on production by December 2013 and

Sav-07 to be drilled and put on production by June 2014. The Amherstia TAR is planned for December 2013 - January 2014 and will include vessel inspections to ensure industry regulation compliance and non-routine platform maintenance. Five (5) new wells are planned in 2014 in Amherstia Field

New Developments

The proposed Juniper development is pending approvals. The current plan is for five (5) subsea wells with target first production date of August 2017. The platform which will support production from these wells is expected to be built at the Trinidad Offshore Fabrication Company (TOFCO) Fabrication yard in La Brea and provide local employment for over 200 persons.

In the 2012 Competitive Deepwater Bid Round, bids were invited from the public to tender for Production Sharing Contracts (PSCs) to conduct exploration and production activities in offshore acreage located off the North and East Coasts of Trinidad and Tobago. BP Exploration Operating Company was awarded Blocks 23(a) and TTDA 14 in May 2012. These blocks are located in water depths ranging from 1,000 to 2,300 metres, off the north-eastern point of Tobago. Together these blocks comprise an area of approximately 3, 600 sq. km. It is expected that seismic survey activity will commence within the next fiscal year in accordance with the Minimum Work Requirements of the PSC.

EOG Resources

Major Activities Undertaken in Year 2013

EOG's Pelican and Kiskadee Platforms were shut down for hot-work which required the platforms to be offline for maintenance to ensure a gas free environment. The project started in the last week of October 2012 and was completed in the first week of December 2012. On the Pelican Platform compressors were installed, which resulted in the Ibis and Parula Platforms being offline also, since gas production from these platforms flow through the Pelican Platform. Major works on the Kiskadee Platform were undertaken where the emergency fire detection and response system was upgraded and the expansion and fireproofing of the cellar deck barrier wall was performed.

Drilling Activities

In March 2013, three wells were drilled on the Osprey Platform to maintain production and arrest decline.

Major Planned Activities for Fiscal Year 2014

Compression is planned for EOG's Oilbird Platform from March 1, 2014. The Kiskadee and Parula Platforms are scheduled to experience downtime in February and March 2014 for maintenance work including equipment change out. This work is scheduled to coincide with plant downtime at Pt Lisas in March 2014 to reduce the impact of lost production. One exploration and two development wells are scheduled to be drilled by EOG in the SECC Block.

BHP Billiton

Major Activities Undertaken in Fiscal Year 2013

For Fiscal 2013, BHP Billiton's average gas production was 413 MMscf/d. Just below half of this figure was used in oil recovery operations through injection while the rest of this gas was sold to the domestic market. As part of its ongoing field development plans, BHP Billiton completed its Block 2(c) 2011-2012 drilling campaign in May 2012. Seismic reprocessing works also continued on its Block 3(a) acreage data previously acquired. This represented the early part of a developmental process prior to drilling for commercial volumes. These planned efforts should yield additional volumes to aid in temporarily arresting BHP's declining reserves.

In June 2013, BHP Billiton further indicated its long term commitment to delivering gas supply to the country when it signed four (4) Production Sharing Contracts for Blocks TTDA 5, 6, 28 and 29 which are located in deep waters off the east coast of Trinidad.

Major Planned Activities for Fiscal year 2014

Block 2 (c) reservoir modelling works will continue in Phase 3 of BHP Billiton's original development plan to optimize the Greater Angostura area and help maintain the current gas sales plateau while maximizing oil recovery. Resultant plans will see three development wells drilled in the area with first gas expected in 2016.

BGTT

Major Activities Undertaken in fiscal Year 2013

Shutdowns and maintenance

The major development activities for BGTT in Fiscal 2013 off the North Coast were centered around compression installation on the Hibiscus Platform and the establishment of permanent living quarters on both the Poinsettia and Hibiscus Platforms. On the East Coast, critical maintenance work on the aging Dolphin Platform and equipment upgrades to enable first gas from the Starfish Field were performed over the period as well.

In the North Coast Marine Area (NCMA), planned shutdowns occurred during four months of the review period. These were executed in November 2012 and in April, July and August 2013. The platforms underwent compression installation and accommodation module pre-works in November 2012 and the April 2013 shutdown focused on preventative maintenance works on both platforms. The actual lifting and laydown of the platform modules occurred in July and by August, testing of this installed equipment was carried out.

