



PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE FIFTH REPORT

**PETROLEUM COMPANY
OF TRINIDAD AND
TOBAGO LTD.
(PETROTRIN)**

**FOURTH SESSION, 10TH
PARLIAMENT**

**EXAMINATION OF THE AUDITED
FINANCIAL**

**STATEMENTS FOR THE YEARS
ENDED**

SEPTEMBER 30, 2008 - 2013

**ORDERED TO BE PRINTED BY
THE HOUSE OF
REPRESENTATIVES AND SENATE**



Public Accounts (Enterprises) Committee

The Public Accounts (Enterprises) Committee (PA(E)C) established under Section 119(5) of the Constitution of the Republic of Trinidad and Tobago is mandated to consider and report to the House of Representatives accordingly on:

“(a) the audited accounts, balance sheets and other financial statements of all enterprises that are owned or controlled by or on behalf of the state; and

(b) the Auditor General’s Report on any such accounts, balance sheets and other financial statements.”

Publication

An electronic copy of this report can be found on the Parliament website using the following link:

http://www.ttparliament.org/committee_business.php?mid=19&id=146&pid=25

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EXECUTIVE SUMMARY

The Fifth Report of the Tenth Parliament details the examination of the *Petroleum Company of Trinidad and Tobago Ltd. (PETROTRIN) on its Financial Statements for the years ended September 30, 2008 to 2013.*

The Committee recommends that PETROTRIN should:

- review the maintenance programme and administer the timely execution of scheduled maintenance on all assets;
- review the approach to project management;
- ensure that the Board intervenes at the earliest opportunity when a project shows signs of difficulties;
- establish a formal Project Management Office (PMO);
- develop a policy to govern conflict of interest;
- develop a mechanism to constantly track and measure the progress of projects at regular intervals;
- pay particular attention to project planning;
- conduct in-depth research on contractors before hiring them for projects;
- develop a comprehensive Compensation Policy for its stakeholders;
- develop a system that will ensure that Vacuum Distillation Units are mechanically turned around every 5 years; and
- immediately replace the trunk pipelines and flow lines.

Introduction:

Presents details of the establishment of the PA(E)C in the Tenth Republican Parliament, the changes in membership, the particulars of the meetings held with the PETROTRIN, a list of the Support Staff of the Committee and the Company profile of the PETROTRIN.

- Inquiry:** Provides details of the evidence, both oral and written given to the PA(E)C.
- Issues & Recommendations:** Lists the main issues; each with specific recommendations presented by the Committee, for the consideration of the Parliament.
- Appendices:** Presents the supporting Minutes of Meetings, Notes of Evidence and Responses received from PETROTRIN.

INTRODUCTION

The Committee

Establishment of Committee

The PA(E)C of the Tenth Republican Parliament was established by resolution of the House of Representative and the Senate at the sittings held on Friday September 17, 2010 and Tuesday October 12, 2010 respectively.

Changes in Membership

2. By resolution of the Senate made on December 10, 2013, Mrs. Camille Robinson-Regis, replaced Mr. Fitzgerald Hinds as a Member of the Committee and Mr. Chandresh Sharma replaced Mr. Herbert Volney by resolution of the House of Representatives made on July 11, 2014. Mr. Embau Moheni was replaced by Mr. Kwasi Mutema by resolution of the Senate made on March 3, 2015.

Committee Secretariat Support

3. The following members of staff served the Committee through the provision of procedural, administrative and research support services:

- Ms. Keiba Jacob - Secretary to the Committee
- Ms. Khisha Peterkin - Assistant Secretary to the Committee
- Mrs. Candice Williams-Garcia - Graduate Research Assistant
- Ms. Hema Bhagaloo - Parliamentary Intern
- Mr. Brian Lucio - Parliamentary Intern
- Mrs. Michelle Galera-Bleasdell - Administrative Support

Meetings

4. The public examinations of PETROTRIN were held on the following days:

- Tuesday February 19, 2013;
- Tuesday April 16, 2013;
- Wednesday December 11, 2013; and
- Tuesday January 20, 2015.

5. At those meetings, the Committee met with the following Officials of PETROTRIN:

Mr. Khalid Hassanali	-	President
Mr. Lindsay Gillette	-	Chairman
Mr. Rajkumar Bissessar	-	Chief Audit Executive
Mr. Aleem Hosein	-	Deputy Chairman
Mr. Reshard Khan	-	Director
Mr. Neil Bujun	-	Director
Mr. Surendra Soloman	-	Director
Mr. Mado Bachan	-	Vice-President, Refining and Marketing
Mr. Hemraj Ramdath	-	Vice President, Strategy and Business Development
Mr. Carl Mc Lean	-	Vice-President, Finance (Ag.)
Ms. Aneitha Bruneau	-	Manager, Financial Accounting
Mr. Jamaludin Khan	-	Vice-President, Exploration and Production
Mr. Jonathan Barden	-	Vice-President, Refining
Mr. Keith Ramnath	-	Vice-President, Human Resources
Mr. Ronald Huff	-	Chief Financial Officer
Ms. Gillian Friday	-	Manager, Corporate Communications
Ms. Radica Maraj Adharsingh	-	Corporate Manager, Law and Land Management (Ag.)
Dr. David Jackson	-	Chief Medical Officer
Ms. Francilla Roper-Arjoon	-	Manager, Information & Communications

		Technology
Mr. Ramish Boodoo	-	Manager, Planning and Business Support
Mr. Shyam Dyal	-	Manager, Health, Safety and Environment
Mrs. Deborah Persadie-Jones	-	Manager, Project Implementation

6. At the Committee's first meeting, the Chairman complimented PETROTRIN for its usual timely submission of its financial statements to Parliament. The Committee also discussed a number of issues including crude oil refining, the procurement process for the Gas Optimization Project (GOP), the Gas to Liquid (GTL) Project and project management. Due to time constraints, the Committee agreed to have PETROTRIN provide written responses to questions. The written responses were requested by letters dated February 27, 2013 and April 10, 2013.

7. At the Committee's second meeting, discussions continued on the GOP, the Fluidized Catalytic Cracking Unit (FCCU), the status of the Gas to Liquid Plant, a project management unit and the source of PETROTRIN's electricity.

8. The Committee agreed to a fourth meeting to ensure that the objective of the examination as stated in the new Standing Orders of the House of Representatives was being met. Standing Order 100(2) states "In the performance of its duties under paragraph (1) of this Standing Order the Public Accounts (Enterprises) Committee shall consider whether policy is carried out efficiently, effectively and economically and whether expenditure conforms to the authority which governs it."

9. PETROTRIN's third meeting with the Committee included discussion on the GOP, PETROTRIN's source of electricity supply, Completion of Projects, Budgetary Estimates, South-West Soldado Reactivation Project, requisite approval to increase expenditure, Bechtel, the Solvency of PETROTRIN, the Downturn of the Energy Market, Regional Markets and the Ultra-Low Sulphur Diesel Plant.

10. During the course of its discussions with PETROTRIN, the Committee felt it necessary to also meet with representatives from the Ministry of Energy and Energy Affairs as well as, representatives from the Investments Division, Ministry of Finance and the Economy, This was done to gain an understanding of the role of the two Ministries in the oversight of this state enterprise.

11. On Tuesday February 18, 2014 and Tuesday March 25, 2014 the Committee met with officials from the Ministry of Finance and the Economy and the Ministry of Energy and Energy Affairs.

12. Officials attending on behalf of the Ministry of Finance and the Economy were:

Ms. Margaret Yearwood	-	Director
Mr. Lester Herbert	-	Director Central Audit Committee
Mr. Denis Cox	-	Senior Investment Analyst
Ms. Chintamani Sookoo	-	Senior Business Analyst

13. Officials attending on behalf of the Ministry of Energy and Energy Affairs were:

Mr. Selwyn Lashley	-	Permanent Secretary
Mr. Leroy Mayers	-	Service Provider to the Office of the Permanent Secretary and former Permanent Secretary at the Ministry, Accounts Advisor to Office of the Permanent Secretary
Mr. Richard Oliver	-	Deputy Permanent Secretary
Ms. Indira Ramkissoon	-	Director of Legal Services
Ms. Azizah Baksh-Backredee	-	Senior Chemical Engineer-
Mr. Richard Jeremie	-	Chief Technical Officer
Ms. Heidi Wong	-	Senior Energy Analyst, Head - Commercial Division
Ms. Enid Donowa	-	Senior Energy Analyst in charge of

		Energy Research and Planning
		Division at the Ministry
Ms. Karinsa Tulsie	-	Chemical Engineer II

PETROTRIN's Profile

14. PETROTRIN is a limited liability integrated oil and gas company wholly owned by the Government of the Republic of Trinidad and Tobago (GORTT). Its principal activities are the exploration for, development of and production of hydrocarbons and the manufacturing and marketing of petroleum products.

15. The company was incorporated on January 21, 1993 to consolidate and operate the petroleum producing, refining and marketing assets of Trinidad and Tobago Oil Company Limited (TRINTOC) and Trinidad and Tobago Petroleum Company Limited (TRINTOPEC). In 2000, PETROTRIN acquired the assets of Texaco Incorporation in the joint venture Trinmar Limited, making Trinmar Limited a part of its Exploration and Production operations.

16. PETROTRIN operates in land and marine acreage across the southern half of Trinidad with offshore operations at Galeota in the Southeast and in the Gulf of Paria. The company is involved in the production and sales of high value petroleum products to the most stringent international specifications including liquefied petroleum gases, unleaded motor gasoline, avjet/ kerosene, diesel/heating oil, fuel oil, aviation gasoline and sulphur.

EXAMINATION OF PETROTRIN

17. In the course of receiving evidence from PETROTRIN officials, the following issues were highlighted:

I. Crude Oil Refining

The Committee was informed by PETROTRIN's officials that the refinery's capacity was 160,000 barrels per day of which forty per cent (40%) of crude input is from local sources, the remaining sixty per cent (60%) is imported. The current number of barrels refined per day is 155,000. For the fiscal year 2008 the company's throughput was 150,900 barrels per day; fiscal 2009, 149,900 barrels per day; fiscal 2010, 132,100 barrels per day; and fiscal 2011, 137,000 barrels per day. The drop in the refining for the year 2010 was attributed to the severe drought experienced in that year.¹

II. Gasoline Optimization Project (GOP)

The Committee noted that the purpose of the GOP was to improve the efficiency of the refinery. It involved the construction of five (5) new Plants at the Point-a-Pierre Refinery as follows:

- a) Fluid Catalytic Cracking Unit (FCCU) - to increase capacity and produce a better quality gasoline with improved octane ratings.
- b) Isomerisation Unit - to produce an environmentally friendly blending component to enhance the motor gasoline pool to make more hydrogen for the reaction processes.
- c) New Continuous Catalyst Regeneration (CCR) Platforming Unit - to maintain the company's ability to produce high octane gasoline, reduce cost and improve product yield and quality.
- d) New Alkylation Unit/Sulphuric Acid Regeneration Unit - to accommodate the increase feedstock generated by the upgraded FCCU.

¹ Oral evidence provided by Mr. Khalid Hassanali at the meeting held on Tuesday February 19, 2013.

- e) Offsites and Utilities (O&U) – to provide additional facilities for water treatment, steam generation, electrical power, air and nitrogen which are required to support the new units and to improve reliability of the existing plants.

PETROTRIN informed the Committee that the GOP was designed to increase the overall gasoline yield of the refinery, as well as improve the quality of the gasoline product in order to meet changing product specifications globally².

Members questioned the cost of the GOP. PETROTRIN officials indicated that the GOP cost US \$1.8 billion while the World GTL cost TT \$3 billion.

The Committee further questioned whether the five (5) plants comprising the GOP were operational. Officials informed Members that the cat cracker was taken out of service in early 2014 because the integrity of one of the fractioning columns was being questioned. However, Lloyd's of London was hired as an inspector and declared the column safe to restart. PETROTRIN was awaiting a report from OSH. The Acid and Alkylation Units were also shut down however, the Acid plant has restarted. The Alkylation would be restarted once the Cat Cracker was started.

Members requested a date when the Cat Cracker Unit would become operational. Officials informed Members that they were expecting the Report from the OSH Agency on Tuesday January 20, 2015. Once this Report was received, the Cat Cracker was expected to become operational by Thursday January 22, 2015.

Purpose and use of the Fluidized Catalytic Cracking Unit (FCCU)

The Committee questioned the purpose of the FCCU and was informed that it was a plant in the refining process which improved the value of the product being made. This

² Appendix II: Oral Evidence provided by Mr. Khalid Hassanali at the meeting held on Tuesday February 19, 2013.

plant was fed by Vacuum Gas Oil, which was produced from crude that was passed through the Topping Unit which was called the distillation column. The heavier product then went through a Vacuum Unit, which was sent for blending of Fuel Oil. The contaminants were removed via hydro treating, then the Vacuum Gas Oil went into the FCCU at high temperatures and a catalytic process was used. This process made various components such as LPG for further blending. It was a very complex operation, which added value to the crude that was put into PETROTRIN's overall refinery economics.³

Commission of the units comprising the GOP

The Committee inquired when the various units of the GOP would be completed and was informed that the FCCU was in its final stages of commission during the week of April 15, 2013. The Alkylation Plant and the Acid Plant were mechanically completed in 2011 however, those plants relied on the completion of the FCCU and was expected to be commissioned in May 2013.

Subsequently, at its meeting in December 2013, the Committee further questioned the status of the GOP and was informed that the FCCU, Alkylation Plant and the Acid Plant were all on stream and producing gasoline. Members asked whether the units of the GOP worked as projected and PETROTRIN officials responded that they were pleased with the products the plants were producing.

Benefits

The Committee inquired where PETROTRIN would be if the GOP had not been undertaken. PETROTRIN's response outlined the main benefits of the GOP as follows:

- Increase in the full-conversion capacity of the refinery from approximately 145,000 BPD to 168, 000 BPD;
- Increase in the gasoline yield of the refinery from 21% to 27%;
- Increase in the diesel yield of the refinery from 24% to 27%;

³ Appendix II: Oral evidence provided by Mr. Mado Bachan, VP, Refining and Marketing of PETROTRIN at the meeting held on Tuesday April 16, 2013.

- Improvement in the gasoline pool quality as follows:
 - Motor Octane Number (MON) increase;
 - Reduction in benzene content;
 - Reduction in sulphur content;
- Elimination of the sale of unfinished feedstock, such as Vacuum Gas Oil and Low Octane Naphtha, as these would now be converted into higher finished products;
- Improved energy efficiency of the refinery.

PETROTRIN expects to benefit from changing market trends and product quality within the region and this is expected to have a positive impact on PETROTRIN's bottom-line.⁴

Cost⁵

PETROTRIN indicated that there have been very significant cost and schedule overruns during the execution of the GOP, with total project cost escalating from US \$650M in 2006 to US \$1,480M in 2013. This had a negative impact on the project economics, as seen in the decline in the project's unfinanced Discounted Cash Flow Rate of Return (DCFROR) from 13.0% at the US\$650M project cost to 6.7% at the US\$1,480M cost.

The root causes of the cost overruns of the GOP were due to inadequate project management consultancy, poor construction, rework, and redesign of several process systems, many of which could have only been discovered during the commissioning phase. Furthermore, due to the Cost Reimbursable nature of some of the contacts, even for rework, the cost escalated as there was little or no incentive for the contractor to complete the job in a timely manner.⁶

⁴ Appendix III: Written response from PETROTRIN dated March 8, 2013.

⁵ Appendix I provides a detailed justification for the increase in expenditure for the GOP.

⁶ Appendix III: Written response from PETROTRIN dated March 8, 2013.

Management of increased cost of the GOP

The Committee queried who was responsible for managing the increased cost of the GOP. The Committee was informed that a steering committee chaired by the executive chairman at the time along with representatives from Bechtel and PETROTRIN was established to monitor the cost of the project. The Steering Committee on advice received from Bechtel, agreed to change the method of procurement for the project from a fixed price lump sum to a hybrid of a fixed price for design and a reimbursable for construction.

Method of Procurement

The method of procurement used for the Isomerization Plant (a unit of the GOP) was a fixed price lump sum with Bechtel as the project manager, and Flur International as the contractor. Subsequently, the remaining three plants were grouped together and Bechtel was appointed as project manager. The general procurement model used at that time was the cost reimbursable model. It was highlighted that Bechtel had two roles in this project, one as project manager and the other as contractor for the utilities (common facilities, pipelines, separators and vessels).

The officials from PETROTRIN informed the Committee that the methodology of cost reimbursable used for procurement in the GOP was unusual. Full front-end engineering design followed by a fixed lump sum was identified as the superior model to be used for projects at PETROTRIN.

PETROTRIN informed the Committee that the cost reimbursable model was not always appropriate. Additionally, the hybrid contracts used were also inappropriate as it led to an increase in expenditure. Furthermore, Bechtel's fast track method to tender items based on a thirty percent (30%) design was not the approach that should have been used.

Shortcomings of Bechtel in the management of the GOP

The Committee questioned the failure of Bechtel to properly manage the GOP and was informed that Bechtel hired a local firm ABT Engineering who had within its rank, members of Bechtel. PETROTRIN officials highlighted the cost reimbursable nature of the project as being very difficult to manage. The Committee was also informed that responsibility for the failure was to be shared between the project manager, Bechtel and the Steering Committee.

Post-mortem of the GOP

The Committee inquired whether there had been a post-mortem of the Gasoline Optimization Programme and was informed that a post-mortem was done in 2012 on the management process. However, the project was still ongoing.

III. PETROTRIN's Debt situation

The Committee questioned PETROTRIN's debt situation. Officials indicated that in 2010, the company inherited a debt of TT \$12 Billion. This debt was due to two (2) major projects which commenced under the previous administration, the GOP which cost US \$1.8 billion and the WGTL Project which cost TT \$3 billion.

Members then asked for details of the two bonds taken by PETROTRIN. Officials explained that two (2) bonds were used in 2007 to finance the GOP, the World GTL and the Ultra-Low Sulphur Plant. These bonds were valued at US \$ 850 million and US \$ 750 million at a yield of 11% and 6% respectively. PETROTRIN engaged certain financial institutions to reduce the interest rate over time to 4-7% and considered refinancing the loan by selling the bonds on the international market at an appreciated price.

IV. Project Management

The Committee identified general issues and deficiencies, spanning twenty (20) years, with regard to project management at PETROTRIN. The representatives from the

company admitted that this was indeed a shortcoming and steps were being taken to rectify this particular issue. The merger of Texaco and Trinmar with the subsequent merging of two organizational cultures into one was identified as a root cause for problems related to project management.

Officials informed Members that PETROTRIN did not have a formal Project Management Unit however; a unit was established on major projects. PETROTRIN had two separate entities, exploration and production, each with its own staff for capital projects.

However, officials highlighted that the company embarked on a process to improve PETROTRIN's project management, portfolio management and risk management process by establishing a Project Management Office. This office would develop the appropriate methodology and evaluation skills to be utilized within the organisation. At the Committee's last meeting, Officials updated Members on the status of the Project Management Office. They indicated that an international tender was done and the evaluation of the tender completed. The contract was to be awarded within the next few weeks.

Oversight mechanisms used by PETROTRIN to monitor projects

The Committee was informed that all projects must be approved and included in the company's annual budget. As part of the approval process, projects were required to adopt a structured project management process, ensuring strategic fit with the company's goals. The company's structured project management process included a detailed Project Management Guide with prescribed tools and techniques and a methodology that spoke to approval, planning, initiation, execution, monitoring and close-out of projects.

Routine projects were handled by the various project departments within the company, however, very large projects or projects with significant strategic value may warrant establishment of specific project teams with defined terms of reference.

A quarterly Major Projects Report was prepared and submitted to the Board of Directors on major projects with progress, variances, reasons for variances and corrective actions where applicable.

A monthly status report on major projects was also contained in the Corporate Overview, which provided Management with regular status updates on the company's performance. The Corporate Overview was also presented to the Board. In addition, on a quarterly basis, a reforecast of the annual budget was prepared. The reforecast was a representation of the actual year to date results and the projected results for the remaining months in the fiscal year. The projections were done to give Management a "nearer term" view of the anticipated results and to address any major performance issues as required.⁷

Oversight mechanisms used by PETROTRIN to monitor the cost of projects

The company had an electronic financial model or system (SAP) to assist with facilitating and controlling expenditure on a daily basis. The primary mechanism used to maintain effective control over project expenditure was the Authorization for Expenditure (AFE). The AFE provided the approval to spend project related funds as provided for in the Annual Budget. An AFE number was assigned to each project; this number was also the account code against which all expenditures were recorded in the company's financial system. The financial system prohibited expenditure to exceed the approved project budget without the requisite approval. Prior approval must be obtained for over expenditure on a project from the relevant Delegation of Authority

⁷ Written response from PETROTRIN dated June 20, 2013.

along with adequate justification and reasons for over expenditure which must accompany the request for additional project funding.⁸

Policy for a change in the estimated cost of a Project

The execution of a project may be divided into several contracts and materials purchase agreements. Cost changes during the life of a contract or materials purchase agreement were referred to as variations, for which PETROTRIN's Procurement Policies provide guidance.

With respect to Contracts for Works and Services, a variation occurred subsequent to the commencement of a contract but prior to the expiration. Such variation may include but was not limited to the following:

- i) Change in the Scope of Works
- ii) Change in Specifications
- iii) Change in the Method or Manner of Performance
- iv) Accelerating Work Performance
- v) Extension of Time.

Where such a variation occurred, the Executing Department prepared a request for variation, indicating the nature and rationale for it. The request would indicate whether or not the terms/price appeared to be reasonable and a Company estimate was prepared in all instances.

Variation requests were approved by the relevant financial authority in accordance with the Schedule of Financial Authorities - Delegation of Authorities. Approval must be obtained from the relevant financial authority before instructions to effect the variations were given to the Contractor.

⁸ Written response from PETROTRIN dated June 20, 2013.

Effective 2011 June 01, all variations under the GOP project required Board approval.⁹

Oversight mechanisms to monitor contractors

The approved plan was reflected in the scope of works as awarded to the contractors. The various project departments or project teams provided daily supervision over the contractors and were responsible for ensuring works were executed in accordance with the approved scope of works, inclusive of engineering design, the company's operating guidelines and relevant Health, Safety and Environmental standards. As part of the payment process, the contractor's performance was evaluated in terms of timeliness, quality of work, adherence to safety standards and other company requirements. The evaluation was a critical part of the review process as it may impact the contractor's eligibility to be invited for future contracts.

All major contracts provided for payment retention for 90 days, with final payment of the retention being made only after the contractor had satisfactorily completed the work and the job was certified by the designated company representative.

A monthly status report (Cost & Completion Report) on all contracts that require Board level approval (TT\$3.5M) was prepared and submitted to the Board Tenders Committee. This report summarised the progress of each contract, operational and cost variances as compared to award, reasons for variances and revised completion dates.

V. The Preferred method of procurement for PETROTRIN

The Committee questioned PETROTRIN's preferred method of procurement and PETROTRIN indicated that the practice of competitive bidding, whether formal or informal, not only ensured reasonable prices, but also guarded against favouritism and fraud and should be used to the extent practicable. All purchases should be based on

⁹ Written response from PETROTRIN dated June 20, 2013.

competitive tendering with the exception of Emergency Purchases and Merit Awards.
(Refer to **Appendix III**)

VI. Fraud Policy

The Committee inquired whether PETROTRIN had an approved Fraud Policy. Officials indicated in writing that PETROTRIN had a Corporate Fraud policy which was approved by the Board of Directors on May 1, 2006. All PETROTRIN's policies were approved by the Board of Directors since the State Enterprises Performance Monitoring Manual did not specify that such Policies must be approved by the Ministry of Finance. A representative from the Ministry of Finance however served on PETROTRIN's Audit Committee.¹⁰

The Committee further requested PETROTRIN's guidelines for reporting fraud and PETROTRIN indicated that these guidelines were provided in the Corporate Fraud Policy and the Whistleblowing Policy. In accordance with PETROTRIN's Corporate Fraud Policy, the Internal Audit Department had the primary responsibility for the investigation of all suspected fraudulent acts as defined in the Policy. An employee or person who suspected or was aware of a fraudulent activity within the Company must notify the Chief Audit Executive and it was the Chief Audit Executive's responsibility to report to senior management once the certainty of a fraud was established.

Significant cases of fraud must be reported immediately not only to management but also to the Audit Committee. Upon the completion of the investigation, Internal Audit issued a written report to the President and Audit Committee. Copies of the report were also submitted to the Law Department and the Industrial Relations Department.

After reviewing the written report, the Industrial Relations Department notified any person under investigation in writing of the essential particulars of the findings. The

¹⁰ Written response from PETROTRIN dated April 12, 2013.

person under investigation was required to provide a written response within a stipulated timeframe. Any disciplinary action was in accordance with the company's Disciplinary Policy and collective agreements.

On the completion of a fraud investigation, Internal Audit would determine which controls need to be implemented or strengthened to reduce future vulnerability. Appropriate recommendations were made and their implementation monitored. The Law Department had the primary responsibility for referral of any matter to the appropriate law enforcement or regulatory agencies and for managing any litigation that may arise from the investigation.

Under the Whistleblowing Policy, employees and other stakeholders can use the whistleblowing facilities provided by Global Compliance (a subscription-based service independent of PETROTRIN and outside of Trinidad and Tobago) where they can either:

- Call an advertised 1-800 telephone and provide details of the allegation
- Use the advertised website and complete the questionnaire as instructed.

Users of the Global Compliance service can opt to remain anonymous. All allegations made via the Global Compliance service were forwarded to PETROTRIN's Internal Audit department for investigation.

PETROTRIN informed the committee that there were currently no matters involving fraud at PETROTRIN before the Court.¹¹

VII. Conflict of Interest

The Committee requested a response to whether any Member of the Board or Executive of PETROTRIN had an interest (financial or otherwise) in any company that conducted business with PETROTRIN. They were informed that according to 2013 Conflict of

¹¹ Written response from PETROTRIN dated April 12, 2013.

Interest forms submitted by Members of the Board and the Executive Leadership Team, the following interests in companies doing business with PETROTRIN have been declared¹²:

Directors	Interests
John Lindsay Gillette	Computers & Controls Limited; Cascadia Hotel and Conference Centre; Radio Vision; Open Telecom Limited and Munch Kings Ice Cream; (family owned businesses)
Aleem Hosein	Managing Director- ANSA Technologies Ltd
Reshard Khan	Provision of legal services for Bankers Insurance Trinidad and Tobago Limited
Vernon Paltoo	Officer-National Energy Corporation of Trinidad and Tobago Limited
Khemram Jokhoo	President -Trinidad Nitrogen Company Limited
Arnold Ram	Engineer- Trinidad and Tobago Electricity Commission

Executive Leadership Team	Interests
Rudranath Maharaj	Director-Value Optical Limited
Khalid Hassanali - President	Director- The National Gas Company of Trinidad and Tobago Limited (NGC)
Jamaludin Khan - VP Exploration and Production	Director-Ali Meahjohn Limited of Siparia

VIII. Status of the Gas to Liquids Plant

The Committee noted that PETROTRIN partnered with World GTL Inc to construct a diesel plant at Point-a-Pierre by relocating a Methanol Plant from Delaware City, a hydro-cracker from a Texaco refinery and an amino unit from Mexico. This Plant was designed to process 22 million standard cubic feet per day of natural gas and to produce 1,800 barrels per day of diesel for use in blending products for the local market.

¹² Written response from PETROTRIN dated April 12, 2013.

The Committee requested an update on the status of the Gas to Liquid Plant and was advised that the GTL plant was the subject of an ongoing arbitration along with two court actions abroad therefore information could only be provided outside of that limitation. The Committee was informed that the GTL plant was currently in receivership and the receiver had the responsibility for receiving and managing assets. A party involved submitted a quotation for possible contractual arrangements which may result with PETROTRIN. The Receiver was currently evaluating the proposal.

The Committee inquired into the amount of money spent on the GTL plant before it went into receivership. The Committee was informed that in 2007 the original budget for the plant was US \$160 million. Members were also informed that prior to receivership approximately US\$400 million was spent and an additional US \$120 million would be required to complete the plant.

The Committee inquired into the total figure spent thus far on legal fees, the receiver and arbitration costs and were informed that it was approximately US 4.3 million.

The Committee inquired what the cost post-receivership had been thus far and was informed that there were costs associated with preservation, outstanding liabilities and continuing construction activities. These costs amount to approximately US \$55 million.¹³

Procurement Process for the Gas to Liquid Project

The GTL project was an unsolicited proposal referred to PETROTRIN by the Natural Gas Export Task Force.¹⁴

The main partner for this project was World GTL Incorporated and the method of implementation was the relocation of a methanol reactor from another country into

¹³ Oral evidence provided by representatives of PETROTRIN at the meeting held on Tuesday April 16, 2013.

¹⁴ Written response from PETROTRIN dated June 20, 2013.

Trinidad at a cost of \$2.8 billion. It was highlighted that this type of joint venture was a normal and established practice of the company. However, to date, the plant was not operational and a number of consultants have not been able to determine if the plant will work.¹⁵

PETROTRIN was engaged in legal proceedings in several jurisdictions relating to the Gas to Liquid Project. For this reason, its Counsel advised that matters in respect of the Gas to Liquid Project were considered sub judice and were not open for discussion.¹⁶

IX. PETROTRIN's Source of Electricity

In light of the nationwide blackout that occurred on March 28, 2013, the Committee questioned the source of the company's power supply. Officials indicated that at that time they were working assiduously with the Trinidad and Tobago Electricity Commission (T&TEC) to improve the electricity supply which was supplied by the Harmony Hall Substation.¹⁷

The Committee was also informed that two additional sources of power were installed which were in the final stages of completion. Additionally officials indicated that although there were internal checks and balances on the entire system, the supply was still heavily reliant on T&TEC.

X. Construction of New Head Office

The initiative to create industrial sites on the western portion of PETROTRIN's holdings (i.e. Administration Building and environs) was driven by the Government during the period 2004-2009 to establish a new refinery in Trinidad. As of March 2013, the plan was no longer under consideration.

¹⁵ Oral evidence provided by representatives of PETROTRIN at the meeting held on Tuesday February 19, 2013.

¹⁶ Written response from PETROTRIN dated March 8, 2013.

¹⁷ Oral evidence provided by Mr. Khalid Hassanali at the meeting held on April 16, 2013.

Method of Procurement

PETROTRIN provided the details of the method of procurement for the construction of the New Head Office at **Appendix III**):

XI. South-West Soldado Reactivation Project

The Committee inquired into the completion of Phase 1 of the project which had been prolonged since 2012. PETROTRIN informed the Committee that Phase 1 had been hindered by many factors, such as:

- the lack of proper maintenance of the infrastructure over the last decade;
- scheduled working patterns for offshore employees (one week on and one week off or two weeks on and two weeks off);
- the procurement of temporary production facilities; and
- the inability to produce water offshore because of the aged pipelines and flow lines which are part of the old infrastructure.

PETROTRIN also indicated that a major exploration drive started in that area and seismic activities were starting which could yield reserves. PETROTRIN was granted a Certificate of Environmental Clearance (CEC) on December 10, 2013 and was to proceed with the project. In addition, PETROTRIN stated that the issue with the fishermen was resolved.

Exploration, Production and Pipelines at Soldado

The Committee inquired whether there were issues with optimizing performance at the Soldado refinery. PETROTRIN indicated that there were issues with the offshore assets, due to the lack of mechanical turnarounds, thereby impeding asset integrity. PETROTRIN explained that there had not been a turnaround of the No.4 Vacuum Distillation Unit (4 VDU) for almost 10 years. This unit required major turnarounds

every four (4) to five (5) years. PETROTRIN assured the Committee that there would be a turnaround of the 4 VDU in early January 2014. Subsequent to that, there would be a turnaround of the No. 8 Crew Distiller which was also long overdue. PETROTRIN further stated that the current trunk pipelines and flow lines were part of the old infrastructure. The aged pipelines were prone to leaks when pressure rose with increased production of fluids. PETROTRIN informed the Committee that arrangements would be made to replace the trunk pipelines and the laying of flow lines between structures.

XII. Ultra-Low Sulphur Diesel Plant (ULSD)

The Committee inquired into various aspects of the Ultra-low Sulphur Diesel Plant (ULSD) that included:

- (i) the status of the plant;
- (ii) whether the company was in litigation with the contractor that was involved on the project; and
- (iii) the incurred cost for PETROTRIN.

PETROTRIN revealed that the contractor for the ULSD was Samsung who was also the contractor for the CCR plant. PETROTRIN further indicated that there were some residual issues with the CCR plant for disagreement over compensation for delays with Samsung. PETROTRIN also mentioned that there were claims against Samsung, who also had claims against PETROTRIN for variation. As a result, PETROTRIN stated that they engaged in dialogue with Samsung as an attempt to settle the claims for the CCR without going to a third party. These issues have spilled over to the ULSD resulting in five months of delays.

At the Committee's last meeting, Members questioned whether the USLD plant was operational. They were informed that the plant was behind schedule because of structural difficulties. Negotiations were taking place between PETROTRIN and Samsung for going forward however, there was no expected date for completion. While

the initial budget for the plant was US \$400 million, US \$500 million has been spent to date.

XIII. Regional Markets

The Committee inquired whether PETROTRIN identified any kind of growing trends in the medium-term for the regional petroleum market. PETROTRIN, in response, stated that their premium market was the local and the regional market for petroleum products, but the growth of the market depended on the economies of island states. As most islands were tourism based economies, PETROTRIN indicated that there was little growth in recent past. As it stood, the market remained in a stable state.

XIV. Solvency of PETROTRIN and the downturn of the Energy Market

The Committee inquired whether PETROTRIN viewed itself as being solvent in the midst of a downturn of the gasoline and crude oil market. PETROTRIN's officials informed the Committee that because the company was in the business of exploration and production, as well as refining and marketing, there was no need for concern. PETROTRIN indicated that their current five (5) year forecast showed the company would remain viable and sustainable even during this downturn. PETROTRIN also stated that the entire petroleum market was a cyclical market in which they have been through on countless occasions.

