



2014

**THE MINISTRY OF
ENERGY AND ENERGY AFFAIRS**

ADMINISTRATIVE REPORT



**Fiscal 2014
Stimulating Investment Through Fiscal Incentives**

Preface

The 2014 Annual Administrative Report of the Ministry of Energy and Energy Affairs (MEEA) is submitted in accordance with Section 66D 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 Section 66A of the Constitution (Amendment) Act 1999 by providing a detailed account of its activities in the fiscal year and planned initiatives for the future.

Vision

The Ministry of Energy and Energy Affairs (MEEA) will be a world class organisation 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 MEEA 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 MEEA is responsible for the overall management of the oil, gas and minerals sectors in Trinidad and Tobago. In combination, these sectors have contributed over 40% annually to the Gross Domestic Product (GDP) of the country over the last five (5) years, and therefore provide a significant portion of the revenue necessary to achieve the development objectives of the Government of the Republic of Trinidad and Tobago (GORTT). The MEEA has defined some basic roles for the achievement of the Country's vision. These include:

1. Leveraging the energy sector to create conditions for long-term development;
2. Gaining for Trinidad and Tobago an economic competitive advantage; and
3. Setting and maintaining core values for the energy sector.

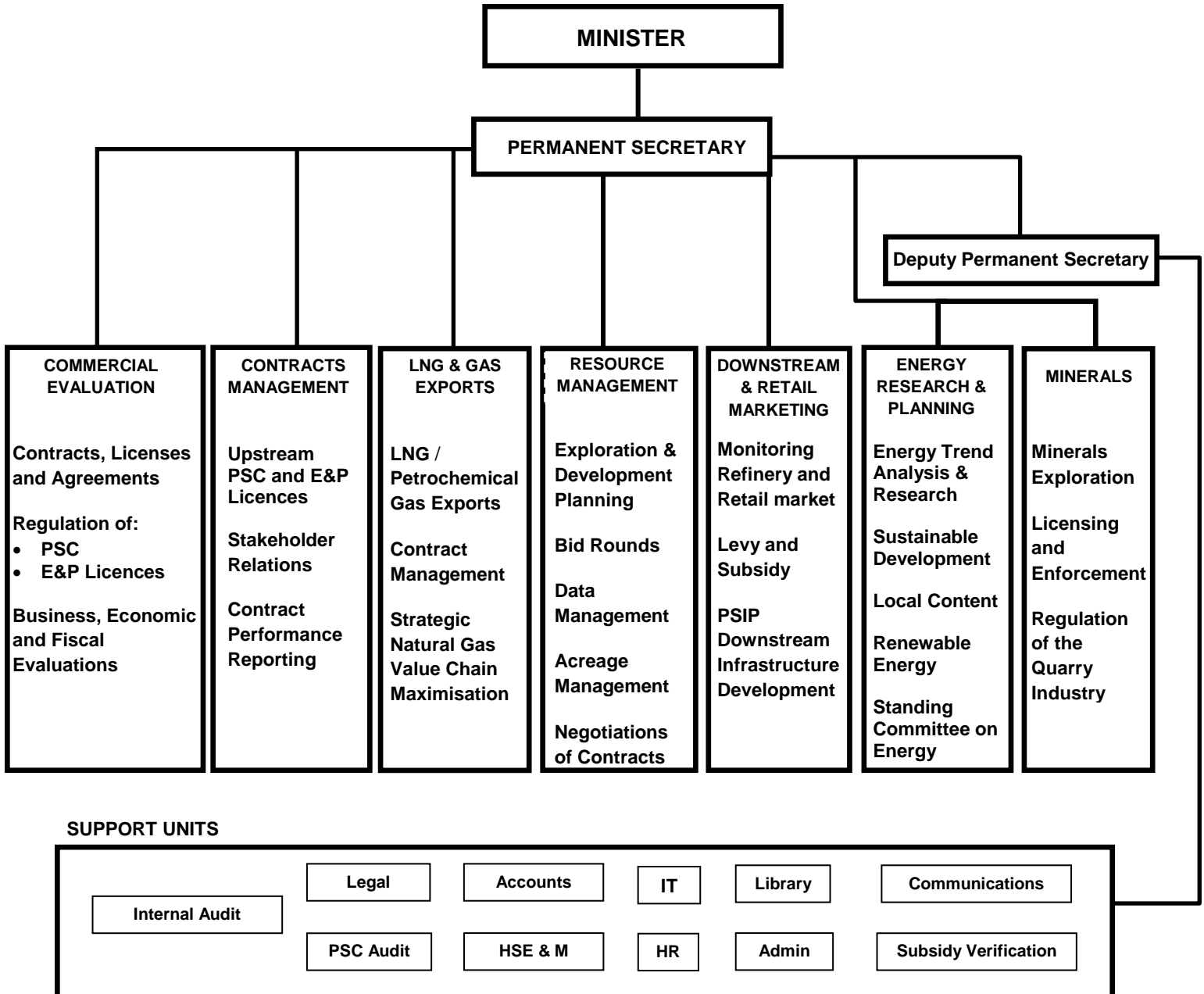
Organisational Structure of the MEEA

The MEEA comprises seven (7) Technical Divisions and eleven (11) Support Units as follows:

Technical Divisions	Support Units
Commercial Evaluation	Accounts
Contracts Management	Administration
Downstream and Retail Marketing	Communications
Energy Research and Planning	Health, Safety, Environment and Measurement
LNG & Gas Exports	Human Resources
Minerals Division	Information Technology
Resource Management	Internal Audit
	Legal
	Library
	Production Sharing Contract Audit
	Subsidy Verification

ORGANISATION CHART

Fiscal 2014



ADMINISTRATIVE REPORT
FISCAL 2014 DRAFT

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LIST OF ACRONYMS

AG Office	Office of the Attorney General
bbls	barrels
BCF	Billion Cubic Feet
BG	British Gas Group
BGTT	British Gas Trinidad and Tobago Limited
BHP	BHP Billiton Trinidad and Tobago Limited
BOLT	Beach Oilfield Limited
bopd	barrels of oil per day
bpTT	British Petroleum Trinidad and Tobago Limited
CAPE	Caribbean Advanced Proficiency Examinations
CARICOM	Caribbean Community
CED	Commercial Evaluation Division
CEIS	Caribbean Energy Information Systems
CELAC	Community of Latin American and Caribbean Countries
CEW	CARICOM Energy Week
CGCL	Caribbean Gas Chemical Limited
Chevron	Chevron Trinidad and Tobago Resources SRL
CMD	Contracts Management Division
CNG	Compressed Natural Gas
CO ²	Carbon Dioxide
COTED	Council for Trade and Economic Development
CSEC	Caribbean Secondary Education Certification
CSO	Civil Society Organisation
DGUG	Downstream Gas Utilisation Group

E&P	Exploration and Production
ECMA	East Coast Marine Area
ECTT	The Energy Chamber of Trinidad and Tobago
EE	Energy efficiency
EFYM	Energy for Young Minds
EITI	Extractive Industries Transparency Initiative
EOG	EOG Resources Trinidad Limited
EOR	Enhanced Oil Recovery
ERPD	Energy Research and Planning Division
ESCO	Energy Service Company
FCCU	Fluidised Catalytic Cracking Unit
FIT	Feed in Tariff
FMV	Fair Market Value
FOB	Free on Board
FOI	Freedom of Information Act
FSV	Field Storage Value
GF	Green Fund
GIS	Geographic Information Systems
GOP	Gasoline Optimisation Project
GORTT	Government of the Republic of Trinidad and Tobago
HDR	High Daily Rate
HR	Human Resource
HSE	Health, Safety and Environment
HSE&M	Health, Safety, Environment and Measurement
ICS	Incident Command System
ICT	Information and Communications Technology

IDB	Inter-American Development Bank
IPSC	Incremental Production Service Contract
IRENA	International Renewable Energy Agency
IT	Information Technology
LACT	Lease Automatic Custody Transfer
lge	Litre Gasoline Equivalent
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas
M ³	Cubic Metres
MAC	Mineral Advisory Committee
MARPOL	International Convention for the Prevention of Pollution from Ships
Massy	Massy Holdings Limited
MC	Mitsubishi Corporation
MEEA	Ministry of Energy and Energy Affairs
MGCC	Mitsubishi Gas Chemical Company Inc.
MMbtu	Million British Thermal Unit
MNS	Ministry of National Security
MMscf/d	Millions standard cubic feet per day
Moraven	Mora Oil Ventures Limited
MOU	Memorandum of Understanding
MT	Metric Tonnes
MTBE	Methyl Tert-Butyl Ether
MTPD	Metric Ton Per Day
MTPY	Metric Ton Per Year
NCMA	North Coast Marine Area
NDC	National Defence College

NE	The National Energy Corporation of Trinidad and Tobago Limited
NESC	National Energy Skills Centre
NGC	The National Gas Company of Trinidad and Tobago Limited
NGC CNG	NGC CNG Company Limited
NGL	Natural Gas Liquids
NIHERST	National Institute of Higher Education, Research, Science and Technology
NIKO	Niko Resources Trinidad Limited
NOSCP	National Oil Spill Contingency Plan
NPMC	Trinidad and Tobago National Petroleum Marketing Company Limited
OLADE	Latin American and Caribbean Energy Organisation
PABX	Private Automated Branch Exchange
Petrotrin	Petroleum Company of Trinidad and Tobago Limited
PFRC	Petroleum Fiscal Review Committee
PLCC	Permanent Local Content Committee
PLIE	Point Lisas Industrial Estate
ppm	Parts Per Million
PSC	Production Sharing Contract
PSIP	Public Sector Investment Programme
RE	Renewable Energy
Repsol	Repsol YPF Trinidad and Tobago Limited
RLE	Royalty Lease Evaluation
RM	Resource Management
RML	Retail Marketing Licence
RTW	Road Tank Wagon
SCE	Standing Committee on Energy
SEIA	Strategic Environmental Impact Assessment

SEP	Sustainable Energy Program
Shell	Shell Trinidad Limited
SURIMEP	Suriname International Mining, Energy & Petroleum Conference and Exhibition
SVU	Subsidy Verification Unit
T&TEC	Trinidad and Tobago Electricity Commission
TED	Trinidad Exploration and Development Company Limited
TTDAA	Trinidad and Tobago Deep Atlantic Area
TTEITI	Trinidad and Tobago Extractive Industries Transparency Initiative
UAN	Urea Ammonium Nitrate
UNIPET	United Independent Petroleum Company Limited
UTT	The University of Trinidad and Tobago
UWI	The University of the West Indies
WIEGL	West Indian Energy Group Limited
WML	Wholesale Marketing Licence
WPAC	Work Permit Advisory Committee
WRAP	Wind Resource Assessment Programme
YAC	Youth Advisory Committee

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EXECUTIVE SUMMARY

By virtue of the overriding importance of the energy sector to the domestic economy, the Ministry of Energy and Energy Affairs (MEEA) plays an integral role in the management and regulation of the sector. The MEEA develops and implements policy that seeks to optimize the returns from the country's invaluable petroleum resources while minimizing any negative environmental fallouts. Detailed information on the Ministry's stewardship during fiscal 2014 can be accessed through this annual administrative report, that has been prepared in accordance with statutory requirements under Sections 66A and 66D of the Constitution of the Republic of Trinidad and Tobago.

The MEEA's Administrative Report on the 2014 fiscal period reveals that a major priority was development and implementation of strategies aimed at increasing production and attracting foreign investment in the upstream sector. These strategies included amendments to the fiscal regime and promotion of bid rounds intended to stimulate exploration and development activities. The Ministry, through the Petroleum Fiscal Review Committee (PFRC), proposed new fiscal measures as well as amendments to existing measures aimed at introducing more attractive terms to investors. These measure came into effect with the enactment in the Finance Act No. 4 of 2014.

An Investment Tax Credit introduced in 2011, under the Supplemental Petroleum Tax regime was amended to allow the unused tax credits to be carried forward for one (1) year. The capital allowances for the upstream energy sector were simplified. The existing initial and annual allowances were replaced by a new allowance of 100% of exploration costs to be written off in the year in which the expenditure is incurred. This incentive would be applicable for the period 2014 to 2017. The allowances for development activity were also simplified with the grant of a first year allowance of 50%, a second year allowance of 30%, and third year allowance of 20% on expenditure applicable to both plant and machinery (tangible) and the drilling of wells (intangible) expenses.

The 2013 Deepwater and Land Bid rounds were concluded in fiscal 2014. The Deepwater Bid Round was expected to result in an ultimate investment of US \$250 million with the award of the Trinidad and Tobago Deep Atlantic Area (TTDAA) 3 and TTDAA 7 Blocks to the BHP Billiton Petroleum (International Exploration) Pty Limited and BG International Limited consortium. The Land Bid Round allows for potential investment from development activities of up to US \$945

million with the award of the Rio Claro Block to Lease Operators Limited, the St. Mary's Block to Range Resources Trinidad Limited, and the Ortoire Block to Touchstone Exploration Inc.

The very significant focus on the upstream sector during the reporting period was mainly attributable to the decline in total proved, probable and possible natural gas reserves for the 9th year in succession. There was also decline in key production statistics in 2014 when compared with 2013. Average daily crude oil and natural gas production in fiscal 2014 fell 0.2% and 0.4% respectively from the levels of fiscal 2013. Due to the curtailment of natural gas, most major gas based petrochemical plants reported lower than projected production levels of Methanol, Ammonia, Urea, Urea-ammonium nitrate (UAN) and Melamine. Crude oil processed by the Petroleum Company of Trinidad and Tobago declined 1.6% from fiscal 2013 while refined and intermediate products declined 2.2%.

As regulator, important areas of focus of the MEEA were the Minerals Sector and the Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI). The Minerals Advisory Committee reviewed the Green Paper on Minerals Policy and subsequently, a White Paper on the Minerals Policy was approved by Cabinet and laid in Parliament. The Ministry continued to provide administrative support to the TTEITI in its bid to make Trinidad and Tobago achieve compliant country status, the highest elevation in the International body. As a result, on 30th September, 2014, the TTEITI Secretariat published the second TTEITI Report, a major aspect of which is the reconciliation of the payments made by energy sector companies with Government's revenue receipts for fiscal 2012.

The MEEA's sustainable energy projects as well as major capital infrastructure projects are pursued under its Public Sector Investment Programme. Promotion of sustainable energy continues to be an important strategy aimed at conserving the country's hydrocarbon reserves while meeting international commitments under the Kyoto Climate Protocol, to which this country is a ratified signatory. To attract renewable energy investment, an Inter-Agency Committee was also established in September 2014 to develop a legal and regulatory framework to support renewable energy power generation. Funding was approved for the operationalization of the Galeota Port which was opened during the previous fiscal period. In addition, the Liquid Fuel Pipeline that extends from Pointe-a-Pierre to Caroni and then Piarco achieved 95% completion.

This pipeline will transport gasoline and aviation fuel and is geared to improve the security of supply of these fuels and minimise the congestion on the roads from the road tank wagons.

The MEEA's initiatives and programmes are supported by efforts to promote cooperation and honour this country's regional and international commitments. In fiscal 2014 this was achieved through representation at various international fora including the Ministerial Meetings of the Latin American Energy Organization (OLADE) and the Community of Latin American and Caribbean Countries (CELAC). The MEEA also accompanied the Energy Chamber of Trinidad and Tobago (ECTT) on its fourth Trade Mission to Suriname in June, 2014 and two Memoranda of Understanding were executed between the MEEA and the National Energy Administration of the People's Republic of China, and between GORTT and the Republic of Haiti.

HUMAN RESOURCES UNIT

The Mission of the Human Resource (HR) Unit is to adequately staff the MEEA with people who possess the right skills and competencies to propel the achievement of the Ministry's key objectives in a harmonious and motivating environment. The intent is, therefore, to strengthen the organisation through recruitment when necessary, to build human resource capacity through training and development, and to develop incentives to attract, motivate and retain employees.

The objectives of the HR Unit are to assist the MEEA in achieving its mandate by effectively resourcing it with the right people who possess the right skills, abilities and attitudes capable of responding to a highly technical and dynamic work environment; to develop well-trained and highly motivated employees; and to increase employees' job satisfaction and self-actualisation. The Unit also continuously seeks to improve the quality of work life, maintain and implement ethical policies, and encourage socially responsible behaviour.

Achievements for Fiscal Year 2014

The MEEA operated with a staff establishment of 281 permanent positions, 145 of which were filled by permanent officers, and 61 by temporary/acting officers. During the review period, the HR Unit continued to vigorously pursue the filling of vacancies in conjunction with the Service Commissions Department, in order to comply with a mandate given to the Director of Personnel Administration to fill all Public Service vacancies. Pursuant to this directive, 45% of the vacant positions within the MEEA staff establishment were filled. At the end of the review period, however, 75 of these positions remained vacant. As a result, the MEEA remained challenged in its attempt to address technical staff shortages which arose from a number of resignations and retirements from the Public Service. These included positions such as Geologist, Geophysicist, Petroleum Engineer, Petroleum Inspector, Petroleum Chemist, Chemical Engineer and Draughtsman I.

The contract establishment comprised 180 positions. Sixty-seven (67) of these positions were filled while 113 remained vacant. In addition, 20 positions of Energy Professional Assistants and 17 positions of daily-rated employees were filled. Further, the HR Unit continued to collaborate with the Ministry of Public Administration, Scholarships Division, to accommodate 15 returning scholars, also known as Associate Professionals, with qualifications in the engineering and

geoscience fields. Twenty-three On-the-Job Trainees were also engaged to provide additional technical/clerical support to all Units and Divisions of the MEEA. The Communications Unit was also fully staffed following the hiring of three (3) additional employees on a contractual basis.

Approximately 90% of staff members were engaged in technical, professional and personal development training. Participants attended both in-house courses conducted by local and foreign-based training providers, and other publicly held seminars. The MEEA's Training Policy and a 3-year Training Plan for fiscals 2014-2016 were also completed.

With respect to Benefits Management, 100% of retirement benefits for Public Officers and Daily Rated Employees were processed, and 85% of Pension and Leave Records were updated. In addition, 80% Contract Gratuity in respect of Contract Officers were processed; 90% of Performance Appraisal Reports were completed; 100% Leave Applications (i.e. sick leave, casual leave, personal leave, vacation leave, maternity leave, no-pay leave, and extension of sick leave) were processed; 94 Incremental Awards to Public Officers and 18 Confirmation of Appointments were processed; and 100% of Requests for Counselling under the Employee Assistance Programme were processed.

The HR Unit also ensured the payment of salaries and allowances to all members of staff with minimum error and delay through the utilisation of its iHRIS system, and successfully mediated 85% of all Industrial Relations/Employee Relations Issues.