Production was impacted in November 2012 and April 2013 for approximately two weeks each. July and August activities necessitated a week's downtime individually. A weeklong Train IV TAR was timed to coincide with the November interruption to partly offset the loss of BG's contracted supply. In April, Trains II and III planned outages sheltered these losses also. The July and August supply disruptions were unsheltered. On the Dolphin Platform and the BG onshore terminal, the shutdown which commenced on 18 September 2012 ended on 25 October 2012. The impact was mostly sheltered by a Train II planned TAR that started simultaneously.

In the month of September 2013, an eighteen- day shutdown at Dolphin Platform and Beachfield was sheltered by planned works on Atlantic Train III. Works conducted helped to facilitate Starfish Field gas, production, reliability, line pigging and preventative maintenance.

Major Planned Activities for Fiscal Year 2014

Shutdowns and maintenance

Outages are planned at NCMA in November 2013, April and July 2014. November's shutdown is aligned to an ALNG Train shutdown and work will occur mostly on Hibiscus related asset integrity. The 2014 shutdowns are centered on the NCMA Phase 4a compression works as well as maintenance and are also planned to be sheltered by outages at Atlantic. A major shutdown is planned in May 2014 in the BG operated blocks off the East Coast of Trinidad and minor ones for July and August. May's interruption is planned for approximately three weeks to conduct works related to asset integrity, pigging and Starfish Field start-up. July's works is set to coincide with a Train III shutdown. Finally, more Starfish related works and routine integrity checks are scheduled for August's planned shutdown of 5 days. At the onshore Central Block operation, an unsheltered shutdown in early December 2013 will permit maintenance of valves, corrosion monitoring and upgrade of vessels.

Pipeline Projects

Tobago Pipeline

The 12-inch diameter, 55 km Tobago pipeline will supply natural gas from Trinidad to Tobago. It begins at the BHP Billiton's Gas Export Platform (GEP) located in the Angostura field off the East Coast of Trinidad and terminates at the Cove Estate located on the southwest coast of Tobago. Construction was completed in December 2010 and after several delays the estimated first gas to the power plant at Cove Estate is in the 4th quarter 2013.

Future projects

Starfish Pipeline

The proposed 14-inch diameter BG Starfish flow line will allow natural gas and condensate production from four (4) proposed subsea wells in the BG Starfish field. It will run approximately 9.5 km from a new subsea Manifold in Block E to the riser of the Dolphin A platform in Block 6. It will traverse water depths ranging from 331 to 436 ft. The design capacity of the pipeline will be 280 MMscf/d and it will be laid from July to August 2014. The line is scheduled to commence transporting gas in September 2014.

DOWNSTREAM AND RETAIL MARKETING DIVISION

Vision

An innovative team driving excellent service in petroleum product marketing industries and accurate collection of revenue from petroleum production and petroleum product marketing.

Mission

To facilitate the operation of petroleum product marketing industries and the collection of revenue from petroleum production and petroleum product marketing, through the improvement of the existing and the creation of new systems, processes and procedures.

Core Values

Commitment, Integrity, Professionalism, Transparency, Innovation.

Strategic Objectives

- Compressed Natural Gas (CNG) Expansion – Expanded use of CNG in Domestic Transportation Sector
- Administration of Petroleum Production Levy and Subsidy Act
- Administration of Marketing Licences for Petroleum Products
- Administration of Petroleum Impost
- Liquefied Petroleum Gas (LPG)
- Monitoring of Refinery Operations
- Forecasts and Reconciliation of Royalty
- Monitoring Crude Oil Prices and Exports
- Monitoring Revenue Collection from petroleum production and petroleum product marketing.

Technical Policies and Development Initiatives

Short and Medium Term Plans

- Issue CNG Service Licences (CSLs)
- Issue CNG Marketing Licences (CMLs)
- Implement new CNG price reduction and structure

- Issue of the modernized Retail Marketing Licences (RML)
- Issue of the modernized Wholesale Marketing Licences (WMLs)

Long Term Plans

- Update CNG Regulations and Licences
- Draft LPG Regulations

Performance Objectives and Accomplishments for Fiscal 2013

Development of Seven New to Industry Service Stations for the Sale of Compressed Natural Gas

Two (2) of the seven (7) NTI service stations were opened in June 2013 and are currently fully operational; selling both liquid fuels and Compressed Natural Gas (CNG). The remaining five (5) stations have been challenged mainly with receiving statutory approvals.