XV. PETROTRIN's Strategy

Members questioned PETROTRIN's strategic plan going forward. Officials informed the Committee that the company had two (2) main goals; to repay its debt and to explore more oil reserves. Additionally, Members were informed that PETROTRIN has spent approximately \$1 billion in seismic research. The seismic research on land was completed in 2011 and was being processed however, the company started reaping benefits in terms of drilling prospects on land. The seismic at TRINMAR was completed in 2014 but was still being processed.

DISCUSSION WITH THE MINSITRY OF ENERGY AND ENERGY AFFAIRS AND THE MINISTRY OF FINANCE AND THE ECONOMY

18. During the examination of PETROTRIN, the Committee found it necessary to invite representatives from the Ministry of Energy and Energy Affairs and the Investments Division, Ministry of Finance and the Economy to highlight key issues to raise with PETROTRIN. The following issues were highlighted during these discussions:

I. PETROTRIN's projects

Members inquired into the role played by the Ministry of Energy and Affairs when PETROTRIN's projects were not performing well but resulted in large cost overruns. They were informed that this occurred on a number of projects and while the process to deal with this needed to be improved, it was the practice that certain levels of definition of a project first be presented before initial approval.

Members also asked what other projects were being undertaken at that time, other than the GOP and were informed of the following:

- there was a sub-project related to the delivery of fuel through the new facility at Caroni; and
- looking for ways of improving production, particularly in the Trinmar area.

II. Role of the Standing Committee of Energy in the approval of projects

Members questioned the existence of the Standing Committee of Energy in the approval of projects and were informed that this committee was a sub-committee of the Cabinet to which matters were referred at the discretion of the Minister. While the Standing Committee did add value, using it as a mechanism for avoiding or negating cost creep was not a preventative measure; it depended on what was brought forward at the initial stage for consideration and approval.

III. PETROTRIN's key issues

The Committee questioned the Ministry of Energy and Energy Affairs on the key issues facing PETROTRIN. Officials informed the Committee that this included the need to build consensus with the representative union in terms of moving forward with projects, the inherited aged infrastructure and equipment and the impaired system of achieving arrangements with third parties.

Members further questioned the impact that the relationship with the union was having on PETROTRIN. Officials informed Members that the involvement of the union was part of the operations of PETROTRIN and as a result, on-going dialogue was needed with the union with respect to day-to-day operations.

IV. PETROTRIN's focus on Refinery Operations rather than Exploration and Production

The Committee questioned PETROTRIN's focus on refinery operations as opposed to exploration and production. Officials informed the Committee that the decision was based on the policy of the Ministry of Energy and Energy Affairs in order to maximize the indigenous crude production. Officials admitted that the company failed to adhere to this policy and focused more on the refinery rather than exploration. The Permanent Secretary indicated that the Ministry's role was to give guidance and policy direction while monitoring and communicating to ensure that PETROTRIN was aware of the policy direction and delivery. Members expressed concern about the failure of PETROTRIN to comply with some policies and not others.

V. International obligations

The Committee inquired into who was responsible for ensuring that PETROTRIN abided to international law and fulfills their international obligations. Officials from the Ministry indicated that while they were responsible for ensuring that PETROTRIN complied with some obligations, they were not responsible for all.

Members also inquired into the status of the Marabella barge and the requirement of transporters to be double hulled to avoid oil spilling. They were informed that the jurisdiction for compliance falls under the remit of the Maritime Services Division and not the Ministry of Energy and Energy Affairs. However, the Ministry urged PETROTRIN to seek to acquire a kit that was in compliance with double hulled and all legal requirements. They also informed the Committee that the Marabella barge was owned by PETROTRIN; it was purchased by Texaco Trinidad Incorporated (Textrin) in October 1977 for US \$1,605,000 and vested in Trinidad and Tobago Oil Company Limited (Trintoc) in 1985 by means of the Textrin Vesting Act 1985.

VI. PETROTRIN's Debt situation

Members inquired into PETROTRIN's escalating debt situation. In 2002, debt totaled \$3.3 billion whereas in 2010 it totaled \$12.4 billion. Members noted that the main contributing factors were two bonds; one for US\$750 million and the other for US\$850 million. Representatives from the Ministry gave the following details of bonds secured by PETROTRIN.

Bonds raised	Interest Rate	Issue Date	Expiry Date	Terms
US\$1.6 billion				
US\$750 million Gasoline Optimisation Project (GOP)	6.0%	2007 May 08	2022 May 08	Semi-annual payments of principal, interest and withholding tax.
US\$850 million of which *US\$550 million relates to GOP *US\$300 million relates to the Ultra-Low Sulphur Diesel Plant	9.75%	2009 Aug 14	2019 Aug 14 tax with bullet principal	Semi-annual payments of interest and withholding payment at maturity.

VII. Procurement procedures

Members questioned the procurement procedures and tender procedures utilized by PETROTRIN and by whom were these procedures signed off. They were informed that the tender procedures were reviewed and authorized for use by the Ministry of Finance and the Economy in 2007/2008.

Members further inquired into whether the Ministry of Finance and the Economy was responsible for reviewing those procedures to ensure that PETROTRIN was in compliance. Officials stated that PETROTRIN was required to submit contracts that they have entered into to the Ministry of Finance and the Economy on a monthly basis. The Ministry of Finance and the Economy reviewed those contracts and if there were any concerns about a specific contract, a complete review of the contract was conducted and the Ministry submitted a report to PETROTRIN. The last complete review of PETROTRIN's contracts was completed in the year 2011.

VIII. Strategic Plan and Risk Management Policy

Members questioned the most current period of PETROTRIN's strategic plan and were informed that there was a draft which covered the period 2014-2017 and was under review by the line Ministry. This plan took into consideration the environment, as well as the upstream and refinery operations and the volatility of the marketplace.

Members also questioned the existence of a risk management policy at PETROTRIN. Representatives stated that the company had an approved Risk Management Policy dated February 01, 2005.

IX. Oversight of PETROTRIN by the Ministry of Finance and the Economy

Members questioned whether the Investments Division, Ministry of Finance and the Economy had the capacity to exercise oversight over PETROTRIN. They were informed that the Ministry of Finance and the Economy ensured that PETROTRIN was in

compliance with the State Enterprises Operating Manual. Officials also stated that Business Analysts from the Investments Division monitored and reviewed the performance of PETROTRIN which has been working within the ambit of the State Monitoring Manual. However, Members highlighted that PETROTRIN, like other state enterprises have failed to submit Annual Reports in the stipulated time period which was a requirement in the State Enterprises Operating Manual.

X. Selection of President at PETROTRIN

Members noted that the President of PETROTRIN was the second President who had passed retirement age and questioned the reason for this reoccurring. Officials from the Ministry of Energy and Energy Affairs were not familiar with this issue but stated that this decision would have formally come from the Board to the Ministry.

18. Subsequent to these discussions questions were sent to the Ministry of Finance and the Economy and the Ministry of Energy and Energy Affairs for written responses. **(See Appendix III)**

ISSUES AND RECOMMENDATIONS

ISSUE: CONDUCTING SCHEDULED MAINTENANCE

Recommendation: This Committee recommends that PETROTRIN reviews their maintenance programme and administers timely execution of scheduled maintenance on all assets.

ISSUE: PETROTRIN'S INABILITY TO PROPERLY MANAGE PROJECTS

Recommendation: This Committee recommends that PETROTRIN reviews its approach to project management. Sufficient attention should be given prior to the initiation of projects to identify alternative options and risk; to put in place project leaders with the right skills, experience and incentives; and adequate scrutiny should take precedence by the Board for the most complex and expensive projects.

The Committee also recommends that the Board should intervene at the earliest opportunity when a project shows signs of difficulties.

ISSUE: THE ABSENCE OF A FORMAL PROJECT MANAGEMENT OFFICE/UNIT

Recommendation: The Committee recommends that PETROTRIN establishes a formal Project Management Office (PMO). PETROTRIN must ensure that the PMO develops a written policy to be approved by the Board and Cabinet on the oversight mechanisms for projects at PETROTRIN to facilitate the successful and consistent use of project management practices on all projects.

ISSUE: THE ABSENCE OF POST-MORTEM MEETINGS AFTER THE CONCLUSION OF A PROJECT.

Recommendation: It is recommended that PETROTRIN ensures post-mortem meetings are conducted after the completion of all projects.

ISSUE: CONFLICT OF INTEREST

Recommendation: The Committee recommends that PETROTRIN develops a policy to govern conflict of interest.

ISSUE: EXCESSIVE COST OVERRUNS OF PROJECTS

Recommendation: It is recommended that PETROTRIN develops a mechanism to constantly track and measure the progress of projects at regular intervals. This will provide early signals of project delays, while also giving PETROTRIN the opportunities to fix the issues beforehand.

It is also recommended that mechanisms to monitor the cost of projects be determined, for instance, the larger and more costly projects must require a different process to approve increases in expenditure.

In addition, the Committee recommends that PETROTRIN pays particular attention to project planning as this serves as the most crucial element of project management and the major tool against cost overruns and delays.

Moreover, PETROTRIN should conduct in-depth research on contractors before hiring them for projects to reduce the probability of contractors not being able to meet deadlines.

ISSUE: SOUTH - WEST SOLDADO RACTIVATION PROJECT

Recommendation: The Committee recommends that PETROTRIN develops a comprehensive Compensation Policy for its stakeholders.

In addition, a system needs to be developed that will ensure that Vacuum Distillation Units are mechanically turned around every 5 years. This will ensure that performance is optimized at the Soldado refinery.

Furthermore, the current trunk pipelines and flow need to be replaced urgently.

ISSUE: HIRING OF CONTRACTORS

Recommendation: It is recommended that different contractors be hired for work on different plants. This will prevent issues or disagreements with one contractor of a particular plant affecting the work of other plants.

This Committee respectfully submits this Report for the consideration of the Parliament.

.....
Mrs. Camille Robinson-Regis
Chairman

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Mr. Chandresh Sharma
Member

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Mr. Errol McLeod
Member

.....
Mrs. Paula Gopee-Scoon
Member

.....
Mr. Kwasi Mutema
Member

.....
Mr. Colm Imbert
Member

.....
Mr. Rudranath Indarsingh
Member

.....
Mr. Fazal Karim
Member

.....
Ms. Marlene Coudray
Member

.....
Dr. Rolph Balgobin
Member

Appendix I
Minutes of the
Proceedings

**THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE -
THIRD SESSION (2012/2013), TENTH PARLIAMENT**

**MINUTES OF THE SEVENTEENTH MEETING HELD ON TUESDAY, FEBRUARY
19, 2013 AT 10:00 AM IN THE ARNOLD THOMASOS MEETING ROOM (EAST),
LEVEL 6, and 11:30 AM IN THE J. HAMILTON MAURICE ROOM, MEZZANINE
FLOOR**

Present:

Mr. Fitzgerald Hinds	-	Chairman
Mrs. Paula Gopee-Scoon	-	Member
Mr. Colm Imbert	-	Member
Mr. Fazal Karim	-	Member
Ms. Marlene Coudray	-	Member
Mr. Embau Moheni	-	Member
Dr. Rolph Balgobin	-	Member
Mr. Herbert Volney	-	Member
Mr. Errol McLeod	-	Member
Mr. Rudranath Indarsingh	-	Member
Ms. Keiba Jacob	-	Secretary
Ms. Khisha Peterkin	-	Asst. Secretary
Ms. Sheranne Samuel	-	Research Assistant
Mr. Dwayne Haynes	-	Research Assistant

Absent:

Mr. Errol McLeod	-	Member (Excused)
Mr. Herbert Volney	-	Member

Also present:

Mr. Khalid Hassanali	-	President
Mr. Lindsay Gillette	-	Chairman
Mr. Aleem Hosein	-	Deputy Chairman
Mr. Reshard Khan	-	Director
Mr. Mado Bachan	-	Vice-President, Refining and Marketing
Mr. Hemraj Ramdath	-	Vice President, Strategy and Business Development
Mr. Carl McLean	-	Vice-President, Finance (Ag.), PETROTRIN
Mr. Jamaludin Khan	-	Vice-President, Exploration and Production, PETROTRIN
Mr. Keith Ramnath	-	Vice President, Human Resources,

PETROTRIN

Ms. Gillian Friday	-	Manager, Corporate Communications
Ms. Radica Maraj Adharsingh	-	Corporate Manager, Law and Land Management (Ag.)
Mr. Rajkumar Bissessar	-	Chief Audit Executive

COMMENCEMENT

- 1.1 The meeting was called to order by the Chairman at 10:30 a.m.
- 1.2 The Chairman indicated that he received communication that Mr. Mc Leod was unable to attend and asked to be excused.

EXAMINATION OF MINUTES OF THE 16TH MEETING

- 2.1 The Committee examined the Minutes of the Sixteenth Meeting held on Tuesday January 8, 2013.
- 2.2 There being no corrections or omissions, the Minutes were confirmed on a motion moved by Mr. Rudranath Indarsingh and seconded by Mr. Colm Imbert.

MATTERS ARISING FROM THE MINUTES

- 3.1 Relative to paragraph 3.2 the Chairman advised Members that the Committee's report on Caribbean Airlines Limited was amended as requested and is being recirculated for signature.
- 3.2 Relative to paragraph 4.1 the Chairman confirmed that the Secretary wrote to the Permanent Secretary in the Ministry of Finance and the Economy to obtain copies of the Tender Policy, the Procurement Policy; the Fraud Policy; and the By-laws that apply to the EFCL. The Chairman informed the Committee that a response had not yet been received.

CONSIDERATION OF FCB REQUEST

- 4.1 The Chairman informed Members that by letter dated January 28, 2013 Mr. Larry Nath, Group CEO, FCB requested an *in camera* examination by the Committee due to the sensitive and confidential nature of the Company's operations. The Chairman asked each Member of the Committee their view on this matter.

- 4.2 Mr. Imbert expressed the view that he was strongly opposed to granting this request as there was tremendous value in a public hearing. He detailed the history of public hearings in the Parliament of Trinidad and Tobago. Mr. Imbert further reiterated that once this request was granted a precedent would be set for similar requests in the future.
- 4.3 Ms. Coudray suggested that the request should not be granted entirely as the Committee had a responsibility to examine FCB as it was a public entity utilizing public funds. She further explained that FCB needed to identify the sensitive issues that the Committee should avoid during a public examination.
- 4.4 The Committee agreed to have FCB's request for an *in camera* examination tabled as an agenda item at its next meeting for further discussion.

COMMITTEE'S WORK SCHEDULE

- 5.1 The Chairman advised Members that the Committee previously decided on First Citizens Bank and its Subsidiaries, Government Human Resource Services Limited and Agricultural Development Bank to be examined. The Chairman asked the Committee to identify the next entity for examination.
- 5.2 The Committee agreed that the next entity for examination would be Government Human Resource Services.

EXAMINATION OF PETROTRIN (IN PUBLIC)

- 6.1 The Chairman called the meeting to order in public at 11:42 a.m. and welcomed the officials from the Petroleum Company of Trinidad and Tobago Limited (PETROTRIN). Introductions were made by the PETROTRIN officials and Committee Members.
- 6.2 The Chairman announced that the purpose of the meeting was to examine the audited financial statements of PETROTRIN for the years ended September 30, 2008 to 2011. The Chairman complimented PETROTRIN for its usual timely submission of its financial statements to Parliament. The Chairman invited a representative from PETROTRIN to provide the Committee with a brief opening statement summarizing the company's general position.

6.3 Mr. Hassanali provided a detailed overview of the company's operations in exploration and production business as well as refining and marketing.

6.4 The following issues arose in the discussions held:

i. Crude Oil Refining

The Refinery's capacity is 160,000 barrels per day of which forty per cent of crude input is from local sources, the remaining sixty per cent is imported. The current number of barrels refined per day is 155,000. For the fiscal year 2008 the company's throughput was 150.9 thousand barrels per day; fiscal 2009, 149.9 thousand barrels per day; fiscal 2010, 132.1 thousand barrels per day; and fiscal 2011, 137, 000 barrels per day. The drop in the refining for the year 2010 was attributed to the severe drought experienced in that year.

ii. Procurement Process for the Gasoline Optimization Project

This project comprises four plants, the Isomerization Plant, the Continuous Catalytic Reformer, the Catalytic Cracker and the Acid Alkylation Plant. The procurement process used for the Isomerization Plant was a fixed price lump sum with Bechtel as the project manager, and Flur International as the contractor. Subsequently, the remaining three plants were grouped together and Bechtel was appointed as project manager. The general procurement model used at that time was the cost reimbursable model. It was highlighted that Bechtel had two roles in this project, as project manager and as contractor for the utilities and off sites which are all the common facilities, all the pipelines, separators and vessels.

iii. Procurement Process for the Gas to Liquid Project

The main partner for this project was World GTL Incorporated and the method of implementation was the relocation of a methanol reactor from another country into Trinidad at a cost of \$2.8 billion. It was highlighted that this type of joint venture was a normal and established practice of the company. However, to date the plant is not operational and a number of consultants have not been able to determine if the plant will work. **Project Management - Construction of New Head Office.**

For over 20 years general issues and deficiencies with regard to project management at PETROTRIN were identified. The representatives from the company admitted that this was indeed a shortcoming and steps were being taken to rectify this particular shortcoming. The merger of Texaco and Trinmar with the subsequent merging of two organizational cultures into one was identified as a root cause for problems related to project management.

6.5 Due to time constraints the Committee agreed to have PETROTRIN provide responses to the following questions in writing:

- i)* In terms of products and capacity, where would PETROTRIN be had no Gas Optimisation Programme (GOP) been put in place?
- ii)* What was the recovery value of the World Gas to Liquid Inc. (WGTL) venture with 2.8 billion having been spent?
- iii)* Is the plan to create space for the establishment of industrial facilities still in effect? (the rationale given for the relocation of the Head Office building)

6.6 The Committee agreed to continue its examination of PETROTRIN on Tuesday March 19, 2013 at 11:00 a.m.

ADJOURNMENT

7.1 The Chairman thanked Members of the Committee and the representatives from PETROTRIN for their attendance and adjourned the meeting to Tuesday March 19, 2013 at 10:30 am.

7.2 The adjournment was taken at 12:40 p.m.

We certify that these Minutes are true and correct.

CHAIRMAN

SECRETARY

March 8, 2013

**THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE -
THIRD SESSION (2012/2013), TENTH PARLIAMENT**

**MINUTES OF THE EIGHTEENTH MEETING HELD ON TUESDAY, APRIL 16, 2013
AT 10:00 AM IN THE ARNOLD THOMASOS MEETING ROOM (EAST), LEVEL 6,
(IN CAMERA) AND 11:30 AM IN THE J. HAMILTON MAURICE ROOM,
MEZZANINE FLOOR (IN PUBLIC)**

Present:

Mr. Fitzgerald Hinds	-	Chairman
Mrs. Paula Gopee-Scoon	-	Member
Mr. Colm Imbert	-	Member
Mr. Fazal Karim	-	Member
Ms. Marlene Coudray	-	Member
Dr. Rolph Balgobin	-	Member
Mr. Rudranath Indarsingh	-	Member
Mr. Herbert Volney	-	Member
Ms. Keiba Jacob	-	Secretary
Ms. Candice Williams	-	Graduate Research Assistant
Mr. Ian Mural	-	Parliamentary Intern

Absent:

Mr. Errol McLeod	-	Member (Excused)
Mr. Embau Moheni	-	Member (Excused)

Also present:

The Officials from PETROTRIN

Mr. Khalid Hassanali	-	President
Mr. Lindsay Gillette	-	Chairman
Mr. Aleem Hosein	-	Deputy Chairman

Mr. Reshard Khan	-	Director
Mr. Mado Bachan	-	Vice-President, Refining and Marketing
Mr. Hemraj Ramdath	-	Vice President, Strategy and Business Development
Mr. Carl McLean	-	Vice-President, Finance (Ag.), PETROTRIN
Mr. Jamaludin Khan	-	Vice-President, Exploration and Production, PETROTRIN
Mr. Keith Ramnath	-	Vice President, Human Resources, PETROTRIN
Ms. Gillian Friday	-	Manager, Corporate Communications
Ms. Radica Maraj Adharsingh	-	Corporate Manager, Law and Land Management (Ag.)
Mr. Rajkumar Bissessar	-	Chief Audit Executive

COMMENCEMENT

- 1.3 The Chairman called the meeting to order *in camera* at 10:38 a.m.
- 1.4 The Chairman indicated that he received communication that Mr. McLeod was unable to attend and asked to be excused.

EXAMINATION OF MINUTES OF THE 17TH MEETING

- 2.1 The Committee examined the Minutes of the Seventeenth Meeting held on Tuesday February 19, 2013.
- 2.2 There being no corrections or omissions, the Minutes were confirmed on a motion moved by Dr. Balgobin and seconded by Mr. Indarsingh.

MATTERS ARISING FROM THE MINUTES

- 3.1 Relative to paragraph 3.2, the Chairman advised Members that the Committee's report on Caribbean Airlines Limited (CAL) was amended as requested and was again being circulated for signature. Members signed the report.

3.2 Relative to paragraph 3.2, the Committee discussed its on-going examination of the Education Facilities Company Limited (EFCL). In particular, the Committee discussed a request from EFCL for an additional extension of time to provide responses to the Committee's request for information. After a lengthy deliberation, the Committee agreed to grant the extension of time to the EFCL and invite the entity to appear in public on Wednesday May 15, 2013.

CONSIDERATION OF FCB REQUEST

4.1 The Chairman informed Members that First Citizens Bank Limited (FCB) submitted their management letters after being advised that the management letters would be treated as confidential. The Chairman further explained that in response to the Committee's request to provide the matters related to the operations of FCB which would be required to be treated by the Committee as confidential and with the greatest sensitivity, FCB requested further clarity. The Committee agreed to again ask FCB to identify the matters related to the operations of FCB which would be required to be treated as confidential and also invite FCB to attend a preliminary *in camera* meeting in June.

COMMITTEE'S WORK SCHEDULE

5.1 The Chairman advised Members that Government Human Resource Services Limited (GHRS) wrote requesting a delay of the Committee's examination to July 2013. The Committee agreed to grant the request.

SUSPENSION

6.1 The meeting was suspended at 11:33 a.m.

[Members proceeded to the J. Hamilton Maurice Room, Mezzanine Floor]

EXAMINATION OF PETROTRIN (IN PUBLIC)

- 7.1 The Chairman called the meeting to order in public at 11:40 a.m. and welcomed the officials from the Petroleum Company of Trinidad and Tobago Limited (PETROTRIN).
- 7.2 The Chairman announced that the purpose of the meeting was to continue the examination of the audited financial statements of PETROTRIN for the years ended September 30, 2008 to 2011.
- 7.3 The Chairman indicated that on the last occasion a number of issues were discussed including crude oil refining, the procurement process for the Gasoline Optimization Project, the procurement process for the Gas-To-Liquids Project and general project management.
- 7.4 The following issues arose in the discussions held:

- i. **Cost of the Gasoline Optimization Programme**

The Committee requested the cost of the Gasoline Optimization Programme. The Committee was informed that the Gasoline Optimization Programme was conceptualized in 2004 with an estimated cost prepared by PETROTRIN and approved by Cabinet of US \$350 million. Construction began in 2005 and in November of that same year PETROTRIN invited its project management consultant Bechtel to prepare an updated estimate which was US \$650 million.

In October 2006, the other plants, the Continuous Catalytic Reformer (CCR) and the Fluidized Catalytic Cracking Unit began, and the estimate at that time was again updated by the project manager, Bechtel to US \$850 million, on the basis of increased construction costs.

In 2006, PETROTRIN received fixed lump sum prices for the Isomerization Plant, the CCR, the Cat Cracker and the Acid/Alkali, the total of all of the fixed lump sum prices was \$878 million which was slightly higher than Bechtel's estimate.

The management of PETROTRIN at the time took the decision to change the method of procurement from fixed lump sum price to a hybrid of a fixed

price for design and a reimbursable for construction. This new estimate of \$850 million was approved by Cabinet on February 14, 2007. In June 2008, the estimate was again revised by the project management consultant (Bechtel) and PETROTRIN, to US \$1.3 billion, and the project, at the time, had already started.

The cause of the substantial increase from \$850 million to \$1.3 billion was as a result of delays in obtaining certificates of environmental clearance and the resulting claims by contractors and other increased costs. This new estimate was approved in the PETROTRIN 2009/2010 budget, so that in the year 2010 the cost estimate was US \$1.3 billion. In July 2010, the board asked for another estimate to be prepared, taking into account any risks. That budget was US \$1.48 million and remained the same for 2011 and 2012.

ii. Management of Increased Cost of the Gasoline Optimization Programme

The Committee enquired who was responsible for managing the increased cost of the Gasoline Optimization Programme. The Committee was informed that a steering committee chaired by the executive chairman at the time along with representatives from Bechtel and PETROTRIN was established to monitor the cost of the project. The Steering Committee on advice received from Bechtel, agreed to change the method of procurement for the project from a fixed price lump sum to a hybrid of a fixed price for design and a reimbursable for construction.

iii. Post-mortem of the Gasoline Optimization Programme

The Committee enquired whether there had been a post-mortem of the Gasoline Optimization Programme and was informed that a post-mortem was done in 2012 on the management process. However, the project is still ongoing.

iv. Methodology used for Procurement in the Gasoline Optimization Programme

The Officials from PETROTRIN informed the Committee that the methodology of cost reimbursable used for procurement in the Gasoline Optimization Programme was unusual. Full front-end engineering design

followed by a fixed lump sum was identified as the superior model to be used for projects at PETROTRIN.

v. Shortcomings of Bechtel in the Management of the Gasoline Optimization Programme

The Committee questioned the failure of Bechtel to properly manage the GOP Project. The Committee was informed that Bechtel hired a local firm ABT Engineering who had within its rank members of Bechtel. PETROTRIN officials highlighted the cost reimbursable nature of the project as being very difficult to manage. The Committee was also informed that responsibility for the failure was to be shared between the project manager, Bechtel and the Steering Committee.

vi. Commission of the Units Comprising the Gasoline Optimization Programme

The Committee enquired when the various units of the Gasoline Optimization Programme would be complete and was informed that the Fluidized Catalytic Cracking Unit (FCCU or Cat Cracker) was in its final stages of commission during the week of April 15, 2013. The Alkylation Plant and the Acid Plant were mechanically completed in 2011 however those plants relied on the completion of the Fluidized Catalytic Cracking Unit and would now be commissioned in May 2013.

vii. Purpose and use of the Fluidized Catalytic Cracking Unit (FCCU)

The President informed the Committee that the FCCU was a plant that improved the value of the product. The feed for the FCCU is Vacuum Gas Oil, which is produced from crude that is passed through the Topping Unit what is called the distillation column, and then the heavier product goes through a Vacuum Unit, which goes for blending of Fuel Oil. The contaminants are removed via hydro treating, then the Vacuum Gas Oil goes into the FCCU at high temperatures and a catalytic process is used. This process makes various components such as LPG for further blending. It is a very complex operation, but basically it adds value to the crude that is put in and to PETROTRIN's refinery economics overall.

viii. Status of the Gas to Liquids Plant

The Committee requested an update on the status of the Gas to Liquid Plant and was advised that the GTL plant was the subject of an ongoing arbitration along with two areas pieces of litigation abroad therefore information could only be provided outside of that limitation. The Committee was informed that the GTL plant was currently in receivership and the receiver has the responsibility for receiving and managing assets. A party involved has submitted a quotation for possible contractual arrangements which may result with PETROTRIN. The Receiver is currently evaluating the proposal. The Committee enquired how much money was spent on the GTL plant before it went into receivership. The Committee was informed that in 2007 the original budget for the plant was US \$160 million. The Committee was further informed that prior to receivership approximately UD \$400 million was spent and an additional US \$120 million would be required to complete the plant.

The Committee enquired how much money was spent thus far in legal fees, receiver and arbitration costs. The Committee was informed that the total amount spent on these fees is approximately US 4.3 million.

The Committee enquired what the cost post receivership has been thus far and was informed that there were costs associated with preservation, outstanding liabilities and continuing construction activities. These costs amount to approximately US \$55 million.

ix. A Project Management Unit

The President informed Members that currently PETROTRIN does not have a formal Project Management Unit however, a unit is established on major projects. PETROTRIN has two separate entities, exploration and production each with its own staff for capital projects.

However, the HR Manager indicated that the company has embarked on a process to improve PETROTRIN's project management, portfolio management and risk management process by establishing a Project Management Office. This office will develop the appropriate methodology and evaluation skills to be utilized within the organisation.

x. **PETROTRIN's Source of Electricity**

In light of the recent nationwide blackout, the Committee questioned the source of the company's power supply. The President indicated that presently they are working assiduously with T&TEC to improve the electricity supply; the refinery is supplied by the Harmony Hall Substation.

7.5 The Chairman suggested that PETROTRIN's Officials be prepared to answer questions on the new Corporate Headquarters and the shortage of skilled employees in the energy sector on the next occasion.

ADJOURNMENT

8.1 The Chairman thanked Members of the Committee and the representatives from PETROTRIN for their attendance and adjourned the meeting.

8.2 The adjournment was taken at 1:01p.m.

We certify that these Minutes are true and correct.

CHAIRMAN

SECRETARY

May 15, 2013

**THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE
FOURTH SESSION (2013/2014), TENTH PARLIAMENT**

**MINUTES OF THE TWENTY THIRD MEETING HELD ON
WEDNESDAY, DECEMBER 11, 2013 AT 10:55 AM IN THE ARNOLD THOMASOS
MEETING ROOM (EAST), LEVEL 6, AND THE J. HAMILTON MAURICE ROOM,
MEZZANINE LEVEL, OFFICE OF THE PARLIAMENT, TOWER D,
INTERNATIONAL WATERFRONT CENTRE, 1A WRIGHTSON ROAD, PORT OF
SPAIN.**

Present:

Mrs. Camille Robinson-Regis	-	Chairman
Mr. Colm Imbert	-	Member
Mr. Fazal Karim	-	Member
Mr. Errol McLeod	-	Member
Mr. Rudranath Indarsingh	-	Member
Mrs. Paula Gopee-Scoon	-	Member
Mr. Embau Moheri	-	Member
Ms. Keiba Jacob	-	Secretary
Ms. Khisha Peterkin	-	Assistant Secretary

Excused:

Ms. Marlene Coudray	-	Member
Dr. Rolph Balgobin	-	Member

Also present were:

THE OFFICIALS FROM PETROTRIN

Mr. Lindsay Gillette	Chairman
Mr. Rudranath Maharaj	Director
Mr. Neil Bujun	Director
Mr. Khalid Hassanali	President
Mr. Mado Bachan	Vice-President – Refining and Marketing
Mr. Jamaludin Khan	Vice-President – Exploration and Production
Mr. Keith Ramnath	Vice-President – Human Resources and Corporate Services
Mr. Hemraj Ramdath	Vice-President – Strategy and Business Development
Ms. Aneitha Bruneau	Acting Vice-President – Finance
Ms. Deborah Persadie Jones	Acting Manager – Project Implementation
Ms. Gillian Friday	Manage – Corporate Communications
Ms. Radica Maraj-Adharsingh	Senior Manager – Law and Land Management
Mr. Rajkumar Bissessar	Chief Audit Executive

INVESTMENTS DIVISION

Mrs. Chintamani Sookoo	Senior Business Analyst
Mr. Lester Herbert	Senior Business Analyst

Announcements

- 1.5 When there was a provisory quorum, the Secretary called the meeting to order and welcomed Members.
- 1.6 The Secretary indicated that Mr. Fitzgerald Hinds, who was elected Chairman of the P.A.(E.)C. on October 26, 2010, has ceased to be a Member of Parliament and as a consequence, the position of Chairman was vacant.

NOMINATION OF THE P.A.(E.)C'S CHAIRMAN

- 2.1 The Secretary informed Members that Standing Order 79 (3) of the House and 71(3) of the Senate stipulates that “A Joint Select Committee shall elect its own Chairman”.
- 2.2 The Secretary invited Members to propose their nominations for the post of Chairman.
- 2.3 Mr. Colm Imbert nominated Mrs. Camille Robinson-Regis, this was seconded by Mr. Fazal Karim. There being no other nominations, Mrs. Camille Robinson-Regis was duly elected Chairman of the Committee.

COMMENCEMENT

- 3.1 The Chairman took her seat and thanked Members for electing her.
- 3.2 The Chairman indicated that Ms. Marlene Coudray and Dr. Rolph Balgobin asked to be excused.

EXAMINATION OF MINUTES OF THE 22nd MEETING HELD ON NOVEMBER 19, 2013

- 4.1 The Committee examined the Minutes of the twenty-second meeting held on Tuesday November 19, 2013.
- 4.2 There being no omissions or corrections, the Minutes were confirmed on a motion moved by Mr. Errol McLeod and seconded by Mr. Fazal Karim.

MATTERS ARISING FROM THE MINUTES OF MEETING HELD ON NOVEMBER 19, 2013

- 5.1 Due to time constraints, the Committee agreed to defer the item of business “Matters Arising” to the next meeting.
- 5.2 The Committee agreed to meet in *camera* on Tuesday, January 07, 2014 at 10:30 a.m.

EXAMINATION OF THE PETROLEUM COMPANY OF TRINIDAD AND TOBAGO

Pre-hearing discussion

- 6.1 The Chairman advised Members that the Committee met with the Board and Executive Leadership Team of PETROTRIN in public on Tuesday February 19, 2013 and Tuesday April 16, 2013.
- 6.2 The Chairman informed Members that subsequent to these meetings held in public the Committee sent additional questions to PETROTRIN and received written responses dated March 8, 2013, April 12, 2013, and June 20, 2013.
- 6.3 The Chairman suggested that Members review the summary of the Committee’s examination of PETROTRIN prepared by the Secretariat.
- 6.4 The Chairman invited Members of the Committee to discuss the approach for the examination of PETROTRIN.
- 6.5 After some discussion, Members identified their specific issues of concern such as the lack of proper project management and large cost over runs on projects. The Committee agreed on the general approach for the examination of PETROTRIN.
- 6.6 There being no further business for discussion in *camera*, the Chairman suspended the meeting at 11:10 a.m.