In order to close the gap between existing and required levels of performance within the MEEA, prepare for succession planning, and provide a path for upward mobility, a heightened focus was placed on developing a Competency Framework to facilitate the training of staff in these areas. The tools utilised for this purpose included training at Universities and other learning centres (both local and foreign); on-the-job training; classroom activities either through Government's Central Agencies or in-house training courses; coaching and mentoring; staff rotation within the MEEA; assignments/attachments to other State Agencies; and exposure to best practice in other organisations.

ADMINISTRATION UNIT

The Administration Unit aims to strengthen the operational relationship among all Units and Divisions of the MEEA, and to ensure the timely delivery of the services within its purview to all internal clientele. The goals of the Unit are to ensure that the organisation has access to the tools needed to professionally and effectively execute its mandate, and to deliver quality and efficiency whilst preserving the integrity of the division.

Achievements for Fiscal Year 2014

The Unit performed the following functions during the 2014 fiscal year:

- Ensured that the operational needs of the Ministry were met in a timely manner i.e. with respect to bill payments, cleaning services, etc.;
- Facilitated the proper storage of assets to ensure that business continuity was not compromised;
- Ensured that official overseas travel and domestic travel documents and arrangements for staff members were processed on a timely basis;
- Ensured that the courier services functioned efficiently so that mail and other correspondence were distributed in a timely manner;
- Acquired additional office space for the MEEA's South Office located at Maska Compound;
- Identified potential office space for the Minerals Field Crew in Sangre Grande (however, the office space identified proved difficult to access and the Unit did not pursue the matter further);
- Completed Inventory exercise of the assets owned by the MEEA;
- A Board of Survey was carried out and approved. The Board agreed with the proposal to dispose of four (4) vehicles; and
- Vehicles were refurbished and sustained to ensure the smooth conduct of the Ministry's business.

ACCOUNTS UNIT

The financial administration of the MEEA 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 Licences and Contracts which are administered by the MEEA.

The MEEA also collects revenue on behalf of the GORTT through the administration of Production Sharing Contracts (PSCs) with respect to the GORTT’s share of profit from the oil and gas produced under the terms of these contracts.

In addition, from the Government’s share of profit and on behalf of companies operating under PSCs, the MEEA meets liabilities incurred according to the following pieces of legislation:

- The Petroleum Taxes Act (Chapter 75:04);
- The Petroleum Production Levy and Subsidy Act (Chapter 62:02); and
- The Income Tax Act (Chapter 75:01).

Budget Allocation and Expenditure

For the financial year ending September 30th, 2014, the MEEA was allocated the sum of TT \$7,180,889,180. The breakdown of this allocation is shown in Table 1. Actual expenditure amounted to TT \$7,121,569,197 as outlined in Table 2.

Table 1: Ministry of Energy and Energy Affairs Budget Allocation
(October 2013 - September 2014)

Head 40: Ministry of Energy and Energy Affairs

Sub-Head	(TT\$)
01: Personnel Expenditure	32,915,700
02: Goods and Services	119,393,522
03: Minor Equipment Purchases	4,961,316
04: Current Transfers and Subsidies	7,013,518,642
09: Development Programme	10,100,000
Total	7,180,889,180

Table 2: Ministry of Energy and Energy Affairs Actual Expenditure
(October 2013- September 2014)

Head 40: Ministry of Energy and Energy Affairs

Sub-Head	Revised Estimates (TT\$)	Actual Expenditure (TT\$)	Variance (TT\$)
01: Personnel Expenditure	35,147,600	26,185,758	(8,961,842)
02: Goods and Services	119,050,822	75,475,652	(43,575,170)
03: Minor Equipment Purchases	4,961,316	589,645	(4,371,671)
04: Current Transfers and Subsidies	7,013,518,642	7,009,775,566	(3,743,076)
09: Development Programme	10,100,000	9,542,576	(557,424)
Total	7,182,778,380	7,121,569,197	(61,209,183)

Calculation and Reconciliation of Royalty

A breakdown of revenue collected for the last four (4) fiscal years is shown in Table 3. During the 2014 fiscal year in particular, the MEEA collected TT \$2,406,442,146 in royalties. Royalties increased by TT\$25,464,224 over the total for the previous year due to small increases in average production and prices which impacted on first quarter royalty payments.

Table 3: Revenue Collected by the Ministry of Energy and Energy Affairs
(October - September)

	2010/2011 (TT\$)	2011/2012 (TT\$)	2012/2013 (TT\$)	2013/2014 (TT\$)
Royalties Collected	2,424,275,033	2,449,723,875	2,380,977,922	2,406,442,146
Revenue Collected from Other Sources*	300,103,302	136,884,734	800,000,000	125,217,726
Total Revenue Collected	2,724,378,335	2,586,608,609	3,180,977,922	2,531,659,872

**Other Sources of Revenue include the Oil Impost, Retail Marketing Licences, Compressed Natural Gas Licences and Bunkering Licence*

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

Receipts from PSCs include the profit share from Production Sharing Blocks, Financial Obligations including Administrative Charges, Training Contributions, payment towards Research and Development, and Scholarship Funding. Disbursements under PSCs comprise the transfer of funds from the Government Share of Profit account to meet tax obligations, other Government liabilities to 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 Share Profit, and is met from the brought forward surplus from the previous year. Table 4 below provides a breakdown of the receipts and disbursements from fiscal 2011 to fiscal 2014.

**Table 4: Government's Revenue and Disbursements from Production Sharing Contracts
(October - September)**

	2010/2011 (TT\$)	2011/2012 (TT\$)	2012/2013 (TT\$)	2013/2014 (TT\$)
Receipts	3,901,760,817	5,967,179,794	3,908,117,393	5,282,624,385
Disbursements	3,179,668,166	6,460,167,894	5,581,694,389	4,778,205,829

INTERNAL AUDIT UNIT

Internal auditing is an independent appraisal function intended to examine and evaluate the financial and operational activities of government entities. It exists as a support to Accounting Officers in the effective discharge of their pecuniary responsibilities. The Internal Audit Unit provides objective assurance, and adds value by ensuring that a systematic, disciplined approach is taken to the evaluation and improvement of risk management, governance, and the effectiveness of controls.

To fulfil its mandate, the Internal Audit Unit has developed certain key functions to assist Management in discharging its responsibilities, and to help the organisation accomplish its objectives. These include:

- Reviewing the soundness and appraising the 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 organisation; and
 - Ensuring the economical and efficient use of resources;
- Fully utilising the knowledge, skills and abilities of the Internal Audit Unit staff to enhance the effectiveness and efficiency of the activities and operating procedures under Management's control, thereby facilitating the continuous improvement of MEEA's operations;
- Providing timely information to facilitate improved public accountability and decision making;
- Providing an effective, investigative and advisory approach to evaluating whether the resources of the MEEA are being used effectively for its intended purposes, and that value is being received for funds expended; and
- Contributing to the rigorous and effective management of resources by promoting a culture of professional and successful management within the various departments of the MEEA.

Achievements for Fiscal Year 2014

Performance and Efficiency Audits

Performance and Efficiency audits are conducted by the Internal Audit Unit to determine if the Ministry's operations, programmes and systems are being run effectively and efficiently. This entailed the objective and systematic examination of the workings of the MEEA and this type of evaluation provides information which can assist with the improvement of public accountability and facilitate accurate decision-making. Performance and Efficiency Audits were conducted on the Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI) Secretariat and the Renewable Energy Secretariat in fiscal 2014.

Financial Audits/Operational Audits

Financial and Operational audits were also conducted to: provide independent reporting on whether the MEEA's financial system was robust; offer reliable information and feedback with respect to internal control; and confirm whether it was performing in accordance with recognised criteria and in compliance with existing laws and regulations.

For fiscal year 2014, the recording of all expenditure under the Ministry's various Heads, Sub-Heads, Items and Sub-Items were checked, cross checked and verified to ensure that acceptable and reliable procedures were being followed. Verification of the MEEA's expenditure also served the dual purpose of ensuring the accuracy of the Appropriation Account for fiscal year 2014.

Areas targeted for special audit scrutiny included the certification of the correctness and accuracy of entries with respect to Departmental Vouchers, Schedules of Accounts and Vote-Books. These exercises were undertaken to assess the adequacy of the processes and controls in place to accurately manage the accounting functions as outlined by Financial Regulations, Instructions and other Circulars as well as to ensure that the Ministry's financial performance was being accurately recorded and appropriately reported.

Salary Administration was also targeted by the Unit in fiscal 2014 to determine whether the payroll system was functioning adequately to enable timely and accurate payments to eligible officers, and that sufficient and adequate information was received from respective departments to facilitate this process.

In this regard, emphasis was placed on examining the accuracy and completeness of the following records:

- Establishment posts;
- Contract posts;
- Personnel files;
- Return of Personnel records; and
- Relevant approvals.

Scrutiny of the Contract Management system also formed an integral part of the Unit's programme of work in fiscal 2014 as a result of the increase in contract employment within the MEEA. This exercise was undertaken to ensure that contracts were valid, and to examine whether procedures were appropriately structured to permit assessment of the quality and timeliness of services provided by contractors. Internal Audit also ensured that contracts were awarded in a timely manner, desired outputs were managed and monitored appropriately, and that contracts were in accordance with the terms and conditions outlined by the Ministry of Public Administration's devolved functions.

Revenue and Revenue Accounting also formed a significant part of Internal Audit's programme of work. This exercise was undertaken to establish whether appropriate policies, procedures, controls and systems were in place to ensure and that the revenue system in place complied with Treasury directives. In addition, the adequacy of the Revenue system was assessed to ensure efficient and timely collection and deposit all revenues.

Specific attention was also placed on the system of Inventory Control in fiscal 2014. This programme was designed to ensure the safeguarding of the MEEA's assets and to establish that there was neither wastage nor the risk of misappropriation and theft. In addition, efforts were made to verify that the Ministry received value for money expended.

Additional Services

Fraud Prevention and Detection

The Internal Audit Unit assisted in ensuring that the Ministry's Core Values, which set the standards for its employees and are designed to promote ethical behaviour, were upheld. In the event that an investigation was necessary to either substantiate or disprove allegations, the Internal Audit Unit performed all necessary investigations in accordance with accepted procedures and standards.

Management Assistance / Special Projects

Internal Audit undertook several special audits and non-audit services which assisted Management in carrying out its responsibilities, whilst giving consideration to the impact the assignment might have on its independence. The Unit was also able to provide advice and subject matter expertise when requested, as well as offer non-audit services to the Ministry which included (but was not limited to) providing members of staff with tools, techniques and training in core financial areas.

Observations

All audits were conducted in accordance with relevant laws, regulations and circulars, guidelines and accepted practices within the Public Sector's Financial Management system. In this regard, Internal Audit determined the Ministry to be approximately 70% compliant, and that the records examined provided sufficient evidence to give reasonable assurance that the Ministry has adequate systems in place to ensure the effective management of its functions.

COMMUNICATIONS UNIT

The Communications Unit is responsible for efficiently managing communication with all of 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.

Achievements for Fiscal Year 2014

Meetings/Conferences/Functions

During the period under review, the Unit facilitated the hosting of the following meetings/conferences/functions:

- Hosting of MEEA's Divali Function – October 2013;
- Setting up of an Energy booth at Divali Nagar – October/November 2013;
- The MEEA's End of Year Function – December 2013;
- Signing of PSC's;
- Setting up of an Energy Pavilion at Energy Conference – January 2014;
- Public Seminars for Compressed Natural Gas (CNG) Licence Applications – July 2014;
- Signing of MOU with Haiti – July 2014;
- Media Management together with the Petroleum Company of Trinidad and Tobago Limited (Petrotrin) on major Oil Spill – July/August 2014;
- Hosting of MEEA's Emancipation Function – August 2014; and
- Decoration of MEEA's North and South offices for Independence and Republic Day – August/September 2014.

Public Education

The following public education campaigns were undertaken by the Unit in fiscal 2014:

- **The Energy Capsule** – a one-minute on-going television series used to promote the many initiatives of the MEEA to the public; and
- **The Energy Report** – 2-3 minute video features also used to highlight the initiatives of the MEEA in greater detail.

Internal, External and Internal Publications

The Unit also engaged in the development of the following content for publication during this fiscal year:

- **In de Loop** – Two (2) issues of this internal newsletter were disseminated during this fiscal. The goals of the newsletter are to highlight the work of various Units/Divisions within the MEEA and to foster camaraderie amongst staff members.
- **Facebook** – The Unit updated/populated the MEEA's Facebook account with information/photos related to energy related events/projects/initiatives as required.
- **YouTube** – The Unit also updated the MEEA YouTube channel with 14 energy-related videos.
- **External** – Another issue of the *Energy Platform* was produced and published. This was distributed to the MEEA's stakeholders in the Energy Sector in addition to the various State Agencies which fall under the Ministry's purview.

INFORMATION TECHNOLOGY UNIT

The mission of the Information Technology (IT) Unit is to strategically integrate cutting-edge technologies into all of the MEEA's business processes in adherence with world class standards, to ultimately provide superior services to clients.

The strategic objectives of the Unit include the following:

- Make industry data easily and securely accessible to internal and external stakeholders;
- Provide a highly robust, secure and resilient Information and Communications Technology (ICT) network infrastructure;
- Ensure that the MEEA obtains the highest level of business value from IT investments;
- Provide clients with effective and efficient service delivery;
- Implement tools for improved communication and knowledge sharing;
- Implement tools to support process and workflow improvement; and
- Manage ICT risks and recommend measures to manage information security.

Consistent with these strategic objectives, the IT Unit, in fiscal 2014, continued to perform a number of functions over the short, medium and long terms ultimately aimed at enhancing its service delivery and support to MEEA Staff. To do so, the Unit took steps to improve on its information systems solutions, applications support, networking and infrastructure.

Achievements for Fiscal Year 2014

Service Delivery and Support

- Provided ongoing IT support services to the MEEA through the IT Service Desk.
- Updated the IT Service Desk system and improved workflows to enhance service delivery to MEEA users.
- Handled approximately 3,000 IT incidents during the review period.
- Deployed new Personal Computers, laptops, workstations and tablets to users.
- Provided hardware and technical training support; access control swipe card programming; system administration support; support for telephone systems provisioning and repair; mobile phone technical support; multimedia and videoconferencing systems; software

licence maintenance and support and printer and printer consumables management and support.

- Continued to manage the IT datacentre utilising standard service level agreements.

Information Systems Solutions and Application Support

- Redesigned the website of the MEEA including content management and updates.
- Acquired additional licences for Geographic Information Systems (GIS) software and server hardware for the installation of the GIS enterprise server.

Networking and Infrastructure

- Installed a precision cooling system in the IT datacentre to properly cater for equipment cooling needs.
- Acquired a central storage solution utilising a combination of Blade servers and virtualisation to optimise and consolidate server and physical space, with a resulting reduction datacentre infrastructure costs.
- Acquired an enterprise backup solution to meet the need for increasing quantities of MEEA data which need to be backed up, as part of an overall disaster recovery strategy.
- Reviewed the printer management software used for monitoring printers, and proposed a new solution to improve printer manageability and control.
- Upgraded the design and specification of the existing enterprise security and threat prevention software.
- Acquired, completed and tested the networking and connectivity infrastructure for the video board in the lobby. This is to allow users from the MEEA South office to attend MEEA Port-of-Spain meetings remotely using Microsoft Office Communicator.
- Reviewed and solved issues with respect to the Private Automated Branch Exchange (PABX) telephone network for the Port-of-Spain office.
- Established a documented procedure for the storage of redundant backup data from the MEEA Port-of-Spain Office offsite at the MEEA South Office pending a decision on an alternative site for offsite storage.

IT Administration

- Processed approximately 50 requests for new hardware and software, computer peripherals, and printer consumables.
- Renewed six (6) IT support contracts and service level agreements.
- Renewed annual maintenance and support contracts for all special purpose engineering and economic applications and rationalisation of licences based on the needs of the Technical Divisions.
- Prepared documentation, workflows, process maps and reports to determine staffing requirements for the future state IT department in support of the restructuring work carried out by the MEEA.
- Received Board of Survey approval for the disposal of a batch of obsolete computing items.
- Designed an updated inventory system for improved tracking of asset movements and changes.
- Acquired security software to manage laptop thefts, and to improve management of IT assets.

The Unit will aim to ensure continuous improvement in its service delivery over the long term and in this regard, specific areas to be addressed will include:

- Designing, planning and implementing an upgraded and modernised security and threat prevention management solution;
- Upgrading the ICT core data centre infrastructure;
- Populating the Energy Data Hub with all industry data;
- Institutionalising of the use of the Energy Data Hub amongst internal and external stakeholders;
- Expanding mobile and wireless computing facilities for staff;
- Designing, planning and managing the implementation of an upgraded physical access control system; and
- Reviewing the existing PABX system at MEEA's offices in order to streamline and improve services.

LIBRARY UNIT

The MEEA Library aims to serve as the information hub and data repository for material related to the energy and mineral sectors in Trinidad and Tobago. It is responsible for acquiring and organising information on these sectors from the most relevant and authoritative resources, and disseminating this information in an appropriate manner to stakeholders. Its main clientele are internal stakeholders, i.e. MEEA staff, who belong to a wide range of disciplines including: petroleum, chemical and mechanical engineering; petroleum inspection; energy economics and analysis; geology; geophysics; accounting; and legal services. The Library's collection, therefore, includes a wide range of material which covers these varied subject areas. In addition, a branch library which caters to the specific needs of the Health, Safety, Environment and Measurement Unit of the MEEA is located at the South Office.

The Library's external stakeholders, on the other hand, include teachers, students at all levels of education, and the personnel of oil, gas and petrochemical companies, in addition to their service companies and affiliates.

The roles and responsibilities of the Unit include:

- Provision of sector information on energy and minerals to stakeholders;
- Selection, acquisition, processing and dissemination of relevant documents from authoritative sources;
- Processing of bibliographic information contained in the computerised database (for the production of indexes and bibliographies, and for the publication of a newsletter);
- Acting as a repository for these documents and related audio/visual material; and
- Managing and executing all activities related to its role as the National Focal point of the Caribbean Energy Information Systems (CEIS).

Achievements for Fiscal Year 2014

With regard to the fulfilment of its role as the National Focal Point for the CEIS, the Library provided a listing of and contact details for all government and board-assisted secondary schools in Trinidad and Tobago in connection with the CEIS's Energy for Young Minds (EFYM) project. The EFYM is an online educational tool developed to assist secondary school students from the

Caribbean in preparing for the Caribbean Secondary Education Certification exam (CSEC) and Caribbean Advanced Proficiency Examinations (CAPE). In particular, it focuses on providing Caribbean-specific information and resources on energy-related topics to assist students in answering questions on connected topics which are taught as part of the syllabus.