Review of Price Structure of CNG

The price reduction and the new price structure for CNG were approved in June 2013. This was done to make CNG a more attractive proposition and to obtain earlier consumer buy-in. The price reduction and structure now has to be implemented through the amendment of the Price of CNG Order.

Approval of the modernized Wholesale and Retail Marketing Licences

The modernized Wholesale Marketing Licence (WML) and Retail Marketing Licence (RML) were approved in August 2013, subject to positive vetting by the Attorney General. These licences are in the process of being finalized.

Downstream and Retail Marketing Updates

Royalty

Producing companies operating under exploration and production licences pay royalties on crude produced and gas sold. Under the Petroleum Regulations, the Field Storage Value method is used to calculate royalty of all companies except one, which uses the Fair Market Value methodology. The field storage value is the aggregate values of the petroleum products (gasoline, gasoil and fuel oil) in a barrel of crude from which a refining allowance is deducted. The value of the products obtained depends on the quality of the crude oil, with those with API gravity over 28 degrees

having greater value than crude oils of lower gravity. The Fair Market Value methodology is the value obtained when the produced crude is multiplied by its market price.

The royalty rate is 12.5% for land and marine production. Royalty is paid quarterly on the 21st of the month following the end of the quarter. Under the Petroleum regulations companies are allowed to pay royalty based on an estimate of liability which ensures that they meet the statutory deadline. A total of \$2.364 billion was collected in fiscal 2013.

Subsidy/Levy

The Petroleum Production Levy and Subsidy Act provides for the collection of levy from oil producing companies and for the payment of subsidy to the wholesale marketing companies, in respect of the sale of petroleum products (gasoline, diesel, kerosene and liquefied petroleum gas) on the domestic market. The subsidy is provided in the first instance from the petroleum levy payable by the companies producing over 3,500 barrels of crude oil per day, which is capped at 4% of their gross revenue from the production of crude oil. The remainder of the total subsidy claim which is not provided from levy is borne by government. For fiscal 2013, the subsidy claimed by the wholesale marketing companies amounted to \$4,436,273,514.54 and the levy paid by the oil producing companies was \$602,943,268.14.

Compressed Natural Gas

For the 2013 fiscal year, a total of \$5,500 was collected for the renewal of CNG licences. Additionally, as part of the Government's plan to accelerate the development of CNG as a major alternate vehicular fuel in Trinidad and Tobago the following was achieved for the fiscal year ending September 2013:

Development of an Adequate Refueling Network

Two (2) out of the approved seven (7) New-to-Industry (NTI) service stations at Brentwood and Tacarigua have been completed and have CNG available for sale to the public. The remaining NTI sites have faced several issues (mainly regulatory approvals) which have caused severe delays in the projects.

Five Year Plan for the Development of CNG

Recognizing that the CNG Programme has not gained traction in the last two years for a number of reasons, the Government assessed a revised plan for the development of CNG. Subsequently, in June 2013, Cabinet agreed to an investment of \$500 million by the National Gas Company of Trinidad and Tobago Limited (NGC) in respect of the implementation of Phase I of a five-year plan for the development of Compressed Natural Gas (CNG) as a major vehicular fuel in Trinidad and Tobago. The overall CNG Programme would be implemented in two phases.

Phase I of the Programme would entail the construction of approximately 22 new CNG stations, the conversion of approximately 17,500 vehicles and the undertaking of the items of ancillary costs. Phase I should be completed within the first two years of the Programme. Phase II of the Programme would then entail the construction of the remaining stations and the remaining vehicle conversions over a three year period.

The overall CNG programme is expected to yield the following annual benefits after five years:

1. \$1.7 billion reduction in the liquid fuel subsidy,
2. \$2.7 billion in foreign income from the sale of displaced liquid fuels
3. 358,000 metric tons reduction in carbon dioxide (CO₂) emissions

Additionally, in order to encourage early consumer buy-in, Cabinet agreed to the reduction in the retail price of CNG from \$1.07 per litre gasoline equivalent (lge) to \$1.00 per lge. (**“the Dollar Gas Concept”**). A subsidiary company of NGC called NGC CNG Company Limited (NCCL) was established on September 03, 2013 with a Board of Directors. This company will oversee the first phase of the CNG Programme.