Public Discussion

7.1 The meeting resumed in the J. Hamilton Maurice Room at 11:25 a.m.

7.2 The Chairman welcomed the officials and introductions were exchanged.

7.3 The Chairman indicated that at the meetings held on Tuesday February 19, 2013 and

Tuesday April 16, 2013, the following issues were discussed:

- Crude Oil Refining;
- Gasoline Optimization Project, including its benefits, costs and method of procurement;
- Gas to Liquid Project; Project Management; and
- The Construction of the new Head Office.

7.4 The following issues arose from the discussions held with PETROTRIN officials:

a) Gas Optimization Project (GOP)

Based on the previous meeting held with PETROTRIN on April 16, 2013, the Committee was informed that the Cat Cracker was in its final stages of commissioning, however, the Alkylation Plant and the Acid Plant were mechanically completed in 2011, to be fully commissioned in May of 2013. The failure of PETROTRIN to complete this prompted the Committee to enquire into the status of the GOP.

PETROTRIN indicated that the FCCU or the Cat Cracker is on stream and producing gasoline, as well as the Alkylation Plant and the Acid Plant are also on stream. The Committee questioned whether the GOP has been working as projected. In response, PETROTRIN stated that they are reasonably pleased with the products that these plants are producing.

b) PETROTRIN's source of Electricity Supply

PETROTRIN previously stated that they rely entirely on T&TEC for their source of power. However, PETROTRIN also indicated that they have installed two additional sources of supply which are currently in the final stages of completion. The Committee questioned whether there is a mechanism for monitoring these recently installed sources of power supply. PETROTRIN, in response, stated that they have internal checks and balances on the entire system to mitigate outages.

c) Completion of Projects

The Committee inquired into the completion and commissioning of outstanding projects, as well as the cost overruns that are associated with those projects. The projects include: the New Refinery Laboratory; the Ultra-Low Sulfur Diesel Plant; the Liquid Fuels Pipeline; and the Pointe-a-Pierre facility. The Committee noted that there have been significant increases in the budget over the past years. The Refinery Laboratory has increased in budget from \$170 million to \$205 million, and the budget for the liquid fuels pipeline project has also increased from \$49 million in 2012 to \$64.9 million.

In response, PETROTRIN stated that the new laboratory is completed and they are in the process of relocating, staff and equipment, to the new Laboratory. In addition, PETROTRIN confirmed that there has been major over expenditure for those projects. The increase in budget for the laboratory was attributed to the procurement model that was used.

PETROTRIN also indicated that the Ultra-Low Sulfur Diesel Plant has not been commissioned due to numerous setbacks, such as industrial relations issues involving disputes over wages, safety, and the inability of the contractor to adhere to set plans and estimates. PETROTRIN assured the Committee that the plant would be commissioned by June 2014.

Furthermore, PETROTRIN informed the Committee that the Liquid Fuels Pipeline Project, is a joint project of three state owned companies (PETROTRIN, NP, and NGC) who have also experienced some setbacks such as the commissioning of the project which is expected to be 2 to 3 months after it is opened in January 2014, due to the pipeline which runs from Pointe-a-Pierre. There were also cost overruns at an additional 30% each year due to the Procurement Model used by NGC and PETROTRIN.

d) Budgetary Estimates

Due to excessive cost overruns on projects undertaken by PETROTRIN, the Committee inquired further into the process due to the vague answers provided by the officials. In response, PETROTRIN stated that the cost overruns were caused by the type of procurement model used, and by the inability of the foreign manager to keep on time and on budget. This has resulted in a budget increase from US \$600 million to US \$1.6 billion. PETROTRIN mentioned that they are assiduously working to enhance their budgetary controls, project management skills, as well as assessing other procurement models that can be used for major projects.

e) South-West Soldado Reactivation Project

The Committee inquired into the completion of Phase 1 of the project which has been prolonged since 2012. PETROTRIN, informed Members that Phase 1 has been hindered by many factors, such as:

- the lack of proper maintenance of the infrastructure over the last decade;
- scheduled working patterns for offshore employees (one week on and week off or two weeks on and two weeks off);
- the procurement of temporary production facilities; and
- the inability to produce water offshore because of the aged pipelines and flow lines which are part of the old infrastructure.

In light of this, PETROTRIN also indicated that they have embarked on a major exploration drive in that area and are in the process of starting seismic activities which can yield reserves. They have been granted a Certificate of Environmental Clearance (CEC) on December 10, 2013 and about to proceed with the project. In addition, PETROTRIN stated that issue with the fishermen has been resolved. The Committee recommended that PETROTRIN develop a Compensation Policy for its stakeholders.

f) Requisite Approval to Increase Expenditure

The Committee noted that PETROTRIN's financial system prohibits expenditures to exceed the approved budget without the requisite approval. This led the Committee to question PETROTRIN's budget of \$1.4 billion from an initial budget of \$600 million for the GOP. PETROTRIN stated in order to obtain an increase in budget to meet expenditure, a presentation had to be made to the 'Energy Standing Committee' on energy in Cabinet.

In addition, PETROTRIN indicated that an increase in budget required approval from Management and the Board. The Committee then further questioned whether any red flags were raised by PETROTRIN as the budget was steadily increasing. In response, PETROTRIN's current board members stated that at the time of the GOP's inception a steering committee was in charge of the project. The steering committee's mandate was not only to monitor operational and construction progress but also to monitor the budget.

g) Bechtel

The Committee queried whether PETROTRIN was satisfied with Bechtel's performance as the Project Manager on the GOP. PETROTRIN responded that they were dissatisfied. The Committee further inquired why PETROTRIN acceded to Bechtel's request to change from a 'Lump sum approach' to a 'Cost reimbursable approach' half way through the project, which resulted in expenditure doubling from its initial estimate.

PETROTRIN revealed that the decision was taken by the steering committee at the time. The Committee inquired from PETROTRIN what lessons were learnt by PETROTRIN from this experience. The Officials stated that many lessons were learnt, but the primary lessons include: the Cost Reimbursable Model is not always appropriate; the hybrid contracts used was also inappropriate as this led to an increase in expenditure; and Bechtel's fast-track method to tender items based on a 30 percent design, was not the approach that should have been used .

h) Solvency of PETROTRIN and the Downturn of the Energy Market

The Committee inquired whether PETROTRIN viewed itself as being solvent in the midst of a downturn of the gasoline and crude oil market. PETROTRIN's officials informed the Committee that because the company is in the business of exploration and production, as well as refining and marketing, there was no need for concern. PETROTRIN indicated that their current five year forecast showed their company will remain viable and sustainable even during this downturn. PETROTRIN also mentioned that the entire petroleum market is a cyclical market in which they have been through on countless occasions.

i) Regional Markets

The Committee inquired whether PETROTRIN identified any kind of growing trends in the medium-term for the regional petroleum market. PETROTRIN, in response, stated that their premium market was the local and the regional market for petroleum products, but the growth of the market depended on the economies of island states. As most islands were tourism based economies, PETROTRIN indicated they have not seen much growth in recent past. As it stood currently the market remained in a stable state.

j) Ultra-Low Sulphur Diesel Plant

The Committee inquired into various aspects of the Ultra-low Sulphur Diesel Plant (ULSD) that include: the status of the plant; whether the company is in litigation with

the contractor that is involved on the project; and the incurred cost for PETROTRIN. PETROTRIN revealed that the contractor for the ULSD is Samsung who was also the contractor for the CCR plant. PETROTRIN further indicated that there were some residual issues with the CCR plant in terms of disagreement over compensation for delays with Samsung. PETROTRIN also mentioned that there are claims against Samsung, who also has claims against PETROTRIN in terms of variation. As a result, PETROTRIN stated that they have engaged in dialogue with Samsung as an attempt to settle the claims for the CCR without going to a third party. These issues have spilled over to the ULSD resulting in five months of delays.

k) Exploration and Production and Pipelines at Soldado

The Committee inquired whether there were issues with optimizing performance at the Soldado refinery. PETROTRIN indicated that there were issues with the offshore assets, due to the lack of mechanical turnarounds, thereby impeding asset integrity. PETROTRIN explained that there has not been a turnaround of the No.4 Vacuum Distillation Unit (4 VDU) for almost 10 years. This unit required major turnarounds every four to five years. PETROTRIN assured the Committee that there would be a turnaround of the 4 VDU in early January 2014. Subsequent to that, there would be a turnaround of the No. 8 Crew Distiller which was also long overdue. PETROTRIN further stated the current trunk pipelines and flow lines are part of the old infrastructure. The aged pipelines are prone to leaks every time pressure rises with increased production of fluids. PETROTRIN informed the Committee that arrangements would be made to replace the trunk pipelines and the laying of flow lines between structures.

l) Corporate Headquarters

The Committee sought to gather a status update on the establishment of the new corporate headquarters for which construction has halted since 2010. PETROTRIN stated that the project has not been abandoned. However, due to the company's increased

investment in oil and gas production and in its refinery optimization, spending \$ 400 million to complete the project is not of high priority. Instead, PETROTRIN stated that they are looking at options in an attempt to reduce the cost.

m) World GTL Project

The Committee requested a status update on the arbitration of the World GTL Project, and to determine if PETROTRIN was awarded legal costs. The officials indicated that another arbitration was completed in October 2013 and is expecting a decision to be delivered within three months. PETROTRIN was awarded the estimate cost.

The Committee further inquired into the plans that PETROTRIN has for the World GTL project. PETROTRIN indicated that they are unable to divulge any information as this matter is '*sub judice*' and it is in the hands of a receiver, who determines what has to be done with assets. This resulted in the Committee questioning who appointed the receiver. The receiver was appointed by PETROTRIN as the bondholder. PETROTRIN further indicated that they did not apply to the court for a winding up order, and that they had a debenture on those assets. Because of this, PETROTRIN is the debenture holder and the assets were placed in receivership. Due to time constraints and the sensitivity of the matter, the Committee suggested that PETROTRIN be examined '*in camera*' at a next meeting.

n) Conflict of Interest

The Committee inquired whether members of the Board had affiliation with companies that are doing business with PETROTRIN prior to their appointment as board members. In reply, members of the board stated that there are companies that have done business with before their appointment, and which PETROTRIN is still conducting business with, for example, the National Gas Company, ANSA Technologies, National Energy Corporation, and TRINGEN. The Committee agreed to have PETROTRIN provide a written response on this matter.

7.4 The Chairman thanked Members of PETROTRIN for their attendance and was excused from the meeting.

REQUEST FOR ADDITIONAL INFORMATION

- 8.1 With regard to the Directors at PETROTRIN who have declared an interest in companies conducting business with PETROTRIN, please:
- a. list the names of the Directors who have declared interests in companies doing business with PETROTRIN;
 - b. state the name of the companies and the number of years PETROTRIN has been conducting business with each company;
 - c. indicate whether PETROTRIN conducted business with any of the companies prior to those persons becoming Directors of the Board; and
 - d. explain the process used to initiate business with these companies?

POST-HEARING DISCUSSION

9.1 The Committee discussed the responses provided by the officials of PETROTRIN during the *public* meeting. Members expressed concerns they continued to have with the management and operations at the state owned company.

9.2 The Committee noted that new work programme agreed to by the Committee in July, 2013, would allow for the Committee to address their concerns in the form of written questions to entities in advance in order to maximize in *public* meetings and to obtain clear and concise responses.

ADJOURNMENT

10.1 The Chairman adjourned the meeting to Tuesday January 07, 2013 at 10:30 a.m.

10.2 The adjournment was taken at 12:11 p.m.

We certify that these Minutes are true and correct.

CHAIRMAN

SECRETARY

December 20, 2013

Appendix II

Notes of Evidence

**VERBATIM NOTES OF THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE
HELD IN THE J. HAMILTON MAURICE ROOM, MEZZANINE FLOOR, TOWER D,
INTERNATIONAL WATERFRONT CENTRE, 1A WRIGHTSON ROAD, PORT OF
SPAIN, ON TUESDAY, FEBRUARY 19, 2013, AT 10.50 A.M.**

PRESENT

Mr. Fitzgerald Hinds	-	Chairman
Ms. Marlene Coudray	-	Member
Dr. Rolph Balgobin	-	Member
Mr. Colm Imbert	-	Member
Mrs. Paula Gopee-Scoon	-	Member
Mr. Fazal Karim	-	Member
Mr. Embau Moheni	-	Member
Mr. Rudranath Indarsingh	-	Member
Miss Keiba Jacob	-	Secretary
Miss Khisha Peterkin	-	Assistant Secretary
Miss Sheranne Samuel	-	Research Assistant
Mr. Dwayne Haynes	-	Research Assistant

ABSENT

Mr. Errol McLeod	-	Member (<i>Excused</i>)
Mr. Herbert Volney	-	Member

11.42 a.m.

Mr. Chairman: Thank you, ladies and gentlemen. A very good morning and welcome to you all to this meeting of the Public Accounts (Enterprises) Committee. Let me, by way of housekeeping, say that when one is called upon to speak the instrument in front of you should be activated so as to have what you say recorded. All these proceedings are going to be recorded and we would need your cooperation in that regard.

Let me formally welcome the board and management of PETROTRIN who are responding to our invitation to be with us here this morning. I would like to begin by asking you, the representatives of PETROTRIN, to introduce yourselves to this Committee; of course, beginning with Mr. Hassanali over to my left. Thank you very much.

Petroleum Company of Trinidad and Tobago Limited

Mr. Khalid Hassanali	-	President
Mr. Lindsay Gillette	-	Chairman
Mr. Aleem Hosein	-	Deputy Chairman
Mr. Reshard Khan	-	Director
Mr. Mado Bachan	-	Vice-President, Refining and Marketing
Mr. Hemraj Ramdath	-	Vice President, Strategy and Business Development
Ms. Gillian Friday Communications	-	Manager, Corporate
Ms. Radica Maraj Adharsingh Management (Ag.)	-	Corporate Manager, Law and Land
Mr. Rajkumar Bissessar	-	Chief Audit Executive

Mr. Hassanali: Mr. Chairman, if I may crave your indulgence for a minute, there has been an accident on the highway this morning and our Vice-President, Exploration and Production and our Vice-President, Finance, will be here shortly. They are in the traffic, but we will be happy to proceed nonetheless.

Mr. Chairman: Thank you very much for the advice and we take the opportunity to say that one of our Members, Sen. Dr. Balgobin—oh, he has just arrived—he too was afflicted by that circumstance but he is now with us.

Might I ask therefore, Members of this Committee, beginning with Member Coudray, to introduce yourselves to the folks.

Introductions made.

Enter

Mr. Carl McLean	-	Vice-President, Finance (Ag.), PETROTRIN
Mr. Jamaludin Khan	-	Vice-President, Exploration and Production, PETROTRIN
Mr. Keith Ramnath	-	Vice President, Human Resources, PETROTRIN

Mr. Chairman: Let me indicate that the purpose of this meeting is to examine the audited financial statements of your company, PETROTRIN for the years ended September 30, 2008, September 30, 2009, September 30, 2010 and September 30, 2011.

Let me compliment you briefly going forward because you are one of the companies that responded to our request for early submission of these audited financial statements. You rose to the cause and we appreciate that. It is on the basis of those that we are here this morning.

I would like to ask one of you to make a brief opening statement summarizing the views of PETROTRIN and your general position, for the benefit of this Committee. I will give way to one of you to begin with some opening remarks about PETROTRIN and its position in the space.

Mr. Hassanali: Thank you very much, Mr. Chairman. As you know PETROTRIN is in the exploration and production business as well as the refining and marketing business. Refining and marketing is centred at Pointe-a-Pierre with the refinery, which has a capacity of about 160,000 barrels per day. The exploration production operations are both on land as well as offshore.

We also have a number of joint venture partners. We have 24 joint venture partners on the east coast as well as the north coast and we also have a number of lease operatorships – farm-out operators and production sharing contract operators. They also number around 12.

In terms of activity, I would like to start with the refinery first of all. The refinery's capacity is 160,000 barrels per day of which 40 per cent of the crude input is from local sources. The other 60 per cent is all imported crude. Of course that is out of necessity in terms of the local production as well as it has to do with the nature of the configuration of the refinery.

Over the period in question, we have been through a major upgrade of that refinery, especially in terms of maximizing gasoline production, referred to as our gasoline optimization programme, and also maximizing the production of low sulphur diesel fuel. Collectively, we call that our clean fuels programme and it is intended to allow the refinery products to be sold anywhere in the world. In other words, we will now be able to meet international specifications.

I can give a status afterward as to where those are, but the GOP programme started somewhere around 2004/2005 and the outstanding work, as we speak, is two sets of units: one is the catalytic cracker and the other one is the acid Al chelation plant. They both work together. The reason they are outstanding at this point in time is because of a utilities issue in terms of steam required.

The refinery celebrated its 100th birthday last year, so that a lot of the plants are quite old. In fact, the boilers, some of them, are from 1955 vintage and that was part of the issue. However, the board of directors has approved the immediate order of a new boiler and a second boiler to remedy this kind of issue, but in terms of maintenance, we have got to this point as well as because we have been behind over the years in terms of scheduled maintenance. For example, we were out of capacity for some time this year because that train, so to speak, was not turned around in eight years, whereas it should have been turned around between three to five years. We are now over that and we are up to as at this morning around 155,000 barrels per day.

I would just like to turn now, Mr. Chairman, to the E&P offshore operations, which is primarily what we refer to as Trinmar off Point Fortin. The production as of today is around 21,000 barrels per day from offshore. Once again, our infrastructure is quite aged. However, we have been awarded two licences by the Ministry of Energy and Energy Affairs in recent times with minimum work programmes. We also have an intense amount of activity to be done this year and we expect to see production rising gradually throughout the year, ending in December at higher numbers in terms of oil production.

At Trinmar we also have a drilling rig for the first time in—well we started drilling last year. There was a lull in drilling for a number of years and we have recommenced the drilling programme as part of the initiative to increase production. So, at this point,

there is a drilling rig a workover rig, a second workover rig, to come in very shortly and we are going to be employing a number of innovative methods to improve the production at Trinmar.

On land, we also have a drilling rig and we have about 20 workover rigs, all geared towards improving the production, which stands as of this morning at around 14,000 barrels per day.

On the lease and farm-out operators, the production from them is around 7,000 barrels per day, so they produce about one-third of our land production. Overall, the strategic direction in which PETROTRIN is moving at this point in time is: one, to complete the finery upgrade; and secondly, on the E&P side, to maximize the proportion of local crude that goes into the refinery because that is how we can increase our profitability. I believe that is a general overview, Mr. Chairman.

Mr. Chairman: Thank you very much. It is correct to say, for the benefit of those who are listening and viewing these proceedings, that PETROTRIN was incorporated in January 1993. Is that correct?

Mr. Hassanali: Yes, Mr. Chairman.

Mr. Chairman: And that it consolidated the operation of petroleum producing, refining and marketing assets and it took together in that incorporation, the assets of Trintoc and Trintopec. Is that correct?

Mr. Hassanali: That is correct, Sir.

Mr. Chairman: And in the year 2000 PETROTRIN acquired the assets of Texaco Incorporation in the joint venture Trinmar Limited. Is that correct?

Mr. Hassanali: Yes, that is correct, Sir.

Mr. Chairman: Making Trinmar Limited a part of its exploration and production operations and that PETROTRIN is 100 per cent state-owned, Government of Trinidad and Tobago. Is that correct?

Mr. Hassanali: That is also correct, Sir.

Mr. Chairman: And that you have within your fold a number of subsidiaries: Caribbean Oil Purchase Company Limited, Trinidad and Tobago Marine Petroleum Company Limited, Trinmar Limited, Trinidad Northern Areas Limited and, of course, PETROTRIN EAP Services, which does counselling of your employees and that sort of

thing. Is that correct?

Mr. Hassanali: That is correct, Sir.

11.55 a.m.

Mr. Chairman: And, generally speaking, you have had some fluctuation, if you like, in your profitability between 2008–2011. In other words, there were times you yielded some profits and at times you experienced losses during that period, the period that we are looking at today. Is that correct?

Mr. Hassanali: For the period 2000 to the present Sir –

Mr. Chairman: 2008?

Mr. Hassanali: Or 2008?

Mr. Chairman: Yes.

Mr. Hassanali: Mr. Chairman, 2009 and 2010 were the only two years in which there was not a profit, and that was because the investment in the gas-to-liquid plant was written off; 50 per cent in 2009 and 50 per cent in 2010, each being \$1.2 billion written off in those two years.

Mr. Chairman: So, that apart, the company general experience has been that it would yield profit.

Mr. Hassanali: That is correct, Sir.

Mr. Chairman: Just for the benefit of the listeners and viewers—well before we go there, let me then—I think we have covered some ground in this respect about the company. So, let me now invite Members of this Committee to raise any questions or issues regarding the accounts with PETROTRIN. The floor is open for this purpose.

Mr. Karim: Mr. Chairman, let me first of all thank the president for a very concise statement with respect to the operations of PETROTRIN. I know you gave us the figures of the capacity of 160,000 barrel per day, and they quoted 7,000, 14 and 21. I just want to get a sense in terms of what you currently refined; vis-a-vis your capacity.

Mr. Hassanali: Sir, just for clarification, you are asking what crudes we refine?

Mr. Karim: Yes.

Mr. Hassanali: Generally speaking, we refine all of our land crudes that is produced by PETROTRIN, as well as crudes that are produced by our lease operators and our farm-out operators. In terms of importation, our imports generally come from West Africa,

Russia, Colombia and some from Brazil. The reason for that wide diversity is mainly because of the configuration of the refinery. The refinery was set up initially by Texaco as a heavy oil refinery to refine Arab Heavy and Arab light. So the refinery diet has to be skewed to the configuration, albeit that we have upgraded the refinery twice over the last few years.

Mr. Karim: On to the questions on the upgrade and so on shortly, I just want to get the figure in terms of the amount of barrels per day that you process and vis-a-vis your capacity.

Mr. Hassanali: Okay. The boiler plate capacity is around 168,000 barrels per day, but as I said, as of this morning, we are around 155,000.

Mrs. Gopee-Scoon: As you are on that question, could I ask you – you said that you are about 155,000 barrels now – what was it, let see, one year ago and two years ago?

Mr. Hassanali: Well, it has fluctuated. During this particular year, we have done a number of plant turnarounds, meaning, we have taken units off stream for maintenance purposes, major overalls, and we have been down to, I would say – we have been as low as 50,000 or 60,000 barrels per day and sometimes when the No. 8. CDU train – there are two crude distillers that provide the entry points to the refinery. We refer to them as No. 1 and No. 8. There is no seven and six and so on. Those are from the old Texaco refinery terminology. Together the capacity is 168,000. So once we took off No. 8 most of it was down. No. 8 is the one that I mentioned that was way overdue for a turnaround, and that has caused us to be down for quite some time.

Prior to that, we would run around an average of about 140,000. I can get the exact figures from our Vice President, Refining and Marketing, if you permit me please.

Mr. Bachan: Good morning all. Fortunately, I have some very specific information here which I would like to share with the Committee. For fiscal year 2008, our throughput was 150.9 thousand barrels per day; fiscal 2009, 149.8 thousand barrels per day; fiscal 2010, 132.1 thousand barrels per day; fiscal 2011, 137,000 barrels per day, and we are dealing up to 2011, so I would stop at that point.

But if you would permit me to explain very briefly, for example, in 2010, I think the nation knew we had a very dry season and the drought and water affected some of the throughput. You know, you have to use cooling water. As, Mr. Hassanali, our

president was explaining, like any asset, there is a sequence of events you must come down. You have to turnaround the asset integrity and the safety, and we have been going through it currently. I believe that is the current question. We have been going through a series of turnaround programmes to ensure that we have the integrity of the plants and when you turnaround an asset you also increase the reliability.

So, in the last quarter, for example, the throughput has been very low at the refinery, which is not unusual in any refining system where our HCDU, our 8th largest crude distiller—that is the unit where the crude enters and high-school chemistry where you boil off at different points. Now, typically, you turn around a unit every five years. That unit was not turned around for the last eight years, so when you get into that now, you have a lot of undiscovered work and, therefore, you had to get out of that. We are out of that now and today, this morning, our throughput has been 155,000 barrels and for this month to date, if my memory serves me well, it is 132,000 barrels per day and we are climbing back up, because we have recovered.

Mr. Karim: Mr. Chairman, let me just make a comment.

Mr. Chairman: Sure, Mr. Karim.

Mr. Karim: Mr. Chairman, I think while investigate the accounts and the operations of PETROTRIN, based on what Mr. Bachan would have said and also the president, I think I wish to take this opportunity to congratulate the chairman and the members of the board and management for the work they have done, particularly in the context. I am personally aware of the number of your plants that have been down, and we have been able to get reliable supplies of fuel to the country without any major social disruptions. I think we need to tell you thanks for that.

Mr. Indarsingh: Mr. Chairman, I really want to join Minister Karim in his sentiments, but coming back to the issue of the financial accounts of 2008, 2009, 2010 and 2011, I want to zero in on—if I could recollect, the president indicated that PETROTRIN went into the red in 2009 and 2010.

Mr. Chairman: That is correct.

Mr. Indarsingh: He indicated that this had its genesis or link to what is called the Gas Optimization Project. If he could indicate to this meeting here, at that point in time, what procurement process was used in this particular project, and also was there any

due diligence that was done in relation to World GTL before “PETROTRIN got in bed” –if I should use that phrase—with World GTL, and what was the cost to the taxpayers of Trinidad and Tobago as a result of this particular project?

Mr. Hassanali: Mr. Chairman, Minister, I think there are two issues that you referred to. The first one is the Gasoline Optimization Programme and the other one is the GTL, Gas-to-Liquid Project. Would you like me to address both of them?

Mr. Indarsingh: Both.

Mr. Hassanali: Okay. If I may start with the Gasoline Optimization Project, I think you asked what procurement method was used. The GOP programme could comprise a number of plants. The first one was the Isomerization Plant, the next was the CCR, the Continuous Catalytic Reformer, after that was the Catalytic Cracker and the Acid Alkylation plant. Now, the first plant, the Isomerization Plant was done on a basis of a fixed price lump sum and Bechtel was the project manager. The contractor for the Isomerization was Flur, F-L-U-R—Flur International.

After that, the other plants were put together and Bechtel was appointed project manager of the entire rest of the activity, and though the procurement method in general that was used was one of a cost-reimbursable model. In other words, the design phrase for those plants was on fixed price, initially, and the construction was all on a cost-reimbursable basis, supervised by the project manager. That was the procurement method for the Gasoline Optimization Plant.

Turning to the GTL plant, the GTL plant was the main project there. The main partner was World GTL Incorporated. I am a little unclear as to the nature of the due diligence that may have been done in that regard, but the method of implementation was the relocation of a methanol reactor from another country into Trinidad, and well that plant is still to be completed.

Mr. Chairman: Just for the benefit of the citizens of this country and others who would look and listen, joint ventures are not any new experience to PETROTRIN. This is quite natural and normal terrain. You engage in a number of joint ventures. Do you?

Mr. Hassanali: Yes Chairman, that is correct.

Mr. Chairman: And, in fact, you do so in order to attempt to diversify, both your exploration, production, refining and marketing operations. The acquisition of joint

ventures represents spreading of risks; taking advantage of private-party experience; access to improved technology and capital resources. It provides an opportunity to grow PETROTRIN reserves and assets and access feed stocks and product markets. I mean from that – this is from your document – it shows to me quite plausible reasons for engaging in joint ventures of which the two you have just mentioned was but apart. Is that correct?

Mr. Gillette: That is correct.

Mr. Chairman: Insofar as the Isomerization Unit was concerned, the rationale for that – this is for the benefit of those who are listening to us – was to produce an environmentally friendly blending component to enhance the motor gasoline pool; more hydrogen available for reaction processes. To me, that was a laudable and worthwhile objective. So any problems may have been for other reasons, but the purpose and intention was, I am sure, as I said, laudable, and it would have attracted those who were responsible in PETROTRIN at the time for that reason. Is that correct?

Mr. Hassanali: Yes. I think I mentioned earlier, Mr. Chairman, that the purpose was so that PETROTRIN could produce products that are marketable anywhere in the world and, yes, I agree the Gasoline Optimization Plant was to maximize the gasoline production, not only for specification, but gasoline is one of the higher value products. So the further you go down in the value chain you produce a larger quantity of higher value products and that was the intent. In terms of the diesel, low sulphur diesel is also a higher value product with an emerging market. So, yes, a clean fuels programme, I believe had excellent intent.

Mr. Chairman: And so to the gas-to-liquids project, it was a worthwhile project. I mean, it was a project that PETROTRIN would have approached for very good reason, let me put it as in layman terms.

Mr. Gillette: Can I just say something, Mr. Chairman –

Mr. Chairman: In other words, the reason I am taking it like this is because we are a state-owned entity and things obviously went badly with that particular project.

Mr. Gillette: Okay, let me just clarify, because the GOP did not have a joint venture, the GTL had a joint venture partner. I am separating the two.

Mr. Chairman: Yes, thank you.

Mr. Gillette: And as you said, PETROTRIN would go into these joint ventures to, first of all, many companies go into joint ventures because they may need a technology partner, but also they may need to share the risk associated with the size of the project.

Mr. Chairman: Yes.

12.10 p.m.

Mr. Gillette: In the particular case in the world GTL, PETROTRIN put all the money up so it really was not a partnership of financial reward or anything like that.

Mr. Chairman: I see.

Mr. Gillette: You see?

Mr. Chairman: Yes.

Mr. Gillette: So we put all the money up despite having 50 per cent and the governance in the board itself was such that the joint venture partner out of New York had most of the say in the whole issue. That was the main issue there. Further to that, GTL is something that has been around for many, many, many, years, but when you build a small GTL plant, almost about 2,200 barrels per day, I do not think they have been really tested in terms of the world market, a plant of that size – big plants, yes, but not small plants.

Mr. Chairman: Members? Anyone? Yes, Mr. Karim.

Mr. Karim: Can I go back to a statement that the President raised with respect to the GOP and the Cat Cracker upgrade, where you indicated that Bechtel was the project manager? I wish to enquire whether Bechtel, while they served as Project Manager for those two projects, were also contractors of any sort for any other works associated with that, and if it is so whether you would confirm that they project managed themselves. The other thing I would like to ask you to consider is whether in fact there was a local partner to Bechtel, if you can tell us who that local partner is, and maybe who were the principals of that local partner.

Mr. Hassanali: Yes Sir, through you, Mr. Chairman?

Mr. Chairman: Yes, indeed.

Mr. Hassanali: The project manager for the GOP programme was indeed Bechtel. Bechtel was project manager on a cost reimbursable basis and Bechtel also was, indeed, contractor for what is referred to as utilities and off sites. I mentioned earlier a number

of plants: the Isom, the CCR, and so on, the utilities and off sites are all of the common facilities, all of the pipelines and the separators and the vessels, and so on, that connect all of these together. Yes, Bechtel was also a contractor so Bechtel had two roles, one as project manager, overall, and also as contractor. Yes, Bechtel indeed, in that sense, was supervising itself.

Mr. Chairman: Okay, thank you. Mr. Imbert?

Mr. Imbert: Mr. Chairman, I am looking at the clock.

Mr. Chairman: Yes, while you mention that just let me say, we got started in this session a little later than we had scheduled because we were detained in another session elsewhere, the committee, so we propose to wrap up at about—I would say about 12:40 p.m. So, keep your eyes on the clock with that in mind.

Mr. Imbert: 12:30 p.m.—?

Mr. Chairman: No, I would say 12:40 p.m.

Mr. Imbert: Well, you might be on your own. [*Laughter*] But the point is I am looking at the clock, now to get a proper understanding of what has happened with the gas optimization project, the gas-to-liquids project, et cetera, I think, speaking for myself, this will take several meetings. There is no way we could exhaust those topics today.

I have some issues. I have been looking at PETROTRIN for about 20 years and I have had the opportunity to be both in Government and Opposition over those 20 years, and I have formed a view and it has nothing to do which party is in power or with which government is in place or anything like that, that PETROTRIN often runs into difficulty in managing its projects. Its projects are often over budget and over timed.

There seems to be a chronic problem. Do not take this the wrong way but I have looked at PETROTRIN for 20 years, they seem to have chronic deficiencies in terms of managing their projects efficiently. To illustrate this I want to ask a question; a few years before the last general election in my capacity as Minister of Works, I was asked to assist with the reconfiguration of the road system on the highway side of the PETROTRIN estate to allow better access to the new head office that was to be constructed in that location. Five years later I am looking at an unfinished building. Now I know that two or three years of that problematic project occurred under a previous government, but another three years have elapsed under a new government;

what is the problem? A simple building project, putting up an office building, why should that take five or six years and why should it just be standing up there as a “white elephant on ice”? I am asking this in the context: is there a problem in PETROTRIN in terms of project management skills? Could you answer that general question to the context of that head office building?

Mr. Hassanali: Mr. Chairman, Member, I would just like to get straight to the building to illustrate the point as well. The budget for that building was around TT \$400 million and it was over budget, it was going over budget, as well. The design was one that was extremely elaborate and on review it was felt that we should do some value engineering on that particular building. I think the impetus for that building, initially, was to relocate on west of the main road, back across to the eastern side to create an industrial park on that side.

Those plans seemed to have not materialized and, therefore, the urgency for that building almost evaporated. That feeling also therefore led us to review where we were going, and it did not seem to be a priority given the fact that the priority at the time was the completion of the refinery upgrade, the Trinmar work and the like, and the new board came in and determined a different policy direction and that was that we should look at arranging a BOOT contract for the building, that is: build, own, operate and transfer. In fact, we did go out for enquiries in that regard, the responses were quite unfavourable. At this point in time we are re-looking at that model for going out a second time, maybe with a slightly different configuration to make it a little more attractive.

Mr. Imbert: Mr. Hassanali, I just have one more question. You have to understand that as an informed member of the public looking on, your answers are very nice, but I am looking at an expenditure of a lot of money, got to be over \$100 million that is just standing up there for five or six years, and the only conclusion that I can draw is that something is wrong. This approach to implementation, I have seen the budgets for all these projects that all ran into trouble and when they come to Cabinet they start at \$100 million, and then a year later is \$400 million, and then another year is a billion, and when you ask, “What is going on?”, you are told, “The project was not spec properly at the beginning. The budget was not feasible. It was not estimated properly”, now you

are even telling me this building was an elaborate design, but who makes these decisions? Who in PETROTRIN makes the decision to create an elaborate design that is then not pursued, I mean, what is going on?