The Library acquired new energy-related print material and maintained some of its existing online resources (including the Oil & Gas Journal, Business Monitor International and Platts websites) despite budgetary constraints. In addition, the Unit commenced an exercise to acquire electronic versions of all of the print items already existing in its collection, and began to source new, up-to-date items in electronic format along with printed versions. The Library also expanded its collection of local energy-related legislation, and continued to engage in the digitisation of those older or original print items in its collection related to the history and development of the local energy industry.

LEGAL UNIT

The vision of the Legal Unit of the MEEA is to be regarded as a highly valued and well respected team within the MEEA and by other stakeholders, through its provision of first class legal services. Its Mission is to provide specialised legal expertise to the MEEA on matters pertaining to the oil, gas, minerals and petrochemical sectors, in a proficient, expedient and professional manner.

The key functions of the Unit include **advising** the GORTT on legal issues in the energy and minerals industry; **preparing** contracts, licences, deeds, agreements and MOUs (among others); **negotiating** with international and local energy companies as part of the GORTT's team; and **revising** and updating petroleum and minerals legislation.

The strategic objectives of the Unit are to:

- Prepare legally sound contracts and agreements which include, inter alia, PSCs, Guarantees, and IT Contracts;
- Prepare legally sound Licences which include Exploration and Production (E&P) Licences, Retail Marketing Licences (RMLs) and Mining Licences;
- Prepare legal opinions on all matters related to the energy sector;
- Review the legislative framework and prepare recommendations for the reform of legislation related to the Energy and Minerals sectors;
- Prepare draft legislation including Orders for the Chief Parliamentary Counsel;
- Participate in negotiations with other governments and international oil and gas companies as part of the MEEA's team;
- Review documents submitted by State Agencies (including Petrotrin, The National Gas Company of Trinidad and Tobago Limited (NGC), etc.), and provide advice and collaboration as needed;
- Draft and vet correspondence from all divisions of the MEEA including Cabinet Notes, letters, etc.;
- Serve on or assist Cabinet appointed and other Committees including the Minerals Advisory Committee, Technical Evaluation Committee, etc.;
- Provide timely legal advice so as to ensure adherence to legislative requirements and contractual obligations;
- Establish and maintain the Petroleum Register as required by petroleum legislation; and

- Establish a legal database to better manage all legal documentation and afford better access and record keeping.

Achievements for Fiscal Year 2014

Matters Related to the Petroleum and Energy Sectors

During the 2014 fiscal period, the Legal Services Unit provided legal opinions on the following issues:

- Petrotrin's surrender of acreage under Clause 6 of the E&P (Public Petroleum Rights) Licence dated 31st December, 2012 in respect of the TNA (Trinmar) Block;
- BHP Billiton Petroleum Limited's (BHP's) proposed joint seismic survey as it concerned Cost Recovery, the Minimum Exploration Work Programme, and Confidentiality in the PSCs;
- The Overpayment of Royalty by Petrotrin;
- Extractive Industries Transparency Initiative (EITI) Requirements 3.11 and 3.12 on Beneficial Ownership and Contract, respectively;
- Waiver of Payment under Article 31.6 of the Block TTDA 5 and TTDA 6 PSC;
- The Interpretation of Article 5 of the Central Block Trinidad Expansion Gas Supply Contract (Train 4) dated 2007;
- The construction of a multi-fuel pipeline from Pointe-a-Pierre to Caroni;
- The MEEA's role in a Pilot Project involving interconnectivity of Solar/Wind Renewable Energy Installations to the Trinidad and Tobago Electricity Commission's (T&TEC's) Low Voltage Network; and
- The Marabella Barge and the requirements under the International Convention for the Prevention of Pollution from Ships (MARPOL).

The Unit also provided legal advice regarding the separate legal identity of companies for the Natural Gas Master Plan.

Contracts, Licences, Deeds, Agreements, Guarantees

The following Agreements were reviewed, prepared and/or executed by the Unit during fiscal 2014:

- Train 4 LNG Term Sheets for Repsol YPF Trinidad and Tobago Limited (Repsol)/Shell Trinidad Limited (Shell) and British Petroleum Trinidad and Tobago Limited (bpTT);
- Project Agreement for the establishment of a Natural Gas to Petrochemicals Complex by and among the GORTT, NGC, Mitsubishi Gas Chemical Company Inc. (MGCC), Mitsubishi Corporation (MC), Massy Holdings Limited (Massy), Caribbean Gas Chemical Limited (CGCL) and Caribbean Gas Chemical (Barbados) Limited;
- Debt Tail Buy Down Agreement by and among the GORTT, NGC, CGCL and the Security Agent;
- Consent and Acknowledgement Agreement by and among the GORTT, CGCL and the Security Agent;
- Environmental Indemnity Agreement between the GORTT and CGCL;
- Dimethyl Expansion Agreement by and among the GORTT, NGC, MGCC, MC, Massy, CGCL and NGC Petrochemicals Limited;
- Gas Sales Contract between NGC and CGCL;
- Project Funding Agreements between the MEEA and The University of the West Indies (UWI) with respect to laboratory equipment for research regarding Heavy Oil and Oil Recovery from Trinidad Tar Sands by Radio Frequency Heating and training programmes in the Petroleum Studies Unit (signed on 28th July, 2014);
- Unitisation Agreement for the Exploitation and Development of Hydrocarbon Reservoirs of the “Manakin – Cocuina Field” that extends across the Delimitation Line between the Republic of Trinidad and Tobago and the Bolivarian Republic of Venezuela; and
- Project Development Agreement for the establishment of a mid-scale LNG facility among The National Energy Corporation of Trinidad and Tobago Limited (NE), GORTT, Gasfin Development S.A and Caribbean LNG Limited.

The Unit also reviewed, prepared and/or executed PSCs in respect of Blocks TTDA 3 and TTDA 7, and, Letters of Guarantees and Letters of Undertaking in accordance with PSCs in respect of Blocks TTDA 3 and TTDA7, and Blocks 23 (a) and TTDA 14.

In addition, it prepared, reviewed and/or executed the following Licences and related documents:

- CNG Marketing Licence for Brentwood Service Station;
- Draft Transportation (other than by pipeline) Licence and Application Form;
- Draft E&P Licence for:
 - East Brighton;
 - Balata East Horizon;
 - Cruse Horizon;
 - Hererra Horizon;
 - Tabaquite Block;
 - Moruga West Block;
 - Rio Claro Block;
 - St Mary's Block; and
 - Ortoire Block;
- Draft Petrochemical Licence;
- Model Onshore and Offshore Pipeline Licences;
- Model Marketing Licence for Wholesale Marketing Operations; and
- Model Marketing Licence for Retail Transactions at Petrol Filling Stations.

Legislative/Policy Review

The Unit also reviewed draft Miscellaneous Provisions for the (Illegal Mining) Bill, and reviewed suggested amendments to the Finance Bill 2014 regarding changes to the Minerals Act and the State Lands Act.

Cabinet Notes/Orders/Reports

During the review period, the Unit prepared and/or reviewed:

- Cabinet Notes on The Revocation of the Petroleum (Royalties) (Onshore Crude Oil) Regulations, 1999, and the Grant of E&P (Public Petroleum Rights) Licences in respect of the St. Mary's, Ortoire and Rio Claro Blocks;
- The Price of CNG (Amendment) Order, 2013; and
- Cabinet Reports on the following:

- CNG fiscal incentives and other legislative amendments from the CNG Implementation Unit;
- The Allegations raised against the Chairman and Board of Directors of National Quarries Company Limited;
- The Inter-Agency Committee on the legislative changes required to alleviate Illegal Mining; and
- The Technical Bid Round Legal Report for the Technical Evaluation Committee for the Onshore Competitive Bidding, 2013.

The Unit also advised on all Freedom of Information (FOI) Act Chap 22:02 matters and responded to all applicants who required information under this Act; prepared EITI Letters of Consent on Waiver of Confidentiality Clauses in the PSCs and E&Ps for Chevron Trinidad and Tobago Resources SRL (Chevron), British Gas Trinidad and Tobago Limited (BGTT) and EOG Resources Trinidad Limited (EOG); and executed the MOU between the GORTT and the Government of the Republic of Haiti on Cooperation in the Field of Energy (which was signed on 28th July, 2014).

Other Major Accomplishments

The Unit executed the PSC for Marine Block 23 (b) on November 5th, 2013 amongst the GORTT, BHP Billiton Trinidad and Tobago Limited (BHP) and Repsol, and submitted a Technical Bid Round Legal Report for the Onshore Competitive Bidding, 2013 on 21st November, 2013 to the Technical Evaluation Committee. It was also responsible for the issuance of the CNG Marketing Licences on 6th May, 2014 to Brentwood Service Station, and for developing a Report on CNG fiscal incentives and other legislative amendments from the CNG Implementation Unit which was submitted on 31st July, 2014.

Matters Related to the Minerals Sector

During the fiscal year under review, the Legal Services Unit provided legal opinion to the MEEA on comments received from the Ministry of the Environment and Water Resources and the Ministry of Planning and Sustainable Development on the draft Minerals Regulations 2012. The Unit also executed the Mining Licence for Palo Seco Agricultural Enterprises Limited, and created a Model Processing Licence for the processing of minerals. It prepared and reviewed the Minerals Policy, and a legal brief in reference to Wilfred De Gannes versus The Attorney General of

Trinidad and Tobago and the Minister of Energy and Energy Affairs, for the Chief State Solicitor's Department. In addition, it was responsible for preparing press releases in relation to the increase in penalties relating to illegal quarrying and the procedure to obtain licences in order to mine and process minerals, and Guidelines for the procedure for granting Mining and Processing Licences.

SUBSIDY VERIFICATION UNIT

The establishment of the Subsidy Verification Unit (SVU) was approved by Cabinet on 29th September, 2011, and the Unit commenced operation on 5th March, 2012 with a mandate to increase the efficiency of monitoring the diesel supply chain. The Unit comprises four (4) members of staff (Accountant/Auditor, Statistical Analyst and two (2) Subsidy Clerks).

Achievements for Fiscal Year 2014

The Unit continued to perform the following functions during the period under review in order to achieve its mandate:

- Processed, verified and recorded 38 applications for approval to purchase diesel.
- Administered the quota system for the purchase of diesel at a subsidised price by fishing vessels registered and operating locally. To do this, the Unit received applications, forwarded them to the Ministry of Food Production, Fisheries Division for recommendations, and issued letters to applicants and peddlers informing them of the approved allowance for each applicant. Ten (10) applications were processed and seven (7) approvals were granted during this fiscal year.
- Facilitated the purchase of diesel at the subsidised price by 14 other marine vessels on a case-by-case basis: 746 requests were approved in fiscal 2014. The Unit accomplished this by evaluating each request based on individual vessel specifications and the specific requirements of each job. During the fiscal year under review, the savings on the petroleum subsidy for diesel used by these marine vessels is shown in Table 5 below.

Table 5: Savings in Petroleum Subsidy Cost for Diesel Sold

Total volume of diesel applied for by non-fishing marine vessels	15,399,844 litres
Total volume approved after review of requests	13,236,430 litres
Savings in the volume of diesel approved	2,163,414 litres
Value of Savings in subsidy costs	TT \$8,733,149

- Existing staff also participated in training in audit techniques and best auditing practise in accordance with International Auditing Standards. This was in order to enhance their abilities to conduct audits of the following:
 - a. Monthly subsidy claims submitted by Wholesale Marketing Companies;
 - b. Purchases and sales of subsidised fuel by Service Stations and Marinas; and
 - c. Purchases and sales of subsidised fuel by Peddling Companies.

PRODUCTION SHARING CONTRACT AUDIT UNIT

The Production Sharing Contract (PSC) Audit Unit was established by Cabinet in January 1999 to provide assurance to the Minister of Energy and Energy Affairs that contractors are in compliance with the terms and conditions stated in the PSCs which they signed with the MEEA. The Unit began operations with 15 active PSCs, and a staff complement of one (1) Audit Manager, two (2) Senior Audit Analysts and four (4) Assistant Audit Analysts.

The Vision of the Unit is to be a Model PSC Audit Unit, applying auditing techniques and practices which meet and/or exceed International Standards, and its mission is to consistently ensure contractors' compliance with the requirements outlined in the PSCs through the conduct of timely and thorough audits.

The Unit's strategic objectives focus on providing assurance to the Minister that contractors are in compliance with PSCs by ensuring that:

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

Achievements for Fiscal Year 2014

During the period under review, the PSC Audit Unit continued its efforts to ensure that contractors met with their obligations under active PSCs, which had increased to 28 in number with the signing of one (1) additional PSC for Deepwater Block 23 (b). The following highlights the achievements of the PSC Audit Unit Staff in fiscal 2014:

- The Unit conducted 87 quarterly expenditure audits, 16 quarterly revenue audits, four (4) annual audits of amounts expended in the Market Development Phase, and 30 audits of contractors' financial obligations towards the Minister.
- PSC Audit staff attended 20 inventory counts held by contractors to confirm the physical existence, and verify the accuracy and reliability of inventory records.
- An audit of "sole costs" incurred by one (1) PSC Operator for years 2007–2012 remained ongoing. Audit work paper files were prepared for each of the audits conducted, audit work paper files were reviewed and audit reports issued for same.
- PSC Auditors participated in meetings held by the contractors. At the end of the fiscal year, the audits conducted by the Unit's staff resulted in added value of approximately US \$ 2.5 million.
- The PSC Audit Unit provided support to the Secretariat of the Trinidad and Tobago Extractive Industries Transparency Initiative (TTEITI) in the preparation of the TTEITI Report for fiscal 2011/2012 in two (2) main ways:
 - Assisted with the completion of templates showing revenue receipts by the MEEA in respect of petroleum operations, to facilitate reconciliation of these amounts with payments recorded by contractors in the upstream energy sector as having been made to the MEEA; and
 - Participated on the Evaluation Team commissioned by the Central Tenders Board for the engagement of an Administrator for the preparation of said TTEITI Fiscal 2011/2012 Report.

HEALTH, SAFETY, ENVIRONMENT AND MEASUREMENT UNIT

The Health, Safety, Environment and Measurement (HSE&M) Unit regulates all surface facilities which comprise the energy sector value chain in accordance with the Petroleum Act and subsidiary Regulations. The Division's duties are as follows:

- **Facility Approvals** – related to newly built or modified/upgraded facilities, reinstatement after a major accident, and imported new/used facilities; fitness-for-purpose in respect of new facilities; fitness-for-continuous-operations in respect of maintenance; and end-of-life when any system is to be taken out of service based on benefit versus liabilities;
- **Loss Prevention Inspection Programmes** – related to annual inspections, 3-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 the National Oil Spill Contingency Programme (NOSCP) and assessment of emergency response drills; and
- **Monitoring of Fiscal Measurement Operations** – including crude cargoes for sale, natural gas and condensate sales, investigation of measurement breaches/infractions, and the assessment and approval of measurement devices.

The management function of the Unit is divided into two (2) critical portfolios as described below:

Health, Safety and Environment (HSE)

The HSE portfolio is responsible for the Prevention and Control of HSE loss-related events through the proper management of risks which have the potential to cause harm, damage or undesirable consequences to people, property and the environment. Its portfolio also involves safeguarding the State against the transfer of economic liabilities associated with downtime, pollution and accident.

Measurement

The Measurement portfolio seeks to accurately determine the quality and quantity of raw or crude energy resources extracted and sold as well as manufactured products retailed to end users. On the upstream side of this process, the Unit ensures that the State derives fair and equitable returns on resources produced, while on the downstream side it ensures that end-use consumers get the correct quality specification for and quantity of the refined or processed product purchased.

Regulated Sectors

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

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

Achievements for Fiscal Year 2014

Upstream Exploration and Production

- (i) Approved 14 gas processing facilities and two (2) modifications and/or upgrades; and
- (ii) Inspected 87 workover production rigs, 75 offshore platforms, 51 gathering stations, 44 lease/farm-out fiscal facilities, 34 accidents in all classes, 23 clusters, 16 HDR Contracted Vessels, 14 gas compressor facilities and 12 drilling rigs.

Downstream Storage and Marketing

- (i) Inspected 145 diesel storage facilities and 24 LPG storage facilities in Trinidad, and five (5) diesel storage facilities and one (1) LPG storage facility in Tobago; and
- (ii) Attended 17 external and two (2) internal meetings to deal with issues brought forward by several companies.

Pipeline Transportation and Oil Loss

- (i) Inspected 174 sites including Petrotrin well sites, lease and farm out well sites and six (6) oil catches.

National Oil Spill Contingency Plan (NOSCP)

- (i) Inspected four (4) oil spill equipment stock sites. Under the new system each operator, including lessees, should have a Tier 1 type response capability. More than one (1) visit was made to each company to ensure compliance;
- (ii) Conducted effluent sampling at 35 sites in conjunction with Petrotrin and Territorial (formerly Primera); and
- (iii) Investigated 41 of 102 reports of pollution.

Refinery and Petrochemicals

- (i) Inspected 143 service stations and 30 bunds (a secondary enclosure, typically consisting of a wall or berm, which surrounds a tank or fluid-handling mechanism to contain any spills or leaks);
- (ii) Calibrated 1,518 fuel dispenser pumps at 135 service stations in Trinidad, and 187 dispenser pumps at eight (8) service stations in Tobago; and
- (iii) Inspected 11 CNG stations.

Measurement

- (i) Measured 100 crude sales shipments;
- (ii) Blended 36 crude oil Royalty Lease Evaluation (RLE) samples and 208 RLE samples; and
- (iii) Calibrated and performed Lease Automatic Custody Transfer (LACT) on 18 gas meters, 29 condensate meters and 39 LACT units.

Project Evaluation

Certified Verification Agents approval was granted to the following upstream operators

- NGC – Beachfield condensate storage and compression facility project;
- EOG – Parula compression on Pelican Platform;
- BGTT – Hibiscus PLQ and compressor module structure modification and installation;
- EOG – Oil Bird compression project (structure and process verification); and
- bpTT – Juniper development project.

Other project related work included:

- Review of approximately seven (7) Environmental Impact Assessments;
- Risk Assessments for various projects;
- Attendance at regulatory meetings;
- Hazard and Operability Studies; and
- Site visits.

Loss Control Related Matters

Several accidents (primarily from the upstream sector) were investigated during the period including:

- Upstream – injuries to personnel and small fires;
- Refinery and Petrochemicals – fuel spillage;
- Storage and Marketing – release of gases, fuel spillage and Fuel found in abandoned underground tank at C. Medford Service Station, Chaguanas; and
- Pollution Investigation – cases of oil spillage and major oil spill at La Brea.

Statistical Analysis and Data Management

- (i) Developed an electronic web based management system called the Incident Management Regime to assist with the review and analysis of incidents.

Emergency and Disaster Management

Assisted the Oil Spill Response Limited of Florida to clean up a Tier 3 oil spill on the south western coastline.