Petrotrin Refinery

The Petrotrin Refinery, located at Pointe-a Pierre, processes both indigenous and imported crude oil and produces refined products for the entire local market as well as for export to regional and international markets. In fiscal 2013, the refinery processed a total of 41,235,560 barrels of crude oil according to Table I on **page 72**. The Refinery also produced 40,022,426 barrels of refined and intermediate products, (excluding refinery gas and loss). Crude oil imports amounted to 22,604,054 barrels. Table II on **page 72** indicates that 10,160,412 barrels of petroleum products were sold on the local market while 32,630,533 barrels of petroleum products were exported.

Table I: Refinery Output (barrels)

Product	Quantity (2012/2013)
Liquified Petroleum Gas	663,251
Motor Gasoline	6,890,803
Aviation Gasoline	(139)
White Spirits	-
Kerosine	4,218,892
Diesel/ Gas Oils	7,862,997
Fuel Oils	16,714,342
Lubes/Greases	-
Petrochemicals	-
Bitumen	242,195
Sulphur	29,533
Other Refined/Unfinished Prod.	3,400,552
Refinery Gas and Loss/(Gain)	1,213,134
TOTAL Refinery Output	41,235,560

Table II: Product Sales (Barrels)

Product	LOCAL Sales (2012/2013)	EXPORT Sales (2012/2013)
Liquid Petroleum Gas	345,577	418,122
Premium Gasoline (95 UL)	354,428	2,161,121
Premium Gasoline (92 UL)	3,908,754	-
Premium Gasoline (UL Other)	-	1,859,216
Regular Gasoline	35,947	-
Naphtha	-	574,287
Aviation Gasoline and Aviation Alkylate	1,418	-
Kerosine/Avjet	1,114,415	3,146,894
Gas Oils/Diesel	4,155,219	4,173,866
Marine Diesel		-
Fuel Oils		16,519,918
Petrochemicals	-	-
Bitumen	244,654	-
Sulphur	-	29,396
Other Refined and Unfinished Products	-	3,747,713
TOTAL	10,160,412	32,630,533

Petrotrin Gasoline Optimization Programme (GOP)

Background

The Petrotrin refinery at Pointe a Pierre faced many challenges in the refining of crude oil. This was attributed to a combination of many factors including, aging equipment resulting in plant integrity and reliability issues; process bottlenecks leading to the sale of unfinished, lower value products; and more stringent product specifications globally. To remain viable, Petrotrin analysed various options, the most attractive of these was an upgrade of the existing refinery, aimed at producing higher quality and quantities of petroleum products. Petrotrin's Gasoline Optimisation Program (GOP) is the first phase of the refinery upgrade. The GOP was designed to improve the profitability and competitiveness of the Pointe a Pierre Refinery by implementing projects to achieve the following:

- Replacing obsolete and inefficient equipment and thereby improving plant integrity and reliability.
- Reducing sales of unfinished, lower value products and increasing sales of finished, higher value products.
- Satisfying more stringent Gasoline Specifications
 - Increased Octane
 - Lower Benzene, Sulphur, Olefins and RVP
 - Elimination of MTBE

Benefits

The GOP would enable the refinery to become a premier supplier in the regional and international market of high quality environmentally friendly gasoline. The benefits of the project include:

- Increased Gasoline Quantity
 - Total from 24.7% to 30.7%
 - Eliminate unfinished products (Naphtha & VGO)
- Improved Gasoline Quality
 - Increase in MON from 82.3 to 86.0
 - Reduction in benzene from 1.6% to 0.7%
 - Reduction in sulphur from 41 ppm to 8 ppm

- Improved Operations of the Pointe-a-Pierre Refinery
 - Energy efficient & Environmental Compliant
 - Maintain throughput at 168 MBPCD
- Customer Satisfaction
 - Lower olefins in LPG
 - Elimination of MTBE

Progress/Status

The Gasoline Optimisation Program (GOP) commenced in November 2005. It consists of:

- Installation of an Isomerisation Complex
- Installation of a Continuous Catalytic Reforming Platformer Complex
- Installation of an Alkylation Unit and Sulphuric Acid Regeneration Plant
- Upgrade of the Fluidised Catalytic Cracking Unit
- Installation of Offsite Facilities and Upgrade of Utility Systems

As at September 2013 the GOP cumulative progress was 99.78%, indicating that the GOP cumulative progress remained at 99.78% throughout fiscal 2013. The overall GOP mechanical completion is now projected for end October 2013. The Isomerisation Complex and the Continuous Catalytic Reforming Complex were fully commissioned and were placed in commercial production in May 2009 and April 2010 respectively. All work on Offsites was completed in May 2013. Close out of construction contracts for EPCM work for the Utilities and Offsites continued in September 2013.