Dr. Balgobin: May I just jump in here because this is the thing that had troubled me in looking at this mass of information. Chairman, this is to you, because you have said that the governance design of the GTL project was off. That is we took 100 per cent of the equity interest—*[Interruption]*

Mr. Hassanali: 50 per cent and the other—*[Interruption]*

Dr. Balgobin: But 50 per cent of the governance.

Mr. Hassanali: And the other party took 50 per cent.

Dr. Balgobin: But we took 100 per cent of the cost?

Mr. Hassanali: Of the finance, yes.

Dr. Balgobin: And so the governance did not match the funding.

Mr. Hassanali: No, it did not

Mr. Chairman: No.

Dr. Balgobin: Then you said that Bechtel was project managing their own, they are supervising and providing oversight over themselves. Then we have the issue of the administrative building, and there are really a number of these things that we can call out. Chairman, my question to the company's Chairman is; is there a problem with the management competence that we have in PETROTRIN? Because a number of these things are coming up which we cannot all blame on somebody else—has done a report or submitted something.

I understand that this current batch of management would have done a good job in getting a number of things going again, so I do not contest that. But you are an experienced businessman and as an informed onlooker it seems as if almost everything that we do in PETROTRIN has a problem with cost overruns or timeliness, or both. So what is your objective opinion on the quality of the management that we have installed and is this a problem that we are likely to see propagate itself in the future?

I do not think it is restricted, with all due respect to Mr. Imbert, I am sure he would agree to project management. I think that there is a more general issue. If I look at the management letters that are presented here there is a problem. So I would like to get

your views on it and how you propose to repair that.

Mr. Gillette: The Member of Parliament, Mr. Imbert, is correct; he zoomed in on a particular issue which is project management. You are correct. I think we were installed October, 2010, and we, ourselves, have not seen a project that have been on time. So you are very right with respect to that. Yet still what is very ludicrous in the whole issue is that we give project management courses, sometimes, in the Arthur Lok Jack School. This is an inherent problem and we as a board face that problem on a regular basis: one, project managing and, two, cost overruns, in particular.

Dr. Balgobin: Just to come back to you there because I do not think that we have the Arthur Lok Jack School in front of us, we are talking to PETROTRIN, if I recall.

Mr. Gillette: No, I am saying that we ourselves teach.

Dr. Balgobin: I am just trying to understand what is going on in PETROTRIN and what PETROTRIN is doing. [*Laughter*]

Mr. Chairman: Are you through, Mr. Gillette?

Mr. Gillette: No, I am not. I am zooming in on one particular issue, I mean it is a lot, as somebody said over there that it would take us a long, long, time to discuss all these issues and it will. We do have problems with project management at PETROTRIN itself and we are trying as a board through our president to try and repair some of those issues, putting people in the correct positions. Managing these projects, as you know, a lot of other projects go on at PETROTRIN on a very regular basis and keeping our hands on these things. So it is a management nightmare and we are putting a lot of pressure on the President and his team of Vice Presidents to ensure that project management can be done in a particular time frame and can be improved.

In particular, with respect to the building, we the board took a position to stop it because when we came on board in 2010, I think we had spent far in excess of what the budget was. It was ridiculous to be brutally frank. I think it was over \$200 million of which a lot of the money was already spent on the architect, on this, on the Project Manager, so we said stop, so we took that position to stop it. Second of all – we are looking at it now because I think the idea of consolidating all of your operations in one location is a great idea because what has happened, and I believe this has also caused a lot of the problems with project management, is that a lot of PETROTRIN's managers are all across the

estate. They are not in one position and that does not augur well for any sort of management. So the idea was good but in terms of the cost overruns in that building was ridiculous, so we put a stop to it.

Also, it was a very elaborate building—very, very, hard even to maintain going into the future, so we sat down and we said let us stop it for the time being and take a look at what we can do of completing this building and, hence, the President spoke to you about doing a build-operate-transfer programme were we could bring in other areas of competence, other areas of expertise to complete it. As of now, we are still going through that process to determine what we are going to do with this thing, but we are trying to. I think the idea is still good the Board thinks the idea is still good in terms of completing it.

12.25 p.m.

Mr. Imbert: Has any postmortem been done on this? The problem I am having—I am trying not to be political at all. I am looking at PETROTRIN for 20 years, different governments, including governments that I have been a part of. Does anybody sit and do a postmortem of these projects and determine what went wrong and the lessons learnt? I am listening to what you said about GTL, and it appears that the project was not properly thought through and was not properly spec, or the arrangements were inappropriate; but somebody sat and worked this out.

I heard the President say that the building was an elaborate design. Who approved that design? Does anybody in PETROTRIN, after you have a disaster sit and say, “Right, this was a mess, let us try and learn the lessons from this and not repeat it.” Does that happen?

Mr. Gillette: Right now we have asked the President to do a lot of these analyses on a lot of the projects, in particular World GTL, because we have to learn from our lessons. We actually want to create a manual in terms of the lessons; in particular that World GTL is something that went wrong from the very beginning, from the conceptualization of what we should do with this GTL. What is even more concerning is that you have spent \$2.8 billion, and that is taxpayers’ money, and as of now we do not have a working plant. We have used many consultants throughout the world to determine whether this plan can in fact work, and nobody can tell us if this plant can work.

In answering that, we are doing our whole analysis on what happened with this GTL, what happened from the very beginning, to the technology, to even some of the governance issues, to the way payments were made, to try and learn from those lessons of the past exactly what you are speaking about there. But it also goes right through the building and many other projects we are doing right now, and you are quite right in terms of project management and timing and those issues. PETROTRIN is a very, very valuable asset to this country, and we have to fix those problems. We must fix those problems.

Mr. Chairman: I cannot resist the thought, putting myself in place of the layman out there listening to these proceedings, I cannot resist asking whether—having surveyed the problems, which you properly described on the urgings of my colleagues in this committee. I still have not heard what in your opinion is at the core, at the heart of this issue. I am to ask whether you think it has to do with the frequent changes in the governance at PETROTRIN—they have been pretty frequent, all things considered—or whether it is partly to do with this, “Well, is not my money, is dem money, is somebody money.” Really at the heart of this, as Mr. Imbert alluded to, things are just going badly consistently for many years. What is your take on those matters, for the benefit of the layman out there? Do you think the two points I have made bear on the situation as a cause?

Mr. Gillette: There are issues. One of the other issues is when the company was merged also with Trinmar and Texaco, you are also merging cultures, and as you merge cultures into an organization, you have many different ways of managing that process. I do not think it was managed effectively, so you have different cultures that exist in PETROTRIN. You have the Trintopec culture, you have the Tesoro culture, you have the Texaco culture and you also have the Trintoc. All that just came together. You have to understand that in the world of business, when you bring all those things together, your biggest issue is no longer your marketing or your sales, but the issues of governance and managing your processes inside of that.

Mr. Chairman: But you mean, Mr. Gillette, 20 years later we still have not merged those cultures.

Mr. Gillette: Some companies never even survive beyond 20 years with respect to some

of those things.

Mr. Chairman: Well, we have; PETROTRIN has.

Mr. Gillette: We have yes, but some companies do not. Fortunately for us it is an oil producing company. It is taking the very crude that we have and own in the ground and refining and selling it outside. Fortunately for us, oil prices over the last four or five years have been pretty buoyant, also the margins have been pretty buoyant, and that is good. *[Interruption]*

Mr. Chairman: If I may, let me permit Mrs. Gopee-Scoon who wanted to get a question or comment in.

Mrs. Gopee-Scoon: Thank you, Chair.

With regard to the concerns about management competence, I had not intended to say anything about it, but as my colleague raised, I too am concerned about what happens in the HR department, because looking through the management letters there are number of HR issues that have been pointed out with regard to payroll pensions, Treasury functions, et cetera. So I have a concern that I want you to address. What are you doing about the weaknesses in your administration in particular, the HR areas?

Apart from that, when we were talking—as I said I had not intended to comment, but my colleague raised it—we were talking about the gas optimization programme, and all of the isomerization, and CCR and the cracker plants and so on. But I just want to understand, and certainly for the benefit of the public, where would PETROTRIN have been had those decisions not been taken, had no GOP programme been put in place? Where would PETROTRIN have been? You highlighted that what it has done for you is make you competitive and then you are now meeting environmental standards worldwide. I cannot imagine where you would have been without it, and I would like you to comment on that.

With regard to the World GTL, we have gone off the actual accounts, I want you to tell me what options were available at that time when these things were being done all over the world. There was an entire issue of demand. Plants were being set up all over the place and expertise available. What other options did the company had at that time, and did you enter into a no choice situation? Notwithstanding, how central is the GTL to the general upgrade? I want to know that as well, and also what the current situation is.

Because it came to my knowledge that there are some parties interested in working with the current plant, and there are discussions going on as to the plant capability. So there is some sense that there is hope for the GTL plant. What is the truth in that?

In that case, are we then looking at something that is recoverable, both in terms of the plant and the cost? Could you throw some light on that?

Mr. Gillette: First of all, I was just going to address the GTL. When this GTL plant was built, there were not many plants of that size being built throughout the world. There was only one very large plant in Qatar, which was a shell plant built for \$19 million. To date, that plant has not been fully commissioned yet. A plant of less than 5,000 barrels per day is a pilot plant. So I do not know what was the objective of building a pilot plant at that point in time in Trinidad and Tobago.

Second of all, the technology that was used for this GTL came out of lab in Houston. It was not necessarily a tried and tested technology in a plant that existed at that point in time. The methodology, using a technology called the Fischer-Tropsch existed at that point in time, but the plant was designed out of a lab in Houston. So it was not a tried and tested plant at that point in time.

Mrs. Gopee-Scoon: So what alternatives were there?

Mr. Gillette: Alternatives to what?

Mrs. Gopee-Scoon: This plant was absolutely necessary, yes?

Mr. Gillette: No it was not. I do not think it was. It is taking your gas and converting it into liquids using a technology to do that, and spending your money to do that. Already we could have used our gas for other alternatives, but we took the gas to try and convert it into liquids to go into further downstream into a purer fuel, 2,200.

But at that point in time, understand something also: we were also building an ultra-low sulphur plant. The GOP also had in it a low sulphur plant, so in a funny way it was very—"redundant" is the word I am looking for. Because here you are actually in a GOP, building an ultra-low sulphur plant and you are also doing on the other side a 2,200 barrel plant from gas to liquids. It just did not make sense, and you spent \$2.8 billion to do that.

Mrs. Gopee-Scoon: What is the status of it?

Mr. Gillette: I am coming to that now. We have explored it throughout the world. We

have gone to conference; we have looked at many people who have designed some of the technologies. We even went through a company in England that was funded by Oxford University, and they were entrepreneurs, to see if we could have this plant operate. It is very, very difficult at this point in time.

Yes there are people interested who claim they can do it, and we are welcoming those people, because as you know it is in receivership. We do welcome them.

Mrs. Gopee-Scoon: What is the status of those discussions?

Mr. Gillette: I do not know, because it is in the receiver's hand. I am very, very dubious whether this plant would work or not.

Mrs. Gopee-Scoon: You are being subjective.

Mr. Gillette: My view. [*Laughter*]

Mrs. Gopee-Scoon: Do you get status reports from the receivers?

Mr. Gillette: Monthly.

Mrs. Gopee-Scoon: I am asking then, what is the status; is it likely, hopeful?

Mr. Gillette: We get monthly reports, and we advertise it in all the worldwide magazines. We advertise it, and what I am told is that we got one offer, I believe, that came in on January 28, and they are evaluating that right now.

Mr. Karim: Mr. Chairman, I have two issues I want to raise.

Mrs. Gopee-Scoon: [*Inaudible*]

Mr. Karim: Well he might answer it when I ask the question.

Mr. Chairman: Just bear in mind that we propose to conclude at 12.40.

Mr. Karim: Mr. Chairman, through you, I was going to ask the Chairman, since he was engaging the discussion of the expenditure of over \$2.8 billion, without giving us—because you probably do not have the exact figure—if there was a recovery value of the investment, what could that be to the taxpayers after having spent \$2.8 billion. That is one issue.

I want to go back to the issue that Mr. Imbert raised. I know he said he was asked as Minister of Works to improve the road network and then he made reference to the construction of the new head office. I do not know whether his road improvement had anything to do with next building that is not operable as well within the near proximity.

Mr. Imbert: Which one is that?

Mr. Karim: Diagonally southeast of where this facility is.

Mr. Imbert: No, no.

Mr. Karim: Because you improved the road network there too, and that is not complete.

Mr. Imbert: No; I was told they wanted to build a new refinery or some industrial facility on the east side, therefore they wanted to make space and that is why they were putting head office on the west side.

Mr. Karim: Mr. Imbert raised the question to PETROTRIN whether in fact they do have any postmortem. Ms. I want to go back to the issue of this head office reconstruction. I recall when I used to go to school in San Fernando, you will pass that beautiful building, as the President indicated, on the western side of the main road. So I am engaging now in a pre-mortem. Now you are going to spend approximately \$400 million of taxpayers' money. You have already spent from what the Chairman indicated maybe about 50 per cent of that, and what we see is an eyesore every time we travel on your road network that you may have improved. I do not think it was designed to do that.

I want to ask about the building which we refer to as the "old building". What is the status of that building? Is there any truth that that building was sold and being re-rented? There is so much talk, and since this is in the public domain, I would like you to clarify the circumstances now with respect to that administrative building that exists.

Mr. Chairman: You may wish to do so in a minute and a half.

Mr. Gillette: It will just take me about 30 seconds. That building has not been sold. It is the property of PETROTRIN, and right now it houses all the administrative staff including the management staff of PETROTRIN at this point in time.

Mr. Chairman: Thank you very much.

Mr. Imbert: I ask you to indulge us in another 15 seconds. Let me just clear up some issues here.

The rationale given for the construction of the head office building, at least to me—remember I was not involved with the Ministry of Energy or anything like that—was that PETROTRIN wanted to create space to construct new industrial facilities. That was why they wanted to relocate to the other side of the estate, in addition to consolidating all the staff hopefully in one building. Is that plan to create space, to create industrial facilities still in effect?

Mr. Gillette: I do not know, because I do not know what was the rationale for what you have just said there, because we were not there as a board to make that decision.

Mr. Imbert: I will get the Cabinet Note for you; serious, I am not joking. I will get it so that we can deal with this from an informed position.

Mr. Chairman: I will permit Mrs. Gopee-Scoon one question before we go.

Mrs. Gopee-Scoon: I just want the answer to: where would PETROTRIN have been had the GOP programme, the glass optimization programme, not been done? Where would you have been with regard to your products and capacity?

Mr. Chairman: I am happy to advise that we have taken a decision among us that we would want to have you back. There are a number of issues raised in the management letter that we have only touched on and we have not yet approached. So we want to suggest, and you will receive formal communication from us, that you return to be with us on March 19, which is the next scheduled meeting of this committee, and we most likely would be looking at 10.30. So you will be formally advised, but you can prepare yourself. We will be in each other's company yet again to deal with some of the more direct issues raised in the management letters.

Mr. Gillette: I think I have maybe about 10 seconds, if you would, Chairman. Would you be able to give us a list of those questions –

Mr. Chairman: Most certainly.

Mr. Gillette: – so that we can come here well prepared.

Mr. Chairman: We will do so and you will hear from the clerk in this regard.

Let me take this opportunity, ladies and gentlemen, on your behalf, on behalf of the members of this committee, to thank you the leadership, the board and management of PETROTRIN, for being with us this morning. We thought that the proceedings were very revealing, very useful, and as I said so much so that we like to have you in our company yet again.

I thank you all for coming, and members of the committee I thank you all for your intervention in this regard. I call this meeting formally to a close.

12.40 p.m.: *Meeting adjourned.*

**VERBATIM NOTES OF THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE
HELD IN THE J. HAMILTON MAURICE ROOM, MEZZANINE FLOOR, TOWER
D, INTERNATIONAL WATERFRONT CENTRE, 1A WRIGHTSON ROAD, PORT
OF SPAIN, ON TUESDAY, APRIL 16, 2013, AT 10.35 A.M.**

PRESENT

Mr. Fitzgerald Hinds	-	Chairman
Ms. Marlene Coudray	-	Member
Mr. Rudranath Indarsingh	-	Member
Dr. Rolph Balgobin	-	Member
Mr. Colm Imbert	-	Member
Mrs. Paula Gopee-Scoon	-	Member
Mr. Fazal Karim	-	Member
Mr. Herbert Volney	-	Member
Miss Keiba Jacob	-	Secretary
Miss Candice Williams	-	Research Assistant
Miss Sheranne Samuel	-	Research Assistant
Mr. Ian Mural	-	Parliamentary Intern

ABSENT

Mr. Errol Mc Leod	-	Member (<i>Excused</i>)
Mr. Embau Moheni	-	Member

11.40 a.m.

OFFICIALS FROM PETROTRIN

Mr. Khalid M. Hassanali	-	President
Mr. Lindsay Gillette	-	Chairman
Mr. Aleem Hosein	-	Deputy Chairman
Mr. Reshard Khan	-	Director
Mr. Rudranath Maharaj	-	Director

Mr. Carl Mclean	-	VP. – Finance (Ag.)
Mr. Mado Bachan	-	V.P. – Refining & Marketing
Mr. Jamaludin Khan	-	V.P. – Exploration & Production
Mr. Hemraj Ramdath	-	V.P. – Strategy & Business Development
Mr. Keith Ramnath	-	V.P. – Human Resources
Ms. Gillian Friday	-	Manager- Corporate

Communications

Ms. Calise Narinesingh-Martin	-	Corporate Manager – Law & Land Management (Ag.)
Mr. Rajkumar Bissessar	-	Chief Audit Executive

Mr. Chairman: Okay. A very good morning, one and all. Might I call this 18th meeting of the Public Accounts (Enterprises) Committee of the Parliament of Trinidad and Tobago to order, and in so doing, to take the opportunity to welcome the representatives of PETROTRIN to be with us here again.

The purpose of this meeting, as you would recall, is to continue an examination of your audited financial statements for the years ending September 30, 2008, September 30, 2009, September 30, 2010, September 30, 2011. On the last occasion we met—yes, on Tuesday February 19—and we discussed a number of issues, including crude oil refining, the procurement process for the Gasoline Optimization Project, the procurement process for the gas-to-liquid project and project management, in particular the construction of the new head office of PETROTRIN.

So the purpose of today’s meeting, of course, is to continue discussions on those and other matters. I would like now, therefore, to invite my colleagues of this committee to put any questions to the board and the management of PETROTRIN as represented here today. The floor is open for this purpose, Members.

Mr. Indarsingh: Chairman, if I may ask, through you—and probably the President may be in a position to answer—what was the original budget for the Gasoline Optimization Programme, and what is the final cost? And in that context, too, how could there be—if there is—large over-expenditure despite the use of a world class project management

consultant like Bechtel?

Mr. Hassanali: Good morning, Mr. Chairman and Members of the committee. I will take the question.

Mr. Chairman: Thank you very much.

Mr. Hassanali: Mr. Chairman, yes, the GOP, the Gasoline Optimization Programme actually was conceptualized in 2003/2004, and the estimate at the time that was prepared by PETROTRIN was US \$350 million, and that estimate was approved by Cabinet at the time. The construction began around 2005, but in that very year the company invited its project management consultant, that is Bechtel, to prepare an updated estimate. That cost estimate prepared by Bechtel was US \$650 million.

In late 2006, the other plant, the Continuous Catalytic Reformer, (CCR), began, as well as the Cat Cracker began, and the estimate at that time was again updated by the project manager, Bechtel. It then moved from \$650 million to US \$850 million, on the basis that the market was heating up in terms of construction and the like.

Now, at that time, Mr. Chairman, fixed lump sum prices were received for the various units, the Isom., the CCR, the Cat Cracker and the Acid/Alkali, but the total of all of those fixed lump sum prices was \$878 million. Therefore, it was slightly higher than Bechtel's estimate, and the management at the time took the decision to change the method of procurement from fixed lump sum price to a hybrid of a fixed price for design and a reimbursable for construction. This estimate of \$850 million was approved by Cabinet on February 14, 2007. In June 2008, the estimate was again revised by the project management consultant and the company, to US \$1.3 billion, and the project, of course, at the time, was in the throes of construction.

The cause of the substantial increase from \$850 to \$1.3 billion was as a result of delays in getting certificates of environmental clearance and the resulting claims by the various contractors and various other increased costs, as was seen at the time. This estimate was approved in the PETROTRIN 2009/2010 budget, so that in the year 2008 the cost estimate was US \$1.3 billion.

In July 2010, the current board headed by the chairman on my left, in view of that history, asked for another estimate to be done, taking into account any risks that were contemplated in terms of completion and the like. So a risked budget was done in July

2008, and that risked budget was US \$1.48 million.

Mrs. Gopee-Scoon: In 2008?

Mr. Chairman: 2010.

Mr. Hassanali: I am sorry, US \$1.48 billion.

Mr. Gillette: No, 2008.

Mr. Hassanali: No, 2010. I beg your pardon, Mr. Chairman. July 2010 that was done, at US \$1.48 billion. That estimate was confirmed later that year and also confirmed in 2011, because the question was asked in 2011. So the budget remained at US \$1.48 billion in 2011 and 2012.

Mr. Chairman, the GOP project, comprising all of those units, that is the Isomerization Plant, the CCR, the Cat Cracker and the Acid/Alkali plant, we expect to finish at a little less than that budget, at around US \$1.435 billion. In fact, I could tell you, Mr. Chairman, that as of Thursday, we expect the Cat Cracker to be making product as well. We have come to that point now. So we are pretty comfortable with these estimates.

In terms of the second part of the question, Member, yes, the project management consultant appointed was Bechtel. I believe, Mr. Chairman, on the last occasion when we were in this particular chamber, we had described, to some extent, the process that was undertaken, and we had described the procurement method which I referred a little while ago to, as largely a cost reimbursable methodology.

In answer to a question from one of the Members, we had also indicated and clarified that Bechtel was the project management consultant, but Bechtel was also a contractor within that whole scheme of things. Bechtel was the contractor on a reimbursable basis for the utilities and off sights, and I remember answering a question on the last occasion that, yes, indeed, Bechtel was supervising itself that regard.

Now, Mr. Chairman, in terms of cost reimbursable, within the project management team there were PETROTRIN employees who were monitoring costs and there was a considerable amount of difficulty and memos and so on, have been written to that effect, where it is very difficult to monitor personnel costs because Bechtel, being the project manager and being a contractor, personnel costs were very difficult. There were people working for both Bechtel and its affiliate company as well – ABT Engineering – which I think was referred to on the last occasion.

So, in summary, Mr. Chairman, the project did start with a company estimate of \$350 million in 2004, but with a Bechtel estimate in 2005 of US \$650 million and we are ending just below our latest budget of around US \$1.435 billion. That is my answer, Sir.

Mr. Imbert: Mr. Hassanali, I had asked this question before and I did not get a satisfactory answer. Who at PETROTRIN would have been responsible for monitoring or looking at or dealing with the increase in cost from \$350 million to \$650 million to \$850 million to \$1.4 billion?

Mr. Hassanali: Mr. Chairman, through you, this project was managed by a steering committee. The steering committee was chaired by our then Executive Chairman and comprised members of Bechtel as well as members of PETROTRIN, and a few other persons, like the procurement manager and the like. The terms of reference for the steering committee included the monitor of costs of the project as well.

Mr. Imbert: Did that continue up to 2013, or has that stopped?

Mr. Hassanali: No, Sir. The steering committee did not continue after that.

Mr. Imbert: After what?

Mr. Hassanali: The steering committee, I think, did not continue after – it continued up to 2012 – early 2012.

Mr. Imbert: Okay. Who would have taken the decision to change the project from a fixed price lump sum to the variable price contract?

Mr. Hassanali: My information, Sir, is that that was taken by the steering committee, the steering committee having been advised by Bechtel.

Mr. Indarsingh: Just for the record, Chairman, just to enlighten me, who was in charge of this steering committee? Who was the Executive Chairman?

Mr. Hassanali: At the time when we started the project, the Executive Chairman was Mr. Malcolm Jones and after that, when he demitted office, the chairman was Mr. Kenneth Allum, my predecessor.

Mr. Imbert: So that the steering committee took the decision to move from a fixed price to a measured price, if you want to call it that, based on a recommendation from Bechtel? That is what you are saying?

Mr. Hassanali: That is my information, Sir.

Mr. Imbert: Okay. Has PETROTRIN done a postmortem of this project?

Mr. Hassanali: In 2012 there was a postmortem in terms of the project management process. So that was done. However, Sir, the project, in a sense, has continued because we are in the throes of putting the catalytic cracker into production, and then the other two plants will be the alkylation and the acid plant, all of which should be finished by the end of this month.

Mr. Imbert: Maybe I should be more specific. This is one of the projects that I remember that started off at \$300 million/\$400 million and ended up at over \$1 billion, and I, personally, do not understand what happened, and that is what I mean by a postmortem. Has PETROTRIN done a postmortem to find out what went wrong and what are the lessons learnt and what should be done in the future to avoid this kind of thing?

Mr. Hassanali: Sir, I do have in my possession now, file notes from various members of the steering committee indicating their concerns in the way in which the procurement process went, and it is the belief of a number of the former members of the steering committee that among the main causes were as follows: one, the procurement process; gaps in the project management system, which we are correcting; as well as the heated construction industry at the time.

11.55 a.m.

But, to answer your question, finally, Sir, my information is that there is in existence a post-mortem of the project. I did not bring it with me.

Mr. Imbert: The reason why I am exploring this issue is that I would hate to hear five years from now, that PETROTRIN invests in a similar project and the same thing happens. It goes from \$200 million to \$400 million to \$600 million to \$800 million and the reason given is that the project was not spec properly, it was not scoped properly, the project manager did not do his work, et cetera. What I want to know is, does PETROTRIN have a system in place to avoid this kind of thing in the future?

Mr. Hassanali: Well, yes Sir. The methodology used for procurement was very unusual, that is, the cost reimbursable aspect. For some of the other peripheral projects, for example, we have a laboratory that was also done, again, that was done on a measured basis. You know, I think that we have to be very careful about using those types of methodologies in our type of projects because full front-end engineering design

followed by a fixed lump sum appears to be the superior model to be used.

Mr. Imbert: To deal with the point raised by my fellow Member over on that side, Bechtel is a world-class company, how did Bechtel get it so wrong in this instance?

Mr. Hassanali: Well, I can only speak from what I have been told. Bechtel did employ a local firm to work with it as well, and that firm was ABT Engineering. ABT Engineering, although it was an affiliate company of Bechtel, did have within its offices members of Bechtel as well.

Now, in terms of how could Bechtel get it this wrong? To some extent when I came into the system, personally—I am speaking of personal experience now—to give you an opinion, because I take it that the Members asked for an opinion. The cost reimbursable nature was very, very difficult to manage. As well as the fact, there seemed not to be an incentive for Bechtel to finish.

In fact, when a new Board came in, it was decided that Bechtel should be terminated and the project finished by PETROTRIN employees itself, which is what subsequently happened.

I could only say, Sir, that it is a little bit unfortunate, it is a little bit confusing as well that Bechtel, a company that has built many massive projects in Trinidad and Tobago, has got it this way.

I would think that there had to be a shared responsibility between the Project Manager, Bechtel and the Steering Committee that led the project as well, and the answer would lie somewhere inside of there.

Mr. Chairman: Mrs. Gopee-Scoon.

Mrs. Gopee-Scoon: Thank you, Chair. Mr. President, I believe you answered the question I am going to ask, you know. Within your explanation you said that the FCCU would be on stream in another week or so. So, I wanted to find out the other aspects of the GOP with regard to the Acid and Alkaline Plants—Alki is what you call it. I think it is alkylation and the ultra low diesel. When are these plants expected to come on stream?

Mr. Hassanali: Yes, Ma'am. Mr. Chairman, first of all, the Cat Cracker, otherwise known as the FCCU, the Fluidized Catalytic Cracking Unit, that plant, the commissioning in its final stages started about two weeks ago. It usually takes about

four weeks to get into full commissioning, but we are slightly ahead of schedule as of this morning. We expect to be introducing hydrocarbons as we call it, that is Catalytic, Cat Feed by tomorrow, tomorrow being Wednesday and by Thursday, 24 hours later, we expect to start producing product. The product would, of course, be things like LPG, Liquefied Petroleum Gas, as well as gasolines, as well as –this is unfinished gasolines. So we are slightly ahead of schedule and well on stream.

In terms of the other plants, the Acid Plant and the Alkylation Plant, those plants were completed –let me just check. We have a concept called mechanical completion, when they are actually completed but not yet commissioned, not yet producing product.

The Alkylation Plant was actually mechanically complete in 2011 and around a similar time was the Acid Plant. The reason why those were not commissioned is because those two plants rely on the FCCU to be in operation before they can be commissioned.

Mr. Chairman: On the Cat Cracker?

Mr. Hassanali: Pardon me, the Cat Cracker. Yes. Yes, Sir, so that the three plants operate harmoniously. Now that we are commissioning the Cat Cracker, we will be commissioning those two, so the Acid and Alki Plant, I expect to be on stream towards the end of April and early May.

Now I want to offer a quick explanation because there was a delay and I want to come back to the question posed by Members on both sides, in terms of, how did this all happen.

Mr. Chairman, it is sometimes not until one starts commissioning these very complex plants, does one realize the deficiencies that took place in the construction, because you suddenly realize the instrumentation does not work, something is missing and the like.

Therefore, although these plants –some of these plants, like the Cat Cracker was mechanically complete by PETROTRIN after Bechtel left, in the commissioning phase which did start and stop, because you would recall we had some industrial relations problems recently and the like. It was during the last year or so that we began to determine quite a host of difficult situations that we had to repair ourselves. So in other words, actually had to go back into the construction mode that Bechtel had left unfinished.

In terms of the –to answer the Member –Ultra Low Sulphur Diesel Plant called the

(ULSD), with the expected time for producing product for Ultra Low Sulphur Diesel would be sometime towards the end, the last quarter of this year, in the quarter October, November, December.

I say that in that manner, Mr. Chairman, because as may recall we had industrial relations problems last year, during which time the ULSD Plant was down for some months in terms of construction. We also at the time had some disputes with the contractor Samsung and we have since come further than those things.

But, Samsung in this particular case is working with a fixed price lump sum, although there is going to be variations to that contract based on the time lost in industrial relations issues, plus a few matters that have happened outside of the scope and the like. So we expect the ULSD to be completed by the end of this year.

Mrs. Gopee-Scoon: With some cost overruns?

Mr. Hassanali: Yes, there would be.

Mrs. Gopee-Scoon: Any idea of what level of cost overruns?

Mr. Hassanali: Yes, I would expect it to be between 10 and 15 per cent.

Mr. Chairman: Now, Mr. President –

Mr. Hassanali: Yes, Sir.

Mr. Chairman: – the finishing touches, the makeover, the repairs, that had to be done after Bechtel, was that done with local input, local expertise?

Mr. Hassanali: In terms of the Cat Cracker, that was done, yes, using local expertise. However, we also hired expert consultants as well to advise on some of the work post-Bechtel. The name of the company escapes me at this point in time. Okay, so we did use foreign expertise as well.

Mr. Chairman: Was there any recourse to having Bechtel do it, was Bechtel at fault and therefore could have been asked to deal with it in terms of their contractual arrangements?

Mr. Hassanali: Mr. Chairman, what was taking place is that we discovered a lot of design flaws by Bechtel. However, during the period when Bechtel was still working on the Cat Cracker in Pointe-a-Pierre, Bechtel, as a result of its contractual obligations was limited only to the cost of correcting the design. So part of the reason for cost overruns here, is there are numerous instances where there were flawed designs done by Bechtel.

Parts of the plant was actually constructed in some of the peripheral units, the construction activities took place when it became apparent that the designs were flawed, the construction work had to be dismantled and redone. That cost was entirely for PETROTRIN's account on the basis that Bechtel was limited only to the cost of doing the redesign.

So having gone through a number of experiences like that, Mr. Chairman, it was decided not to engage Bechtel to continue. We engaged another contractor—well, another company, to advise PETROTRIN on the best way forward and they worked with PETROTRIN for a few months.

Mr. Chairman: So you are saying there was no obvious legal liability for Bechtel in that?

Mr. Hassanali: We were advised by our legal department and liability was very limited, extremely limited, to the extent that we could have claimed, we had already done that, Mr. Chairman.

Mr. Chairman: You have used the term Cat Cracker several times here and this is all live. You see, members of the citizenry of Trinidad and Tobago are listening. Would you like to tell us in layman's language, what that is and what it does? Because this has cost the people, the taxpayers' of this country, over \$6 billion in it, so they deserve to know what we are speaking about. Would you like to say before we take the other question?

Mr. Hassanali: Mr. Chairman, what I would like to do is to invite our Vice-President, Refining and Marketing, who is far more seized in terms of answering that answer.

Mr. Chairman: Thank you very much.

Mr. Hassanali: I would ask our Vice-President in that regard to indicate what goes into the Cat Cracker.

Mr. Chairman: Am I to assume that you do not know?

Mr. Hassanali: I have a good idea, Mr. Chairman, but I want to make sure that you and the citizens of Trinidad and Tobago are properly and accurately advised. That is why I would like to invite our Vice-President, Refining and Marketing, to assist here. So I would like to ask him to advise in terms of the input, what the process is in brief and what the outputs are.

Mr. Chairman: And after he does that rather briefly, I do not want a thesis on it, but,

you know, just for the benefit of the listeners and you can rest your throat for a while because we have some further questions for you, Mr. President

Mr. Hassanali: Thank you very much, Mr. Chairman.

Mr. Chairman: Yes, indeed.

Mr. Bachan: Good afternoon all. The FCCU is a very important plant in any refining process. So that the FCCU is basically a plant that improves the value of the product you can make. So you have the feed for the FCCU which is what we call Vacuum Gas Oil, VGO in the jargon, Vacuum Gas Oil which in itself is produced from crude that you pass through your Topping Unit, what we call the distillation column; then the heavier stuff goes through a Vacuum Unit, that Vacuum Unit, under vacuum, so you separate more of the heavy stuff, you get the vacuum residue which goes for blending of Fuel Oil and the Vacuum Gas Oil is the feed for the Cat Cracker. That goes into a hydrotreater so you reduce the contaminants, because in a Cat Cracker, you have the catalyst, so you can damage your catalyst. Basically, you remove the contaminants via hydrotreating, then you go into the Cat Cracker at high temperatures and use a catalytic process, you make various components for further blending. Components such as LPG, which is used for cooking as you know locally and also upgrading further. LPG is also feed stock for the Alkylation Unit which was explained earlier that you have to have the Cat Cracker before you can have the Alkylation Unit going.