In addition, the Pipeline and Oil Loss Section evaluated the following drills:

- bpTT Emergency Drill – Port of Spain;
- bpTT Emergency Drill – Galeota;
- Repsol Emergency Drill – Manzanilla;
- Repsol Incident Command System Drill;
- Atlantic LNG Security Drill; and
- Petrotrin Emergency Drill– Trinmar.

National Disaster Risk Reduction Committee No. 4

- (i) Represented the MEEA at monthly meetings of the National Disaster Risk Reduction Committee No. 4 hosted by the Office of Disaster Preparedness and Management.

National Hydrocarbon and Chemical Spill Contingency Plan Committee

- (i) Attended seven (7) meetings of the re-convened National Hydrocarbon and Chemical Spill Contingency Plan Committee;
- (ii) Attended 28 Sub-Committee No. 4 meetings to develop plans for the following:
 - Surveillance, Trajectory Modelling;
 - Fingerprinting and Environmental Sensitivity Index Mapping;
 - Incident Command System (ICS);
 - Emergency Operations Centre;
 - Chemical Spill Contingency Plan; and
 - NOSCP;
- (iii) Examined former NOSCP versions and updated the Plan to incorporate a new Incident Management System similar to the United States ICS format; and
- (iv) Conducted two (2) site visits for the NOSCP survey.

Chemical Approvals

- (i) Approved 336 applications for chemicals including degreasers, solvents and corrosion inhibitors for various uses in the Petroleum and Petrochemical Sectors.

Research and Development

Conducted research and development to prepare new Codes of Practice Guidelines and Plans which included the following:

- Chemical Management Plan;
- National Oil Spill and Chemical Response Plan revisions and Implementation Plans;
- Drill Cuttings Management Plan;
- Guidelines for Compensation for Seismic Operations;
- Code of Practice for RTWs; and
- Soil Remediation Guidelines.

TECHNICAL DIVISIONS

ENERGY RESEARCH AND PLANNING DIVISION

The Energy Research and Planning Division (ERPD) is structured to undertake its functions through inter-disciplinary Teams which perform specific roles related to various aspects of development in the Energy Sector. One of the primary areas of focus is policy development, implementation and research. Another, is the provision of secretariat support to strategic committees, for example, the Standing Committee on Energy and the Trinidad and Tobago Extractive Industries Transparency Initiative. The Division is also the focal point for the many international organisations which the MEEA is engaged with to support global energy development.

Achievements for Fiscal Year 2014

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 deliberate and make recommendations on strategic energy related issues which are brought to its attention. The objective of the SCE is to ensure that the energy sector operates in an effective, efficient and transparent manner. The ERPD provided support to the SCE throughout the review period as follows:

- Notified members of dates, times and venues for SCE meetings;
- Prepared minutes for all SCE meetings;
- Prepared copies of SCE minutes and presentations prior to meetings;
- Prepared Cabinet Notes based on the recommendations of the SCE, and followed up on the relevant Cabinet decisions;
- Monitored and reviewed all SCE decisions, and took necessary action to facilitate and support the implementation of said decisions; and
- Maintained an electronic and hard copy database with a record of all actions and decisions taken by the SCE.

Work Permit Advisory Committee

The Division also represents the MEEA on the Work Permit Advisory Committee (WPAC) of the Ministry of National Security (MNS) which is chaired by the Permanent Secretary of that Ministry. The WPAC's responsibility is to advise the MNS and make recommendations regarding applications for work permits for non-nationals applying to work in Trinidad and Tobago. The MEEA reviews work permit applications for the energy sector by examining the justifications provided by applicants on the need for such personnel, the availability of locals for these positions, and the gaps in qualification, experience and competence between local and foreign applicants. In fiscal 2014, over 1,800 work permit applications were processed. About 30% of these related to maritime positions in seismic vessels contracted by upstream companies to conduct 3D seismic surveys of deep-water acreage.

Renewable Energy and Energy Efficiency

In fiscal 2014, the ERPD continued to develop a framework to facilitate the promotion of renewable energy (RE) and energy efficiency (EE), in keeping with the Government's thrust to mitigate climate change (as a signatory to the Kyoto Protocol), and to conserve the country's finite petroleum resources. Important areas of focus were the development of a regulatory environment, and education and awareness. In addition, an application was made to the Green Fund to access funding for the conduct of a Wind Resource Assessment Programme.

Renewable Energy Grid Interconnection

One of the main barriers to the development of the country's renewable energy resources is the lack of a supporting legal and regulatory framework for RE power generation. To address this issue, an Inter-Agency Committee was established in September 2014 to develop a Feed-In Tariff (FIT) Policy that would allow for grid interconnection for renewable electricity generators in Trinidad and Tobago. The FIT Policy is intended to incentivise the connection of RE power generators to the National Grid. The policy would also inform the review and amendment to the Trinidad and Tobago Electricity Commission Act and the Regulated Industries Commission Act for the inclusion of RE.

Inter-American Development Bank-Assisted Sustainable Energy Programme

The Sustainable Energy Program (SEP) was undertaken in respect of a policy-based loan agreement between the GORTT and the Inter-American Development Bank (IDB) in 2011. The IDB engaged the services of an International Consultancy Consortium to provide the MEEA with policy and technical support in the development of an SEP which outlines specific policies and activities aimed at promoting the deployment of RE and the implementation of EE measures. In July 2014, the ERPD hosted a Close-Out Ceremony at Crowne Plaza to mark the completion of this Technical Assistance with the IDB. The final report entitled, “*A Unique Approach for Sustainable Energy in Trinidad and Tobago*”, was later published by the IDB and can be accessed via the MEEA’s webpage¹.

CARICOM Energy Week

Based on a mandate from Caribbean Community (CARICOM) Energy Ministers arising from the 35th Meeting of the Council for Trade and Economic Development (COTED) in 2011, CARICOM Energy Week (CEW) was held during the second week of November, 2013. This event is intended to provide a regional platform for increased awareness about energy matters, given the critical importance of energy to economic development. CEW activities included the official launch of the Programme, and the launch of the RE and EE Education Project. The Education Project involved the installation of Photovoltaic Systems and Solar Stills in 21 selected secondary schools, and a teacher training programme aimed at equipping teachers to impart RE and EE education. As part of the engagement with the contractor which undertook the installations (Tohmatsu Technologies) workshops were held with the students to introduce the technologies and equip them with the capacity to utilise the systems. The launch ceremony included speeches by the Minister of Planning and Sustainable Development and the Head of the Energy Programme of CARICOM. There was also a competition amongst the secondary schools at the event.

¹ Link: <http://www.energy.gov.tt/wp-content/uploads/2016/08/A-Unique-Approach-for-Sustainable-Energy-in-Trinidad-and-Tobago.pdf>.

National Energy Communication Campaign and Solar House

The MEEA's National Energy Communication Campaign "*My Energy, My Responsibility*" was launched on 17th September, 2012. This initiative was undertaken in order to increase the public's awareness of the energy sector, promote energy efficiency, and introduce the concept of renewable energy. In fiscal 2014, TT \$4,680,000 was spent on this programme on television infomercials; radio advertisements; print media; outreach and awareness activities at schools and in communities; and participation in events such as the San City Green Expo, the National Institute of Higher Education, Research, Science and Technology's (NIHERST's) Sci-TechKnoFest, the National Council of Indian Culture's Divali Nagar Expo, and CARICOM Energy Week. On 5th June, 2014, the Campaign won an award at the Environmental Management Authority's Green Leaf Awards for landmark achievement in the field of environmental sustainability.

To support the MEEA National Energy Communication Campaign, Cabinet approved funding in fiscal 2014 under the Public Sector Investment Programme (PSIP) for the construction of a Model Solar House to promote greater public awareness on RE and EE. This initiative had its genesis in a visit by representatives of the MEEA to the Solar House in Bridgetown, Barbados. Further, research was conducted by the regional consultancy firm Rostant DDB, which showed that the sole regional provider with the expertise to develop the Model Solar House was the consultant who constructed the Solar House in Barbados. A decision was taken to build a similar house in this country utilising the services of the said contractor at an estimated cost of TT \$945,000.00.

International Renewable Energy Agency

Trinidad and Tobago became a member of the International Renewable Energy Agency (IRENA) on 15th February, 2014. IRENA was established in January 2009 in Bonn, Germany, and is an intergovernmental organisation committed to promoting widespread and increased adoption and the sustainable use of all forms of renewable energy.

Trinidad and Tobago joined with 132 other IRENA members (including CARICOM counterparts Antigua and Barbuda, Belize, Grenada and St. Vincent and the Grenadines) as a signatory to the IRENA Charter, which is intended to translate into key benefits to member countries including:

- Opportunities to partner with other IRENA members to foster innovation and green technology development for both local and international markets;

- Support for the development and implementation of appropriate incentive mechanisms for the penetration of green technologies in Trinidad and Tobago;
- Opportunities to collaborate with other members to explore financing options for RE projects;
- Provision of access to resource assessments and technical support for the conduct of resource assessments locally; and
- Capacity building opportunities for locals in all aspects of RE.

Wind Resource Assessment Programme

Consistent with the MEEA's thrust to promote the use of RE to reduce Greenhouse Gas emissions and to diversify the local energy mix for power generation, a Green Fund (GF) application to source funding in the sum of TT \$36,288,194 for the 3-Phase Wind Resource Assessment Programme (WRAP) was submitted by the UWI on 26th May, 2014. The main objective of the WRAP was the selection of candidate sites for the establishment of wind energy projects.

Energy Services Company Certification Committee

An Energy Services Company (ESCO) Certification Committee was launched in February 2012 to set criteria and standards for, and to certify energy service companies engaged in the conduct of energy audits. The Committee completed a draft implementation framework in July 2014, and the services of an international consultant were being procured to assist with the finalisation of the document for inclusion in a Finance Bill for debate in Parliament. The specific incentives for which the implementation framework was being developed are contained in the Finance Act No. 13 of 2010. The major incentive relates to a 150% Tax Allowance for the expenditure incurred by any company which engages an ESCO for the design and/or installation of energy savings systems in the company.

Energy Trends, Research and International Relations

Quarterly Cabinet Note: 'Oil and Gas Review'

The ERPD prepares an Oil and Gas Review for the information of Cabinet on a quarterly basis outlining the average rates of crude oil production, exploration activity and prices of local and benchmark crudes; natural gas production and sales; LNG production; petrochemical production and prices; and refinery throughput and gross margin. Quarterly reviews were submitted for each Quarter in fiscal 2014.

Bilateral/International Relations

During the period October 2013 to September 2014, the MEEA continued to strengthen ties with foreign Governments and entities. The MEEA achieved this by signing MOUs with foreign Governments, hosting foreign delegations on tours of the Trinidad and Tobago Energy Sector, and attending meetings abroad to maintain Trinidad and Tobago's membership in key International Energy Organisations. The ERPD acted as the Ministry's focal point for these collaborations.

Execution of Memoranda of Understanding

Two MOUs were signed during the period under review. The first was signed on 28th July, 2014 between the Republic of Trinidad and Tobago and the Republic of Haiti on Cooperation in the Field of Energy, and the second was executed between the MEEA and the National Energy Administration of the People's Republic of China.

Trade Mission to Suriname

The MEEA accompanied the Energy Chamber of Trinidad and Tobago (ECTT) on its fourth Trade Mission to Suriname during the period 15th and 21st June, 2014. The timing of this Mission coincided with the 1st Suriname International Mining, Energy & Petroleum Conference and Exhibition (SURIMEP 2014), which was held in Paramaribo from 17th to 19th June, 2014. Participation by the MEEA provided an enabling and facilitative environment for the ECTT in meeting its strategic objectives to promote the growth and development of local businesses and foster regional energy interdependence.

Hosting of the National Defence College of Nigeria

During the period 3rd to 10th May, 2014, the MEEA in conjunction with the Ministry of National Security hosted 21 students from the National Defence College (NDC), Abuja on a study tour entitled “Oil and National Development in Trinidad and Tobago: Lessons Learned for Nigeria”. The tour generated interaction between major stakeholders in the Energy and Defence sectors. The delegation attended meetings and presentations during their visit to the offices of the MEEA, NGC, Petrotrin, and the National Energy Skills Centre (NESC).

Attendance at Latin American and Caribbean Energy Organization Meetings

Trinidad and Tobago is a member of the Latin American and Caribbean Energy Organization (OLADE) and the MEEA represents the GORTT at the meetings of this body. The ERPD, as the MEEA’s liaison for OLADE, attended the Regional Energy Integration Forum 2013; Meeting No. 80 of the Directive Committee of OLADE; the 43rd Meeting of the Council of Experts of OLADE; and the 43rd Ministerial Meeting in Punta Cana, Dominican Republic from 25th to 28th November, 2013, as well as the 81st Meeting of the Directive Committee held in Quito, Ecuador on 1st and 2nd April, 2014. At these meetings, the work of the Executive Secretariat was reviewed, and various items were discussed including energy integration, the interconnection of the Latin American electricity sector and vulnerability analyses of countries such as Haiti.

Attendance at Community of Latin American and Caribbean Countries Meeting

Trinidad and Tobago participated in the Second Meeting of Ministers of Energy of the Community of Latin American and Caribbean Countries (CELAC) at the Montego Bay Convention Centre, Montego Bay, Jamaica on 24th and 25th October, 2013. The Trinidad and Tobago delegation was headed by H.E. Rev. Dr. Iva Gloudon, High Commissioner for the Republic of Trinidad and Tobago to Jamaica.

Hosting of Gabonese Delegation

A delegation from the Gabonese Republic travelled to Trinidad and Tobago to participate in a tour of the Trinidad and Tobago energy sector. The delegation was hosted at the offices of the MEEA, NGC and Petrotrin from the 13th to 18th October, 2013 for meetings and presentations on the sector.

Public Sector Investment Programme (PSIP)

The ERPD is charged with the responsibility of monitoring those MEEA projects which fall under the PSIP, to ensure that they are consistent with the respective Cabinet approved budgets. The funding for these projects is tracked through the Development Programme Estimates of the MEEA, and site visits are undertaken to determine the degree of project completion in order to access such funding. The following projects were monitored by the Division during fiscal 2014:

- Development of New Industrial Sites:
 - *Union Industrial Estate* – This estate was being considered for a number of potential industries including a major Methanol and Di-Methyl Ether plant to be established by a consortium that included Mitsubishi Chemicals of Japan and a local entity. During the review period, NE had completed detailed designs for drainage work, and tenders for this work were being evaluated. Approximately 91 households were identified for relocation from the estate, with the process estimated to take two (2) years.
- Development of New Port Facilities:
 - *Galeota Port Phase 1A* – On 5th September, 2014 the Galeota Port Phase 1A was officially opened by the NEC. The port is comprised of 529 m of quay wall, which accommodates five (5) berths, four (4) for use by general vessels and one (1) for use by the Coast Guard. The port has a new 1.2 km long access road, 2.79 hectares of reclaimed land, with 3.2 hectares of existing back-land. A fishing facility was also constructed for the community as part of the project.
 - *Galeota Port Phase 1B* – Further funding in the sum of TT \$71 million was approved by Cabinet Minute No. 199 of 30th January, 2014 for the operationalisation of the Galeota Port. The major items of work included were: upgrade of the power supply; upgrade of the water supply; installation of fire pumps and a fire detection system; office accommodation; paving of the port apron; and warehousing.
 - *Galeota Port Phase 2* – Funding in the sum of TT \$15 million was also approved for the conduct of a consultancy for preliminary design for expansion of Galeota Port.

- *Brighton Port Study* – In August 2013, Cabinet approved funding in the sum of TT \$10.94 million for the conduct of a planning and evaluation study by NE to determine the spatial requirements and port facilities required at Brighton Port in order to serve new energy industries being established at La Brea.
- **Liquid Fuel Pipeline Project:**
 - In 2007, Cabinet agreed that the NGC should construct a liquid fuel pipeline network and related infrastructure (petroleum storage facilities and top loading gantry) for the distribution of liquid petroleum fuels from Pointe-a-Pierre to Caroni, and an 8-inch pipeline for jet fuel from Caroni to Piarco at an estimated cost of TT \$575 million, in order to improve the security of supply to these two (2) locations and to minimise the congestion on the roads from RTWs. In September 2014 Cabinet agreed to a revised cost of TT \$1,105.47 million for the project due to changes in the design, costs associated with the acquisition of the right of way for the pipeline, and to achieve full compliance with regulatory agencies. By the end of fiscal 2014 the project was 95% completed.

Extractive Industries Transparency Initiative

The tri-partite Cabinet-appointed 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 2014.

In fiscal 2014, the TTEITI Secretariat undertook a number of initiatives which significantly advanced EITI implementation in the domestic energy sector. These included the following:

- *Validation* – During the validation process, an application was made to the EITI Board (by the TTEITI Steering Committee) requesting an extension of Trinidad and Tobago’s Validation deadline to 28th February, 2014 in order to allow the Committee to complete four (4) remedial actions centred around agreeing on a clearer definition of the term “material payments and revenues”, and, the identification of all companies which made material payments to ensure that all such companies participated in the reporting process. The EITI Board gave Trinidad and Tobago until 1st May, 2015 to do so. By the end of 2014, the EITI Board was satisfied that sufficient corrective action had been taken in respect of

these four (4) steps, and the granting of Compliant Country status was expected early in 2015.

- *Publication and dissemination of the second TTEITI Report and Stakeholder Engagement*
– In accordance with EITI standards, the second TTEITI Report (i.e. for fiscal 2012) was published on 30th September, 2014. As a result, TTEITI outreach sessions aimed at increasing the awareness of the EITI process within its main stakeholder groups (civil society, the public sector and the energy sector) focused on the findings of the two (2) published EITI Reports and ways in which the data could be used by civil society to promote and advocate for better transparency and accountability.

Given the importance of stakeholder engagement in EITI implementation, the TTEITI Steering Committee conducted and participated in three (3) major conferences as follows:

- (i) In February 2014, the TTEITI Steering Committee partnered with the UWI, the World Bank and the IDB to conduct a six-day Civil Society Organisation (CSO) Training Course regional workshop on, “*Understanding the Extractive Industries in Latin America and the Caribbean*”. Presentations were made by members of the Pontifical Catholic University of Peru, the Revenue Watch Institute (Natural Resource Governance Institute), the UWI and TTEITI Steering Committee on different aspects of the extractive industries and EITI implementation.
- (ii) In February 2014, the TTEITI Steering Committee hosted Trinidad and Tobago’s first workshop on contract transparency as part of the Trinidad and Tobago Energy Conference 2014. Dr. Susan Maples, an international expert on contract law and disclosure, delivered the feature address.
- (iii) In June 2014, the UWI together with bpTT conducted a conference entitled, “*Creating a Culture of Transparency: Revenue Reporting*”. The TTEITI Steering Committee hosted a plenary session during this conference, the theme of which was, “*The Status of Transparency Initiatives in Trinidad and Tobago*”. The topics discussed included expected challenges to expanding EITI coverage in Trinidad and Tobago, the role of the EITI in a participatory democracy, and sustainable natural resource management.