As at end September 2013, the pilots of the furnace of the Sulphuric Acid Regeneration Unit were lit to begin the preheat process of the Unit. Furthermore in September 2013, the Alkylation Unit restarted the inventory process in preparation for the compressor test run scheduled for mid-October 2013. The FCCU is in operation at a low throughput pending start-up of the Alkylation Unit, following which the throughput will be increased to achieve test run.

MINERALS DIVISION

The Minerals Act Chap. 61:03 governs the Minerals Sector in Trinidad and Tobago. As provided for under the said Act, the Minister is responsible for the general administration of the Act and the Director of Minerals is responsible for the implementation of the Act. The Permanent Secretary serves as Chairman and the Director of Minerals serves as Deputy Chairman of the Minerals Advisory Committee (MAC).

The Minerals Advisory Committee:

The Minerals Advisory Committee (MAC) is an independent statutory committee established under Section 15 of the Minerals Act Chap. 61:03. It is chaired by the Permanent Secretary of the Ministry of Energy and Energy Affairs and includes representatives of various Ministries/Departments and the Tobago House of Assembly. In Fiscal 2013, the MAC held ten (10) meetings and addressed over twenty-five (25) matters relating to mining licences and other quarrying related matters. The MAC also reviewed and made recommendations on new draft Regulations under the Minerals Act. These were submitted for the approval of Cabinet.

Minerals Advisory Committee (MAC) Secretariat

In Fiscal 2013 the staff of the Minerals Division performed the functions of the secretariat for the MAC. The operating procedures and recording keeping methods of the MAC were developed tested and refined to ensure efficiency of MAC operations.

Exploration and Development Section

In fiscal 2013 the Exploration and Development Section completed the following:

Exploration Surveys

Survey of a 300-acres, sand and gravel in the Melajo Forest Reserve, Matura was completed. A reconnaissance survey of Limestone areas in the northern range of Trinidad was also completed. This identified three potential sites for further detailed surveying for determining their viability as limestone quarries.

Minerals Sub-Registry and Database Management

The Minerals Division with the assistance of the Internal Audit Unit, expanded its data collection functions, to include capture of data on production from the Minerals Sector, through its quarry audit exercise.

Applications and Licences Processing

The Division processed twenty (20) applications for mining licences in fiscal 2013. Of these applications, three (3) new, five (5) year Mining Licences were executed to quarry operators, while the remaining seventeen (17) applications were incomplete and therefore no licenses were granted. It should be recalled that in Fiscal 2012, there were amendments to the Designated Activities Order established under the Environmental Management Act, which required all applications for mining licences to be accompanied by a Certificate of Environmental Clearance (CEC).

Table showing Mining Licences Issued in Fiscal 2013

NO.	OPERATOR/LICENSEE	QUARRY LOCATION	ACREAGE	MATERIAL	RENEWAL/NEW LICENCE
1	Readymix W.I Limited	Bridle Road, Valencia	98.3638	Sand and Gravel	New licence
2	Readymix W.I Limited	Tapana, Valencia	482.5968	Sand and Gravel	New licence
3	Cumaca Blue Limestone Products Ltd.	Cumaca Main Road, Valencia	4.82	Blue Limestone	New licence

Operations Section

Licence Monitoring

The Division increased its monitoring activities of the forty-six (46) licenced quarries operating in Trinidad and Tobago, to ensure compliance with the terms and conditions of the licences. As a result sixty (60) monitoring visits were conducted on licenced quarries.

Minerals Audit

The Division's licence audit functions were expanded, with the assistance of the Internal Audit Unit, to capture data on production for the computation of royalties owed to the State. Under this arrangement forty-six (46) mineral audit field visits were conducted.