You also have light cycle oil which is used as diluent for blending back to fuel oil and you also have Cat distillates which is the gasoline blending component which is blended with many other things to produce gasoline that you consume at the gas station in your vehicles.

Mr. Chairman: Thank you.

Mr. Bachan: It is a very complex operation, but basically it adds value to the crude you put in and to our refinery economics overall.

Mr. Chairman: Thank you very much, Mr. Bachan.

Mrs. Gopee-Scoon: As we are on the business of the GOP, when we were last here and we were talking about the GTL Plant, we were speaking to whether it was salvageable and it was discussed that there is an interested party with whom you were having discussions and that you were getting monthly updates on it as to whether it is

salvageable and at what price and so on. So could you just give me an update on that?

12.10 p.m.

Mr. Hassanali: Thank you, Madam. Mr. Chairman, I would just like to preface my argument with a comment please, and that is, as you are aware the GTL plant is currently the subject of arbitration as well as two bits of litigation abroad, and I have to be careful in terms of what we say.

Mr. Chairman: Naturally!

Mr. Hassanali: Yes, so as not to prejudice the matter. So I will be happy to provide information which falls outside of that limitation. As you know, the plant is in receivership, the GTL plant, and I just want to refer to my notes a bit. The plant is in receivership and the receiver, of course – as opposed to the PETROTRIN management at this point in time – is charged with the responsibility of receiving the assets as well as managing the assets, and there was an exclusive arrangement with a particular party and that party has now submitted to the receiver a quotation for possible contractual arrangements that could eventually result with PETROTRIN. The receiver is at this point in time evaluating that proposal.

Mrs. Gopee-Scoon: I understand that part.

Mr. Chairman: Yes, yes, of course.

Mr. Hassanali: Thank you very much for your understanding.

Mr. Chairman: Thank you very much. Mr. Karim.

Mr. Karim: Mr. Chairman, listening to this episode, part two, from the last time we were here and you made mention of the man in the street and the layman, one might get the impression or they may be tempted to conclude that it seems as though there was a deliberate strategy for a flawed process that would have emanated and would have led to significant cost overruns deliberately so.

It is unfortunate if that is the interpretation of the persons listening to this presentation today because it seems as though that there were – and I am just repeating some of the things you would have said and, therefore, to continue with some questions – designs – these things might have been deliberate; design flaws – you had procurement flaws – that was flawed – you had cost recovery – that was flawed.

In fact, it is my understanding, as well, based on what you would have indicated that

the PETROTRIN board at that time, in 2006, deliberately rejected the fixed sum and went instead to the cost reimbursable. It appears as though there were no direct in that process moving from one process to the next one in terms of the cost reimbursable that they had no specific incentives to complete, and that too may have led to some of those overruns.

So as I say, it is very unfortunate that these things would have happened and I think one of my colleagues asked whether you did in fact have any corrective measures. You would have said before that you found some of these things very unusual, but I want to ask the question: could you tell us whether you found any other things unusual in this project that we may not have heard so far, that the man on the street can understand that some of these unusual things they have heard as yet? I will then come back with some other questions.

Mr. Hassanali: Thank you very much for the question. I did mention the nature of the procurement process being a hybrid of fixed cost for design and reimbursable for construction to be somewhat unusual in PETROTRIN's situation, because prior to that in my years of experience in PETROTRIN and its predecessor companies that is not a process that has been employed before that I could remember. We have in some of the smaller civil works used FIDIC-type arrangements in terms of measured work, but this, Mr. Chairman, was quite unusual. It was also unusual in that the project manager who normally is an independent party and would have no conflicts in terms of the contractors with whom it was charged with the responsibility of supervising, it was also unusual, I think, to many of us in the engineering aspects of the development to find that Bechtel was supervising itself as a contractor, and the obvious difficulties in fact were realized because in the reimbursable nature Bechtel would make claims on a monthly basis for reimbursement, but these claims would have necessarily to be gone through in great details on a line by line by basis by someone. That someone would usually be the project manager, but in this case it was not only the project manager who itself was the contractor, but PETROTRIN staff, and that was always very difficult to manage.

So, Mr. Chairman, to answer the question, these were some of the unusual things. The other thing that in my own experience I would cite as unusual, although it happens in

the industry but not necessarily in these particular circumstances, is that the construction was done on what Bechtel referred to as a fast track basis and, therefore, as the design commenced the various projects were tendered out on the basis of a 30 per cent design.

In other words, when the design—I mean these are very complex plants—had reached 30 per cent, initially the projects were tendered out, but the contracts were let to the contractors on a reimbursable basis on a 30 per cent design. So that as the designs progressed from 30 to 50 to 60 per cent and so on, and the design became more and more certain, then variations and so on would ensue. The project manager's representative at the time had explained to me that the concept that they had in mind was that you would go out on a 30 per cent design on a cost reimbursable basis, but with a contingency sum in place to accommodate for design moving from 30 to 100 per cent. The philosophy I believed at time was that this is a way of starting the construction while design was in progress, but that is a little unusual and I believe it could work but it could work only if you had an independent and very astute project manager who could manage a contractor working in that particular fashion.

Mr. Karim: In other words, through you, Mr. Chairman, this project can be headlined as an unusual project with very high risk knowing even before getting into substantial construction.

I want to ask a follow up question. You mentioned ABT, which was really the local partner if I understand it correctly from the last occasion with respect to Bechtel. Can you tell us a bit about who, what ABT is about, what the principals, what was their roles, and were there statutory performers as well in terms of this whole relationship with Bechtel? Was it another unusual aspect of the project?

Mr. Hassanali: Okay. Mr. Chairman, we are using the word “unusual” quite a lot this morning.

Mr. Chairman: Yes. He wants you to make unusual comments.

Mr. Hassanali: My understanding, Sir, is that one of Bechtel's strategies for containing the project was to recruit a local firm and the local firm would assist in the design, would also assist in terms of the aspects of the Bechtel responsibilities that took Bechtel into its role as a contractor. So ABT engineering was the firm that was associated with

Bechtel. ABT had its offices nearby, in the Tropical Plaza—I think they may still be there. I have been to those offices and Bechtel personnel, of course, were working with them.

You asked about principals. The person that we treated with when we did treat with ABT is Mr. Anthony Green. He was the lead person, or the lead executive, in ABT engineering. That is as far as I know, Sir.

Mr. Chairman: Okay. Yes, Mr. Indarsingh.

Mr. Indarsingh: President, I hope I do not hear the term “unusual” again, but in the context of the GTL plant I want to find out how much was actually spent on construction before it went into receivership? I know you have said that it is the subject of litigation and if you can respond. Given the importance of this particular plant too, if you are in a position to provide the cost of legal fees, receiver of fees and arbitration and other costs which have been incurred by PETROTRIN up to date and by extension the taxpayers of Trinidad and Tobago; and what are the next steps as it relates to this issue for the people of Trinidad and Tobago?

Mr. Hassanali: Thank you very much, Sir. Mr. Chairman, certainly we are getting a lot of information today.

Mr. Gillette: Unusual.

Mr. Hassanali: Unusual? Gas to liquid plant, Mr. Chairman, the partner was World GTL and we referred to it as the GTL Plant. The Member asked, I think, what was the amounts spent to date on the GTL Plant.

Mr. Indarsingh: What was the initial budget?

Mr. Hassanali: Okay. I got that. The initial budget for the plant in 2007 was US \$160 million. The plant was approved on the basis of that number. The expenditure to date, Mr. Chairman, just prior to receivership is US \$400 million roughly, and the estimate that has been given by various sources in terms of the cost to complete that plant would be a further approximate US \$120 million.

The second part of the question is, I think, in terms of what were the costs spent on legal fees and other —

Mr. Indarsingh: In terms of legal fees, receiver arbitration cost.

Mr. Hassanali: Okay. Legal fees to date, Mr. Chairman, on the GTL arbitration—and

we continue now because the World GTL company has appealed the last arbitration. It has taken it to the court in Toronto. So we will continue—are US \$4.3 million.

The other aspect of the Member's question in terms of cost post-receivership, the elements of these cost would be the preservation cost to preserve the assets, the receiver's fees, a few outstanding liabilities that the receiver had to treat with that have been left behind, managing some of the offices and the inventories that were left behind as well, as well as some of the studies that the receiver has started in terms of the way forward, as well as some continuing construction activities that had to do with maintenance and preservation. All of that total so far, Mr. Chairman, around US \$55 million.

Mr. Chairman: You had a question?

Mrs. Gopee-Scoon: Yes. Just as a follow up. Particular words were used this morning, deliberate processes, policies, decision issues problems and so on. That is not a conclusion that I will wish to draw that these things were deliberate, and I am sure that there are many members of the public who would not be drawn to a similar conclusion as I would not allow myself to be drawn to. I would put it down to market conditions, prevailing circumstances and the fact that we were building a very mammoth plant which was absolutely necessary if PETROTRIN wished to remain competitive and wished to remain a company on the global scene.

You are a senior member of PETROTRIN and has been so far for a long time and you know Dowde would have been involved in this project at a senior level and I want to put the question to you: in your wisdom do you regard this comment about these deliberate policy practices and positions adopted as fair comment?

Mr. Hassanali: Thank you, Madam. Mr. Chairman, I joined this project in 2009 because I was elsewhere for a few years although I still remain a member of the PETROTRIN's management throughout. Well, I have heard comments but I do not want to think negatively about things, but I really was not part of the conceptualization or the design and so on. I came in at the end. So I am not in really a very good position to comment.

Mr. Chairman: Yes. I gathered that what the Member asked was for you to tell us whether the current management and leadership of PETROTRIN—whether you consider that that project of which we spoke this morning in great detail whether it was

a project that was a applaudable one to take PETROTRIN to a position of competitiveness given its position in the international hydrocarbon arena; whether you believe that it was a worthwhile project, notwithstanding the troubles that we have identified. That is the question.

Mr. Hassanali: Okay. Chairman, I do believe with all sincerity that the project was a necessary project. I believe it was an applaudable project because the nature of our business in the refining and marketing is that we only would produce products that we can sell. The world has changed. The world has moved towards more environmentally friendly products and one of the purposes of the gasoline optimization programme was to produce gasoline, unleaded gasoline, as well as to produce products that could be sold as premium products internationally in any part of the world. Refiners have to continually upgrade their plant so as to meet the market, and one therefore in our business on the refining and marketing side we have to continually invest in order that we can stay in the same place in that sense. So, yes, I do agree that it certainly was a necessary project.

If I may just for a minute, on the other side of our business, the exploration production side, we are also involved in producing a wasting asset. So we also have to be continuously investing in terms of finding new reserves so that we can feed the very refinery.

Mr. Chairman: You see and there was good reason for my question, or my elucidation on the Member's question, because the citizens of Trinidad and Tobago have spent some money on all of this and it is easy for some of us politicians to lend the impression that things went wrong purely because of some corrupt motives on the part of persons when we might very well be asking the wrong question. Of course, mistakes were made, things went badly, but it may not have been driven by corrupt or deliberate motives, and it is important that the citizens of Trinidad and Tobago, on whose behalf you all act, and more directly so than we in this matter, understand the nature of this all. It was Mr. Imbert who had earlier asked to which extent was the management, to what extent was PETROTRIN involved in all of this, and PETROTRIN was involved in all of this all the way through. So this was important to understand. You had a question, Mr. Imbert?

Mr. Imbert: Does PETROTRIN have a project management unit or a project

management division?

Mr. Hassanali: Sir, and through Chairman again—

Mr. Chairman: Thank you.

Mr. Hassanali:—at this point in time the way in which we operate, of course, we have two separate businesses, the exploration and production business, as well as the refining and marketing business. They each have their own engineering staff for maintenance, capital projects and the like, but because we are speaking about acting in the context of the gasoline optimization programme and so on, what was done for this project, it being one of the more major projects in the last decade, is that a group was formed called the centralized engineering and construction department within the refining and marketing business that handled this particular project.

Mr. Imbert: Okay, so you had a one off—cannot call it a unit—an arrangement for this project, but are you saying, no, you can do not have a project management division or a project management unit?

Mr. Hassanali: As we now stand, we do not have like a project management office or a central office that manages all project management for the company.

Mr. Imbert: No problem. You have answered the question.

Mr. Hassanali: Okay.

Mr. Imbert: Now when I looked at your accounts from 2008 coming up to 2011, it seems to me you do not have much control over your labour cost, you do not have much control over external cost, what you have control over are your expenses apart from those things that I have mentioned, why does the company not have some overarching administrative unit looking at your projects because you projects seem to be escalating in cost from \$100 million to a billion. Does this not bother you at the level of the board and the senior management that you have all these projects going on, you start off with \$100 million estimate and it hits a billion and that is affecting your bottom line, your profitability? Why does PETROTRIN not have a project management unit to contain cost?

Mr. Gillette: The question over there, I just wanted to go back a bit when you spoke of: the GOP, how was the project conceptualized; was it a good project? We have to bring it in context with what the cost was because one must remember that at US \$350 million

we were hoping to get an extra refinery margin of \$1.89. At that particular point in time, I cannot remember, I can recall, but oil was not where it is today. Go forward now. When you spend \$1.4 billion you have to realize where the economics will go now, and we cannot determine at this point in time what the return will be because it is no longer a return on \$350 million. It is a return now at \$1.4 billion.

So from an economic point of view, at that particular point in time it was good. We had to modernize the refinery. But as you go forward, you must recognize that as we do these projects—PETROTRIN did a lot of these projects and they were large—we must contain the cost because if we do not—

Mr. Chairman: Which is the point Mr. Imbert just raised.

Mr. Gillette: Which is what I am saying and if we do not look at the returns, then it can become a bad project because the return on investment could be negative.

Mr. Chairman: Thank you.

Mr. Gillette: Can I say one more thing?

Mr. Chairman: Sure.

Mr. Gillette: Because Minister Imbert—not Minister Imbert—MP Imbert is going at the heart of a bigger thing. Personally, I believe that during that period PETROTRIN did not have the expertise to manage that project. I am saying it as it is, it did not have the expertise to manage that project at that point in time.

Mr. Chairman: And we relied largely on Bechtel.

Mr. Imbert: Hold on. There is a specific question I asked.

Mr. Gillette: Did not have.

Mr. Imbert: Looking forward now with the benefit of hindsight because this GOP project is not the only one.

Mr. Gillette: Many, yes.

Mr. Imbert: That started off a \$100 million or \$200 million and then cross the \$100 billion mark and took three times as long as it should take. I was a bit intrigue about the fast tracks statement because I am sure the project took longer than it should have. So it was not fast at all. More like slow track. But thing is, when you look at all these projects—I actually have some data here, Mr. Chairman, that says the original rate of return on the GOP project was estimated at 13 per cent—that is on the US \$650 million

price—but with the price at \$1.4 billion, it is now 6.7 per cent. It is still positive. So it is not a disaster. It is much lower than it should have been.

Mr. Gillette: But when you take that into consideration, you look at the internal rate of return, what was your margin on the refined product?

Mr. Imbert: No, I am not going there. I am using the data I have. The discounted cash flow rate of return was first put at 13 per cent on the \$650 million project, and it is now put at 6.7 per cent on the \$1.4 billion project. With respect to the margin, I do not have that information.

I am just making the point that when I look at all these projects you are talking billions of US dollars in cost overruns. It must be affecting your bottom line. Is there not the need now for PETROTRIN to put in place a system, a company-wide system? Rather than leaving it to individual engineering departments to do their own thing—I am using my own words. Okay—to look at their own projects without somebody above looking at what they are doing, is it not time for PETROTRIN to put in an overarching project management system, project review, project monitoring?

Mr. Gillette: I am going to pass you on to Mr. Ramnath, but just quickly saying here because the margin is critical. It is just my rough calculation. NPV on \$600 million with an internal rate of return of 13 per cent cannot as far as I can calculate, go back down to an interim rate of return of 6.5% on \$1.4 billion depending on the discounted value you used. You have to determine your margin in between it. Let me just say that. What was the margin used?

Mr. Imbert: Mr. Chairman, I am reading from a letter from PETROTRIN, you know.

Mr. Gillette: Sure, but I am just saying what I think.

Mr. Imbert: It came from you, so I am just using your own figure.

Mr. Gillette: Sure. What I will do now is I will pass you onto Mr. Keith Ramnath to discuss the—

Mr. Hassanali: Vice-President of HR.

Mr. Gillette:—Vice-President of HR to discuss the project management.

Mr. Ramnath: Mr. Chairman, Members of the Committee, we do recognize the need for a much more comprehensive approach to project management at PETROTRIN and we have embarked on an exercise—

Mr. Chairman: Just hold a moment, please. One moment please, Mr. Ramnath. I would just like to say that for the future we will reserve the photography for after our meeting, or to the extent that you could get it from where you are, yes, but we must be careful that it will not affect the meeting itself. Thank you very kindly. Might you continue, Mr. Ramnath.

Mr. Ramnath: Yes, as I was saying, we have embarked on a process to significantly improve the way we manage projects at PETROTRIN. That is a multipronged approach. First of all, we have recognized that there is a very strong synergy between proper project management, portfolio management, and by that I mean the selection of projects that we embark upon, as well as risk management. So we are in the process of establishing a project management office.

The purpose of that project management office would be to develop an appropriate methodology that will be used consistently across PETROTRIN. The PMO will also be developing, identifying and developing project management tools. The project management office will also have a role to play in the constant evaluation of projects along its life cycle. Now, that effort also includes several other components. One is the provision of project management training to the project management at PETROTRIN as well as the support personnel in projects.

We will provide training that will enable the project managers to gain international certification in project management, specifically certification recognized by the project management institute, the CAPM and the PMP, the project management professional. In addition to that, we do plan to hire project management experts if you will, to provide on the job or on the project support to our project managers.

12.40 p.m.

So in addition to providing the tools, the training and the technology for them to do a better job of project management, we will be bringing on board personnel who can actually work with them for a period of time on projects to give them advice, and we will have personnel shadowing these experts for a period of time. So that when these experts leave, we do have personnel at PETROTRIN who will be capable in that area.

Mr. Chairman: Now, your comments in this regard are very warming, very welcome, especially against the backdrop of a point made earlier by, I think it was Mr. Imbert on

the last occasion, that his research on the activities of PETROTRIN demonstrates that we have not excelled in our performance in terms of these projects over a sustained period. I think he identified something like about 20 years. So it is really heart-warming to hear what you are saying. Can the society, can the people of Trinidad and Tobago, be comforted that your important institution, acting on their behalf, will see the back of the kinds of problems we have had in the past and not to repeat them?

Mr. Ramnath: Yes, that is our goal. Again, we need to do a better job of selecting the projects that we embark upon, and that is why I mentioned portfolio management which will be a key piece of our project management methodology going forward, to link between the project management and risk management. So one of the things –

Mr. Chairman: No, you go right ahead.

Mr. Ramnath: Yes. One of the things that we have agreed upon is that projects of a certain size will have to undergo a very rigorous risk review before they get approved.

Mr. Chairman: You see because, you know, it is very hard –

Mr. Imbert: Mr. Chairman, I am just to trying to follow some of the points the gentleman is making and I would like to intervene and just ask him some more questions.

Mr. Chairman: Yes, just a moment. All right. Okay. Sen. Balgobin, go right ahead coming right after, Mr. Imbert.

Dr. Balgobin: Thank you, Mr. Chairman. Mr. Ramnath, I would like to suggest that we get an answer that is more robust and perhaps a little more specific. Having an entire set of people who are PMI or PMP certified is not in itself guarantee that you are going to have any kind of serious project management capability for the execution of the kind of projects that PETROTRIN finds itself in. I am sure you would agree.

Mr. Ramnath: Yes.

Dr. Balgobin: Therefore, what would satisfy me would be if you were to say that recognizing the very difficult history PETROTRIN has had with projects, that perhaps it might be more sensible to create some kind of central repository or unit in which you build the specific competencies for project management in the context of a refinery operation like PETROTRIN.

In other words, training different engineers up in different engineering departments is

fine, but you are engaging, as your Chairman just said, in massive high capex projects. These are not things that the curricular of a typical PMP or PMI programme would even contemplate, and certainly, they cannot contemplate it within the specifics of your particular context.

So, a distributed project management capability, I would suspect, is going to land you here again seven or eight or 10 years from now – well, whoever your successor is – answering the same questions, and so, in the same way that PETROTRIN in the past was known for having particular competencies in particular areas – at one point in time, you may recall Augustus Long was known as a fantastic private hospital. At another point in time, the PETROTRIN fire services capability was considered the best on the island. You ought to have by now and be offering to this broader society a project management capability. Instead, what we have is a very significant problem for project management. So, I do not think that academic training alone is what is required. I like your idea on expertise and shadowing and so on, but what I am looking for is some evidence that you say, “Well, we are going to create some kind of central repository here and we are going to have these people really trained up and developed in a particular kind of way” – not just distributed in departments and have these people really anchor the major projects that you take on.

If I were to say something like that to you, would that resonate with you at all?

Mr. Ramnath: Yes, absolutely. In fact, most of what you have just said is actually part of our plan. As I indicated earlier, when I say that we are going to provide training, obviously, we want to use the PMI because it is sort of the recognized body in terms of proper project management techniques and methodologies. We want to utilize that programme, but the programme has to be tweaked to the specific needs of PETROTRIN. It is not our intent or our desire to create a project management office that becomes a bureaucracy, which is a failing that many companies have had happen. Our intent, again, is to create a methodology, to create the tools and technologies, to create highly trained project managers with skills that are very specific to PETROTRIN.

You have talked about a central repository. Part of the programme is what we call knowledge management, which is utilizing the SAP system that we have – the actual knowledge management module – to create that repository of best practices and lessons

learned. In fact, I think one of the Members asked that question earlier, are we learning lessons from the mistakes that we have made? So that is all part and parcel of the programme so I am very glad to hear you make those comments.

Mr. Chairman: Okay. Mr. Imbert. We will come to you after, Mr. Karim.

Mr. Imbert: Mr. Ramnath, I was listening to you, but I was wondering when one of these highly trained project managers discovers that something is wrong, what happens after that? Because, let us use the example of the same project where a decision was made to change from a lump sum fixed price to a floating price I can only assume, at the time, somebody said it would be cheaper, there could be no other reason, that we could save money if we move from a fixed price to a variable price, we will get it done in a more cost effective manner. I can only assume somebody said that, and that is why the decision was made to switch.

But there may have been some other person that said, "Look, I doh think this is a good idea at all, it's too risky." What happens with this project management competence that you are going to develop when they raise up the red flag, who do they raise this red flag to? I mean, who do they report to and what happens after a project manager discovers something is wrong? What is your plan?

Mr. Ramnath: I would like to answer that question in two parts. First of all, it is our intention—we do have an executive leadership team that meets regularly, actually weekly—it is the intention, first of all, a proper project management methodology has several levels of decision-making, an issue—what I would call issue resolution, so that would be defined as part of the methodology. Certain personnel in a project at different levels of the project will have the authority to make certain decisions.

Certainly, a major decision to go from one cost basis to another would have to be something that would be elevated to the executive leadership team. So we will have a built-in mechanism as part of that project management methodology for certain issues to be raised to certain levels, because we do not want everything flowing up to the executives.

Mr. Imbert: This leadership team, is it management or members of the board?

Mr. Ramnath: It is the executive leadership team.

Mr. Imbert: Which is who?

Mr. Ramnath: It is the President and the Vice-President.

Mr. Imbert: Right, so it is management?

Mr. Ramnath: Yes.

Mr. Imbert: What happens if the management feels that they cannot deal with this problem or this issue, it is too big for them, what happens then?

Let us go back to this same thing, changing from a fixed price to a variable price and it goes to the executive leadership, and you have a big long discussion and you cannot reach a conclusion on what you should do, what happens then? It goes up to the board?

Mr. Ramnath: Yes, then we would escalate it to the board.

Mr. Imbert: So this was not happening before?

Mr. Ramnath: I cannot say what was happening before, I have been with the company just shy of a year [*Laughter*] so unfortunately, I cannot provide that answer to you.

Mr. Chairman: Let me ask a—before I give way to Minister Karim, do you all have a system of bonuses for good work done among the leadership team or any penalties for not so good work?

Mr. Ramnath: Yes. Again, I would like to answer that question in two parts. As I said earlier, our approach is a very comprehensive approach. We have talked about competencies, specifically project management competencies; that is only part of the equation because someone can be very competent at something but may lack the motivation, or whatever else, to get the job done.

So, one of the things that we have also embarked upon and over the next couple of months, we will be changing our performance management process to be very focused on goals and objectives, and the competency aspect—the attainment of competencies—we will actually move to what we would call the employee development. So, in addition to having a performance appraisal where people are assessed based on very specific goals and objectives, we will have a separate, at a different time in the year, discussion about employee development that is focused on the attainment of competencies. So again, our focus is becoming very much more on the attainment of goals and objectives.

Mr. Chairman: Minister Karim. You did not answer my question but Mr. Karim.

Mr. Karim: Mr. Chairman, I think what Mr. Ramnath is indicating is what would have

been the normal or the usual process in decision-making. This was an unusual one.

In 2006, regardless of whatever you or the management would have thought around that time, there was a definitive decision made by the executive management of the company, in particular, to reject the offer of Chicago Bridge & Iron from fixed lump sum to cost reimbursable. That is the fact; you cannot change that. So, I think that is why I was saying and I want to underscore this project, according to what the president indicated, they have many unusual characteristics about this project, many of the things of which decisions were made that you could not have influenced, no matter how well the process might have been thought out.

I want to just go on to another question in that we talk about cost containment and continuity and competitiveness and so on. It is my view and when you look around organizations in Trinidad and Tobago, and certainly, you see, when my colleague asked about the lack of capacity, we are talking about a lack of capacity in a company that basically drove the economy and continues to do so substantially. Are we facing—my question is—maybe that might have been unusual too when the board came in, you might have found this phenomenon unusual.

Would you have faced a situation where in a next five years or so, you are facing an aging population where a lot of these competencies that you are talking about is on the exit and what really is the plan? Was there a plan? Did you meet a plan? Was a plan being discussed? Was it being developed at all? Is there one? Maybe you have engaged in one. But did you meet anything like that in terms of the exit of these competencies in terms of Trinidad and Tobago? You can find people from your sector in any part of the world and maybe that too is unusual. Was that unusual? Did you find one?

Mr. Ramnath: No, I did not, at least, not to the extent that I would consider a workable plan.

Mr. Karim: I want to also tell you, Mr. Chairman, I think—where I went to school was not far from what used to be Texaco and PETROTRIN and so on, and I recall, not that I went to school in that area, but I recall sometime around August 2010, there was a flood, if I remember correctly, that shut down the entire refinery. Can you tell us—and bearing in mind what happened recently—what is your source of power? Are you satisfied that there is a guaranteed source?

Mr. Hassanali: Yes, thank you very much for the question. Yes, since that time, we have been working very assiduously with T&TEC and as it now stands, we take power from two sources now because that was the Harmony Hall substation that was actually flooded from which the refinery was supplied, but we now have an alternative source.

Mr. Chairman, if I may crave your indulgence on a matter to continue a little bit where the VP HR was stating in terms of project management and so on.

Mr. Chairman: Before you go, could you tell the listening public what is BP HR please?

Mr. Hassanali: What is what, sorry?

Hon. Member: Vice President.

Mr. Hassanali: Oh, I am sorry, I beg your pardon.

Mr. Chairman: Or VP.

Mr. Hassanali: Yes.

Mr. Chairman: Oh, I see. Yes, yes. [*Laughter*] Because, you see, I have to protect the public, they are listening to this and we must –

Mr. Karim: It is not unusual for him to hear things like this. [*Laughter*]

Mr. Chairman: But, in all seriousness, I thought you said BP but it is VP?

Mr. Hassanali: Yes, yes.

Mr. Chairman: All right, yes, please continue.

Mr. Hassanali: It is the Vice President, Human Resources and Corporate Services. So it is actually VP, I beg your pardon, Sir.

Mr. Chairman: Yes, thank you very kindly.

Mr. Hassanali: I was just going to add something in terms of the skill of project management and to go back a little bit. When Bechtel was retained by PETROTRIN initially, somewhere around that would have been 2000 and –

Mr. Indarsingh: 2006.

Mr. Hassanali: 5, yeah, 2005, 2006.

Mr. Chairman: Yes.

Mr. Hassanali: Bechtel was retained for the project management of the first plant, that is the isomerization plant.

Mr. Chairman: Yes.

Mr. Hassanali: Now, when it was proposed that Bechtel take the entire gasoline

optimization programme which meant taking on project management for the acid alkylation, as well as the cat cracker and the like—

Mr. Chairman: Yes.

Mr. Hassanali:—it was discussed then that this required a kind of a world-class type of project management and the contract was re-negotiated with Bechtel, such that, on top of all the fees that were to be paid to Bechtel on a reimbursable basis would be a 10 per cent adder to all those fees as a recognition of the kind of superlative project management that would have been required to carry out this project.

Mr. Chairman: Yes.

Mr. Hassanali: Part of the responsibility there also was for imparting this knowledge to the PETROTRIN community.

Mr. Chairman: Yes.

Mr. Hassanali: So, well, Mr. Chairman, the rest is history. But, the reason I bring this up is because the contract was re-negotiated because it was a recognition that this project—a multibillion dollar project—required a standard of project management, you know, that was hitherto not available within PETROTRIN.

Mr. Chairman: Thank you very much, Mr. President. Now, it is now 12.56 we propose to wind up at 1 p.m. and therefore we just have a few moments left. I am sure you would have noticed, and with some justification, we have spent a lot of time on this and these projects for obvious reasons, but we have not really looked at some of the accounts, particularly, you know, some of the more recent ones, in fact, 2008 right on to 2011. I have a suspicion that you will have to join us again. I can tell from your countenances that you are very enthused about that fact [*Laughter*] and you can expect communication from this committee in this regard.

However, Mr. Indarsingh seems very keen to get one question in before we wind up and I will give way to Mr. Indarsingh for this purpose.

Mr. Indarsingh: Yes, Chairman, I know that we have spent a lot of time on the gasoline to optimization project, and another project that—and I think it was raised on a previous occasion—the new corporate headquarters out there. Probably, President, you may have to respond at the next meeting in terms of, was there budget escalation and change in terms of the scope of works and so on. What transpired there? Was this a usual or

unusual project in terms of the changes and the budget escalation and so on?

Mr. Chairman: All right. Yes, I thought it would have been a short question but really it is a prelude to what is to come.

Mr. Karim: Mr. Chairman, I just want 30 seconds.

Mr. Imbert: No, no, hold on Mr. Minister.

Mr. Chairman: Yes.

Mr. Imbert: I would ask PETROTRIN to be prepared please to answer all questions about your new head office project on the next occasion so you would not be ambushed. All of the things that Minister Indarsingh has brought up, what really happened with that project, its current status, what are your plans, costs, et cetera, et cetera, management.

Mr. Chairman: Thank you very much. Mr. Karim.

Mr. Karim: Mr. Chairman, thank you very much, just a winding up question, maybe it is in anticipation of your return or if we could get it before.

Recently, there were some discussions in the news from the energy chamber that they highlighted that there was a shortage of manpower in the sector. I am asking whether you can identify whether you have a—based on the question that was raised before in terms of the lack of capacity in the specific area, albeit in terms of project management, and the fact that I had raised the issue as well of the aging population and the workforce, will you be able to tell us and to tell me particularly for my benefit and maybe from our intervention, if you have concerns about the shortage of specific skills in your organization, and by extension, for the sector? So that we will be able to engage in some sustained project and to work alongside with the organization to ensure that you have continuity and also to ensure that you do not lose that repository of knowledge and skills and aptitudes that you would have. I will be very keen to have that.

As a matter of fact, one recalls and I can remember the days, quite favourably so, when you had the intervention of the apprenticeship school and many other things like those. We really want to also talk about upstream drilling activities in terms of its expansion and to work alongside. So, I will be very happy to have almost the labour market information from you and also in terms of your projected needs. Thank you very much.

Mr. Chairman: Mr. President and members of the leadership team, board and management of PETROTRIN, we are especially thankful for the moments we have shared here today. I think a lot of light was shed where there was obvious darkness. I think that in the spirit of the proceedings that we shared here, information was shared for the benefit of the Parliament and for the benefit of the citizens of Trinidad and Tobago.

As I indicated a while ago, you are likely to be with us again, we will notify you accordingly. I want to thank you all very profusely for coming and I want to thank our friends from the Ministry of Finance, Comptroller of Accounts as well, for being with us this morning, silent observers in all of this. I want to thank members of the media for being here, and of course, we extend our invitation to you, I think – [*Discussion with Miss Jacobs*] Right, yes – to enjoy this ambience in the future when we would have invited you again. [*Laughter*] So thank you all very much and this meeting is now at a close. Thank you very much.