In addition to participating in the aforementioned conferences, the TTEITI Steering Committee organised a workshop with national Community Based Organisations and a contingent from Publish What You Pay, an international civil society consortium. The TTEITI Steering Committee also arranged a visit to the fence line community of Mayaro to engage residents in discussions about the EITI.

The TTEITI Steering Committee also hosted a series of outreach sessions with Non-Governmental Organisations, CSOs and tertiary institutions to promote awareness of the TTEITI and the findings of the first two (2) EITI Reports. In addition, its Youth Advisory Committee (YAC) remained active in 2014, meeting on a regular basis to discuss ways to engage the nation's youth. The YAC also conducted an outreach session with tertiary level students during the review period.

- In 2014, the TTEITI Steering Committee continued to exhibit its willingness to embrace creativity and be innovative in its approach to EITI implementation. In this regard, the following were undertaken:
 - (i) Adoption of a vision to be the EITI Champion for the Caribbean Region, and to seek ways and means to spread the EITI message to other countries in the hope of recruiting new members to the EITI movement. The Secretariat successfully applied for a United Kingdom Prosperity Fund grant to undertake a project which aimed to further introduce the EITI to other countries rich in natural resources from the region, namely Jamaica, Guyana and Suriname; and
 - (ii) Development of effective strategies for capacity building among stakeholders through a targeted communication campaign and a series of outreach events.

RESOURCE MANAGEMENT DIVISION

The mandate of the Resource Management (RM) Division is to manage the nation’s hydrocarbon resources, and its mission is to ensure the timely and sustainable development of the country’s petroleum resources and reservoirs. The Division’s core functions include:

- Management of Competitive Bid Rounds;
- Management of Oil and Gas Audits including:
 - a. National Non-Associated Natural Gas Reserves Audit; and
 - b. National Crude Oil Reserves Audit;
- Optimising Production including:
 - a. Cross Border Unitisation;
 - b. Oil Production Forecasting; and
 - c. Enhanced Oil Recovery (EOR).

The RM Division is divided into two main sections – Exploration and Production Planning and Acreage Management – and their main functions are summarised in Table 6 below.

Table 6: Resource Management Division’s Main Job Functions

Exploration and Production Planning section, responsible for:	Acreage Management section, responsible for:
1. The technical evaluation of open and idle acreage, including making acreage available for competitive tender;	1. Reviewing annual production and reservoir performance with the aim of optimising economic recovery from fields;
2. Recommending strategies and policies with respect to underutilised and open acreage;	2. Evaluating company development plans with respect to optimisation of oil and gas reservoir performance through cross-functional teams;
3. Participation in and/or leading cross functional bid round teams;	3. Developing and recommending policies and strategies to optimise production acreage (EOR schemes);
4. Planning and delivering ad hoc technical projects;	4. Executing technical projects as assigned such as Gas and Heavy Oil Audits and Open Acreage Audits;
5. Participating in meetings with external organisations for the purposes of developing upstream strategies and networking; and	5. Reviewing and validating oil/gas reserves annually, including oil production forecasting; and
6. Providing technical support to the Ministry charged with the Foreign Affairs portfolio on various matters, for example, cross border and law of the sea issues.	6. Ensuring the appropriate use and maintenance of technical data.

Achievements for Fiscal Year 2014

Management of Competitive Bid Rounds

2013 Deepwater Bid Round

The Division compiled data packages for the 2013 Deepwater Competitive Bid Round, promoted the Bid Round to local and international companies, and responded to related queries by interested parties. The Division also served on the Committee for the Prequalification and Technical Evaluation of bids, as well as on several sub-committees charged with secretariat duties.

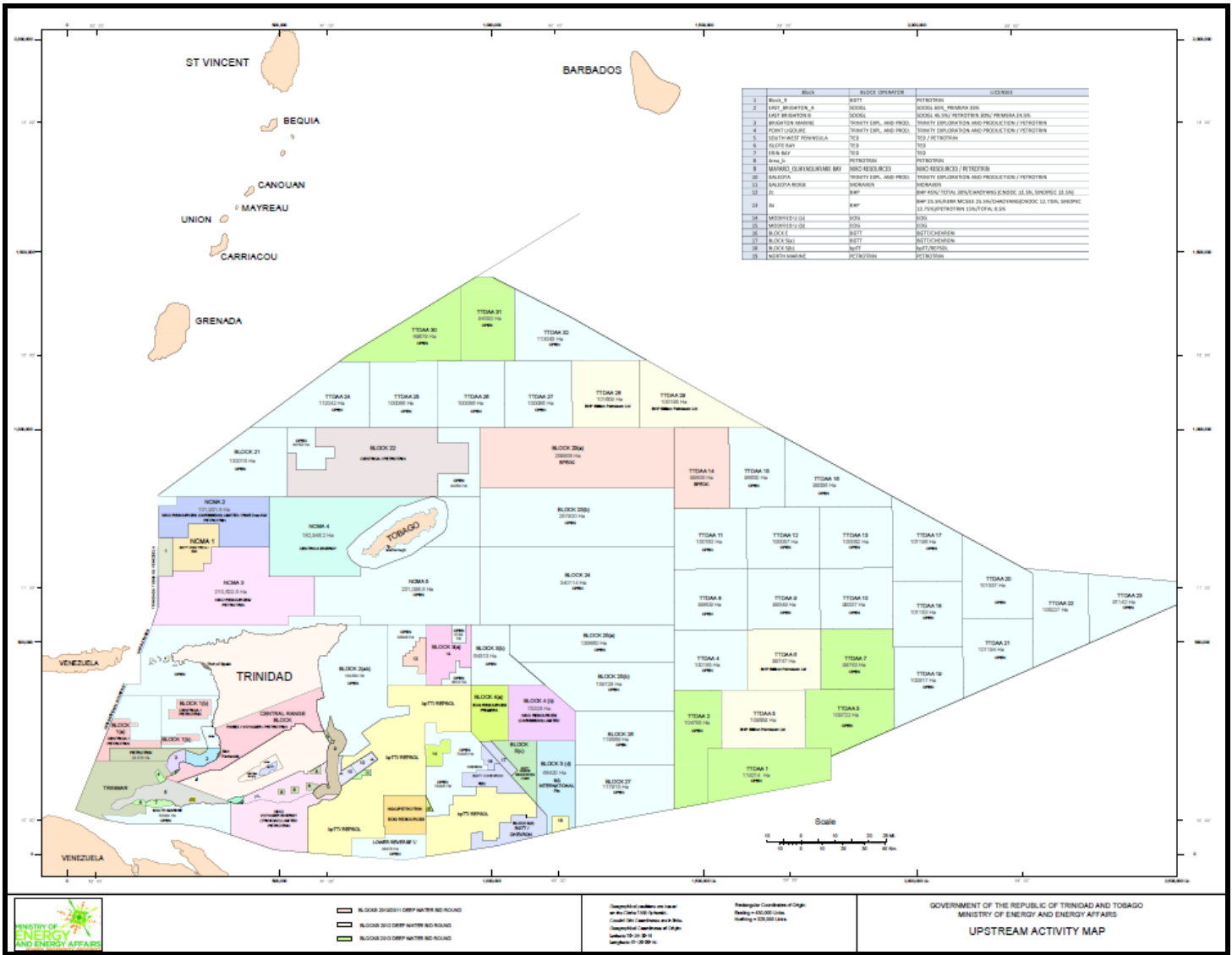
In August 2013, the MEEA launched the 2013 Deepwater Bid Round with six (6) offshore Blocks (TTDAA 30, TTDAA 31, TTDAA 1, TTDAA 2, TTDAA 3, and TTDAA 7) on offer (highlighted in green in Figure 1). At the close of the Bid Round in March 2014, a total of three (3) bids were received for two (2) of the six (6) Blocks that were originally on offer as follows:

- TTDAA 1: None
- TTDAA 2: None
- TTDAA 3: BHP Billiton/BG International and Repsol
- TTDAA 7: BHP Billiton/BG International
- TTDAA 30: None
- TTDAA 31: None

The successful bidders were:

- Trinidad and Tobago Deep Atlantic Area 3 (TTDAA 3): BHP Billiton Petroleum (International Exploration) Pty Limited and BG International Limited.
- Trinidad and Tobago Deep Atlantic Area 7 (TTDAA 7): BHP Billiton Petroleum (International Exploration) Pty Limited and BG International Limited.

Figure 1: Upstream Activity Map for Trinidad and Tobago



2013 Onshore Bid Round

The Division also compiled data packages for the 2013 Onshore Bid Round, promoted the Bid Round to local and international companies, responded to related queries by interested parties, and served on the Committee for the Prequalification and Technical Evaluation of bids, as well as on several sub-committees charged with secretariat duties.

The MEEA opened the 2013 Land Bid Round on 16th May, 2013, with a deadline for the submission of bids on 31st October, 2013. Three (3) Blocks were available for bid – the Rio Claro, St Mary’s and Ortoire Blocks (see in Figure 2 for the location of these Blocks and Table 7 for a summary of their characteristics). Eleven (11) bids were received from six (6) companies for the three (3) Blocks on offer. In February 2014, the successful bidders were announced as follows:

- *Rio Claro Block*: Lease Operators Limited
- *St. Mary’s Block*: Range Resources Trinidad Limited
- *Ortoire Block*: Touchstone Exploration Inc.

Figure 2: Trinidad and Tobago Onshore Bid Round Blocks

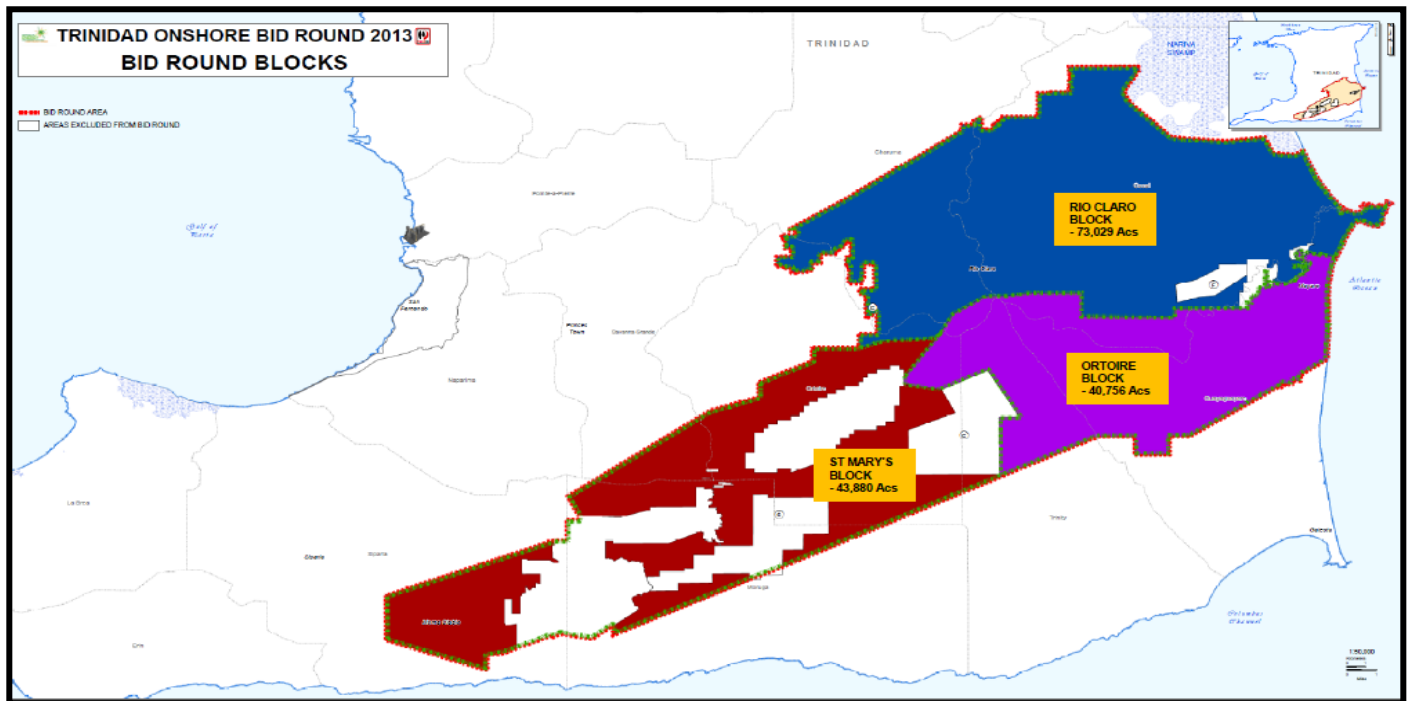


Table 7: Trinidad and Tobago Onshore Block Details

Block	Area (acres)	Description
Rio Claro	73,029	East of Petrotrin's Barrackpore field and south of the Central Range Block which is under Exploration via an E&P Licence.
St Mary's	43,880	Southeasterly Block lying east and on 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

Members of staff of the RM Division were also assigned to manage, provide quality assurance and ensure that all data required was supplied to the consultant in respect of the National Non-Associated Natural Gas Reserves Audit.

The audit of Non-Associated Natural Gas Reserves for year-end 2013 was initiated in March 2014 with the engagement of the Ryder Scott Company of Houston, Texas as a consultant. The company conducted onsite reviews of data which had been supplied by operating companies. The MEEA provided data for open areas and for LNG exports, and NGC provided a domestic gas demand outlook. The project was successfully completed in July 2014 and the main results of the audit are shown in Table 8 below.

Table 8: Results of Year End 2013 Independent Non-Associated Natural Gas Audit

Year End	Proven (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
2013	12,240	5,526	6,116	23,866	39,867

* BCF – Billion Cubic Feet

Optimising Production

Oil and Condensate Production Forecasting

The Division provided oil production forecasting data to the Ministry of Finance to facilitate the computation of royalty estimates for the preparation of fiscal budgets. These forecasts are determined using decline curve analysis, and production trends for companies and their respective fields. The Division also reviewed companies' work programmes to understand future operational plans and possible impacts on production. The major sources of information for those forecasts which were done during the review period included Annual Technical Meetings, Coordination Committee Meetings, Technical Committee Meetings, Oil and Gas Reserves Audits Review Meetings, monthly production data contained in Energy Bulletins, and well production data collected by the Division.

Enhanced Oil Recovery

EOR refers to the implementation of techniques used to increase the amount of crude oil which can be recovered from an oil reservoir. EOR includes the injection of water, steam and carbon dioxide into various oil reservoirs to promote oil displacement. The Division's role is to approve and monitor all EOR activities undertaken in the country.

There are currently 11 active enhanced and secondary oil recovery projects in Trinidad and Tobago. These include two (2) waterfloods, seven (7) steamfloods and two (2) Water Alternating Steam Projects.

For 2014, the average volume of oil production from EOR projects was 4,857 bopd, down 193 bopd from the previous year. Table 9 below shows a summary of the companies and fields that undertook EOR projects for the period under review.

Table 9: Companies Engaged in EOR and Their Respective Fields

Waterfloods			
Company	Field	Project	Comments
Repsol	Teak	Waterflood	Inactive
Petrotrin	Main Field	8011 Waterflood	Active
	Catshill	CO-30, N sand EOR 39 and 40	Inactive
	Trinity	EOR 27	Inactive
	Pt fortin	Cruse 'G'	Inactive
	Forest Reserve	EOR14	Inactive
	Fyzabad	Forest I and II	Inactive
Trincan	Morne Diablo	Morne Diablo	Active
Steamfloods			
Petrotrin	Guapo	GU T1	Active
	F.Reserve	UMLE EOR47 ,48	Active
	Central Los Bajos	CL T1	Active
	Parrylands	EOR37, 38, 41	Active
	Cruse E/Area IV	EOR 46,35,42	Active
	North Palo Seco	PST1	Active
	New Steamflood	EOR 49, 50, 51,52	Active
CO² injections			
Petrotrin	Forest Reserve	Zone 5	Inactive
		Middle Field	Inactive
		Exp CO ² Cyclic	Inactive
		UCWE	Inactive
		Phase 1 East	Inactive
	Oropouche	CO ² flood	Inactive
Water Alternating Steam Projects			
Petrotrin	Apex quarry	ASQ T1	Active
	Palo Seco	Bennett Village	Active

New Enhanced Oil Recovery Projects

Range Resources Trinidad Limited applied to conduct two (2) additional waterflood projects which included an expansion of the Morne Diablo pilot waterflood and a waterflood in the Beach Marcelle Incremental Production Sharing Contract (IPSC) area. Petrotrin also submitted a request to conduct two (2) new steam injection projects in the Forest Reserve field. These four (4) new EOR projects were expected to be approved during 2015.

COMMERCIAL EVALUATION DIVISION

The role of the Commercial Evaluation Division (CED) is to conduct the commercial and fiscal evaluation of Trinidad and Tobago's hydrocarbon and downstream energy-related projects in order to ensure that value and returns to the nation are optimised throughout the life of the contract/agreement.

Achievements for Fiscal Year 2014

Production Sharing Contract Negotiations

- Conducted negotiations as a part of the team for the execution of PSC with BHP and Repsol for the Deep Water Block 23 (b) which was executed on 5th November, 2013.
- Conducted negotiations as a part of the team for the signing of an extension to the Block 2 (c) PSC on 26th November, 2013 with BHP Billiton, Chaoyang Petroleum and the NGC. With this amendment, the contract terms have been extended for a further five-year period from 22nd April, 2021 – 2026.

Review of the Petroleum Fiscal Regime

The CED provided fiscal analysis and secretariat support to the Petroleum Fiscal Review Committee (PFRC). The PFRC was established in March 2013 and given the mandate to review and make recommendations in respect of the fiscal regime for the petroleum sector in order to ensure the country's competitiveness, and propose measures which would stimulate exploration and development in land and marine areas.

The Division also represented the MEEA on the PFRC to propose new fiscal measures to stimulate exploration and development activities in the sector. These measures were approved and became effective as at 1st January, 2014 as follows:

Investment Tax Credit

An Investment Tax Credit was introduced with effect from 1st January, 2011, under the Supplemental Petroleum Tax regime. This incentive allowed companies to claim 20% of the expenditure on development activity for mature fields and EOR projects as a credit against their Supplemental Petroleum Tax liability. The credit was, however, only available

for use in the financial year in which the expense was incurred and any unused tax credit could not be carried forward or backward to another financial year. To ensure the continuity of these activities and to increase new investments, Finance Act No.4 of 2014 allowed the unused tax credits to be carried forward for one (1) year.