Enforcement of Minerals Act and Regulations

Twelve (12) field visits were conducted to monitor illegal quarrying activities, and six (6) field visits were also undertaken to address quarrying complaints. Several of the illegal quarrying complaints were investigated via joint exercises with the various arms of the Ministry of National Security.

Technical Policies and Development Initiatives In Fiscal 2013

Tables I -III below summarize the short, medium and long term plans of the Minerals Division in Fiscal 2013.

Table I: Short Term Plans in Fiscal 2013

No.	Initiatives	Performance Objectives	Accomplishment	Status
1	Prepare new Regulations under the Minerals Act	To better regulate the Minerals Sector	Draft Minerals Regulations prepared and sent to Cabinet for approval	Cabinet requested amendments to draft Regulations.
2	Conduct a Strategic Environmental Impact Assessment (SEIA) Study in Trinidad and Tobago	To identify areas in Trinidad for the establishment of Mining Zones	SEIA Study completed	SEIA Report submitted by consultants to the MEEA

Table II: Medium Term Plans in Fiscal 2013

No.	Initiatives	Performance Objectives	Accomplishment	Status
1	Establish a Minerals Ranger Squad	To better regulate the Minerals Sector and to enforce against illegal quarrying activities	Draft structure and staffing for a Ranger Squad prepared and a DCN prepared	Establishment of Ranger Squad currently being considered in overall MEEA restructuring
2	Establish Mining Zones in Trinidad and Tobago	To identify areas in Trinidad for the zoning and effective planning of quarrying activities	SEIA Study submitted to the MAC for review	SEIA Report under review by the MAC and other regulatory agencies

3	Restructure the Minerals Division	To provide adequate staffing and resources to better regulate the Minerals Sector	Proposed structure and staffing developed for the Minerals Division	Restructuring exercise ongoing
4	Prepare new Green Paper on Minerals Policy	To provide clear guidelines for the development of the Minerals Sector	Draft document prepared	Document being re-drafted by the Minerals Division

Table III: Long Term Plans in Fiscal 2013

No.	Initiatives	Performance Objectives	Accomplishment	Status
1	Amend the Minerals Act and related Legislation	To better regulate the Minerals Sector and to remove gaps and overlaps in the various pieces of legislation governing the Sector	Pieces of Legislation identified which need amendment	Under review by the MAC

HEALTH, SAFETY, ENVIRONMENT AND MEASUREMENT DIVISION (HSE&M)

The Health, Safety, Environment and Measurement (HSE&M) Division regulates the energy sector value chain assets from the perspective of HSE & Measurement compliance. These critical portfolios manage these assets as per the legal requirement of the Petroleum Act and Regulations.

Health, Safety and Environment (HSE)

The HSE portfolio deals with the prevention and control of HSE loss related events, which have the potential to cause harm, damage or undesirable consequences to people, property and the environment, via proper management of risks. This portfolio also safeguards the State against transfer of economic liabilities associated with downtime, pollution and accident. The main goals are to properly manage risks so as to prevent serious HSE risks from manifesting and becoming incidents that impact negatively on people, property and the environment leading to a socio-economic liability which could be transferred to the State and to ensure a level of preparedness among operators to deal with emergencies and minimize consequences and ripple effects.

Measurement

The Measurement portfolio seeks to accurately determine the quality and quantity of extracted and sold raw or crude energy resources and manufactured products retailed to end users. On the upstream side, this ensures that the State derives fair and equitable returns on produced resources, while on the downstream side, it ensures that end consumers get the correct quality specification and quantity for refined or processed product purchased. This function is to ensure that there are no errors in the determination of the quantity and quality of petroleum produced (fiscalisation) and retail products (taxation/quality control). This portfolio also ensures that there are no unauthorized deviations in Exploration, Development and Operational Plans. Another aim is to minimize cost over runs on projects which are granted tax concessions and to promote business continuity.

The two (2) portfolios though distinct and separate, share a commonality, owing to the energy based installations where processing, handling and commercial transactions occur. Whenever any energy installation is approved or inspected for acceptability, the HSE and measurement technologies that make up the facilities are evaluated simultaneously in making a judgement.