1.01 p.m.: *Meeting adjourned.*

**VERBATIM NOTES OF THE PUBLIC ACCOUNTS (ENTERPRISES) COMMITTEE
HELD IN THE J. HAMILTON MAURICE ROOM, MEZZANINE FLOOR, TOWER D,
INTERNATIONAL WATERFRONT CENTRE, 1A WRIGHTSON ROAD, PORT OF
SPAIN, ON WEDNESDAY, DECEMBER 11, 2013, AT 10.55 A.M.**

PRESENT

Mrs. Camille Robinson-Regis	Chairman
Mr. Rudranath Indarsingh	Member
Mr. Fazal Karim	Member
Mr. Errol Mc Leod	Member
Mr. Embau Moheni	Member
Mr. Colm Imbert	Member
Mrs. Paula Gopee-Scoon	Member
Ms. Keiba Jacob	Secretary
Ms. Khisha Peterkin	Assistant Secretary

ABSENT

Dr. Rolph Balgobin	Member [<i>Excused</i>]
Ms. Marlene Coudray	Member [<i>Excused</i>]

INVESTMENTS DIVISION

Mrs. Chintamani Sookoo	Senior Business Analyst
Mr. Lester Herbert	Senior Business Analyst

THE OFFICIALS FROM PETROTRIN

Mr. Lindsay Gillette	Chairman
Mr. Khalid Hassanali	President

Mr. Rudranath Maharaj	Director
Ms. Aneitha Bruneau	Acting Vice-President – Finance
Mr. Neil Bujun	Director
Mr. Mado Bachan	Vice-President – Refining and Marketing
Mr. Jamaludin Khan	Vice-President – Exploration and Production
Mr. Keith Ramnath	Vice-President – Human Resources and Corporate Services
Mr. Hemraj Ramdath	Vice-President – Strategy and Business Development
Ms. Deborah Persadie Jones	Acting Manager – Project Implementation
Ms. Gillian Friday	Manager – Corporate Communications
Ms. Radica Maraj-Adharsingh	Senior Manager – Law and Land Management
Mr. Rajkumar Bissessar	Chief Audit Executive

Madam Chairman: Good morning ladies and gentlemen. [*Crosstalk*] My name is Camille Robinson-Regis and I have recently been elected Chairman of this committee.

I would like to start by indicating that the purpose of today's meeting is to continue the examination of the audited financial statements of PETROTRIN, and on that note I would like to welcome PETROTRIN and the Investments Division of the Ministry of Finance and the Economy who are here with us today.

I would like to advise that the meeting is being broadcast live on the Parliament Channel and on radio 105.5 FM.

To open, I would like ask the members of the PETROTRIN team to introduce themselves, please; and we would start maybe with the chairman. **Madam Chairman:** Thank you very much and welcome again. I take this opportunity to ask the members of the committee to introduce themselves; I have already done that. So we will start

with Minister Indarsingh.

Mr. Indarsingh: Thank you very much, Madam Chair. I am Rudranath Indarsingh, member, and I take the opportunity to extend my sense of congratulations to you on your appointment as chairperson of this particular committee, and I hope that your stay will be a very fruitful and long one.

Madam Chairman: Thank you. Thank you, Mr. Indarsingh.

Mrs. Gopee-Scoon: Paula Gopee-Scoon, Member of Parliament for Point Fortin.

Mr. Moheni: Embau Moheni, Member.

Mr. Karim: Fazal Karim, member. May I also add my congratulations to you, Madam Chairperson, and to our colleagues from PETROTRIN who have returned – and they are more fortunate than some of our other colleagues who have not returned – but we welcome them anyway.

Madam Chairman: Thank you.

Mr. Mc Leod: Errol Mc Leod, member.

Mr. Imbert: Colm Imbert, member.

Madam Chairman: Thank you very kindly and thank you for your kind sentiments, those of you who offered them. I would like at this point to ask the members from the Ministry of Finance and the Economy, Investments Division to introduce themselves please.

INVESTMENTS DIVISION

Mrs. Chintamani Sookoo

Mr. Lester Herbert

Madam Chairman: Thank you very kindly. So my understanding is that we have been examining the audited financial statements of PETROTRIN for the years ending September 30, 2008, 2009, 2010 and 2011, and at the last meetings held in February and April of this year, we discussed the following issues and that was the crude oil refining, the gasoline optimization project, including benefits, cost and methods of procurement, the gas to liquids project, the project management issues and the construction of the new head office.

I would like to suggest, if I may, that we will ask questions and, with your leave, I would like to ask the first question, if that is all right with the committee. Yes. With

regard to the gas optimization project, at the meeting held on April 16, 2013, the committee was informed that the Cat Cracker was in its final stages of commissioning during the week of April 15, 2013.

The Alkylation plant and the Acid plant were mechanically completed in 2011, however, these plants, as I understand it, relied on the completion of the Fluidized Catalytic Cracking Unit and would now be commissioned in May 2013. Could I ask, what is the current status of the GOP? Mr. Hassanali.

Mr. Hassanali: Good morning again, Madam Chairman, and members of the committee, Chairman of PETROTRIN and members of the board, as well as our management. Yes. We—I would like to answer that question, Madam. The FCCU or the Cat Cracker is on stream and producing gasoline, as well as the Alkylation plant and the Acid plant are also all on stream. The latter two plants work together and actually were finally brought on stream over the last weekend. Madam, with those three plants, that sort of heralds the end of the Gasoline Optimization Programme or one can say the beginning of the entire going forward in terms of being able to derive the benefits from that particular programme. So the answer to your question is that they are now all on stream.

Madam Chairman: And has that—sorry—they are all on stream and they have been working in the way that you have anticipated?

Mr. Hassanali: Yes. They are all producing products that are on specification, so we are reasonably pleased.

Madam Chairman: Okay. Thank you very much. Minister Karim.

Mr. Karim: Madam Chairperson, on a related matter, I think that the last occasion we met, there was some discussion with respect to March 28, I believe 2013, when there was a blackout and we had in fact asked about improvements to the reliability of supply and you did, in fact, say that it is was a work in progress. Might you be able to tell us now whether there has been some progress, positive or otherwise?

Mr. Hassanali: Okay. Thank you, member. Regarding the supply of electricity, we rely entirely on T&TEC. On that occasion, I did say that we would be installing two sources of supply. Those have been installed and we are in some of the final stages of fine-tuning the power supply from the PETROTRIN end as we speak. Thank you.

Madam Chairman: Given that particular point—oh sorry. You all will bear with me until I get accustomed to the coming out and coming in and so on. On that particular issue, with regard to the power supply, is there a mechanism for monitoring so that you can assure that there are no difficulties again?

Mr. Hassanali: Well, Madam Chairman, as I have said, we do rely on T&TEC. We do have our own internal checks and balances on the entire system, but we had—sometimes we do have—we had a major outage recently, I understand because there was a manitou on the T&TEC side that died and as a result, the refinery came down. Your question is very, very relevant because, as I have said before in this Chamber, that the refinery is such that when it comes down it takes sometimes days, sometimes weeks to restart and, in fact, that is what happened within recent times, and for every day the refinery is down, not only do we have very significant losses, but we also jeopardize our position as a reliable supplier of refined products locally and within the Caribbean as well.

Madam Chairman: Thank you, Mr. President. Yes. Member.

Mrs. Gopee-Scoon: Thank you. May I take the opportunity to extend compliments of the season to you all?

Mr. Hassanali: Thank you very much.

Mrs. Gopee-Scoon: As you are on the discussion about the projects, you will forgive if I am not sure if you captured all of them that I had some concerns with, in terms of the commissioning and the completion and so on. The refinery, the new refinery laboratory was that completed as well? And I had concerns with, again, thinking that was the lead, and then of course, the price has also gone up from about 170 million—I saw in the budget commentary—to about 205. So that one, I would like you to respond and also I am not sure whether the Ultra-Low Sulfur Diesel plant was completed as well and commissioned. Then, also, the liquid fuels pipeline project as well; whether that was completed and I note again, that the budget on that has gone up from 49 in 2012—I looked at the budget comments—it was at \$49 million then and that was revised to \$64.9 million. So I wanted to know the reason for the rise in cost, in terms of that facility, the Pointe-a-Pierre facility, and whether that had been completed as well. So those for now.

Mr. Hassanali: Thank you again, member. In terms of the Gasoline Optimization Programme, the GOP comprised a number of units, as you have correctly said, that is the isomerization plant which is serviceable and in service, the CCR plant, the Continuous Catalytic Reformer, which is also serviceable and has produced product on spec, but is at this point in time, I believe, out of service for some maintenance. It also comprises the Catalytic Cracker, of course, the Acid plant and the Alkylation plant. Those are all now in service. So that the GOP programme, in essence, will come to a final completion.

The other aspect you mentioned that is associated with all of this, yes is the new laboratory. The new laboratory is now complete and we are in the process of relocating, not only staff, but equipment, from the old laboratory to the new. The new laboratory is indeed a very state-of-the-art facility and we therefore should have improved testing of our products in terms and also improved quality control, as well as a greatly improved welfare set of facilities for our employees. There is a much greater degree of comfort in terms and effective working space in the new laboratory. If I now turn to the—
[*Interruption*]

Mrs. Gopee-Scoon: Before that—the overruns.

Mr. Hassanali: Yes. There has been—I can get the exact numbers. There has been, of course, major over expenditure in the GOP programme.

Mrs. Gopee-Scoon: Could you be specific—[*Inaudible*]

Mr. Hassanali: Yes. The laboratory—[*Crosstalk*] Yes. The laboratory was done largely on a measured basis and that means, of course, it was done on the basis of a design, and a design that was for—in other words, it was not done on a fixed price lump sum, and over the years, because it did take years, as indeed the GOP. The GOP, as we said on an earlier meeting, was done largely on a cost reimbursable basis. So there is a commonality in terms of the procurement models that were used both for the GOP and for the refinery. Yes. The cost has overrun to a significant degree as well, and your numbers, I believe, are correct.

Mrs. Gopee-Scoon: Okay. Then the Ultra-Low Sulphur Diesel plant, that has also been commissioned?

Mr. Hassanali: No. The Ultra-Low Sulphur Diesel plant suffered a number of setbacks,

one of them being an industrial relations issue which set us back five months, in terms of a dispute of wages paid differently by the contractor for the Ultra-Low Sulphur Diesel plant, different from the other plants.

11.40 a.m.

It is important to know that the contractor in that particular case was not obliged to pay company OWTU rates by virtue of the contract that was let to that contractor, which is to actually Samsung. That led to a dispute. There were some other reasons for the delays in terms of safety and in terms of also Samsung not keeping their plans as well, and our latest estimate, I would say for actually commissioning the plant, because mechanical completion would be a little bit before, but commissioning would be somewhere around June of next year.

Mrs. Gopee-Scoon: So that has been a considerable delay.

Mr. Hassanali: Yeah.

Mrs. Gopee-Scoon: I do not want you to forget me on the liquid fuels pipeline project with specific concerns about the overruns with the Pointe-a-Pierre facility.

Mr. Hassanali: Right. The liquid fuel pipeline is a joint project among three companies. It is, of course, PETROTRIN, the National Gas Company and the National Petroleum Company (NP). NP is going to be the operator of the plant. The investment, of course, was done by the State as well as PETROTRIN and NGC. NGC was responsible for procurement and also for some of the construction work, as indeed, was PETROTRIN. There have been some setbacks, there were setbacks and the completion—there is some overage there as well—*[Interruption]*

Mrs. Gopee-Scoon: Yes.

Mr. Hassanali:—and your figures are also correct. And the latest expectation in terms of completion, mechanically the entire system, and this is a very novel system, as we know it is a single pipeline coming from Pointe-a-Pierre to the north in Frederick Settlement where the tanks are, and that is going to be multi-phased. So, in other words, gasoline, diesel, aviation fuel and so on is going to go up the same pipeline at different times. There is a lot of instrumentation and so on, and the commissioning will therefore take about two to three months. We, therefore, expect mechanical completion somewhere in January, next month, and commissioning would take another two to three months, so

we expect that finally we should be able to close that project as well.

Mrs. Gopee-Scoon: Well, I am pleased that they would in fact be all completed, but it brings to mind the in fact of all the—and we are used to this in PETROTRIN, so this is not at all about being combative with this board or anything like that.

But the point about it is, it brings concern about your budgetary exercises, because in just preparing for today, I examined the comments and the plans in the budget of—the Government's budget of 2012 and 2013 and I wonder, that apart, whether in your internal budgetary exercises, whether or not they are done with any sort of realism given the fact that every year as well, you are overrun by 20, 30 per cent and so on. So I am asking whether or not this budgetary exercise is conducted in a proper manner. Are you satisfied? Because one year to another, I expect with large budgets that there would be overruns, but from one year to the next, I mean, you are making errors with regard to your projections, so I am concerned about the exercise itself, the budgetary exercise.

Mr. Hassanali: Yes, your concerns, member, are indeed shared. The gasoline optimization project, which I said earlier, you know, ran from about 2006–2013, and over that period, of course, we were—the procurement model was one that, unfortunately, even though there was a foreign project manager for the whole project, did not lend itself very, very well to on time and on-budget completion. And as we have discussed at previous meetings, the budget went from about US \$600 million—US \$1.4 billion, and that has happened in some of the other projects. The concern is shared, the board of directors of PETROTRIN and the management of PETROTRIN, of course, are working—you know, I have noticed this and I am very concerned about it, and we have embarked on a number of initiatives, not only on budgetary control, but, of course, on project management, because they are both connected in terms of the causes of the overruns, as well as the various models that are used for the procurement of these major projects.

I expect this year we certainly will make progress. The major projects are largely behind us in terms of the development of the refinery save and except for the Ultra-Low Sulphur Diesel plant. The rest are all behind us and our focus from this year and for the next few years, is going to be very heavily on the exploration and production division.

And there again we will have challenges, but we are improving as we go along.

Mrs. Gopee-Scoon: If I may though, just on one other project, which is—and I have a natural interest being a Member of Parliament for Point Fortin, the south-west Soldado Reactivation Project. Again in 2012, you said that phase I was to be completed in two years, so I thought by now it should be well advanced, and then in 2013, again, you said that it would be—you said the same thing, phase I will then now be completed in two years, so I recognize that you have not really achieved what you were supposed to achieve in terms of the development of that reactivation project in the Soldado west area. I do not know, maybe you can correct me, but this is what I picked up from the information in this year's budget.

Mr. Hassanali: Okay, you would recall, of course, Madam, that we did announce the Jubilee Field early last year.

Mrs. Gopee-Scoon: Yes.

Mr. Hassanali: And at the same time we did announce that we were embarking on a major set of reactivation in south-west Soldado. We also indicated and we have indicated on many occasions that, what is happening in Trinmar, that the entire area is, some sort of—well, we have not been very good at maintenance over the last decades, and I can attest to that from the point of view that we have been very, very aggressively working on increasing our production, and every time we get over 23,000 barrels a day of net oil, we have leaks.

So, part of the issues in terms of south-west Soldado is the infrastructure. Other issues which have been in place for some time and which we are also working on, is the amount of time that is spent at work, given the fact that we operate the offshore fields almost like land fields, where we go out every morning and come back every evening. Most marine operations are a week on or a week off or two weeks on or two weeks off. These are the directions in which we are moving and which we have to move.

We did experience some delays in south-west Soldado as a result of the procurement of temporary production facilities, which we have in place now and which have assisted us in, not only increasing the production slightly, because over the fiscal year last year, that is October 2012 to October 2013, we increased the production in Trinmar for that period by about 1,600 barrels per day. That, I would dare say is no

mean feat, because the natural decline is around 10 per cent per annum, so we would have offset the decline and increased the production slightly.

We have been experiencing some challenges in recent times in terms of producing more water, because, you know, when we produce offshore, we are producing both oil and water and we have been watering out as the field ages. So, our water cut is now somewhere around 48 per cent whereas, which means that we produce 48 per cent of water, whereas it was somewhere around 40 per cent just about one year ago.

I did say a few minutes ago that we are shifting our focus now from the refining and marketing division to exploration and production, and specifically, short-term and medium-term measures to increase the production. We are extremely sharply focused on that over the last few months and because of the economics of refining these days which is pretty unfavourable, we have an imperative to so do, and we are now in the final throes and by the middle of January, we will be completing our plan for delivering on increasing our production. This is in the context of a five-year forecast, because of the significant investments that have to be made.

Now, coming back to south-west and the rest of Soldado, because as you said, you have a key interest there; we are also on a major exploration drive and as you are aware—I think as most of the country is aware, we are about to start seismic in that area, and that is sometimes going to produce some reserve, sometimes it does not, but we do now have a CEC in place. We have been granted a CEC as of yesterday and we are about to engage our contractor for moving ahead. I think we have also reasonably made peace with our fishermen, so that I do not think there are many impediments in the way of progress, not only in south-west Soldado but in Trinmar generally.

Mrs. Gopee-Scoon: Well I am pleased to know that you got the CEC for the seismic acquisition, but my concern really, specific to that, would be the compensation matters because, you see, there has been a precedence with regard to all of the other seismic acquisitions done previously by the foreign entities, like bp and so on, so people are used to being paid off handsomely and that kind of thing.

My own view is that you have not come up with a policy as to how PETROTRIN is going to treat with this compensation matter, and particularly so, because of the

impoverished areas that are affected in the south-west and where fishing remains the only industry. To me you have always tried to sideline the issue as though the migration of fish, the fish will just migrate for one day whilst you do your data in this particular block and they will all come back the next day. I am not satisfied that you have sufficiently and reasonably explained why. I know you have done so in the press but it seems unrealistic to me as a layperson and can you imagine somebody who is directly affected. So, yes you have done the CEC, but I really look forward, as you have come onto that topic, to a policy on compensation, and I am trusting that nothing starts, at all, until there is full agreement and reasonable compensation as well. Because my own view is that you are really, seemingly pointing to the fact that these people will not be too affected and, therefore, they can just shift their activities.

I have not been sold by your explanations in the press, and therefore, as I come back to the point, policy, reasonableness as well, and nothing starts unless all sides are happy and I am going to be taking a particular interest in it as you would expect.

Mr. Hassanali: Yes, oh, sorry.

Mr. Karim: Madam Chairperson, let me just say that I am very impressed with the fact that our colleague really is representing the constituency here in a very significant way and her constituents—but I think the matter before us substantially has to do with PETROTRIN's performance, so I would want to bring us back to that. I am sure that our colleagues from PETROTRIN will take note of the comments that have been made by the Member of Parliament for Point Fortin.

I remember on the last occasion one of my colleagues, Mr. Imbert had raised the whole matter of project management expertise, and I do not want to take away from his emphasis, but to support what he was asking, can you tell us whether there has been substantial improvement?

Mrs. Gopee-Scoon also spoke about the whole aspect of accountability and profitability and so on, and maybe you can tell us whether you have developed your systems since the last time we spoke in terms of, certainly your IT systems that support the financial accounting systems, and the whole aspect of ledger, and in terms of sub-ledgers and so on. I am asking a number of questions so that you might be able to respond to them with respect to the matters before us today. Thank you very much.

Madam Chairman: Before you respond, Mr. Hassanali—and I think it flows from the question that Mr. Karim asked—you have mentioned issues like setbacks and initiatives, but you did not go into any detail of what those setbacks were or the initiatives that you are taking, so I think it would come very nicely as an adjunct to that question that was asked by Mr. Karim.

Mr. Imbert: Madam Chairman, just let me ask some specific questions which will dovetail into what Mr. Karim has asked. When I look at the explanations that PETROTRIN gave for the increase in cost of the Gas Optimization Programme, I cannot get anything out of this. For example, there is a statement on page 8 of that document that I have. I do not know if PETROTRIN has this document.

Mr. Hassanali: *[Inaudible]*

Mr. Imbert: Okay, but I would read it.

“The financial system prohibits expenditures to exceed the approved budget without the requisite approval.”

So, if that is so, how did the expenditure go from \$600 million to \$1.4 billion if the system prohibits expenditure without the requisite approval?

11.55 a.m.

Mr. Hassanali: Madam Chairman, I think I have questions on both sides of the aisle here, right now, so if I may start with—*[Interruption]*

Mr. Imbert:—but it all deals with how you manage projects. *[Interruption]*

Mr. Hassanali: Yes.

Mr. Imbert:—because we are following from some questions that I had asked. Mr. Karim was just very kindly reminding you of the question that I had asked.

Mr. Hassanali: Right—*[Interruption]*

Mr. Imbert: But my question is, if in your management system expenditure that exceeds the budget is prohibited without a requisite approval, then how did the expenditure on this gas optimization project go from \$650 million to \$1.4 billion? How did it happen?

Mr. Hassanali: Okay, now of course you are quite correct, we do have an enterprise system, we do have an SAP system and we have had it installed for almost 15–20 years now. The SAP system takes into account—being an enterprise system or integrates our accounting with a procurement and with our HR and other aspects. And you are also

quite correct, there are very strict policies and also systems that one has to conform with exactly to be able to move forward.

Now, in the case of the GOP that went from \$600 to, I think, \$850 – \$1 billion and then eventually to \$1.48 billion, every step of the way over that period – which went from 2006 to the present time, every step of the way, my understanding is that there was a presentation made to the energy standing committee on energy in Cabinet, and there were approvals for increases in budget and that was reflected back into a new appropriation at PETROTRIN to enable the system to increase the budget on each occasion.

Increasing a budget of course, in PETROTRIN in its very, very strict procurement policies as well as budgetary practices, requires a procedure that not only goes through the management but goes to the Board as well. Since these increases occurred over a number of years it certainly would have been reflected in the annual budget reviews as well as the annual budget approvals that would have taken place at the Board. Once of course there is an approval within a requisite level of authority, and because of the significant numbers involved here, these would have been all at the Board level over that period of time. Then those would have found themselves into new sanctions and new appropriations within our system, and therefore the SAP arrangements could have been effected as well.

Mr. Imbert: So you are saying, every step of the way it was approved.

Mr. Hassanali: I understand that over the period 2006 going forward, that there were a number of approvals at the Cabinet committee level.

Mr. Imbert: Okay. When all this was being presented and approved, were any red flags raised at PETROTRIN at all about the fact that this project was doubling in price?

Mr. Hassanali: Well, there was a steering committee that led this project. The steering committee was chaired by the – in the first instance with an Executive Chairman and at a later stage by the President, that is my immediate predecessor. The steering committee is the one that not only monitor operational and construction progress but also monitor the budgets. So I am fairly certain that there would have been concerns within that committee.

Mr. Imbert: Is PETROTRIN satisfied with Bechtel performance on this project?

Mr. Hassanali: No, no, certainly not at all.

Mr. Imbert: Right. Was any penalty written into Bechtel's contract so that they could be penalized for non-performance?

Mr. Hassanali: The penalties in Bechtel's contracts were very heavily qualified. You know I can appeal to our head of legal, but if I can remember a number of them, where—for instance Bechtel was not only the project manager, but Bechtel was also a contractor for the utilities and off sites, and that is the general arrangement for interconnecting the pipework as well as the other infrastructure. So Bechtel was in a sense supervising itself. It was not really an independent project manager, which is why I would hasten to say that—not only was the system not satisfactory but the way in which it was operated was not satisfactory and therefore we cannot be satisfied with Bechtel's performance.

Mr. Imbert: Right, you are giving me some very general answers, but what intrigues me in this whole thing is that half way through the project a recommendation was made by Bechtel to change from a lump sum approach to a cost reimbursable approach, and that resulted in the doubling of the cost. Why did PETROTRIN agree to that? Were they satisfied that it would end up in a lower cost? Did somebody convince PETROTRIN that by changing from lump sum to cost reimbursable, the cost of the project could be lower?

Mr. Hassanali: If you may just bear with me for a minute I would get the exact numbers, but while I am getting it I could tell you that, as I said, there was a steering committee and presentations were made to the steering committee—I am advised by the project manager, Bechtel. It was reinforced on a number of occasions and I am also advised that Bechtel is the project manager and although there was a project team, Bechtel led.

Now, the initial estimate, yes, was done and if I may give you some examples: For the acid alkylation plant, there was a fixed price received of \$274 million and the advice that Bechtel gave to the steering committee was that was a high price and it would have been better if the procurement process were one of cost reimbursable with supervision by Bechtel as the owners advocate. Unfortunately, the facts are that all the fixed prices received as \$274 million that the final price for the acid alkylation plant was

US \$320 million. So I could only summarize that Bechtel did convince the steering committee.

The other example is the Catalytic Cracker, the FCCU – *[Interruption]*

Mr. Imbert: All right, Mr. Hassanali you do not need to go any further, you have answered my question. What are the lessons that PETROTRIN has learnt from this situation? I do not want to use a bad word to describe it. What are the lessons you have learnt?

Mr. Hassanali: Well, I can tell you Member, that we have had a postmortem on this and there is a whole report on a number of lessons learnt, but I would say that the primary lesson is that cost reimbursable – the cost reimbursable model is not always appropriate, because of course, the contractor does not have the kind of incentive; one minimize cost or finish on time. These contracts were generally hybrid contracts so that there was a fixed price for design and reimbursable for the construction element. Both of them went over board because – the other lesson learnt is that Bechtel's belief was a fast-track method was to tender items based on a 30 per cent design. Now that may work in some cases if you put aside enough contingency funding.

This being the type of project that it is, it clearly did not work here, because while the construction progressed the design was also progressing. Therefore the numbers of variations have been rather enormous and also these were all APC arrangements, and from a Bechtel standpoint there were many, many errors made in the design as well, and the contract with Bechtel limited Bechtel's exposure to merely correcting the design but not the cost of correcting the actual construction which was already completed. And those are some of the factors that took the cost up.

Mr. Imbert: That is what I am driving at. When you go forward now and you have a similar situation, are you going to hold the design as liable for errors in the design that caused great overruns or not?

Mr. Hassanali: We certainly will, because when we went into the ultra-low-sulphur diesel plant the procurement method was handled differently. Subsequent events overtook some of these, I think, better methods, but what was done for the ultra-low-sulphur diesel plants was to do a feed arrangement at the start and that was a full front end engineering design, a 100 per cent design, not a 30 per cent design. It was tendered

on the basis of a fixed price lump sum and things were progressing reasonably well until we had the industrial action that took place at the refinery. And then Samsung's performance I would say has also not been very satisfactory.

Mr. Imbert: Okay, I have some other questions on other projects, but that is all I have for this project.

Mr. Gillette: Madam Chairman, can I say something following a trend of questioning from Mr. Imbert, because I know he was very concerned with this same issue of project management. In 2010 we did inherit that situation with Bechtel and the Board is very concerned with two issues really: cost reimbursable because we knew it was not an efficient way of managing the project to completion. And the second issue was why was Bechtel involved in managing their own project? We moved as a Board to dismantle that situation but, more interestingly in all of that, when the GOP was first initialized and determined, it was, if I was not mistaken maybe finance people can correct me, we were looking at a refinery margin upwards of a \$1.50 based then on the cost of the project which was about US \$600 million.

So when you roll forward at a \$1.4 billion project you have to understand where that refinery margin goes. It could make it now very, very scary in terms of your financial ratios and return on investment. That is why PETROTRIN finds itself right now saddled with a huge debt of \$1.4 billion having moved from \$500 million or \$600 million to that number. So you are right, because when these things go out of whack your return on investment is no longer viable. *[Interruption]*

Mr. Imbert: But I did notice that we are being told the return is still over 6 per cent and I know that you have questioned — *[Interruption]*

Mr. Gillette: I continued to do it but that — *[Interruption]*

Mr. Imbert: Because that is the information you giving us.

Mr. Gillette: It is below and we have to go back and do that because what I have been told also and what I have been advised is that having started the GOP and started to move the refining through the project that we have to now determine the exact margin and then get the exact return.

Mr. Imbert: I have a document that tells me the return is 6.5 or 6.6 per cent. Is that correct or incorrect?

Mr. Hassanali: If I can assist there. Of course the entire refining market in the world has changed completely, right now. Just to be a little bit dramatic, I can tell you that for the month of October and November gasoline has been selling at a price less than crude. In other words, gasoline as a product—in other words we make a loss by selling gasoline.

Now why is this? It is very simply, because the US market is now flooded with cheap gas and cheap oil—shale oil and shale gas and it is not exporting crude but it is exporting a lot of products. And therefore refineries in this hemisphere are under stress. A good example of that is, you will recall that there are two refineries in the Caribbean that have been shut down completely, that is, the Hovensa Refinery in St. Croix as well as the Valero Refinery in Aruba.

Now, those refineries were merchant refineries, meaning that those refineries relied to 100 per cent on imported crude. Our refinery at PETROTRIN—40 per cent of the input is local equity crude. In other words, we have a buffer in terms of having our own crude where we would make a better margin. However, given what has happened with the GOP, the cost overruns and so on, we need a margin of around \$9 per barrel to break even.

The average margin for the fiscal year 2012/2013 if I may come back to the accounts, has been \$6.66—as Members would recognize it has also been the mark of the devil. Now, the margin for the month of November, I believe it has been in the region of \$1 and something cents, that is the indicative margin. So the entire refinery economics has changed and we have gone through an exercise, Member, within recent times given the fact that maybe over the next five years refinery margins will be under pressure and our cash flow from our refinery is not going to be what it could of otherwise have been. We have had to work out—we had to do a lot of economics and economic analysis over the last few weeks to come to what could be an optimal throughpict. In other words we are no longer looking to fill out the refinery.

12.10 p.m.

The refinery capacity is around 168,000 barrels a day, but our margin is one of diminishing returns because our refinery is located where we are, where our premium market is. Our premium is the local but it is actually our smallest market, because our

premium market is less than 20,000 barrels a day.

Our next premium market, of course, is the regional market, whereas the further and further we go afield, if you go to the US gulf coast, our returns are lower and lower because of freight cost and pricing, of course.

So that we have determined that over the next few years we have to operate, not at the full capacity, but between 130,000 and 140,000 barrels per day in order that we can minimum our losses and therefore not turn our gross margin into a loss.

There is also a floor below which we practically cannot go. Since we have to service the local market and if you take, for example, aviation fuel as an example, in terms of our distillation process, 10 per cent of the products are coming out as aviation fuel. So if we have to produce 10,000 barrels of aviation fuel to serve the local market and the regional market, we have to be refining at least 100,000 barrels per day. So that is the floor. Well, it is a f-l-o-o-r, and not a f-l-a-w.

I say all of this, Member, to make the point that whereas we would have worked out certain—the economics before, you know—that the rate of return in the GOP could have been 15/13 per cent, and because of the cost overruns it dropped to 6 per cent. All of these things, of course, are estimates, but the markets these days is even less favourable and less favourable, to the extent that in our planning, we are not even sure if next year for part of the year we will actually be running the Cat Cracker because Cat feed these days, oddly enough, just like gasoline, sells sometimes for a higher price than the products coming out of the Cat.

That is why, even though there were delays in bringing the Cat Cracker on stream over the last few years, the losses were severely mitigated. In fact, sometimes there was not a loss at all because we were selling Cat feed.

So I am making the point, Member, that the market has turned around considerably since the discovery of shale oil and shale gas in the United States and, therefore, we at PETROTRIN, this is why we have an imperative now to increase our proportion of local crude, and that is where our focus is going to be.

Mr. Karim: Madam Chairperson—

Mrs. Paula Gopee-Scoon: I recognize the challenges that you—sorry.

Madam Chairman: Mrs. Gopee-Scoon, could I just—sorry. Not to cut you, but I know

that Mr. Karim had asked some questions whilst Mr. Imbert was asking, so I am just asking if your questions were answered and if you –

Mr. Karim: Thank you, Madam Chairperson.

Madam Chairman: You are welcome.

Mr. Karim: Sitting and listening to the response from the President – and I am hearing about almost like a swat analysis being given here in terms of the threats and so on, from our colleagues to the north, this picture of gloom. Is this company very solvent, in your view? And if I may say so – and I mean, it is not a rhetorical question, actually, but it is very clear, based on what you are saying, too, in terms of the performance of the Cat Cracker and what could happen in the near future, it might be good for you to give us some assurances in terms of what looks good on the horizon.

Mr. Hassanali: Yes.

Mr. Karim: I was just reading the *Economist* magazines two days ago and there was a – maybe you might want to read it as well; this big statement about shale oil and gas in the US. The question is: is it a myth or reality? Is it really as treacherous as we think it is? They were pointing to the fact that there were a lot of investments in the Louisiana area. It might be something that you might want to look at, and I am sure you are very much aware of it.

But let me come back to the substantive issue: Is it really a picture of doom and gloom and what is the percentage of solvency?

Mr. Hassanali: Thank you very much for asking that question, Member, because I regret if I gave a picture of doom and gloom because I was just answering the question of the market alone. But PETROTRIN, on the other hand, is blessed in terms of being both an exploration and production company, as well as a refining and marketing company.

If we were an RM company alone, supplying the local market, I would, you know, be very worried. But our current five-year forecast shows that PETROTRIN will remain viable and sustainable even during this period. In fact, as we all know in this room, the entire petroleum market is a cyclical market and we have been through many of these before. And in a rising oil price market, the E&P division is profitable and the R&M division may not be, because products do not always rise as fast as crude. Crude

is the input raw material and products is the output.

On the other hand, in a falling market, the fortunes are the reverse, and that is why oil companies, like ourselves, tend to be integrated. So that the short answer is, it is challenging but it is an excellent challenge and an excellent opportunity for continuing in what I think you were suggesting in your last question, and that is there are opportunities for us to improve, to optimize, to be more efficient, and those are all among the plans in going forward in terms of project management, in terms of budgeting and so on. We take the opportunity because there is an imperative to so do, and as part of our planning process we are now finalizing for management, for all of the management and all of the company, not only just targets and so on, but key performance indicators for every person. So we are going to be managing the company based on monitoring of these performance indicators. So the short answer is, it is challenging but we are very sustainable.

Mr. Karim: Madam Chairperson, just a follow-up. Let me just say that, that was really my listening as opposed to your explanation of the gloom and doom, so it is not that you were only painting it; it is how I was interpreting it.

Madam Chairperson, colleagues, I want to say that I am very supportive of the future of this organization in the context of their emphasis is on E&P, and I say that because, as Minister of Tertiary Education and Skills Training, I want to publicly commend the Chairman and the members of the board and the management of PETROTRIN.

Next week Monday –I am just giving you an invitation as well. I am using this opportunity to commercialize this operation. But next week Monday at 6.00 p.m. for the first time in the history of Trinidad and Tobago and in consortium with PETROTRIN, our State oil company, who I am very grateful to for a secondment of one of their very competent colleagues, we will be opening for the first time a drilling school in Trinidad and Tobago. And I think that is very fortuitous and timely because of the fact as well – not that we are blowing any trumpet here, but that we are supporting the energy-based company, our national State company, to the extent where they are going to be placing increased emphasis on E&P, and therefore the increase in throughput and therefore if we take the supply chain further on, in terms of its profitability.

I want to also say that I just spoke with the Chairman of PETROTRIN and the President, briefly, today and before now, that we, again, in terms—and know Mr. Ramnath, I would have raised this issue before with him on the last occasion when you were not here—but that we are also very supportive of increasing the human resource potential.

Many colleagues would have spoken about the project management issue and so on. That is only one aspect of it. The accounting issue is another aspect, the IT issue, another aspect, and therefore it is not necessarily only in terms of platform development, and sometimes it may be seen as better than the silo aspect of development, in terms of management approaches.