Capital Allowances

Capital allowances refer to fiscal mechanisms which permit the early recovery of investments. The capital allowances for the upstream energy sector were simplified as follows:

a. Exploration

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

b. Development

The grant of a first year allowance of 50%, a second year allowance of 30%, and third year allowance of 20% on expenditure applicable to both plant and machinery (tangible) and the drilling of wells (intangible) expenses.

c. Workovers and Qualifying Side-tracks

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

d. 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 was increased from 25% to 33.3%.

Onshore Bid Round 2013

The CED evaluated the competence of each the companies to finance on-going and prospective oil and gas projects for the Onshore Bid Round 2013.

Deepwater Competitive Bid Round 2013

The CED was specifically responsible for evaluating the Government's Profit Share submitted by the respective bidders, and making recommendations to the Technical Team in respect of the 2013 Deepwater Competitive Bid Round.

Block 2 (c) Crude Oil Marketing Arrangements

The CED monitored and evaluated the agreement between the MEEA and BHP Billiton Marketing Inc. whereby the latter would act as the sole agent for the marketing and sale of Government's lifting entitlements under the Block 2 (c) PSC. This monitoring and evaluation is to ensure that the Government's account is credited accurately and in a timely manner.

Assignments

During the period under review, the CED was responsible for determining the financial competence of the assignees for six (6) PSCs as follows:

- (i) The transfer of 30% of Total's working interest in Block 2 (c) and its 8.5% in Block 3 (a) to the NGC for US \$473 million. The transaction was effective 1st January, 2014.
- (ii) Niko Resources Limited sale and purchase agreement for the sale of its 25% interest in Block 5 (c) to a subsidiary of the British Gas Group (BG) for gross proceeds of US \$62 million. As a result, BG has a 100% working interest in Block 5 (c).
- (iii) bpTT's assignment of 70% working interest and operatorship to BHP for Block TTDA 14.
- (iv) BHP's acquisition of 70% working interest and operatorship of Block 23 (a), leaving bpTT with a 30% interest.
- (v) BHP's assignment of 35% of its interest in Block TTDA 5 to BG.
- (vi) BHP's assignment of 35% of its interest in Block TTDA 6 to BG.

CONTRACTS MANAGEMENT DIVISION

The focus of the Contracts Management Division (CMD) is the development and management (i.e. monitoring and compliance) of all contracts between the GORTT/MEEA and all oil and gas operators. The Division's core function is to act as the single point of contact for each of the major operators such as BHP, bpTT, BGTT, and to provide multi-disciplinary business and technical expertise to these companies as necessary. The Division is also responsible for determining the Minister's Share of Profit Oil and Gas, performing royalty computations, and undertaking other related financial obligations.

The key roles of the CMD are:

- Management of all contracts with respect to cost recovery, cost tracking, cost benchmarking, data confidentiality, calculation of profits, royalties and cost streams, and marketing arrangements;
- Execution of PSC Audits;
- Appraisal of exploration and development well programmes, and field development plan review and approval in conjunction with other Divisions;
- Interfacing with LNG and Gas Exports Division and Commercial Evaluation Division;
- Administration of the technical aspects of contracts e.g. drilling, workovers, completions, well testing work programmes;
- Providing input required from existing technical and operation sections to finalise approvals;
- Management of PSCs and E&P Licences with regard to compliance with local content requirements and the NOSCP; and
- Monitoring levels of crude oil production.

Achievements for Fiscal Year 2014

Operators

The following companies operated under E&P Licences during the period under review:

- Petrotrin – Lease, Farmout and Incremental Production Service Contracts Operatorships, Joint Ventures and Trinmar;
- bpTT;
- BGTT – Central Block;
- New Horizon Trinidad and Tobago;
- Trinity Exploration and Production Limited;
- Beach Oilfield Limited;
- Massy Energy Resources Limited;
- Sinopec Overseas Oil and Gas Limited Antilles Trinidad Limited – East Brighton;
- Touchstone Exploration Inc.;
- Voyager;
- Mora Oil Ventures Limited;
- EOG – SECC Block;
- Repsol; and
- Advance Oil Company (Trinidad) Limited.

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

- AMOCO Trinidad Gas BV – Block 5 (b);
- BGTT – Blocks 5 (a), 5 (b), 5 (c), 6, 6 (b), 6 (d), NCMA 1 and Block E;
- BHP – Blocks 2 (c) and 3 (a), TTDA 5, TTDA 6, TTDA 28 and TTDA 29;
- bpTT – Blocks 23 (a) and TTDA 14;
- Centrica Energy – Blocks 1 (a), 1 (b), 22 and NCMA 4;
- EOG – Blocks 4 (a), U (a) and U (b);
- NIKO Resources – Blocks NCMA 2, NCMA 3, 4 (b), Guayaguayare (Shallow and Deepwater) and Mayaro-Guayaguayare Bay; and
- West Indian Energy Group Limited – Central Range Block (Shallow and Deep) and Cory-Moruga D E F Block.

The following is a summary of the drilling, workover, production and geological studies undertaken by operators under PSCs and E&P Licences for the fiscal period under review.

A total of 80 wells were drilled comprising of 73 development wells and seven (7) exploration wells. Drilling activity during fiscal 2014 was fairly comparable with that of the previous fiscal period, during which a total of 86 wells were drilled including 81 development wells and five (5) exploration wells.

A total of 208 workovers were performed, with the majority comprising recompletions (111), conversions (39), sand controls (21) and repairs (19). This represents a small increase of three percent (3%) when compared to fiscal 2013, during which a total of 201 workovers were performed with the majority comprising recompletions (92), conversions (32), abandonments (30) and sand controls (20).

Total crude production in fiscal 2014 was 29,472,128 barrels of oil at an average of 80,677 bopd, representing a marginal decline (of 0.2%) from production in the previous fiscal year which totalled 29,536,940 barrels of oil at an average of 80,923 bopd. This marginal decline resulted despite increased production levels from Petrotrin's Farmout and IPSC Operators.

Several operators underwent changes in management and subsequently had their names changed. These were:

- Ten Degrees North and Bayfield Energy Resources were acquired by Trinity Exploration and Production Limited;
- Trinidad Exploration Development was renamed as Beach Oilfield Limited;
- Neal and Massy Energy Resources became Massy Energy Resources Limited;
- Primera Oil and Gas Limited became Touchstone Exploration Incorporated; and
- Parex Resources (Trinidad) became WIEGL.

The operational activities of each individual operator for the 2014 fiscal period are outlined below.

Petrotrin

Land Operations

Drilling

In fiscal 2014, a total of 17 development wells were spudded by Petrotrin. With respect to footage, a total of 40,946 feet were drilled in 313 rig-days. The wells drilled during the review period were located in the Parrylands, Guapo and Forest Reserve fields. These wells mainly targeted the Lower Morne L'Enfer Sands, Lower Cruse Sands, Morne L'Enfer Sands, Upper Morne L'Enfer Sands, Upper Cruse Sands and Middle Cruse Sands. Of the 17 wells which were spudded during the fiscal year, 12 were completed.

Workovers

Petrotrin performed 82 workovers during fiscal 2014. These comprised 39 conversions, 29 recompletions, 11 sand controls, two (2) repairs, and one (1) abandonment. Conversion type workovers were those most performed by Petrotrin as a result of a steam EOR project.

Production

Petrotrin's production for fiscal 2014 totalled 4,757,992 barrels of oil at an average of 13,036 bopd. This represented a decrease of 390 bopd (3%) when compared to production in fiscal 2013 (which totalled 4,900,163 barrels of oil at an average of 13,425 bopd).

Marine Operations (TRINMAR)

Drilling

In fiscal 2014, Trinmar drilled only four (4) wells. These four (4) wells were all development wells. Two (2) were drilled in the Main Soldado fields, and the remaining two (2) were drilled as part of the South-West Soldado development project. Three (3) of these wells remain incomplete. The WSL Rig #110 was used by Trinmar for drilling three (3) of the wells, and the WSL Rig #152 for drilling the other. A total footage of 21,440 feet was drilled in 179 rig days.

Workovers

For the fiscal year 2014, activities focused on maximising production from existing wells. As a result, 24 workovers were performed which consisted of 10 repairs, seven (7) sand controls, six (6) recompletions, and one (1) abandonment. In addition to these, other workovers that did not require the MEEA's approval were undertaken as part of the West and Southwest Soldado Development Project. These included Gas Lift revamps, PCP revamps and other maintenance work.

Production

Trinmar's production for fiscal 2014 was 8,186,950 barrels at an average of 22,430 bopd. This represented an increase of approximately 5% compared to fiscal 2013, in which production totalled 7,824,505 barrels, or an average of 21,437 bopd. This increase in crude oil production could be attributed to several factors including the increased availability of the Eagle 2 facility in South West Soldado, an increase in the number of 'off' wells which were worked over, and continuous production from the S-895 (initial production, 500 bpd).

Lease and Farmout Operatorship

Drilling

During the 2014 fiscal period, 33 new wells were drilled by the Leased and Farmout Operators. Of these, 22 development wells were drilled by Leased Operators, and 10 development wells and one (1) exploratory well were drilled by Farmout Operators.

Workover

In fiscal 2014, 68 workovers were performed. Of these, 65 were performed by Leased Operators whilst the other three (3) were undertaken by Farmout Operators. All of the workovers performed for this period were recompletions.

Production

The Lease and Farmout Operators produced a total of 2,656,450 barrels of oil for the 2014 fiscal year, at an average rate of 7,278 bopd. The Lease Operators contributed a total of 2,370,524 barrels

(6,495 bopd) whilst the Farmout Operators produced a total of 285,926 barrels (783 bopd). This represented an increase of approximately 4% over that for the previous fiscal period, when 2,554,866 barrels were produced at an average rate of 7,000 bopd. For that period, Lease Operators accounted for 2,205,012 barrels of this production whilst the Farmout Operators produced 349,854 barrels of oil.

Incremental Production Service Contract

Drilling

During the 2014 fiscal period, five (5) new development wells were drilled, all of which were located in the Goudron field.

Workover

No workovers were performed during fiscal 2014 under IPSCs.

Production

The IPSC's produced 425,431 barrels of oil during the 2014 fiscal year, at an average rate of 1,166 bopd. This represented a significant increase of 88% when compared to the previous fiscal year's production of 226,775 barrels at an average rate of 621 bopd. The main contributors to this increase in production were the GY 667 and GY 670 wells, which were two (2) of the five (5) wells drilled in the Goudron field in fiscal 2014.

bpTT

Drilling

Three (3) development wells were drilled by bpTT during fiscal 2014. Two (2) drilling rigs were used: the Rowan Explorer II rig and the West Jaya TAD rig. The combined footage from these two (2) rigs amounted to 26,792 feet drilled in 329 rig days. No exploration wells were drilled during the period under review.

Workovers

In its effort to boost production, bpTT increased its workover activity in fiscal 2014 and a total of 12 workovers were completed. These comprised five (5) alterations, three (3) recompletions, two (2) repairs and two (2) abandonments.

Production

bpTT's total crude and condensate production for this fiscal period was 3,820,952 barrels of oil at an average of 10,468 bopd. This represented an increase of approximately 20% when compared to the previous fiscal period's production of 3,196,728 barrels of oil at an average of 8,758 bopd. This increase was as a result of the last two (2) Savonette wells (Savonette-06 and Savonette-07) beginning production.

New Horizon Trinidad and Tobago

Drilling

No wells were spudded by New Horizon Trinidad and Tobago during the period under review. As such, the drilled footage and rig days were both zero (0).

Workovers

Two (2) MEEA-approved work-overs (recompletions) were performed during the period under review.

Production

New Horizon Trinidad and Tobago's total crude production for fiscal 2014 was 30,698 barrels of oil at a daily average value of 84 bopd. This represented a small decline in production of 6% when compared to the previous fiscal period's production of 32,624 barrels at an average of 89 bopd. This decline was due to natural decline since no new oil was produced from workovers or new wells.

BHP

Drilling

BHP did not undertake any drilling activity during fiscal 2014.

Workovers

No workover activity was undertaken by BHP during fiscal 2014.

Production

BHP's total crude and condensate production for the 2014 fiscal period was 3,335,489 barrels of oil at an average of 9,138 bopd. This represented a decrease of approximately 15% when compared to the previous fiscal period's production of 3,911,307 barrels of oil at an average of 10,716 bopd. This decrease could be attributed to the natural decline of the producing reservoirs.

Massy Energy Resources Limited

During fiscal 2014, Neal & Massy Energy Resources Limited underwent managerial changes which resulted in a change of the company name to Massy Energy Resources Limited.

Drilling

During the 2014 fiscal period, no wells were drilled by Massy Energy Resources Limited in the Moruga West Block.

Workovers

During the review period, two (2) workovers were performed by the company. These were conversion jobs on the MW 140 and MW 50 wells, to convert them from producer to injector wells, as part of the implementation of a waterflood project.

Production

Massy Energy Resources Limited's cumulative production for fiscal 2014 was 40,275 barrels of oil at an average of 110 bopd. For the previous fiscal year, the cumulative production was 44,542 barrels of oil at an average rate of 122 bopd. This represented a decline of approximately 10%,

which could be attributed to the natural decline of the fields. The workovers performed did not significantly contribute to any increase in production.

West Indian Energy Group Limited

During fiscal 2014, there was a change in the Management of Parex Resources. The new entity was renamed the West Indian Energy Group Limited (WIEGL), and continues to operate in the Central Range and Cory-Moruga D E F Blocks. Activities in these Blocks are still primarily exploratory, so there was no production to report from its acreages.

Drilling

WIEGL drilled one (1) exploration well during fiscal 2014. This was the Jacobin-1 well drilled in the Cory-Moruga Block targeting the Lower Cipero-Herrera sands. The well is currently awaiting completion.

It should be noted that prior to transitioning to WIEGL, Parex Resources drilled one (1) exploration well in 2010, to a depth of 6,613 feet targeting the Lower Cipero Herrera sands. This well was the Snowcap-1 well, which was suspended after well tests were conducted on prospective zones. During the review period, a technical evaluation was being done to assess the prospective zones which had been tested.

Workovers

No workovers were performed during fiscal 2014 by WIEGL.

Production

As these Blocks were still in the exploratory phase, there was no production to report from its respective acreages.

Touchstone Exploration Inc.

Drilling

Touchstone Exploration Inc. drilled and completed two (2) development wells during the 2014 fiscal period. One (1) rig was used for the drilling of both wells – the WSL Rig #2 – and the total footage made was 6,290 feet in 19 rig days.

Workovers

Nine (9) MEEA-approved workovers were completed in fiscal 2014, comprising seven (7) recompletions and two (2) repairs.

Production

Touchstone Exploration Inc. produced 134,879 barrels of oil at an average rate of 370 bopd in the 2014 fiscal year. This represented a decrease of approximately 17% when compared to that for the previous fiscal period which amounted to 162,553 barrels of oil at an average of 445 bopd. The primary contributor to this decrease was a reduction in the level of development drilling performed by the company in fiscal 2014.

Sinopec Overseas Oil and Gas Limited Antilles Trinidad Limited

This operator undertook no drilling or workover activity during fiscal 2014, and there are no planned activities for fiscal 2015.

Centrica Energy

Drilling

Centrica Energy did not drill any wells during the 2014 fiscal year.

Workovers

No workovers were performed during this fiscal period.

Production

No crude production was recorded for Centrica Energy for this fiscal year, as its assigned acreages are new Blocks with no previous production history.

NIKO Resources

Drilling

NIKO Resources drilled no new wells during the 2014 fiscal year.

Workovers

No workovers were undertaken by the company during this fiscal period.

Production

None of the Blocks operated by NIKO Resources are in production. As such, there was no production to report from these acreages.

Trinity Exploration and Production Limited (operations formerly under Ten Degrees North)

Drilling

One (1) exploration well was drilled during fiscal 2014 utilising the WSPCL RIG#152. The footage drilled was 7,500 feet in 73 rig days.

Workovers

Seven (7) MEEA-approved workovers were completed in the 2014 fiscal year, all of which were recompletions.

Production

Trinity Exploration and Production Limited produced 203,903 barrels of oil over this fiscal period, at an average rate of 559 bopd. This represented an increase of approximately 3% as compared to the cumulative production reported for the 2013 fiscal year of 198,582 barrels of oil, at an average

rate of 544 bopd. The primary contributor to this increase in crude oil production was an increase in workover activity.

Beach Oilfield Limited

During fiscal 2014, Trinidad Exploration and Development Company Limited (TED) underwent a name change to Beach Oilfield Limited (BOLT). This occurred in October 2013 when all of the wells in the Bonasse Field (B1 to B11) which had been drilled by TED, and other assets comprising 72.5% interest in the south western peninsula acreage, was handed over to BOLT after approval had been granted by Petrotrin and the MEEA. As such, the activities of this new entity during the 2014 fiscal period are summarised below.

Drilling

No drilling activities were undertaken by BOLT during the 2014 fiscal year.

Workovers

No workover activities were conducted by BOLT during this fiscal period.

Production

BOLT's cumulative oil production for fiscal 2014 was 2,488 barrels at an average rate of seven (7) bopd. This was fairly comparable to the previous fiscal year for which the company's cumulative oil production was 2,044 barrels at an average rate of 6 bopd. This very small increase in cumulative crude oil production could be attributed to several non-MEEA approved workovers, including clean-out jobs, performed on six (6) of the existing Bonasse wells (B1, B2, B3, B4, B5 and B8). The low level of production overall from the existing Bonasse wells could be attributed to the fact that not only were these wells completed in tight sands with slow fluid intake, but low production levels could not be significantly improved by new oil production activities, such as drilling of new wells, or workovers to increase efficiency.

BGTT

Drilling

No drilling activity was undertaken by BGTT during the 2014 fiscal period.

Workovers

No workover activity was undertaken by BGTT during this period.

Production

The fields within these Blocks are not yet in production.

East Coast Marine Area

Drilling

Three (3) development wells were drilled in the East Coast Marine Area (ECMA) during the 2014 fiscal period. These were the Starfish-3 ST-2, Starfish-4-ST1 and Starfish-6 ST1. The footage drilled for these wells was 31,613 feet over 277 rig days. Drilling was accomplished using the Ocean Lexington rig.

Workovers

There was no workover activity undertaken in the ECMA during fiscal 2014.

Production

BGTT produced a cumulative total of 247,589 barrels of oil at an average rate of 678 bopd from the ECMA during the period under review. This represented a decrease of approximately 13% from the cumulative production in the previous fiscal year which amounted to 284,779 barrels of oil at an average of 780 bopd. The primary contributor to this decrease was the natural decline of the producing reservoirs.

Central Block

Drilling

No drilling activity was undertaken in Central Block during the 2014 fiscal period.

Workovers

No workover activity was undertaken in Central Block during this period.

Production

BGTT Central Block produced a cumulative total of 388,115 barrels of oil at an average rate of 1,063 bopd during the 2014 fiscal year. This represented a decrease of 9% when compared to a cumulative production of 428,543 barrels of oil at a rate of 1,174 bopd for the 2013 fiscal year. This drop in production could be attributed to the natural decline of the fields.