Sectors Regulated

The HSE/M Division's work is sub-divided to monitor the following sectors:

- Upstream E&P – Facilities regulated include the Exploratory Rigs, Seismic Survey Vessels, Onshore Terminals, Offshore Platforms, Gathering Stations and High Daily Rate (HDR) Contracted Vessels, etc.
- Transportation/Oil Loss – Facilities regulated in this sector include Transmission Distribution Pipelines, Well Sites, Transportation Vessels such as Road Tank Wagons (RTWs), HDR Pipelaying Barges, etc.
- Storage & Marketing – Facilities regulated in this sector include Bunkering and Wholesale Facilities, Service Stations, Compressed Natural Gas (CNG) Stations, Commercial Diesel and Liquid Petroleum Gas (LPG) Storages.
- Refining & Petrochemical – Facilities regulated in this sector include Liquefied Natural Gas (LNG) Terminals, Gas Processing, Methanol/ Ammonia Plants and the Refinery Plants. Quality control monitoring of all refined products sold to end consumers also fall under this sector.
- Measurement – Facilities regulated in this sector include all quality and quantity Devices or Equipment used at Fiscal Points for Crude Sale Tanks, Gas Metering Skids and Provers Sampling.

Departmental Functions

The HSE/Measurement Division is responsible for administration of the regulatory framework in accordance with the Petroleum Act and subsidiary Regulations, through continuous 24/7 regulatory coverage of all energy asset infrastructures from upstream to downstream ends of the value chain. Core duties related are as follows:

- Facility Approvals- governing new built, modified/upgraded, reinstatement after a major accident and imported new/used facilities;
- Loss Prevention Inspection Programmes - annual inspection, three-year audits of safety, management systems and assessment of third party development applications;
- Loss Control Intervention Activities - incident investigations, pollution response, pollution compensation mediation, coordination of National Oil Spill Contingency Programme and assessment of Emergency Response Drills; and

- Monitoring of Fiscal Measurement Operations - crude cargoes for sale, natural gas and condensate sales, investigation of measurement breaches/infractions and assessment and approval of measurement devices.

Results of Work Programme

Achievements of the Division are outlined below:

Upstream Exploration and Production

- (i) Facilities approved – 12 gas processing facilities, 1 modification and / or upgrade; and
- (ii) Inspections – 12 drilling rigs, 129 workover production rigs, 86 offshore platforms, 131 gathering stations, 21 clusters, 18 HDT Contracted vessels, 19 gas compressor facilities, 49 lease / farm-out fiscal facilities and 25 accidents in all classes.

Downstream Storage and Marketing

Storage Facilities- approved inspections on seventeen (17) diesel and thirteen (13) LPG storage facilities in Trinidad and one (1) diesel and one (1) LPG storage facility in Tobago.

Pipeline Transportation and Oil Loss

Inspections – The Division inspected one hundred and nine (109) Petrotrin well sites, ninety-six (96) lease out/farm out well sites and thirty (30) oil catches. These well sites are from fields operated by lease and farm-out and joint venture companies, Primera and Parex, and are inspected twice per year.

NOSCP – Fifteen (15) oil spill equipment stock sites were inspected to determine the level of compliance with the updated National Oil Spill Contingency Plan (NOSCP) Tier 1 type response capability.

Effluent Sampling- Effluent sampling was conducted at forty-nine (49) Petrotrin and Territorial (formerly Primera) sites.

Refinery and Petrochemicals

Fuel Quality Monitoring – Inspections were undertaken at sixty-three (63) service stations and twenty-one (21) bonds (a secondary enclosure, typically consisting of a wall or berm, which surrounds a tank or fluid-handling mechanism to contain any spills or leaks).

Calibration -The calibration of fuel dispenser pumps were carried out at one hundred and thirty-eight (138) service stations and eight (8) CNG service stations.

Measurement

Monitoring- Monitoring of fiscal sales/ (export of consignments) was conducted at the BPTT's Terminal at Pt. Galeota and BHP Billiton's Terminal at Guayaguayare. There were only thirty-two (32) tanker liftings for the period under review at the former and fourteen (14) at the latter.

Monitoring of Custody Transfer Points - There were fifty-nine (59) consignments for the period under review.

Quality Control- RLE Blending was completed at sixty-four (64) of Petrotrin/Trinmar and twelve (12) EOG facilities. RLE well sites /gathering station sampling was completed at various facilities including Petrotrin /Trinmar -one hundred and nineteen (119); EOG -eighteen (18); BPTT-thirty-two (32); BHP Billiton- fourteen (14); Bayfield -fifty-nine (59).