So I want to use this opportunity to commend the company, to say that we will continue as a Ministry, certainly—my Ministry and the Ministry of Energy and Energy Industries—to support improvements to building the capacity and the content.

We also intend to ask PETROTRIN to look again—and I think this is something that is very dear to my colleague, Minister Mc Leod. We want to revisit the trade school, what used to be the—when I used to go to school—Texaco Trade School, and the whole aspect of improving, again, the human resource development, and the presence with the University of Trinidad and Tobago on the plant itself in Texaco.

I say this to support the initiatives and again to focus on companies. Let me give you an example, Madam Chairperson, colleagues. I had the opportunity to visit—and I am sure my colleague from Point Fortin is familiar with this—Petrobras in Brazil—and much is being said about Brazil—and the Petrobras University, really, is the corollary in terms of Petrobras, the company. You cannot enter the Petrobras oil company in Brazil, as far as I was advised, without having some orientation or going through some degree of acquaintance—even though you might be skilled and incompetent—except you went through Petrobras University.

So I am saying this from the perspective of the HR situation that we support. I also want to say that I feel, while we have the threat of shale gas—I read the document and I do not think it is the kind of threat that we want to focus on that will say that, you know, the doors are going to be shut. I think Trinidad and Tobago has always been very innovative and creative. In fact, anywhere in any oilfield in the world, you can find

someone there.

So just to conclude my few remarks, I want to just ask—I think I got the answer. The fact is that while the picture was being painted, that we have opportunities in terms of the future of this company and we stand to support PETROTRIN.

Madam Chairman: Thank you, Mr. Karim. It sounded like if you were blowing a trumpet, though, but it could be my hearing and—*[Laughter]* It could be just my hearing.

Mr. Mc Leod, you said you wanted to ask a question.

Mr. Mc Leod: Thank you, Madam Chair. I thought I might say that if there is one person other than Minister Karim in the room who must support PETROTRIN, that is me. I mean, I think I am here because of my having worked in the Pointe-a-Pierre refinery, largely.

Concentration is going to be based now on E&P, but there are still some issues in R&M that need to be resolved as they certainly will impact the company's ability to do all that needs to be done in E&P. Could you say exactly where we might be at this time on the Ultra-Low Sulphur Unit? Are we in litigation at all with whoever might have been involved? What are the cost implications to PETROTRIN at this time? And then as we go to E&P, following up on a question that the Member for Point Fortin raised, it is for a long time now that we have been talking about, first of all, identifying our potential for increased production in Soldado, and I think that largely those potentials have been identified, but our—is it the sea transfer line?

Mr. Hassanali: Trunk pipeline.

Mr. Mc Leod: Yeah—that is always breaking down. I think you alluded to that a little bit earlier. But this is about 15 years now I have been hearing this. You know? And are we going to deal with that, as we have already identified a couple thousand barrels well, that we can begin to produce tomorrow? I would like to hear something, some kind of reassurance given in that regard, and how the entire outlook affects—on the contrary to what Minister Karim was projecting—how the entire outlook in your planning, how does that affect job security, human resource development, generally; where are we going insofar as that is concerned.

Mr. Hassanali: Thank you very much, Member, for the question. First, I would like to

deal with ULSD, and then take it after in sequence. You asked where we were in terms of our relationship with the contractor. The contractor is Samsung. I just want to back up a little bit, if I may. Samsung was also the contractor that did the CCR plant, and we have some residual issues on the CCR plant in terms of disagreements for compensation for delays – construction delays.

The plant was completed after – well, out of time, and we have claims against Samsung and Samsung also has claims against PETROTRIN in terms of variations and so on. They are about equal, actually. And we are in a situation now where we have a meeting very soon with Samsung because Samsung – at the highest levels of Samsung and PETROTRIN – have engaged us in terms of some dialogue to be able to see if we can settle this claim for the CCR without going to a third party.

I step back a bit because there is a relationship between that issue and the current issue regarding the Ultra-Low Sulphur Diesel, because as I had alluded to earlier, we did have five months of delay, and while PETROTRIN has moved to regularize that situation insofar as the employees are concerned, there is still some disputes between Samsung and PETROTRIN in terms of delay there, as well as claims for variations and so on.

12.25 p.m.

I know that the national community has been concerned and hearing as well, that there are contractors who have not been paid and the like. We, in good faith, are about to make a gesture to Samsung in terms of our discussions, and I believe that that will look after some of those local concerns. However, after the high level meetings that we expect with Samsung very soon, if there is not a resolution, then our contract does provide for arbitration and going forward, and we have been reasonably successful in that regard. We have delay advisors, construction advisors, and we have been assured that we have a good case in that regard, but I would not want to speak too much more about that with apologies because we may be going into some form of dispute resolution.

Mr. McLeod: I understand.

Mr. Hassanali: Regarding the rest of the refinery, I believe, Member, you did ask the question, notwithstanding the fact that we are moving with some focus now on

exploration production: do we have any issues in the way of optimizing our performance of the refinery? Well, there are issues and some of them have common features with respect to the offshore assets, and this has to do with asset integrity. As an example, our 4 VDU unit—that is the four-vacuum unit—unfortunately has not been turned around for almost 10 years, and these plants do require mechanical turnarounds. And by mechanical turnarounds, I refer to major overhauls every four to five years.

In fact, I received a petition in my office from some concerned members of the Oilfield Workers' Trade Union only last week, but we are going to be turning around No. 4 VDU early January and, subsequent to that, we will also be turning around No. 8 crew distiller as well, because that is also in a phase two turnaround, that has also been way overdue. So the answer to your question, hon. Member, is that, yes, one of the impediments in the way is going to be the turnarounds that we have to do that are outstanding because that does reduce the capacity and the throughput. It limits our ability to produce on spec products and it also requires us to sometimes purchase, not only intermediate products, but sometimes finished products, to serve the local and regional market, and that, of course, erodes our refinery margin. However, I would like to assure you, hon. Member, that this is well in hand, and the Vice-President, Refining and Market and his team, are in the final throes of planning this turnaround, and we have done many turnarounds before.

Turning now to your other question, hon. Member, in terms of the pipelines offshore in the marine environment, the pipelines, yes, are part of the older infrastructure, trunk pipelines and flow lines and so on. And as I had indicated too a little earlier, yes, not only do we have aged pipelines, but we have pipelines with lots of clamps. In fact, one of the main trunk pipelines that failed a number of times this year has seven clamps on it. So that every time the pressure rises with increased production of fluids, we have leaks and so on.

However, once again, this is not a gloomy situation at all because we are about enter into an arrangement—and the board is going to consider this very, very soon—that has gone out for tender, and an arrangement to be able to lay a lot of the flow lines, and to be able to address some of the trunk pipelines as well. Now the reason why this is a very carefully planned arrangement is because as you, I am sure realized, that to replace the trunk pipeline by itself will be about \$300 million, and laying flow lines between structures—and we have

many structures there—there is a challenge because locally there are very few contractors who have badges to lay pipelines, and then when we have to lay lines of smaller diameter and longer lengths, we really need a pipeline laying badge with a spool so that it can be laid out in a more effective fashion.

So we are, at this point in time, in our strategic planning process, not only planning for the measures that need to be addressed for short and medium term production gains, but also in terms of establishing priorities in laying some of these flow lines so we can produce some of the wells right now that is behind casing, because, of course, the trick is that to get oil in the tank. So we are also—like I said in the final throes of that kind of planning. So over the calendar 2014 and going forward, we will be replacing some of these assets.

Now, given the fact that our investment is rather significant in Trinmar—and I just mentioned the seismic, if I may go back to that for a little while. The investment in seismic is going to be very substantial, between \$3 million and \$500 million. I did mention in passing—*[Interruption]*

Mr. McLeod: In Trinidad and Tobago dollars?

Mr. Hassanali: Yes, TT dollars—that we treat and we continue to treat with the fishermen all the way from Otaheite, all the way down to Icacos, and all of those in between. In fact, we been having meetings recently and I believe our relationship is pretty well intact. So that a lot of these infrastructure issues we expect to be able to progress without any kind of concerns any further.

Mr. Indarsingh: Do you have any fishermen who migrate from other areas?

Mr. Hassanali: Yes, we do have that sometimes.

Madam Chairman: Thank you, Mr. Hassanali. Mrs. Gopee-Scoon, you wanted to ask a question?

Mrs. Gopee-Scoon: Again, with the time constraints, I will be just very specific. So against all the challenges and, of course, the dynamism of the international energy environment and so on, you are definitely looking at your slate of products, reexamining what is right, what is not right in terms of profitability and that kind of thing, I would imagine. Also I would think that you are looking at new markets as well, because you said that with the advent of shale gas that the demand is definitely less. So that you also will be looking at new markets, and specifically Petrocaribe and that Caricom market, are you going to revisit, are you

looking at repackaging so that we can get that business back from Petrocaribe?

Mr. Hassanali: Member, you are absolutely right because when we are into a situation as we are now with low refining margins, we cannot sit on our hands. And not only is efficiency improvement a factor in going forward and also optimizing our throughput, but we have to go out and find premium markets closer to us, and where are these? These are within the Caribbean area, and which is why I said that you are right because there are countries locally and there are companies that are working locally who are already in touch with us, whose confidence in the Petrocaribe arrangement is not where it was in the past and, therefore, we can probably make excursions in those areas.

The Chairman and I only recently met with a party from one of the well developing islands near to us. That has not worked out just yet, but we are kind of optimistic that there are other markets, there are many gas stations and so on within the Caribbean. So, yes, not only do we have to take measures in terms of what products we make, but also going into fine new markets. Now the Ultra-Low Sulphur Diesel plant will get us new markets especially in the French Caribbean, where the sulphur specifications are lower and we can meet those specifications sometime early next year.

So, yes, thank you for that question because we are thinking along those same lines.

Madam Chairman: Thank you. Mr. Imbert.

Mr. Moheni: Madam Chair?

Madam Chairman: Mr. Imbert caught my eye before you.

Mr. Imbert: I am reading the explanations given by PETROTRIN for the problem with the new corporate headquarters, and the best word I could use to describe what I am reading is, it is a "scandal". What I am seeing here is that work was abandoned on this project in 2010 and has remained abandoned since then, and the board took a decision over 18 months ago in March 2012 to come up with options on the way forward and that is all that we are being told. So you have a multimillion dollar project, an eyesore on the highway, sitting down there for three years, no work being done, project abandoned and no information on what PETROTRIN is doing about this fiasco. Could we get an update on that, please?

Mr. Hassanali: Yes, certainly. I think on the last occasion I did go through the history of that particular project. It is another project just like the GOP, which went from a cost estimate of some TT \$75 million for a building of 60,000 square feet.

Mr. Imbert: Mr. Hassanali, in the interest of time—*[Interruption]*

Mr. Hassanali: Yes.

Mr. Imbert:—I am reading a document that I have received, it says:

In December 2010, the Board of Directors agreed in principle with the implementation of a termination plan to halt the construction of the headquarters.

So that is three years ago. Then there are various statements about what happened after that, but the bottom line is, nothing happened.

And in March 2012, the board agreed with a recommendation to annul the procurement process and alternative options be developed with a mechanism on the way forward.

It is more than 18 months ago. So what these documents tell me: no work has been done on this project for more than three years; I repeat it is an eyesore on the highway. All I am hearing is that 18 months ago you decided to do something, but you have done nothing. So could you tell us what is going on, please? I do not need the history lesson. I know it was a fiasco.

Mr. Hassanali: Right. In the interest of time, I will not address the context in which I was going to say what I was going to say. So after that, what we did was we went out in arrangement to see if we can a booth arrangement in place to complete the project because—*[Interruption]*

Mr. Imbert: Mr. Hassanali, could you just speak from what has happened since March 2012, because all this booth thing is in my documents.

Mr. Hassanali: Okay. All right. What has happened since that time, two issues. One is we do have an initiative that is also participating at the highest level in terms of the board as well, on options to be able to address this fiasco that took place in the past as you have described it. The second issue, Member, I would like to point out is that in the fullness of all that we had to do and investments that we have to make in order to go towards producing more oil and gas and optimizing refinery, spending another or arranging for another \$400 million to complete this is really not a high priority.

Mr. Imbert: Mr. Hassanali, the building has been left abandoned for the last three years. I am seeing now the board said it would look at options on the way forward in March 2013, are you saying that the decision is to abandon the project? Is that what you are saying?

Mr. Hassanali: No.

Mr. Imbert: Well say something.

Mr. Hassanali: What we have done is—the building is not deteriorating. We have mothballed the building, to use the construction term. So it is not abandoned at all, but it is at this point in time not a priority but there are options that we still have to look at. But these options have to be weighed against productive options.

Mr. Imbert: All right. So you have abandoned project. Fine! Thank you.

Madam Chairman: Mr. Indarsingh.

Mr. Indarsingh: Thank you very much, Madam Chair, and I am sure that the issue with the building will continue to evoke some kind of discussion, but I am sure that Mr. Hassanali cannot speak for the entire board and based on the decision that they will eventually take.

Yes, from in terms of time, could you give—I know that in terms of World GTL matter, there was arbitration and so on—could you give the state of play because I know that arbitration, PETROTRIN was awarded legal cost and so on. Has that come PETROTRIN's way? And I have observed that looking at the audited financial statements between 2008, 2009, 2010 and 2011, a number of issues have been pointed out and I hope that the management has taken note of the issues and have dealt with virtually all in relation to what has been pointed out.

12.40 p.m.

Mr. Hassanali: Okay, so status on the World GTL project: we have just completed another arbitration, I think that was in October of this year, and we expect the decision in that regard to be delivered within, I think, three months hence.

On the last occasion to which you just referred was another aspect of the arbitration and there are many facets to our relationships with World GTL. Yes, we were, indeed, awarded costs; that is the cost of the process. WGTL has challenged that by taking that to another court so we are, "yuh know", in a bit of abeyance in that regard. But I expect that the arbitration that we have just completed will probably be the last, and we will soon see an end to this other project that has really been quite a burden to PETROTRIN. As you know, we have written off the cost.

Mr. Indarsingh: Not [*Inaudible*] burden.

Madam Chairman: Mr. Moheni.

Mr. Imbert: So that is it? That is it on that project? Sorry, Mr. Moheni, I just—as we on this project. Mr. Moheni—[*Inaudible*]

Madam Chairman: The question you could—yeah, Mr. Moheni because he—

Mr. Moheni: What I wanted to find out is given the expected growing importance of the regional market, what kind of trends do you discern in the medium-term, I should say, in terms of the status of that market? Whether it is grown, whether it is—the growing importance of that market in the medium.

Mr. Hassanali: Okay. I did say earlier that the premium market for PETROTRIN is the local and the regional market, and, of course, we talking about the regional petroleum market for petroleum products.

Mr. Moheni: “Yeah.”

Mr. Hassanali: And these things, of course, go along with the economies of their respective island states. I mean, these island states are all tourism-based economies, I believe, and I do not think that there has been much growth in the recent past and if I—just referring here. I do not think that we expect much growth; we expect the markets to remain pretty stable. If there is to be growth, it may come from a substitution in respect of the Petrocaribe arrangement but that is yet to be seen how that will play out.

Mr. Moheni: Okay, thanks.

Mr. Imbert: Could we go back to the GTL project? I had a note here that it was sub judice so that is why I did not ask any questions [*Laughter*] but since my colleague is asking and you are answering. I am seeing that in April 2013, PETROTRIN officials told us that it would cost US \$120 million to complete plant. Is that so?

Mr. Hassanali: That was an estimate that was given at one time, correct.

Mr. Imbert: What do you all plan to do?

Mr. Hassanali: WGTL?

Mr. Imbert: Um-hmm.

Mr. Hassanali: Right now, we have received a proposal but, again, we are not able to speak much about that because that is very much sub judice.

Mr. Imbert: Proposal as to what you are going to do with the plant to sub judice?

Mr. Hassanali: “Yeah”, the matter is in the hands of the court right now.

Mr. Imbert: I am lost. You cannot talk about what you are going to do with the plant?

Mr. Hassanali: Let me just remind the members that its course is in the hands of a receiver –
[*Interruption*]

Mr. Imbert: Uh-huh.

Mr. Hassanali: –and therefore the receiver is in control. But I think, as importantly, the matter is in litigation at this point in time.

Mr. Imbert: But who appointed the receiver?

Mr. Hassanali: Well, that receiver was appointed by PETROTRIN as the bondholder.

Mr. Imbert: Right, you went to the court, “yuh got ah winding up order, you asked for ah receiver to be appointed to seek your interest”.

Mr. Hassanali: Um-hmm.

Mr. Imbert: So the receiver is working for you and you are saying – [*Interruption*]

Mr. Gillette: No, the receiver does not seek interest, it is a receiver.

Mr. Hassanali: Receiving the assets.

Mr. Gillette: Receiving the assets and to determine what has to be done with the assets.

Mr. Imbert: All right, okay, but it was based on a request by PETROTRIN to wind up the company. Not so? Not so?

Mr. Hassanali: Well, to receive the assets, because it was put into receivership because PETROTRIN was the bondholder.

Mr. Imbert: My understanding of receivership is that you have to apply to the court to wind up the company and you get a winding up order and then a receiver is appointed who receives the assets and distributes the assets, if any. Okay. But that would have been initiated by PETROTRIN. Am I not correct?

Mr. Hassanali: Yes, certainly, member, but I have been advised by our attorneys that – and with the greatest of respect – I should not address this matter at all.

Mr. Imbert: You are saying that you cannot tell the Public Accounts (Enterprises) Committee what is going to happen to an asset that belongs to the people of Trinidad and Tobago and you are claiming legal confidentiality? That is what you are saying?

Mr. Gillette: Madam Chairman, allow Radica – [*Interruption*]

Mr. Imbert: Sure.

Mr. Hassanali: “Yeah.” I was –

Mr. Gillette: – Maraj to comment on it because she is our legal counsel.

Mr. Hassanali: "Yeah."

Ms. Maraj-Adharsingh: If I may respond, PETROTRIN did not apply to the court for a winding up order. Those assets, we had a debenture on those assets. PETROTRIN was the debenture holder. PETROTRIN wears two hats: one is the debenture holder and one is a joint venture partner.

As a consequence of PETROTRIN being the debenture holder, the assets were placed in receivership. The issue there would have been that the receiver would try to realize funds—*[Interruption]*

Mr. Imbert: Before you go any further—*[Interruption]*

Ms. Maraj-Adharsingh: Uh-huh?

Mr. Imbert:—please state receivership by who, based on what? Did not happen by accident, somebody must have done something.

Ms. Maraj-Adharsingh: Okay, I know you are pressed for time but if I may just give you the background. There was a loan on those assets. It was a project finance loan. The assets were ring-fenced. There was a loan made by the project company, WGTL Trinidad. PETROTRIN and the WGTL parties were two guarantors against that loan. That loan was facing default as at September 2009.

In an effort to avoid the default, PETROTRIN, because it had no agreement with the other joint venture partner as to the way forward, in order to avoid that default, PETROTRIN invested and PETROTRIN purchased that loan from the then company—the loan Credit Suisse. By purchasing that loan, PETROTRIN stepped into the shoes of the Credit Suisse of the loan company and become the debenture holder. There is an agreement over the assets and once you have those assets, it is similar to a mortgage on property where if you fail to pay, the bank can actually put that property up for sale.

Okay, so PETROTRIN, as the debenture holder, appointed a receiver. The receiver asked in the interest of the company—WGTL Trinidad, not only PETROTRIN—and at present, the receiver has had proposals but there is a matter presently before the court from one company called NiQuan Energy Trinidad Limited, and because that matter is before the court, PETROTRIN is not at liberty to share details of that.

Mr. Imbert: "The man is ah intervener, proposer, ah tenderer, ah prospective purchaser"—what is NiQuan?

Ms. Maraj-Adharsingh: The—*[Interruption]*

Mr. McLeod: Madam Chair, may I? I know that we need to know a lot of things but this is a matter before the court and could very well be sub judice, and the fact that we are meeting in public right now, I appeal, on behalf of—you know, that we should not pursue—*[Interruption]*

Mr. Indarsingh: I think the Member is quite experienced—very experienced individual to know that.

Madam Chairman: Member, may I just indicate that the sub judice rule is that you cannot say something that would influence or prejudice the outcome of the matter, so unless the information that is being elicited would influence or prejudice the outcome, then I am not so sure that you are within the sub judice rule. Are you saying that it would influence or prejudice the outcome of the matter if you speak further?

Ms. Maraj-Adharsingh: Yes, it will. It will prejudice our matter.

Mr. Imbert: Hold on a second, please. *[Inaudible]*

Mr. Indarsingh: Madam Chair, I want to be very fair to everybody inside this meeting.

Mr. Imbert: Camille, I am on the floor, “eh”.

Mrs. Gopee-Scoon: He is asking a straightforward question.

Mr. Indarsingh: And I think that pushing the representative of PETROTRIN, she has clearly stated her position in relation to where it is, and I think that in all fairness, we should not be pushing anybody in a direction that will probably infringe on the outcome of the proceedings.

Mr. Imbert: Madam Chair, the Member is entitled to his view but this is the Public Accounts (Enterprises) Committee of the Parliament, we are entitled to ask questions.

Mr. Indarsingh: And I am fully aware of that.

Mr. Imbert: I am asking questions. Are you going to prevent me from asking questions?

Mr. Indarsingh: At no point in time.

Mr. Imbert: Well, will you allow me to continue to ask—Madam Chairman, through you, can I ask my questions, please?

Madam Chairman: Yes.

Mr. Imbert: I just had one question about the identity of NiQuan, could I get an answer to that, please? “Not what they doing, what they offering”, just who are they?

Ms. Maraj-Adharsingh: NiQuan Energy Trinidad Limited made a proposal to the receiver in respect of the assets of WGTL.

Mr. Imbert: Who is NiQuan? Not what did they do. Who is NiQuan?

Ms. Maraj-Adharsingh: What do you mean by who is Ni—?

Mr. Imbert: Where did they come from? Are they an intervener? What is going on? What is their role in this whole thing?

Ms. Maraj-Adharsingh: The receiver, sometime ago, had placed an ad in international journals where they invited bids for the purchase of the assets. NiQuan Energy Trinidad is an external company; it is a New York company with a registered place of business in Trinidad. Right? And to go further, I mean, PETROTRIN is cognizant of the fact that we have been entrusted with the assets and responsible to the people of Trinidad and Tobago, and for that reason, we would really prefer not to go into any other details because PETROTRIN is presently before the court where NiQuan Energy Trinidad Limited is the claimant.

Mr. Imbert: Madam Chairman, I suggest that we examine PETROTRIN in camera on this matter on a subsequent occasion since they are afraid of publicities.

Madam Chairman: I think that is a valid suggestion and we will call PETROTRIN on another occasion on this specific matter. Thank you very much for your — *[Interruption]*

Mr. Hassanali: Madam Chairman, I beg your pardon.

Madam Chairman: Yes, Mr. President.

Mr. Hassanali: I was going to make another suggestion too. Could we at the appropriate time give an answer in writing as well at the appropriate time?

Madam Chairman: But that would beg the question of what is the appropriate time.

Mr. Hassanali: Yes.

Madam Chairman: So I think we will leave the option open and we could see how we could move forward on this particular issue.

Mr. Hassanali: Okay, thank you.

Madam Chairman: Thank you.

Mr. Gillette: Or another option, Madam Chairman, is that you can ask questions to PETROTRIN and then they can reply subsequently. So I know Mr. Imbert has some concerns, maybe he can ask questions through you and we can reply to it as soon as possible

in writing. That is another option so we protect everybody on either side.

Madam Chairman: Thank you. Are there any other questions?

Mr. Gillette: Just one thing there.

Madam Chairman: Yes, Mr. Chairman.

Mr. Gillette: I know that Mr. Imbert also was speaking about the building and we will not abandon the building. What we are looking at, already, two options right now to see whether we can actually bring the cost downhill. It is an eye sore on the highway, we recognize that and we got a look at it, but we are not going to build that building at \$400 million. So that just –

Mr. Imbert: Mr. Gillette, thank you very much for that but nothing has happened there for more than three years.

Mr. Gillette: I agree with you.

Mr. Imbert: In the usual English meaning of the word “abandonment” [*Laughter*] that project has been abandoned.

Mr. Karim: Madam Chairman, if I may intervene at this time – [*Interruption*]

Mr. Gillette: I agree with you but it has not been abandoned. [*Laughter*]

Mr. Karim: As we conclude the meeting, let me just say that I think that the President answered the question appropriately. What he was saying to Mr. Imbert’s question is that this is not the priority in terms of the investment and the availability of resources, and I think that is a legitimate acceptable answer.

Madam Chairman: Thank you – Mr. Karim, sorry.

Mr. Imbert: Karim, I note all that.

Mr. Karim: I know Mr. Imbert wants to –

Mr. Imbert: I note all that. [*Laughter*]

Madam Chairman: Members, if I may, Mr. Karim, I think we understood what the Chairman was saying, but thank you very much for that intervention. If there are no other questions, I just have one other question that I would like to ask, and that is with regard to the directors at PETROTRIN who have declared an interest in companies doing business with PETROTRIN, and I wanted to ask two questions and they are: Did PETROTRIN conduct business with these companies prior to those persons becoming members of the board? If anybody would be able to say.

Mr. Hassanali: Madam Chairman, just for clarity, I know we commented on three directors, I believe.

Madam Chairman: Seven.

Mr. Hassanali: Seven?

Madam Chairman: Seven directors.

Mr. Hassanali: Okay.

12.55 p.m.

Madam Chairman: And two Members of the management who declared conflicts of interest.

Mr. Hassanali: Right. I guess we could go—I do not have it before me and I apologize but there are some certainly who we did business with those companies before, for example, if I may in my own case as a Director of the National Gas Company, yes we do conduct business with the NGC with regard to—okay, thank you. Thank you very much. I do have the list here now.

Well, if I may start from the Chairman, Mr. Lindsay Gillette.

Madam Chairman: I think that is a good place to start.

Mr. Hassanali: Yes, I think we would have done business with some of these companies before. In respect of the Deputy Chairman, Mr. Aleem Hosein, we certainly have done business with ANSA Technologies. They are a supplier to the energy sector. With respect to Mr. Reshard Khan, I do remember on one occasion where I think we would have—one of our contractors would have taken out a bond with that company that he is associated.

With Mr. Vernon Paltoo, National Energy Corporation, yes we do business with the National Energy Corporation and we have been doing it for a long time. Mr. Jokhoo who is no longer a member of the board but at the time Tringen, I cannot say whether we have or have not, but we might have. Mr. Arnold Ram, Engineer at T&TEC, certainly.

Madam Chairman: Mr. Hassanali, I think given the fact that you are saying “you think” and—*[Interruption]*

Mr. Hassanali: Yes.

Madam Chairman:—“it may be” and so on, perhaps we can request that answer in writing.

Mr. Hassanali: Okay, thank you very much.

Madam Chairman: And we will frame a question to you, in writing—*[Interruption]*

Mr. Hassanali: All right.

Madam Chairman:— and you can respond to that question.

Mr. Hassanali: Thank you very much.

Madam Chairman: Okay, you are very welcome. Are there any other questions? Can I therefore bring the meeting to a close and invite any member of PETROTRIN or someone you have chosen beforehand who would like to make closing remarks? Mr. Chairman.

Mr. Gillette: Thank you very much, Madam Speaker, and what I would say, I mean it has been— *[Interruption]*

Madam Chairman: Mr. Chairman, I do not know if you are promoting me but I am not a speaker as yet.

Mr. Gillette: As yet— *[Laughter]*

Madam Chairman: It may be coming but not— *[Interruption]*

Mr. Gillette: You are not a speaker as yet. So let me further on congratulate you anyway on your position as Chairman of this Committee and let me first of all wish everyone a very happy season, a very Merry Christmas and hopefully a great 2014 which I know that we look forward to great things in the year 2014 and thank you very much for having us here today.

Madam Chairman: Thank you very kindly, Mr. Chairman. On behalf of the Committee— well first of all let me thank you very much for your warm congratulations. I really appreciate it. I look forward to working with the Committee and if PETROTRIN has to come back again, I look forward to interacting with PETROTRIN. Mr. Imbert is telling me “when” PETROTRIN has to come back. *[Laughter]* I know you have already come three times and I understand that the 2012 accounts have come in so you will be coming back at some point, hopefully not too soon though.

But I would like to take this opportunity to thank you very much for being so forthright in most instances with your answers. I look forward to us working together and I want to take this opportunity to wish you, at PETROTRIN, all the best for this season which is very special and continued success in 2014. I would also like to take this opportunity to wish the Investments Division and the Members of the Committee God’s richest blessings in this season and continued success in 2014.

Thank you very much for being here and the Members of the Committee would just wait for a few minutes after PETROTRIN leaves. Thank you very much and get back to your places of business safely.

Mr. Gillette: Thank you.

1.09 p.m.: *Meeting Suspended.*

Appendix III

Written responses from

PETROTRIN

Based on the Enquiry of PETROTRIN held on the Tuesday 19th 2013, the Committee requested to have PETROTRIN provide responses to the following questions in writing:

1. In terms of products and capacity, where would PETROTRIN be had no Gas Optimization Programme (GOP) been put in place?

Entity response in writing indicated;

In answering the question we will identify the indented benefits of the Gasoline Optimization Programme (GOP).

This programme is designed to increase the overall gasoline yield of the refinery, as well as improve the quality of the gasoline product in order to meet changing product specifications globally.

The main benefits of the GOP are;

- Increase in the full-conversion capacity of the refinery from approximately 145,000 BPD to 168,000 BPD
- Increase in the gasoline yield of the refinery from 21% to 27%
- Increase in the diesel yield of the refinery from 24% to 27%
- Improvement in the gasoline pool quality as follows:
 - Motor Octane Number (MON) increase
 - Reduction in benzene content
 - Reduction in sulphur content
- Eliminate the sale of unfinished feedstock, such as Vacuum Gas Oil and Low Octane Naphtha, as these would now be converted into higher finished products
- Improved energy efficiency of the refinery

It should be noted that there have been very significant cost and schedule overruns during the execution of the GOP, with total project cost escalating from US\$650 MM in 2006 to US\$1,480 MM in 2013. This has had a negative impact on the project economics, as seen in

the decline in the project's unfinanced Discounted Cash Flow Rate of Return (DCFROR) from 13.0% at the US\$650 MM project cost to 6.7% at the US\$1,480 MM cost.

For the GOP, the root causes of the most cost and schedule overruns were inadequate project management consultancy, poor construction, rework, and redesign of several process systems, many of which could have only been discovered during the commissioning phase. Furthermore, due to the Cost Reimbursable nature of some of the contacts even for rework, cost escalated as there was little or no incentive for the contractor to complete the job in a timely manner.

PETROTRIN is expected to benefit from changing market trends and product quality within the region and this is expected to have a positive impact on PETROTRIN's bottom-line.

2. What was the recovery value of the World Gas to Liquid Inc. (WGTL) venture with 2.8 billion having been spent?

Entity response in writing indicated;

At present, PETROTRIN is engaged in legal proceedings in several different jurisdictions relating to the Gas to Liquid Project. For this reason, our Counsel has advised that matters in respect of the Gas to Liquid Project are considered sub judice and are not open for discussion.

3. Is the plan to create space for the establishment of industrial facilities still in effect? (the rationale given for the relocation of the Head Office building)

Entity response in writing indicated;

The initiative to create industrial sites on the western portion of our holdings (i.e. Administration Building and environs) was driven by the then Government's desire to establish a new refinery in Trinidad. At this point in time that plan is no longer under consideration.

4. Does PETROTRIN have an approved Fraud Policy? If yes, provide a copy of this policy and state when it was approved by the Ministry of Finance.

Entity response in writing indicated;

The company has a Corporate Fraud policy which was approved by the Board of Directors on May 01. All PETROTRIN Policies are approved by the Board of Directors since the State Enterprises Performance Monitoring Manual does not specify that such Policies must be approved by the Ministry of Finance. It is noteworthy to mention however that a representative from the Ministry of Finance sits on PETROTRIN's Audit Committee.

5. How are issues of fraud addressed by the Executive of PETROTRIN?

Entity response in writing indicated;

Guidelines for reporting of allegations of fraud are provided in both the PETROTRIN's Corporate Fraud policy and the Whistleblowing Policy.

In accordance with PETROTRIN's Corporate Fraud Policy, the Internal Audit Department has the primary responsibility for the investigation of all suspected fraudulent acts as defined in the Policy. An employee or person who suspects or is aware of a fraudulent activity within the Company must notify the Chief Audit Executive and it is the Chief Audit Executive's responsibility to report to senior management once the certainty of a fraud has been established.

Significant frauds must be reported immediately not only to management but also to the Audit Committee. Upon the completion of the investigation, Internal Audit issues a written report to the President and Audit Committee. Copies of the report are also submitted to the Law Department and the Industrial Relations department.

After reviewing the written report, the Industrial Relations department will notify any person under investigation in writing of the essential particulars of the findings. The person under investigation shall be required to respond to the findings in writing within a stipulated timeframe. Any disciplinary action shall be in accordance with the company's Disciplinary policy and collective agreements.

On the completion of a fraud investigation, Internal Audit will determine which controls need to be implemented or strengthened to reduce future vulnerability. Appropriate recommendations are made and their implementation monitored.

The Law Department has the primary responsibility for referral of any matter to the appropriate law enforcement or regulatory agencies and for managing any litigation that may arise from the investigation.

Under the Whistleblowing Policy, employees and other stakeholders can use the whistleblowing facilities provided by Global Compliance (a subscription-based service independent of PETROTRIN and outside of Trinidad and Tobago) where they can either:

- Call an advertised 1-800 telephone and provide details of the allegation
- Use the advertised website and complete the questionnaire as instructed.

Users of the Global Compliance service can opt to remain anonymous. All allegations made via the Global Compliance service are forwarded to PETROTRIN's Internal Audit department for investigation.

6. Are there any matters currently before the courts involving fraud at PETROTRIN?

If yes, how many?

Entity response in writing indicated;

There are currently no matters involving Fraud at PETROTRIN before the Courts.