North Coast Marine Area

Drilling

There was no drilling activity undertaken in the North Coast Marine Area (NCMA) during the 2014 fiscal year.

Workovers

There was no workover activity undertaken in the NCMA during this fiscal.

Production

Production from the NCMA comprises dry gas. As such, no crude or condensate production is to be reported for this area.

Repsol

Drilling

Seven (7) wells were drilled by Repsol during fiscal 2014: four (4) development wells and three (3) exploration wells. Two (2) drilling rigs, the Rowan Gorilla III rig and the Seadrill West Freedom rig, were used for drilling. The combined footage drilled by these two (2) rigs amounted to 55,090 feet over 246 rig days, of which 30,969 feet and 123 rig days were related to development drilling, and 24,121 feet and 123 rig days related to exploration drilling.

Workovers

Five (5) MEEA-approved workovers were conducted during the 2014 fiscal period. These included three (3) recompletions, one (1) stimulation and one (1) alteration.

Production

Repsol produced 4,140,731 barrels of oil in the 2014 fiscal year, at an average rate of 11,344 bopd. This represents a decrease of approximately 4% from the cumulative production of 4,329,322 barrels (at an average of 11,861 bopd) for the previous fiscal period. The primary contributor to this decrease was the natural decline of producing reservoirs.

Mora Oil Ventures Limited

Drilling

Mora Oil Ventures Limited (Moraven) undertook no drilling activity during the 2014 fiscal year.

Workovers

No workovers were performed by the company during this period.

Production

Total Moraven field production for fiscal 2014 was 102,412 barrels of crude oil at an annual average of 281 bopd. This represented a decrease of approximately 27% as compared to the previous fiscal, during which a total production of 139,443 barrels crude oil (at an average of 371

bopd) was realised. The decrease in oil production was due to the rapid decline from well #2 (Mora 2).

EOG Resources Limited

Drilling

EOG Resources Limited drilled two (2) development wells during fiscal 2014. The total footage accumulated was 7,456 feet drilled during 85 rig days. The wells were drilled using the Rowan Gorilla III Rig.

Workovers

No workover activity was performed by EOG Resources Limited during the 2014 fiscal period.

Production

EOG Resources Limited produced 540,071 barrels of oil at an average rate of 1,480 bopd during the 2014 fiscal year. This represented a decrease of approximately 16% from the cumulative production of 640,253 barrels at an average of 1,754 bopd for the previous fiscal period. The primary contributor to this decrease was the natural decline of producing reservoirs.

Trinity Exploration and Production Limited (operations formerly under Bayfield Energy)

Trinity Exploration and Production Limited acquired 100% of Bayfield Energy's Galeota Assets from October 2013. The activities of this new entity for 2014 fiscal period are summarised below.

Drilling

Trinity Exploration and Production Limited drilled two (2) wells during this fiscal period: one (1) development well and one (1) exploration well in the Galeota field, using the BEGL Slant #2 rig and the Rowan Gorilla III, respectively. Total footage drilled was 8,826 feet during 103 rig days.

Workovers

No MEEA-approved workovers were completed in the 2014 fiscal year.

Production

Trinity Exploration and Production Limited produced 432,624 barrels of oil in the review period, at an average rate of 1,185 bopd. This represented a 32% decrease in production when compared to that for the 2013 fiscal year which amounted to 640,253 barrels of oil at an average of 1,754 bopd. The decline in production could be attributed to the natural decline of the fields, downhole problems in the D-9 well, and generator issues in the Alpha well.

Advance Oil Company (Trinidad) Limited

Advance Oil Company (Trinidad) Limited is an independent operator which was granted an E&P licence on 24th January, 2005 to execute petroleum operations in the Moruga Block (Moruga North Acreage). The Minimum Exploration Work Programme stated in the E&P licence required that the operator drill one (1) exploratory well to a minimum depth of 4,200 feet in the Herrera Estate. To date, no drilling or workover activities have been undertaken in the Block since its assignment to Advance Oil Limited, and as such, no production levels could be reported from this Block.

Chevron-Texaco

Chevron-Texaco is currently a partner in PSCs for three (3) offshore Blocks on the East and South East Coast areas of Trinidad. These are Blocks 5 (a), 6 (b) and 6 (d). For all Blocks, the operator is partnered with BGTT. Blocks 5 (a) and 6 (b) are operated by BGTT and contain the Dolphin Deep and Dolphin fields, respectively. Both fields produce gas via the Dolphin 'A' platform.

Block 6(d) contains the cross-border accumulations of the Manatee field, straddling the Venezuela-Trinidad international boundary to the Southwest of Trinidad. The Venezuelan acreage has been designated as the Loran field. The Loran field is under concession to partners PDVSA (Venezuela) and Chevron (Global). The Trinidad acreage (Block 5 (d)) is contracted under a PSC to Chevron-Texaco and BGTT. Being the common entity on both sides of the border, Chevron has been selected to be the unit operator of the unitised Loran-Manatee field.

Negotiations were ongoing between the governments of the Republic of Trinidad and Tobago and the Bolivarian Republic of Venezuela during fiscal 2014, as well as between the various operating companies, in order to finalise agreements and treaties ahead of finalising a development plan for this unitised field.

LNG & GAS EXPORTS DIVISION

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

- Supply and Transmission;
- LNG; and
- Downstream Gas Utilisation groups.

The responsibilities and achievements of each of these sub-sections for fiscal 2014 are outlined below.

Supply and Transmission Group

The performance objective of the supply and transmission sub-section is to maintain a reliable natural gas supply/demand balance within the country throughout the year. Due to significant maintenance activities undertaken by many upstream oil and gas companies in recent years, the consistent monitoring and coordination of such activities which impact on the supply of natural gas to consumers became necessary. The subsection continued to carry out related activities during fiscal 2014 in order to ensure the achievement of its performance objective.

In this regard, the MEEA facilitated gas supply meetings which included representatives from NGC, bpTT, BGTT, Point Lisas Industrial Estate (PLIE) and Atlantic. Through these meetings, the MEEA was able to facilitate stakeholders in the:

1. Optimisation of upstream shutdowns;
2. Alignment of upstream and downstream shutdowns;
3. Volume neutral redistribution of gas supplies between Atlantic and PLIE; and
4. Contribute to proposals for compression and natural gas storage facilities.

LNG Group

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 possible actions to remedy any discrepancies in the LNG sales contracts to management. The group also advises management on the expected revenue from any LNG sales contracts being re-negotiated under new commercial terms. The performance objectives of the LNG Group are to monitor all of the LNG contracts

under the responsibility of the MEEA and to provide all analysis and recommendations within stated deadlines.

In fiscal 2014, the LNG Trains processed all the natural gas delivered, but production was restricted to below maximum capacity due to shortfalls in the contracted supply of natural gas and normal production cutbacks to facilitate equipment maintenance activities. Several issues in respect of under-pricing of LNG and Natural Gas Liquids cargoes were also identified and investigated, and the MEEA held discussions with various LNG marketing companies to address them. The Group also completed all cash flow and statistical analyses on exported cargoes from Trains 1- 4 as needed.

Downstream Gas Utilisation Group

The strategic objectives of the Downstream Gas Utilisation Group (DGUG) are to promote the development of downstream gas based industries/plants, and to improve energy efficiency in the major natural gas based downstream industries. In order to achieve these, the Group's Technical Policies and Development Initiatives for the short, medium and long term in fiscal 2014 included:

- Ensuring that gas intensive industries, such as petrochemicals and heavy industry, remained competitive and were encouraged to expand and modernise existing operations;
- Encouraging the adoption of technical and management best practice for improving energy efficiency at gas based industries;
- Implementing the Petrochemical Licence;
- Increasing the foreign direct investment in secondary and tertiary plants;
- Promoting the development of new industries and innovation;
- Fostering awareness and acceptance of new technologies in the sector; and
- Developing appropriate strategies to monetise the discovery of reserves of natural gas found in deep waters, which are classified as 'expensive' gas.

In fiscal 2014, the DGUG:

1. Provided technical and administrative support to the National Hydrocarbon and Chemical Spill Contingency Planning Committee;
2. Represented the MEEA on the "Downstream Team" also comprising members of the NGC and NE to review downstream energy project proposals by those entities involved in the

development of the Mitsubishi Gas to Petrochemicals Project in Union Industrial Estate, La Brea; and

3. Provided Chemical and Process Engineering support to the MEEA's working group for the development of the certification system for ESCOs in Trinidad and Tobago.

Natural Gas Production and Utilisation

Average daily gas production for fiscal 2014 was 4,104 million standard cubic feet per day (MMscf/d), which was slightly lower than that for the previous fiscal of 4,122 MMscf/d (see Table 10 below, and Figures 3 and 4). This was despite the fact that maintenance activities and the optimisation of such activities continued into fiscal 2014. In addition, and notwithstanding the substantial decrease in production from bpTT, overall production remained relatively consistent due to higher yearly production from other operators.

Table 10: Average Natural Gas Production for Fiscals 2013 and 2014

Company	Natural Gas Production (MMscf/d)	
	Fiscal 2013	Fiscal 2014
bpTT	2,262	2,153
Trinmar	16	16
Petrotrin	5	4
EOG	489	550
BGTT	906	941
BHP	413	409
Repsol	31	31
Total	4,122	4,104

Figure 3: Natural Gas Production for Fiscal 2013

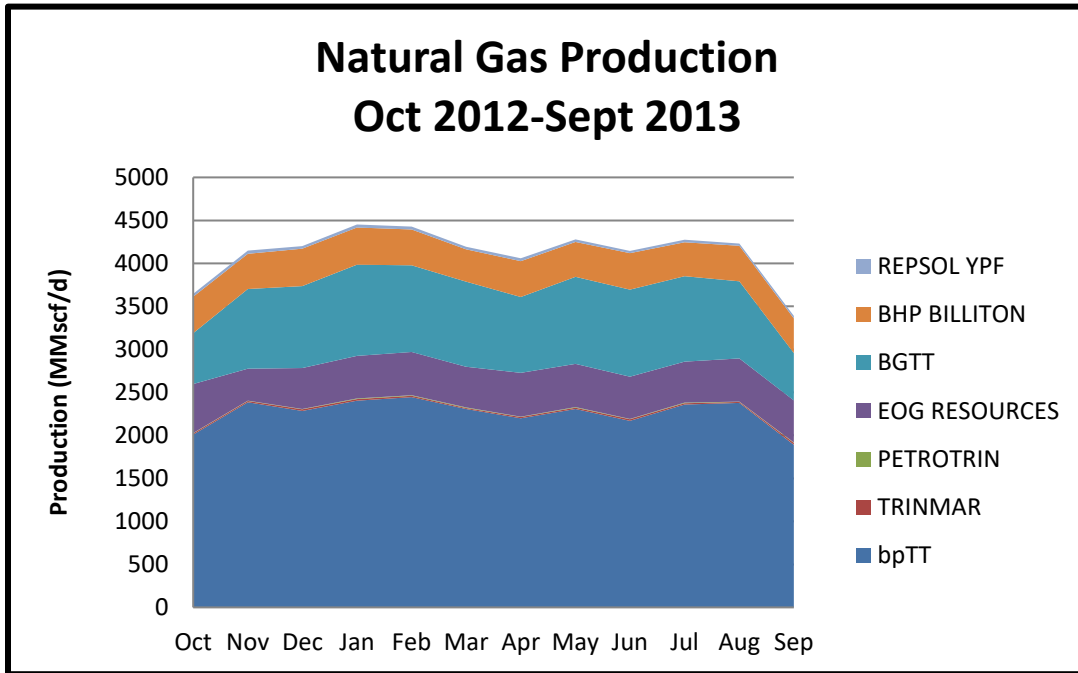
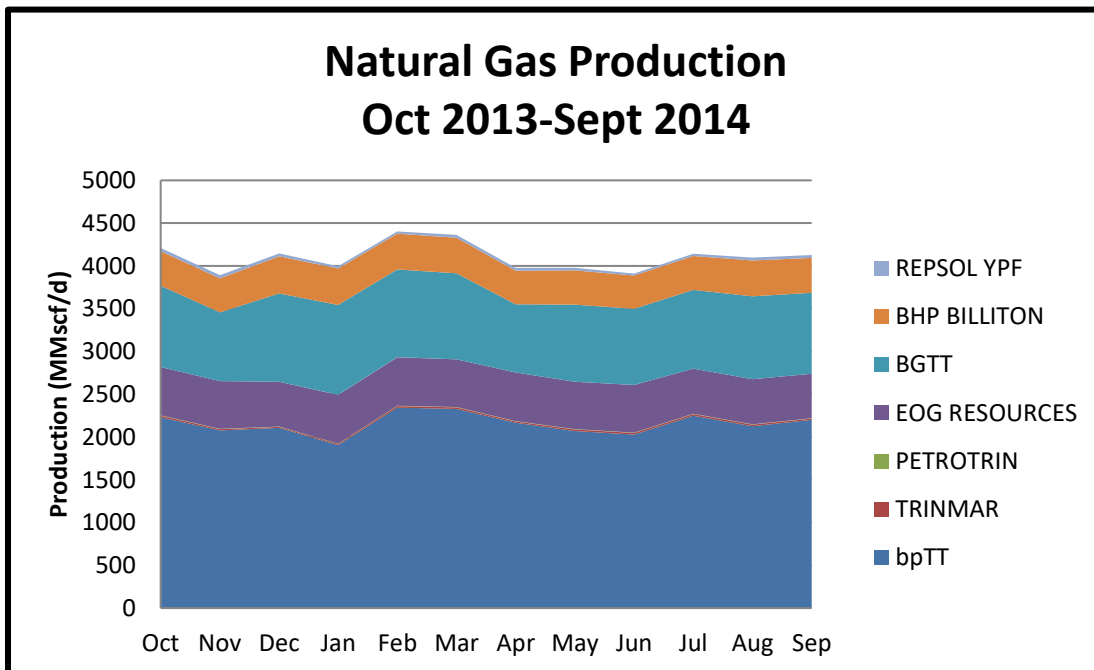


Figure 4: Natural Gas Production for Fiscal 2014



As with production, natural gas utilisation decreased marginally from 3,828 MMscf/d in fiscal 2013 to 3,817 MMscf/d in fiscal 2014 (Table 11). As in the previous fiscal period, gas utilisation was affected by supply constraints from upstream companies, and maintenance work carried out by downstream companies. Nevertheless, usage on a sector-by-sector basis remained fairly consistent.

Table 11: Average Natural Gas Utilisation for Fiscals 2013 and 2014

Sector	Natural Gas Utilisation (MMscf/d)	
	Fiscal 2013	Fiscal 2014
Power Generation	302	306
Ammonia Manufacture	539	558
Methanol Manufacture	522	548
Iron and Steel Manufacture	104	108
Liquefied Natural Gas (LNG)	2,227	2,169
*Others	134	128
Total	3,828	3,817

* "Others" include Refinery, Cement, Urea, Melamine Gas Processing, and Small Consumers.

LNG

During the review period, the country's output with respect to the production and export of LNG decreased as compared with that for fiscal 2013. This decrease was primarily due to increased downtime (particularly with respect to Trains 1 and 4) and ongoing gas supply issues.

In fiscal 2014, a total of 718,950,023 million British thermal units (MMBtu) of LNG was produced from Atlantic Trains 1 to 4 (Table 12), which represented a decrease of 21,631,668 MMBtu (or 2.9%) against LNG production for fiscal 2013 of 740,581,691 MMBtu.

Table 12: LNG Production for Fiscal 2014

Months	Production Cubic Metres (M ³)	Production (MMBtu)
Oct-13	2,868,935	64,405,670
Nov-13	2,291,664	51,472,925
Dec-13	2,776,643	62,317,234
Jan-14	2,515,803	56,478,152
Feb-14	2,727,981	61,211,942
Mar-14	2,967,905	66,597,418
Apr-14	2,465,127	55,395,930
May-14	2,525,026	56,697,546
Jun-14	2,489,501	55,867,819
Jul-14	2,900,791	65,105,744
Aug-14	2,762,621	61,969,647
Sep-14	2,738,228	61,429,996
Total	32,030,225	718,950,023

Total LNG exported for the fiscal period under review was 715,718,134 MMBtu, a decrease of 28,179,560 MMBtu (or 3.9%) from that of the previous fiscal period, which totalled 743,897,694 MMBtu.

The discrepancy between production and exports in fiscal 2014 was most likely due to an increase in the quantity of LNG held in Atlantic's storage tanks at the end of the year when 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).

The main export destinations for Atlantic's LNG in fiscal 2014 were (in descending order) Chile, Argentina, Spain, Brazil and Puerto Rico. Total revenue from LNG exports, Free on Board (FOB) Point Fortin, was US \$3,761,525,053 (a decrease of US \$81,217,415, or 2.2%, over the previous fiscal period). As a result of an improvement in the value of LNG, the FOB price for the review period was US \$5.2556 per MMBtu, US \$0.0899 higher than the price of US \$5.1657 per MMBtu for the previous Fiscal. The average wellhead price for Fiscal 2014 was US \$3.31 per MMBtu, US \$0.12 lower than the price of US \$3.43 per MMBtu in the Fiscal 2013.

Petrochemical Production and Exports

Most major gas based petrochemical plants reported lower actual production levels of Methanol, Ammonia, Urea, Urea-ammonium nitrate (UAN) and Melamine than those which were projected as a result of natural gas curtailment. Despite this, overall increases in production and export for fiscal 2014 (over those for fiscal 2013) could be attributed to decreases in overall downtime which usually arise from uncontrolled plant trips, plant turnarounds, or activities such as offline inspections and preventative maintenance.

During the review period, the country's Methanol production and export increased by 6% and 4% (respectively) over those levels reported for 2013. The country's Ammonia production and export also increased by 6% and 3% (respectively) over 2013 figures, and Urea production and export increased by 9% and 12% (respectively) over the corresponding period.

For fiscal 2014, the country's UAN production increased by 3% but export decreased by 8% when compared to those figures for fiscal 2013, while Melamine production and export decreased by 6% and 9% respectively.

These comparisons are shown in the Tables 13 to 19 below.