Calibration- gas meters were calibrated as follows: two (2) at BPTT; forty-five (45) at BG; two (2) at EOG and one (1) at NGC. Twelve (12) volumeters were calibrated at Petrotrin facility. Sixteen (16) condensate meters were calibrated at BG and three (3) at EOG.

Lease Automatic Custody Transfer (LACT) - Fifteen (15) LACT Units were completed at Petrotrin and eight (8) at BpTT/Repsol.

Project Evaluation

During fiscal 2013 the Division evaluated several projects. In evaluating major projects for approval purposes, the services of independent third party competent bodies called "Certified Verification Agent (CVA)" were utilized in accordance with the MEEA's Verification Scheme.

The HSE/Measurement Division managed the verification scheme and work performed by the CVAs and these included:

- Phoenix Park Gas Processors Ltd (PPGPL)- Interconnect Project
- National Gas Company- COVE Estate Facility
- BGTT- Baraka Tie-in project at Carapal Ridge

Smaller projects not requiring a CVA were handled by the MEEA and included:

- Peake Tacarigua- Approval for New Service Station
- Trinity- Approval to install New LACT at Galeota Pt
- Trinity- Approval to install New LACT at Brighton
- Jasmine Oil and Gas- Approval for New Storage tank at Erin Gathering Station
- NPMC- Approval to upgrade Manzanilla Service Station
- LOL- Approval to construct New Tanks at WD 3 & WD 10 Gathering Station

Other Project Work Related included review of approximately fifteen (15) Environmental Impact Assessment (EIA) and Risk Assessment Reports for various projects as well as attendance at regulatory meetings, Hazard and Operability Studies (HAZOP) and site visits.

Loss Control Related Matters

Several operational related incidents primarily from the upstream sector as well as incidents where there were injuries to personnel and small fires were investigated during the period.

Emergency and Disaster Management

Emergency Response

The HSE/Measurement Division takes an active role in Emergency Response (ER), Crisis Management and Disaster Recovery to ensure that regulated companies are in a state a preparedness for responding to emergencies; liabilities are not transferred to the Minister (State); business continuity and ability of State to earn revenue and coordination with other Statutory Bodies. Prior to granting approval of facilities during period of review, the HSE/M Division evaluated all plant associated ERPs prior to start-up.

ER Drills

During the period under review, the HSE/Measurement Division evaluated the following drills:

- Yara Trinidad- Point Lisas site
- Office of Disaster Preparedness and Management (ODPM)- Omega Drill
- BpTT Port of Spain Office - Table Top Exercise
- BpTT Emergency Drill – Guayaguayare
- BHP Billiton Emergency Drill – Guayaguayare

Oil Spill Contingency

National Oil Spill Contingency Plan

The former National Oil Spill Contingency Plan (NOSCP) versions (1977 version approved by cabinet, 1997 draft and 2004 draft), based on the older version of the British ICS, were re-examined and revamped to incorporate a new Incident Management System similar to the US Incident Command System (ICS) format. Survey visits were required to be conducted twice per year by the five designated coordinators, who were responsible for oil spill response within Trinidad and Tobago. However, this was replaced by a tiered system in which each operator has to maintain an adequate supply of oil spill response equipment, depending on the size of his operation. The operator would be responsible for a spill arising from his activity.

Bi-Lateral Oil Spill Contingency Plan

The Bi-Lateral Oil Spill Contingency Plan (BOSCP) is an agreement between the Governments of the Republic of Trinidad and Tobago and the Republic of Venezuela to protect the coastal and marine environment of Venezuela and the greater Caribbean Region.

Research and Development

Special Assignments

During the review period the Division was involved in the following projects:

- BG Trinidad and Tobago, Parex, Petrotrin, Labidco and TED in the abandonment procedures for wells.
- The construction works for the highway extension to Pt. Fortin conducted by the National Infrastructure Development Company (NIDCO) forced the abandonment of many wells

along its route in Guapo, Parrylands, Fyzabad and Penal. Site visits were conducted with Petrotrin's HSE personnel to verify Petrotrin's remediation of these abandoned well locations.

- Site visits were also conducted in conjunction with Petrotrin and the Land Settlement Agency, to well locations where there were encroachment issues from neighbouring residents.