Table 13: Comparison of Methanol Production for Fiscals 2013 and 2014

Production (MT*)	Fiscal 2013	Fiscal 2014	% Variance
TTMC I	271,487	325,826	20%
CMC	444,804	451,411	1%
TTMC II	457,598	461,723	1%
MIV	504,082	485,633	-4%
Titan Methanol	666,162	709,937	7%
Atlas Methanol	1,399,150	1,492,875	7%
M5000	1,637,114	1,769,694	8%
Total	5,380,397	5,697,099	6%

* MT – Metric Tonnes

Table 14: Comparison of Methanol Exports for Fiscals 2013 and 2014

Export (MT)	Fiscal 2013	Fiscal 2014	% Variance
TTMC I	217,483	195,601	-10%
CMC	2,339,163	1,992,139	-15%
TTMC II	69,555	419,910	504%
Titan Methanol	710,396	696,733	-2%
Atlas Methanol	1,353,570	1,511,390	12%
M5000	797,163	864,097	8%
Total	5,487,330	5,679,870	4%

Table 15: Comparison of Ammonia Production for Fiscals 2013 and 2014

Production (MT)	Fiscal 2013	Fiscal 2014	% Variance
Yara	200,742	217,597	8%
Tringen I	369,123	371,899	1%
Tringen II	430,408	465,781	8%
PCS (1,2,3 & 4)	1,904,578	2,045,784	7%
PLNL	549,671	565,558	3%
CNC	463,310	508,769	10%
N2000	550,380	468,987	-15%
AUM (Net Ammonia)	66,511	181,037	172%
Total	4,534,723	4,825,412	6%

Table 16: Comparison of Ammonia Exports for Fiscals 2013 and 2014

Exports (MT)	Fiscal 2013	Fiscal 2014	% Variance
Yara	189,313	202,585	7%
Tringen I	327,297	390,543	19%
Tringen II	420,829	447,490	6%
PCS (1,2,3 & 4)	1,667,945	1,673,214	0%*
PLNL	539,384	584,453	8%
CNC	501,362	454,578	-9%
N2000	582,830	602,152	3%
Total	4,228,960	4,355,015	3%

* Less than 0.5%

Table 17: Comparison of Urea Production and Exports for Fiscals 2013 and 2014

Urea (MT)	Fiscal 2013	Fiscal 2014	% Variance
Production	489,178	533,445	9%
Exported	469,127	526,858	12%

Table 18: Comparison of UAN Production and Exports for Fiscals 2013 and 2014

UAN (MT)	Fiscal 2013	Fiscal 2014	% Variance
Production	1,109,474	1,147,195	3%
Exported	1,146,393	1,060,358	-8%

Table 19: Comparison of Melamine Production and Exports for Fiscals 2013 and 2014

Melamine (MT)	Fiscal 2013	Fiscal 2014	% Variance
Production	26,754	25,168	-6%
Exported	27,052	24,580	-9%

Status of Projects for Fiscal 2014

Methanol-Di-Methyl Ether Complex at Union Industrial Estate, La Brea.

In March 2013, CGCL was established by MGCC, MC and Massy to build and operate a 3,000 metric ton per day (MTPD)/1 million metric ton per year (MTPY) Methanol plant, and a 60 MTPD /20,000 MTPY Di-Methyl Ether plant at the Union Industrial Estate, La Brea. In March 2014, CGCL submitted an Environmental Impact Assessment report to the Environmental Management Authority in order to obtain environmental clearance for the project.

DOWNSTREAM AND RETAIL MARKETING DIVISION

The vision of the Downstream and Retail Marketing (DRM) Division is to be an innovative team, driving excellent service in petroleum product marketing industries, and the accurate collection of revenue from petroleum production and petroleum product marketing. Its mission is to facilitate the operation of petroleum product marketing industries and the collection of revenue from petroleum production and petroleum product marketing, through improvement of existing and creation of new systems, processes and procedures.

The Division's strategic objectives are:

- Facilitation of CNG Expansion and Expanded use of CNG in Domestic Transportation Sector;
- Administration of the Petroleum Production Levy and Subsidy Act;
- Administration of Marketing Licences for Petroleum Products;
- Administration of the Petroleum Impost;
- Monitoring the LPG market;
- Monitoring of Refinery Operations;
- Provision of Forecasts and Reconciliation of Royalties;
- Monitoring of Crude Oil Prices and Exports; and
- Monitoring of Revenue Collection from petroleum production and petroleum product marketing.

The Division's short, medium and long term plans for the period under review included:

- Issuing CNG Service Licences;
- Issuing CNG Marketing Licences;
- Implementing the new CNG price reduction and structure;
- Issuing the modernised Retail Marketing Licences (RMLs);
- Issuing the modernised Wholesale Marketing Licences (WMLs);
- Updating CNG Regulations and Licences; and
- Drafting LPG Regulations.

Achievements for Fiscal Year 2014

Review of Price Structure of CNG

The Division was instrumental in a price reduction and the creation of a new price structure for CNG, designed to make the fuel more attractive to consumers. The price reduction and new structure was approved in June 2013 but were awaiting implementation through an amendment via a Price of CNG Order.

Approval of the Modernised Wholesale and Retail Marketing Licences

The DRM Division worked on the modernisation of the WML and RML agreements. These agreements which were approved in August 2013 are subject to positive vetting by the Office of the Attorney General and licences were still being finalised by the MEEA and the AG's Office during the period under review.

Downstream and Retail Marketing Updates

Royalties

Production companies operating under E&P Licences pay royalties on the crude oil produced and natural gas sold to the GORTT. The Field Storage Value (FSV) method is used to calculate the royalties due from all companies except one, which uses the Fair Market Value (FMV) methodology. The FSV is the aggregate value of the petroleum products (gasoline, gasoil and fuel oil) made from a barrel of crude, from which a refining allowance is deducted. The FMV methodology, on the other hand, involves multiplying the volume of crude oil produced by its market price, then multiplying the result by the royalty rate to obtain the final royalty figure. Royalties are paid quarterly on the 21st of the month following the end of the quarter. Under the Petroleum Regulations, companies are allowed to pay royalties based on an estimate of liability which ensures that they meet the statutory deadline. A total of TT \$2.405 billion was collected for the 2014 financial year.

Subsidy/Levy

The Petroleum Production Levy and Subsidy Act Chapter 62:02 provides for the collection of a levy from oil producing companies, and for the payment of subsidies to wholesale marketing companies in respect of the sale of petroleum products (gasoline, diesel, kerosene and LPG) within

the domestic market. The subsidy is paid in the first instance from the petroleum production levy payable by the companies producing over 3,500 bopd, 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 the GORTT. For fiscal 2014, the total subsidy claimed by the wholesale marketing companies amounted to TT \$4,129,451,138.32 (a 7% decrease from fiscal 2013), while the levy paid by the oil producing companies increased by 2% (from fiscal 2013) to total of \$617,062,939.98 for fiscal 2014.

Retail Marketing

The MEEA regulates the distribution of petroleum products by wholesale marketers, retailers, peddlers and bunkers. A network of 154 service stations serves the driving public: 146 in Trinidad and eight (8) in Tobago. Six (6) companies conduct peddling operations in Trinidad. The service stations and peddlers obtain petroleum products from one of the two wholesale marketers – the NPMC or United Independent Petroleum Company Limited (UNIPET). There are five (5) bunkering companies currently operating in Trinidad and Tobago, and they are supplied by Petrotrin or other refineries within CARICOM. In August 2013, Cabinet agreed to approve revised Licences for wholesale and retail marketing operations for liquid petroleum fuels. This approval was granted in fiscal 2014, subject to positive vetting by the AG's Office.

For the fiscal year ending 30th September, 2014, the following activities were undertaken by the DRM Division in respect of retail marketing:

- Ensured that all fees for the renewal of retail marketing and peddlers licences were paid – the fees for the retail marketing of petroleum products were increased in the 2014 Budget, resulting in a total of TT \$435,000 being collected;
- Liaised with the HSE&M Unit to ensure that all service stations were inspected, to ascertain their level of HSE compliance; and
- Reviewed requests for the transfer of ownership and change of name of service stations, and informed persons in cases where documents were outstanding in order to complete the process.

CNG

As part of the Government's plan to accelerate the development of CNG as a major alternative vehicular fuel in Trinidad and Tobago, the following were achieved during the fiscal year:

Five Year Plan for the Development of CNG

In June 2013, Cabinet agreed to an investment of TT \$500 million by the NGC to implement the first Phase of a five-year plan for the development of CNG as a major vehicular fuel in Trinidad and Tobago. Phase I, which was to be completed within the first two (2) years of the Plan, entailed the construction of approximately 22 new CNG stations and 17,500 vehicle conversions to CNG. Phase II entailed the construction of 50 stations and 82,500 vehicle conversions over a three-year period, and was expected to cost approximately TT \$1.570 million. Cabinet also approved the reduction in the retail price of CNG from TT \$1.07 per litre gasoline equivalent (lge) to TT \$1.00 per lge.

A subsidiary company of NGC, the NGC CNG Company Limited (NGC CNG) was established in September 2013 and began operations in January 2014, to oversee the first phase of the CNG Plan. The DRM participated in the achievements of the NGC CNG as follows:

- Facilitated the execution of MOUs in May 2014 with both the NPMC and UNIPET outlining the terms and conditions for the respective companies with regard to the provision of CNG fuel station equipment installations, operations and dispensation; and
- Issued Requests for Proposals for mobile CNG refuelling equipment in August 2014 and for CNG fuel station equipment in September 2014, and evaluated tenders during fiscal 2014.

The NGC CNG committed TT \$126 million for the procurement of station equipment and \$8 million for the procurement of mobile units.

Petrotrin Refinery

The Petrotrin Refinery, located at Pointe-a-Pierre, is operated by state owned Petrotrin. The Refinery processes both indigenous and imported crude oil, and produces refined products both for the local market and for export to regional and international markets. In fiscal 2014, the refinery processed a total of 40,574,196 barrels of crude oil and produced 39,128,852 barrels of refined and

intermediate products (excluding refinery gas and loss). Crude oil imports amounted to 22,610,063 barrels, 10,132,370 barrels of petroleum products were sold on the local market, and 30,193,718 barrels of petroleum products were exported (see Tables 20 to 23).

Table 20: Refinery Throughput for Fiscal 2014

Unit	Throughput
Refinery Throughput (barrels)	40,574,196
Refinery Throughput (barrels per day)	111,162

Table 21: Refinery Output (barrels) for Fiscal 2014

Product	Quantity
Liquified Petroleum Gas	406,060
Motor Gasoline	7,621,135
Aviation Gasoline	17,272
White Spirits	-
Kerosine	4,238,169
Diesel/ Gas Oils	7,116,485
Fuel Oils	17,620,716
Lubes/Greases	-
Petrochemicals	-
Bitumen	233,511
Sulphur	23,190
Other Refined/Unfinished Products	1,852,314
Refinery Gas and Loss/(Gain)	1,445,344
TOTAL Refinery Output	40,574,196

Table 22: Crude Oil Imports (barrels) for Fiscal 2014

Crude Type	Quantity
Bijupira Crude	902,392
Lucina Blend	1,699,015
Ogeundjo Blend	9,109,139
Oriente	376,319
Urals/Russian Blend	4,331,968
Varandey Blend	742,491
Vasconia	5,245,137
Woodbourne	203,602
TOTAL Crude Oil Imports	22,610,063

Table 23: Product Sales (barrels) for Fiscal 2014

Product		
	Local Sales	Export Sales
Liquid Petroleum Gas	546,536	236,313
Premium Gasoline (95 UL)	296,689	2,690,226
Premium Gasoline (92 UL)	4,085,942	-
Premium Gasoline (UL Other)	-	1,109,287
Regular Gasoline	30,018	-
Platformate	-	-
Naphtha	-	-
Aviation Gasoline and Aviation Alkylate	731	588
White Spirit	-	-
Kerosine/Avjet	1,131,240	3,171,898
Gas Oils/Diesel	3,805,575	3,240,095
Marine Diesel	-	-
Fuel Oils	-	17,643,457
Lubes and Greases	-	-
Petrochemicals	-	-
Methanol	-	-
Bitumen	235,639	157
Sulphur	-	21,760
Other Refined and Unfinished Products	-	2,079,937
TOTAL	10,132,370	30,193,718

Petrotrin Gasoline Optimisation Programme

The Petrotrin Refinery faced many challenges in the refining of crude oil, including aging equipment; resulting plant integrity and reliability issues; process bottlenecks leading to the sale of unfinished, lower value products; and the implementation of more stringent product specifications globally. To remain viable Petrotrin considered various options for improvement, the most promising of which was an upgrade of the existing refinery, aimed at ensuring the production of larger quantities of higher quality petroleum products. Petrotrin's Gasoline Optimisation Program (GOP) was the first phase of this refinery upgrade designed to improve the profitability and competitiveness of the Pointe-à-Pierre Refinery through the following:

- Replacement of obsolete and inefficient equipment, thereby improving plant integrity and reliability;
- Reduction of the sale of unfinished, lower value products and increase in the sale of finished, higher value products; and

- Satisfaction of more stringent Gasoline Specifications such as:
 - Increased Octane;
 - Lower Benzene, Sulphur, Olefins and Reid Vapour Pressure; and
 - Elimination of Methyl Tert-Butyl Ether (MTBE).

The GOP was intended to enable the refinery to become a premier supplier of high quality environmentally friendly gasoline in regional and international markets. Benefits of the project include:

- Increased Gasoline Quantity:
 - Total from 24.7% to 30.7%
 - Elimination of unfinished products (Naphtha and Vacuum Gas Oil)
- Improved Gasoline Quality:
 - Increase in Motor Octane Number from 82.3 to 86.0
 - Reduction in benzene from 1.6% to 0.7%
 - Reduction in sulphur from 41 parts per million (ppm) to 8 ppm
- Improved Operations of the Pointe-à-Pierre Refinery
 - Energy efficiency and Environmental Compliance
 - Maintain throughput at 168 thousand barrels per calendar day
- Customer Satisfaction
 - Lower olefins in LPG
 - Elimination of MTBE

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 (FCCU); and
- Installation of Offsite Facilities and Upgrade of Utility Systems.

The cumulative progress of the GOP at 30th September, 2014 remained at 99.78%. The Acid Plant was brought online for commercial production on 29th October, 2013, and the Alkylation Unit was commissioned on 7th December, 2013. The close-out of construction contracts for Engineering, Procurement, Construction and Management work for the Utilities and Offsite continued

throughout the fiscal year. After operational concerns were addressed in June 2014, the Acid Unit was restarted in early July 2014. It was, however, brought down at the end of July 2014, due to mechanical issues. The plant remained down in September 2014 and the FCCU also remained shut down in September 2014. The Alkylation Unit remained shut down as well in September 2014, and could not restart until the FCCU was brought back online. The throughput of the FCCU was to be increased to conduct a test run, once the Alkylation/Acid Units were started up.

As at the end of Fiscal 2014, the approved budget for the GOP was TT \$9,112.26 million. Total GOP expenditure up to this point was TT \$9,085.00 million, of which TT \$19.70 million was incurred in fiscal 2014. The total commitment including expenditure on the overall GOP at end September 2014 was TT \$9,179.10 million.

MINERALS DIVISION

The Minerals Act Chapter 61:03 governs the regulation of the Minerals Sector in Trinidad and Tobago. In accordance with this piece of legislation, the Minister of Energy and Energy Affairs, under whose portfolio the mining sector falls, 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).

Achievements for the Fiscal Year 2014

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, and includes representatives of various Ministries/Departments and the Tobago House of Assembly. In fiscal 2014, the MAC achieved the following:

- Convened 12 meetings to address matters relating to mining and other quarrying related matters;
- Reviewed and made recommendations on new draft Regulations made under the Minerals Act, which were later approved by Cabinet and laid in Parliament in June 2015;
- Reviewed and made recommendations for the improvement of a new Green Paper on the Minerals Policy which received Cabinet's approval and was subsequently put-out for public comment and public consultation at venues in Trinidad and Tobago;
- Incorporated public comments into the Minerals Policy Green Paper;
- Produced a White Paper on the Minerals Policy which was approved by Cabinet and laid in Parliament; and
- Convened 16 meetings of the MAC sub-committee to address licensing issues.

Exploration and Development Section

In fiscal 2014, the Exploration and Development Section of the Division completed the following:

Exploration Surveys

- Conducted a 115-acre sand and gravel survey in the Melajo Forest Reserve, Matura which was 2/3 completed by end of the fiscal period;
- Conducted Reconnaissance surveys of three (3) limestone areas in the northern range of Trinidad (Heights of Guanapo and Cumaca) which were completed, and during which one (1) potential site of eight (8) acres was identified for quarrying (in the Heights of Guanapo);
- Conducted a reconnaissance survey of 10 acres of yellow limestone in the Plum Mitan area. The site was earmarked for allocation to the National Quarries Company Limited for the quarrying of yellow limestone;
- Conducted a reconnaissance survey of 70 acres for oil sands in Parrylands/Guapo area based on a request by the Ministry of Works and Infrastructure; and
- Conducted surveys in Tattoo Trace, Valencia (after which the sites were found to be unsuitable for quarrying because of the presence of a large number of squatters on the lands of interest).

Minerals Advisory Committee Secretariat

In fiscal 2014, the staff of the Minerals Division performed the functions of the secretariat for the MAC including development testing and refinement of operating procedures and record keeping methods of the MAC to ensure the efficiency of MAC operations. A Standard Operating Procedure Manual for the MAC was approved by members in August 2014.

Minerals Sub-Registry and Database Management

The Division engaged in the expansion of its data collecting functions with the assistance of the Internal Audit Unit, to capture data on production from the Minerals Sector through its quarry audit exercise.

Applications and Licences Processing

Twenty (20) applications for mining licences were processed by the Division. No new five-year Mining Licences were executed, however, since none of the applicants met all of the requirements necessary for the award of these licences.

Allocation of State Lands (Bid Rounds and National Interest)

- Awarded a 7.95-acre parcel of State lands in the Heights of Guanapo to Hermitage Limestone Limited for the purpose of quarrying limestone.
- Awarded a 29.65-acre parcel of State lands in Tapaná Road, Valencia to Premix Concrete Limited for relocation from Block G, Tapaná, Valencia, for the purpose of quarrying sand and gravel.

Operations Section

In fiscal 2014, the Operations Section of the Division completed the following:

Licence Monitoring

Conducted monitoring visits to 33 licenced quarry operations in Trinidad to ensure compliance with the terms and conditions of quarrying licences and the Minerals Act.

Minerals Audit

- Expanded mineral audit functions with the assistance of the Internal Audit Unit to capture data on production for the computation of royalties owed to the State.
- Conducted 71 mineral audit field visits.

Enforcement of Minerals Act and Regulations

Conducted 25 field visits to monitor illegal quarrying activities, and to investigate and address quarrying complaints.

Technical Policies and Development Initiatives in Fiscal 2014

Tables 24 to 26 below summarise the short, medium and long term plans of the Minerals Division for fiscal 2014, and give the relevant status of each initiative as at the end of the fiscal year 2014.

Table 24: Minerals Division Short Term Plans for Fiscal 2014

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.

Table 25: Minerals Division Medium Term Plans for Fiscal 2014

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 Draft Cabinet Note 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	Strategic Environmental Impact Assessments (SEIAs) 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 26: Minerals Division Long Term Plans for Fiscal 2014

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