7. How long has the current Vice President- Finance held this position?

Entity response in writing indicated;

The VP-Finance has been acting in this position from November 20th, 2012. The previous VP-Finance was on sick leave from November 20th 2012 until retirement which was effective December 31st, 2012.

8. What circumstances caused the previous Vice President- Finance to demit office?

Entity response in writing indicated;

The previous VP-Finance retired effective December 31st, 2012.

9. *Does any Member of the Board or Executive of PETROTRIN have an interest (financial or otherwise) in any company that conducts business with PETROTRIN?*

Entity response in writing indicated;

According to 2013 Conflict of Interest forms submitted by Board members, the following interests in companies doing business with PETROTRIN have been declared.

Directors	Interests
John Lindsay Gillette	Computers & Controls Limited; Cascadia Hotel and Conference Centre; Radio Vision; Open Telecom Limited and Munch Kings Ice Cream; (family owned businesses)
Aleem Hosein	Managing Director- ANSA Technologies Ltd
Reshard Khan	Provision of legal services for Bankers Insurance Trinidad and Tobago Limited
Vernon Paltoo	Officer- National Energy Corporation of Trinidad and Tobago Limited
Khemram Jokhoo	President - Trinidad Nitrogen Company Limited
Arnold Ram	Engineer- Trinidad and Tobago Electricity Commission

Directors	Interests
Rudranath Maharaj	Director- Value Optical Limited
Khalid Hassanali - President	Director- The National Gas Company of Trinidad and Tobago Limited (NGC)
Jamaludin Khan - VP Exploration and Production	Director- Ali Meahjohn Limited of Siparia

Questions issued to PETROTRIN for written response:

Arising out of the discussions with PETROTRIN held on Tuesday April 16th 2013, the Committee informed the Board that the Secretary would write PETROTRIN's Chairman with questions, 1 - 9, raised by Members for response. The requested information is as follows:

- 1. In relation to the GOP provide a detailed justification (breakdown) for the increase in expenditure from US \$350 million to US\$ 650 million in 2004, and US \$ 850 million to US \$1.3 billion in 2008 for the Gasoline Optimization Programme on behalf of Bechtel?*

Entity response in writing indicated;

Summary

The original 2004 estimate of **US\$350 million** by PETROTRIN was a preliminary estimate of similar plants previously constructed as advised by process licensors (at conceptual stage of the project).

In **November 2005**, the **US\$650 million** estimate done by Bechtel International, Inc. (Bechtel) an international, experienced EPC contractor was based on different stages of definition and development of the Project, at which time, except for the Isomerisation Complex, no detailed engineering was done. Bechtel's preliminary schedule for mechanical completion was October 2008.

In mid-2006 lump sum bids were received for the CCR Complex, Alkylation and Acid Units and the FCCU Phase II Upgrade. A certain amount of detailed engineering (at least 30%) would have had to be done by the bidders to offer lump sum bid prices. These prices exceeded the Bechtel estimate for these Units, and alternate EPCM hybrid lump sum/reimbursable and EPC hybrid lump sum/reimbursable contract models were

recommended by Bechtel for the Alkylation and Acid Units, and the FCCU Phase II Upgrade respectively as more cost effective options. The budget was then adjusted in **October 2006** at an estimated **US\$850 million and on award of major contracts the schedule for mechanical completion was extended to January 2009.**

In June 2008 due to the continued unprecedented escalation of market increase in material prices and fuel, project delays, scope growth, increase in labour cost and lower than expected productivity etc. the Project budget increased to **US\$ 1.3 billion and at that time the schedule for mechanical completion was further extended to November 2009.** This budget was held until June 2010 at which time the schedule for mechanical completion was February 2011. In July 2010 a risk adjusted budget of **US\$ 1.48 billion** was developed taking into account all pending change orders, contractors' claims for schedule delays and costs associated with risks for completing the remaining portions of the Project.

The breakdown by the major elements of the GOP budget estimates for the **increases** requested are shown in **Appendix IV.**

i. Justification for Increase in Expenditure from US\$350M to US\$650M

In 2004 the original estimate of US\$350M was a preliminary estimate of similar plants previously constructed as advised by process licensors (conceptual stage of the project).

On 2005 July 29, Bechtel International, Inc. (Bechtel) an international, experienced EPC contractor was contracted for the Preparation of an Estimate and Schedule for the GOP. The Estimate and Schedule Study Final Report dated 2005 Nov 21, presented low range and high range estimates from which the estimate of **US\$650 million** was derived adjusted for the inclusion of owners cost (licensed technology, PETROTRIN staff, PMC etc.). The high range estimate was in the order of magnitude of **US\$824** with similar adjustment. It is to be noted that Bechtel indicated that the estimates **reflected October 2005 prices and forward escalation was not included.** The preliminary schedule developed by Bechtel at that time showed a project mechanical completion date of October 2008.

Various portions of the overall Program were at different stages of definition and development and the estimate methodology and accuracy varies. Except for the Isomerisation Complex, no detailed engineering was done.

The following information formed the basis of the estimate:

- **New C₅/C₆ Isomerisation Complex**
 - ITB documents for the EPC lump sum contract
 - Contractor lump sum EPC proposal
 - Results of clarification meetings between PETROTRIN and EPC Contractor
- **Continuous Catalytic Reformer**
 - Draft Licensor schedule A package provided by PETROTRIN
 - Licensor technical proposal for services for CCR regeneration section
 - Licensor proposed price for regeneration section equipment provided by PETROTRIN
 - Scope description provided in the GOP PMT request for proposal
- **Alkylation Unit**
 - Licensor capital cost estimate
 - Draft Licensor proprietary equipment sale agreement
- **Acid Plant**
 - Preliminary Licensor PFDs
 - Licensor draft proprietary equipment agreement
- **Fluid Catalytic Cracker Unit Upgrade**
 - Executed purchase order documents, Wet Gas Compressor and Main Air Blower packages
 - Licensor equipment data sheets
- **D4 Column Area Revamp (Offsites)**
 - Scope description including definition of equipment revamps and performance specification of new equipment
- **Utilities and Common Facilities**
 - Conceptual block flow diagram for water systems
 - Data sheet for Isomerisation flare

- Description of modifications to gasoline loading system
- **Interconnecting Pipeways and Power Distribution (Offsites)**
 - Refinery plot plan showing proposed unit locations
 - Summary of lines crossing limit of each unit
 - Routing and sizing for butane transfer lines to and from Phoenix park
 - Electrical load for each unit and location of power source

The total length of the piping including in the interconnecting pipeways is approximately 300,000 feet and represents both a significant portion of the estimate and of the growth from previous estimates.

The Bechtel Report indicated that the estimate include for the additional scope for transfer lines for butane to and from Phoenix Park, additional gasoline loading facilities and increased the scope of interconnecting pipeways due to a different location for the CCR.

The Report further stated that Equipment and materials prices have escalated at an unprecedented rate in the past two to three years. Since 2003, major equipment prices have increased by 25% for compressors, 43% for pumps, 50% for heat exchangers and 75% for columns and vessels. Bulk materials prices have also increased; structural steel by 75% and piping by 86%. In 2003, the materials currently estimated for the Program would have cost approximately \$105 M less.

ii. Justification for Increase in Expenditure from US\$850 million to US\$1,300 million

In July 2006, on receipt of the single bids received for each of the CCR Complex, Alkylation and Acid Units, and the FCCU Phase II Upgrade, the budget requirement increased to **US\$ 878 million** excluding contingency.

Bechtel advised that the lump sum prices were too high and recommended conversion to different contract models, transferring certain risks including market risk to PETROTRIN as more cost effective options. Bechtel recommended that contract models be changed from lump sum EPC to EPCM Hybrid lump sum/reimbursable in the case of the Alkylation and

Acid Units and from EPC lump sum with provisional sums to EPC hybrid lump sum/reimbursable for the FCCU Upgrade Phase II. Based on its recommendations, Bechtel's revised its estimate and with allowance for contingency the budget was revised to **US\$850** in October 2006.

It is to be noted that notwithstanding that on 2005 October 24 a contract was awarded to Bechtel for EPCM Services for works associated with the Utilities and Offsites, detailed engineering was not yet advanced and no appreciable increase was made to the Bechtel's original estimate which was based on an incomplete scope definition.

On 2006 November 29, Board decisions were taken on award of contracts for the Alkylation and Acids Units and FCCU Phase II Upgrade on recommendation by the ETC based on Bechtel's advice.

The Project budget was revised to **US\$ 850 million** and on award of contracts for CCR Complex, Alkylation and Acid Units, and the FCCU Phase II Upgrade the schedule for mechanical completion was extended to January 2009.

The Project estimate further increased from **US\$850 million** to **US\$1,300 million in June 2008** due to several factors including *inter alia* the following:

- **Extension in Project Schedule for Completion** - Mechanical Completion for the overall project was extended to November 2009. The delay in obtaining the Certificate of Environmental Clearance (CEC) led to a delay of seven (7) months to commencement of construction of the CCR Complex and the Alky/Acid Units
- **Project Administration** - increase in administration cost due to extension of schedule, engagement of a claims consultant to advise on claims submitted by EPC/EPCM contractors and engagement of a Certified Verification Agent (CVA) as required by the MEEA
- **Market Prices Continued to Escalate** since original base scope pricing in 2006 by EPC bidders. - Increased prices directly affected construction procurement costs such as fuel and raw materials including steel, which increased over 20% driving up the cost

of associated key materials such as reinforcing steel, structural steel, pipe, and equipment.

- **Alkylation/Sulphuric Acid Regeneration Units** - A major increase in the EPC contract cost primarily due to increases in the amount of reimbursable contracts for materials and services arising out of detailed engineering beyond the initial approved estimate.
- **Increased Cost of Freight** - Overall scope quantity increases coupled with rising fuel costs have resulted in unforeseen increases in the cost of shipping materials and equipment.
- **Management of Subcontractors** - The general management, overall performance and general productivity of the main subcontractors has been less than anticipated and is a major contributing factor to overall low project productivity.
- **Increase in Labour Cost** - Adjustment for increase in labour rates arising out of the OWTU Collective Agreements with PETROTRIN. In particular, hrly/weekly craft discipline labour was upgraded to monthly paid increasing labour costs.
- **Isomerisation Complex** - This project was substantially complete during this period and increases experienced due to under-estimation in the cost of startup and commissioning, increase insurance costs and settlement of some change orders.
- **FCCU Phase Upgrade Scope Growth and Productivity** - Significant scope growth arising out of design engineering phase and unanticipated conditions onsite 'inter alia' impacted EPC Contractor's ability to execute the work as planned and increased PETROTRIN's costs. There were requirements for major change orders for a Remote Power Building, New O/H Receiver Vessel, New Exchanger Structures, Underground Obstructions and Relocation of Pumps for compliance with current engineering codes and specifications. In additions several change orders resulted from other scope increases and problems encountered in working on an existing unit which was in operation.
- **Adverse Weather** - The GOP has experienced both wet and dry extremes. A drought was then followed by a 12 month stretch where the rain fall was 40% higher than normal. The drought coincided with the hydro-testing of pipe. The drought impacted the availability of water which prolonged the planned hydro-testing work.

- **Increase Cost of Site Support Services** - The increased duration of the GOP required site support services in excess of what was originally planned. Accordingly, transportation, sanitation and communication services have also increased beyond what was anticipated. The increased construction period has correspondingly affected the extended use of construction equipment rentals, temporary facilities, and laydown areas.
- **Utilities & Offsites (U&O)** - There was significant increase in cost for EPCM Services by Bechtel due to delays in engineering, rework and extended construction period. In an attempt to meet the projected schedules for the different new Units of the GOP, the EPCM contractor used a strategy of awarding contracts for the various elements of the Utilities and Offsites with engineering at approximately 30% complete and with the intention of using variations to complete the work as the full scope became more definitive. Most of the contracts included Bill of Quantities (BOQs) which requested fixed rates but allowed for increased quantities. The detailed engineering phase for scope finalization was much longer than expected due to the lack of adequate experience personnel of the ABT office. By the time the detailed engineering was finalized, there were significant scope additions to contracts as well as increased quantities. The construction schedule also increased due to rework and inefficiencies with the attendant increase in construction management costs and increased costs for contracts affected by escalation for example the Freight Forwarding contract as the cost of freight was linked to the cost of oil which showed an exponential increase over the period.
- **Other** - Further increase in cost of Catalyst and Precious Metals, Owner Controlled Insurance Program (OCIP), Training and Start-up and Commissioning.

2. *What oversight mechanisms are used by PETROTRIN to monitor projects?*

Entity response in writing indicated;

- All projects must be approved and included in the company's annual budget. As part of the approval process, projects are required to adopt a structured project management process, ensuring strategic fit with the company's goals.

- The company's structured project management process includes a detailed Project Management Guide with prescribed tools and techniques and a methodology that speaks to approval, planning, initiation, execution, monitoring and close-out of projects.
- Routine projects are handled by the various project departments within the company, however, very large projects or projects with significant strategic value may warrant establishment of specific project teams with defined terms of reference.
- A quarterly Major Projects Report is prepared and submitted to the Board of Directors on major projects with progress, variances, reasons for variances and corrective actions where applicable.
- A monthly status report on major projects is also contained in the Corporate Overview, which provides Management with regular status updates on the company's performance. The Corporate Overview is also presented to the Board.
- On a quarterly basis a reforecast of the annual budget is prepared. The reforecast is a representation of the actual year to date results and the projected results for the remaining months in the fiscal year. The projections are done to give Management a "nearer term" view of the anticipated results and to address any major performance issues as required.

3. *What oversight mechanisms are currently used by PETROTRIN to monitor the cost of projects?*

Entity response in writing indicated;

- The company has an electronic financial model or system (SAP) to assist with facilitating and controlling expenditure on a daily basis.
- The primary mechanism used to maintain effective control over project expenditure is the Authorization for Expenditure (AFE). The AFE provides the approval to spend project related funds as provided for in the Annual Budget.
- An AFE number is assigned to each project; this number also acts as the account code against which all expenditures are recorded in the company's financial

system. The Financial system prohibits expenditures to exceed the approved project budget without the requisite approval.

- Prior approval must be obtained for over expenditure on a project from the relevant Delegation of Authority along with adequate justification and reasons for over expenditure which must accompany the request for additional project funding.

4. What is the policy if an issue is raised concerning an increase in the estimated cost? Provide in detail the procedures or methods of recourse that can be taken to address these concerns.

Entity response in writing indicated;

The execution of a project may be divided into several contracts and materials purchase agreements. Cost changes during the life of a contract or materials purchase agreement are referred to as variations, for which PETROTRIN's Procurement Policies provide guidance.

With respect to **Contracts for Works and Services**, a variation occurs subsequent to the commencement of a contract but prior to the expiration. Such variation which may result in an addition or deletion to the original Works and/or Services includes but is not limited to the following:

- i) Change in the Scope of Works
- ii) Change in Specifications
- iii) Change in the method or manner of performance
- iv) Accelerating Work Performance
- v) Extension of Time.

Where such a variation occurs the Executing Department prepares a request for variation, clearly indicating the nature and rationale for it. The request indicates whether or not the terms/price appears to be reasonable and a Company estimate is prepared in all instances.

Variation requests are approved by the relevant financial authority in accordance with the Schedule of Financial Authorities - Delegation of Authorities.

Approval must be obtained from the relevant financial authority before instructions to effect the variations are given to the Contractor.

With respect to **Materials Purchases**, a variation occurs subsequent to the placement of a Purchase Order/Agreement but prior to fulfilment of the order. Such variations may include but are not limited to:

- i) Change in price,
- ii) Change in quantities,
- iii) Extension of delivery time or
- iv) Changes in the validity period of agreement or
- v) Changes in specification.

Variations are approved by the relevant financial authority.

Any change in the terms and conditions of a purchase order/agreement is communicated in writing by the relevant Procurement personnel to the vendor.

Where the **increase cost is not a variation** the procedure is the same as for any new contract or materials purchase. All contracts and materials purchases require approval from the relevant Award Committee. Awards ranging in value from:

- \$2,000,001 to \$3,500,000 require approval by the Executive Tenders Committee
- \$3,500,001 to \$15,000,000 require approval of the Board Tenders Committee
- \$15,000,001 and above require approval from the Board of Directors.

In accordance with PETROTRIN's Procurement Policy, Materials or Works and/or Services to be procured shall not be sub-divided into portions for the purpose of giving authority for award to a lower Committee or individual, such as to circumvent the limits of the financial authority.

Effective 2011 June 01, all variations under the GOP project required Board approval.

5. What oversight mechanisms are in place to monitor contractors to ensure work is done according to proposed plan?

Entity response in writing indicated;

- The approved plan is reflected in the scope of works as awarded to the contractors. The various project departments or project teams provide daily supervision over the contractors and are responsible for ensuring works are executed in accordance with the approved scope of works, inclusive of engineering design, the company's operating guidelines and relevant Health, Safety and Environmental standards.
- As part of the payment process, the contractor's performance is evaluated in terms of timeliness, quality of work, adherence to safety standards and other company requirements. The evaluation is a critical part of the review process as it may impact the contractor's eligibility to be invited for future contracts.
- All major contracts provide for payment retention for 90 days, with final payment of the retention being made only after the contractor has satisfactorily completed his work and the job is certified by the designated company representative.
- A monthly status report (Cost & Completion Report) on all contracts that required Board level approval (>TT\$3.5MM) is prepared and submitted to the Board Tenders Committee. This report summarises the progress of each contract, operational and cost variances as compared to award, reasons for variances and revised completion dates.

6. Provide the method of procurement utilized for the Gasoline Optimization Project (G.O.P), the Gas-To-Liquid project, and the construction of the new head office of PETROTRIN.

Entity response in writing indicated;

A. New Corporate Headquarters

1. Design Consultant

The procurement process for the Design Consultant (Architectural and Engineering Services) was a **single stage two envelope** process, where a shortlist of ten (10) consultants approved

by ETC were invited to bid on 2004 April 05 with Qualification and Technical proposals in envelope one and Financial proposals in envelope two.

Five (5) proposals were received and envelope one proposals were evaluated in accordance with the ETC approved evaluation criteria. After ETC approval was obtained to open and evaluate three Financial Proposals for the three (3) bidders satisfying a 50% pass mark in each criteria and minimum 70% overall pass mark, the Least Cost Selection (LCS) method was utilised to determine the preferred bidder.

On 2004 November 18, the Board approved the award of a contract to the lowest evaluated bidder. This was subsequently forwarded to the Minister of Finance for final approval which was obtained on 2005 January 19.

2. Project Manager

The procurement process for the Project Manager was a **single stage one envelope** process, where a shortlist of eight (8) consultants approved by President Operations were invited to bid on 2007 March 07 with Qualification, Technical proposals and fixed price Financial Proposals.

On 2007 May 01, the ETC approved the award to the lowest evaluated bidder. A contract was entered into with effective date 2007 May 14.

3. Construction Contractors

The multiple-contract system was employed for construction. The works were divided into twenty (20) packages for separate bidding processes. The Consultants (Design and Project Managers) would submit a list of contractors with the experience in the category of work. The list would be forwarded to the Executive Chairman for approval and the contractors were invited to bid through PETROTRIN's Contracts Department. After bids were opened, they were forwarded to the design consultants for evaluation. The recommendations were then forwarded to the various PETROTRIN authorised financial Tender Committee (VPF&TC, ETC, Board) for approval.

3.1 Cancellations of Tenders in 2008

In early to mid-2008, PETROTRIN issued Invitation to Bid (ITB) documents for ten (10) work packages. The decline in the oil price in 2008 resulted in a reduced cash flow and PETROTRIN took the decision prior to award of contracts to cancel these tenders and slow the on-going work on the Base Building contract.

3.2. Restart in 2009

In 2009, when the Company was in a better financial position, the work packages were re-bid along with other packages resulting in full resumption of the project.

3.3 Termination of Contracts end 2010

On 2010 December 14 the Board of Directors agreed in principle with the implementation of a termination plan to halt the construction of the **New Corporate Headquarters**. A decision was subsequently taken to enter into a bidding process for third party financing, construction and leasing of the building.

4. Build Own Operate Transfer (BOOT)

An invitation for Expressions of Interest for a BOOT Arrangement was issued in the print media in March 2011. Four (4) contractors prequalified and were invited to submit bids in October 2011. However, only a single BOOT bid was received on 2011 December 16 with an expiry of 2012 April 14. The single BOOT bid was evaluated and the evaluation committee advised that the bid was not feasible. On 2012 March 16, the Board agreed with the recommendation to annul the procurement process and alternative options be developed with a recommendation on a way forward.

B. G.O.P

1. Project Management Consultancy Services (PMC) for C₅/C₆ Isomerization Complex

On 2003 August 08, approval was given by the Executive Tenders Committee (ETC) to proceed at that time with the procurement process for C₅/C₆ Isomerization Complex only including (i) Project Management Services, and (ii) EPC Contractor.

The procurement process for the PMC for the new C₅/C₆ Isomerization Complex was a **single stage two envelope** process, where a shortlist of six (6) consultants were invited to bid on 2003 December 29 with Qualification and Technical proposals in envelope one and Financial proposals in envelope two. After obtaining additional information and

clarifications from Bidders in respect of envelope one proposals directed by the Board of Directors, and ETC approval to open the Financial Proposals, the evaluation of Financial proposals were undertaken for four (4) bidders satisfying a 70% pass mark on the technical evaluation based on ETC approved evaluation criteria and the Quality and Cost Based Selection (QCBS) method was utilised to determine the preferred bidder. Bechtel International, Inc. (Bechtel) was determined the highest ranked bidder with the condition that Bechtel satisfy its financial capability prior to contract negotiations. Bechtel had indicated that being a private company only limited general facts are divulged.

On 2004 September 23, the ETC gave approval to obtain and verify acceptability of financial information that Bechtel failed to provide as part of the bidding process and to enter into contract discussions to resolve all areas of concern.

On 2004 November 24, the Board of Directors gave approval to award a contract to Bechtel International, Inc. (Bechtel) after, PETROTRIN's VPF&BD Kevin Singh had discussions with Bechtel's M. Clayton, CEO ABT Engr. & Constructors and reviewed and accepted financial information provided by Bechtel followed by successful contract negotiations between the PETROTRIN Project Team and Bechtel.

On 2004 December 15, having reviewed the documentation provided by PETROTRIN on 2004 November 16, the Ministry of Finance by letter from a Minister in the Ministry of Finance (Minister Christine Sahadeo), advised that the Ministry of Finance had no objection to the award of a contract to Bechtel.

A contract for Project Management Consultancy Services was awarded to Bechtel by PETROTRIN on 2005 January 20.

2. Project Management Consultant (PMC) for the rest of the GOP

On 2005 January 20, the Board of Directors, gave approval to negotiate with Bechtel for extension of the Project Management Consultancy for the entire G.O.P. as part of the strategy to fast track the project.

Bechtel indicated that its preference was for a separate contract for this larger portion of the project. A Request for Proposal for PMC Services dated 2005 May 06 was issued to Bechtel.

On 2005 June 10, Bechtel submitted a proposal not only for PMC Services for the G.O.P. but also included for Engineering, Procurement and Construction Management (EPCM) Services for the Utilities and Offsites (U&O) for the G.O.P.

Bechtel's proposal stated that the U&O activities will be staffed primarily by Bechtel's affiliate ABT in Trinidad with Bechtel participation, and PMT (Joint PETROTRIN/Bechtel Project Management Team) oversight. It further stated that Bechtel is strategically interested in maintaining and growing the capabilities and capacity of ABT office, in particular and in expanding the size and skill sets of its Trinidadian employees, for the benefit of PETROTRIN and its other Trinidadian clients. It also stated that the proposed strategy for the U&O scope is the correct approach for the project while providing the vehicle for furthering its key strategic interest and therefore its participation in the G.O.P. is tied to U&O engineering and procurement scope being an integral part of Bechtel's and by extension ABT's role.

Bechtel's proposals stated that particularly in the U&O area where the scope definition is incomplete, the proposed staffing plan (Bechtel/ABT) for PMT and EPCM Services should be considered more of an estimate and after completion of the Program Front End Loading and the Program Execution Plan, the PMT and U&O services can be more definitively estimated.

This proposal for man hours was evaluated for both the PMC services and the EPCM. The Evaluation Report dated 2005 August 02 advised that the man hour rates quoted are about 24 % higher than those for the PMC Services for the C₅/C₆ Isomerization Complex, but was competitive when compared to other consultants and therefore should include costs for profits and overheads. The proposal required in addition a lump sum fixed management fee

equivalent to 13% of the estimate cost of man hours for both PMC and EPCM Services stating this was warranted for Project Management expertise to be provided to PETROTRIN. For EPCM Services Bechtel would be acting as agent for PETROTRIN. Bids would be solicited from vendors and subcontractors and evaluated by Bechtel and recommendations for awards would be submitted for PETROTRIN approval. Payment to vendors and subcontractors would be made directly by PETROTRIN based on recommendations by Bechtel.

The Evaluation Report recommended more involvement by PETROTRIN personnel for PMC Services in order to reduce costs and advised that the additional management fee for the services could not be supported.

On 2005 August 16, subsequent discussions were held by members of the PETROTRIN Executive Management Team and Bechtel and it was agreed that the management fee would be changed from a fixed lump sum to 10% of the hourly costs.

On 2005 August 22, Bechtel submitted a revised proposal which included more participation by PETROTRIN personnel for PMC Services and the new management fee structure of 10% of the hourly costs indicating that the original lump sum management fee was reduced by 30%.

It should be noted that based on the foregoing, the estimated cost on man hours had potential for increase with more definitive scope and the development of the execution plan would undoubtedly result in the corresponding increase in management fee.

On 2005 August 24, the Board via President Operations approved the PMC services extension (including EPCM Services for U&O in the same contract) as revised, and directed that the additional cost for management fee be tied to specific milestones.

3. EP Contractor, EPC Contractors, EPCM Contractors

3.1 C₅/C₆ Isomerization Complex EPC Contract

The procurement process utilized for contracting Engineering, Procurement and Construction (EPC) Contractors was a **two stage process** with pre-qualification in the first stage followed by an invitation to bid by competitive bidding to only the pre-qualified contractors in the second stage.

The lists of EPC Contractors invited to prequalify in the first stage for the various Units were developed based on companies who had previously built similar units identified by licensors (as directed by the ETC) and from research done by PETROTRIN.

First Stage

In October 2003 Invitation for Prequalification was issued to eleven (11) EPC Contractors approved by the Executive Tenders Committee (ETC)/Executive Chairman. The Evaluation criteria for pre-qualification was approved by the ETC and included in the Invitation for Prequalification document.

Seven (7) responses were received. Five (5) prequalified.

Second Stage

In March 2005 Invitation to Bid (ITB) for lump sum bids prepared by PETROTRIN and reviewed by Bechtel (PMC) was issued to the five (5) prequalified EPC Contractors.

Four (4) lump sum EPC bids were received and evaluated.

On 2005 August 16, following evaluation of bids by the PMT in accordance with the ETC approved evaluation criteria, the ETC chaired by the Executive Chairman approved the request for the PMT to meet with the lowest evaluated bidder (preferred bidder) who was also the lowest bidder to negotiate and clarify bid exceptions.

On 2005, October 14, following previous negotiations by the PMT with the preferred bidder (except in relation to the Owner Controlled Insurance Program (OCIP) yet to be finalised by PETROTRIN) a Letter of Award was signed (to mitigate increased cost of bid price for bid validity extension) by the Executive Chairman for a lump sum EPC contract and issued to the lowest bidder. The contract was effective 2005 October 18.

On 2005 October 17, the ETC supported the recommendation by the PMT to enter into a contract agreement with the preferred bidder for submission for Board approval. On 2005 October 26, the Board ratified the award of the EPC contract.

3.2 Rest of GOP - Procurement Strategies Considered

On 2005 January 20, the Board of Directors via President Operations considered a Note dated 2005 January 17 with several options prepared by the Chief Process Engineer (W. Kanhai) and General Manager Engineering and Construction (S. Sinanan):

- Option A - Traditional

In this option, the Basic Engineering Package (BEP) developed by Licensor is reviewed and then incorporated into an Invitation to Bid (ITB) document by PETROTRIN and its Project Management Consultants (PMC). Since the engineering is at the basic level, the time required for the bid process is extensive and the contingency included by the bidders can lead to higher lump sum price and extended schedule. The total schedule based on this method is estimated at 38 months for CCR and 41 months for Alkylation/ Acid.

- Option B - Sequential Fast Track

In this Option an Independent Engineer is utilized to develop a more detailed Front End Engineering Design (FEED), cost estimate (+/-10%) in parallel with the bidding/selection process for EPC works. Due to the more detailed nature of the FEED the time required for both the bid process and the execution of the EPC can be shortened to about 36 months. Additionally the lump sum bid price should be lower due to lower contingency included by bidders and the availability of a counter estimate to inform the negotiations.

- Option C - Integrated Fast Track

In this option an EPC contractor is engaged to work in parallel with the bidding / selection process for EPC contractor. The initial portion of this work (approx. 4-6 months) is to be carried out on a reimbursable basis and converted to a lump sum price within 3 months of start of work. In this method of execution the overall schedule can be reduced to 29 months for CCR and 30 months for Alkylation/ Acid. The eventual total cost of this option may be higher due to the lack of competitive tendering, but a PMC or Independent Engineer can be utilized to advise on the suitability of the lump sum price at the time of conversion. Additionally, this approach will require a high level of PETROTRIN/PMC involvement with an

appropriate decision making process and empowered project management team particularly in the reimbursable phase of the work.

- Option D – Integrated Fast Track (Reimbursable)

This is similar to Option C with the exception that there is no conversion to Lump Sum. This option will require the most attention from the PETROTRIN /PMC project management team.

On 2005 January 20, the Board of Directors approved the fast track strategy below:

- Negotiate with Bechtel for extension of the Project Management Consultancy for the entire G.O.P
- Invite EPC contractors to pre-qualify
- Use the CCR licensor to carry out partial EPC works (regeneration section) and partial FEED for reactor and compressors to be ordered by PETROTRIN
- Use the Alkylation licensor to carry partial FEED (engineering and procurement services) for compressors to be order by PETROTRIN
- Expedite selection of technology supplier for Acid Unit incorporating strategy for procurement of long delivery items/schedule compression

On 2005 November 21, Bechtel in its Estimate and Schedule Study Report advised as follows:

- Since the delivery of major equipment appears to be on the critical path, overall schedule time can be gained (approx. two months) by purchasing selected items early before EPC contract award. However there are problems though with this approach. The market trends that are stretching the capacity of the equipment suppliers are having a like effect on qualified EPC contractors. Removing substantial portions of the major equipment from the EPC contracts will make these projects less attractive to the prospective bidders and with ample other work available, they may be unwilling to compete. Also, the early purchase of major equipment will reduce the accountability of the contractor, shift responsibilities to PETROTRIN, and multiply the number of interface points with the contractor. This makes the project more difficult to effectively manage, and could provide justification for increased change orders. For these reasons, and because of the uncertainty that the tightness in the equipment market will continue to cause longer delivery times, this approach is not recommended.

- The bidding process for EPC contracts, from ITB issue to contract award, takes six to eight months. The contractor then begins Front End Engineering Design (FEED), leading to equipment purchases and detailed design. One possible alternate EPC contracting process would consist of the following steps:
 - Selection of a contractor based on qualifications, capability, interest, reimbursable rates
 - Contractor performs FEED on a reimbursable basis
 - Project estimate is developed on an open-book basis
 - Lump sum EPC contract with the FEED contractor is negotiated and awarded
 - Equipment purchases and design activities continue on a reimbursable basis until contract award

This would require a change to PETROTRIN's contracting practices, but could shorten the overall schedule by approximately six months. It appears that this approach would be beneficial for the critical path Alkylation/Acid/CCR contract and also for FCCU, and would not be needed for other areas (Utilities and Offsites) to realize the schedule advantage.

The negotiated lump sum approach would make the Alkylation/Acid/CCR and FCCU contracts more attractive to potential contractors by removing much of the contractor's risk by delaying setting the lump sum until the project is better defined in the FEED. This reduced contractor risk should also lower the contractor's contingency and the cost to PETROTRIN. The reduced risk should also increase the number of contractors interested in the project.

Potential difficulties include justifying the contractor selection without a price competition, and the loss of the schedule advantage if an acceptable lump-sum contract cannot be reached with the FEED contractor.

3.2.1 CCR Complex EP Services by Licensor UOP LLC

On 2005 March 31 the Board of Directors having previously received advice that the CCR Licensor was very experienced in EPC work for the Regeneration section of the CCR Complex approved the recommendation for award of a contract to the CCR Licensor for Engineering and Procurement (EP) Services for the Regeneration Section and also partial EP

services for selected long lead equipment (to be purchased by PETROTRIN) following receipt and evaluation of CCR Licensor proposal.

3.2.2 Procurement Process utilised for the Rest of GOP - CCR Complex, Alky/Acid Units and FCCU Phase II Upgrade

The procurement process utilized for contracting EPC Contractors for the rest of the GOP was a **two stage process** with pre-qualification in the first stage followed by an invitation to bid by competitive bidding to only the pre-qualified contractors in the second stage.

The list of Engineering, Procurement and Construction (EPC) contractors invited to prequalify in the first stage for the various Units were developed based on companies who had previously built similar units identified by licensors and from research done by PETROTRIN. The preliminary list was approved by the Board of Directors and final lists by ETC. The Evaluation criteria for pre-qualification was approved by the ETC and included in the Invitation for Prequalification document.

3.2.3 CCR Complex (excluding works in CCR Licensor EP Services Contract) and the New 66/kV Substation and Alkylation & Acid Units

First Stage

In March 2004 Invitation for Prequalification was issued to eight (8) EPC Contractors - Six (6) responses were received and the six (6) prequalified for CCR Complex, but only two (2) prequalified for the Alky/Acid Units.

First Stage Second Call

In November 2005 Invitation for Prequalification was issued to an additional five (5) EPC Contractors - Two (2) responses were received. The two (2) prequalified for CCR Complex and one (1) for the Alky/Units

Second Stage

Two (2) of the eight (8) prequalified EPC Contractors declined to bid before the ITB for the CCR Complex was issued. A combined ITB for lump sum bids was prepared and issued in March 2006 to the three of the remaining (6) who pre-qualified for both CCR Complex and the Alky/Acid Units. The ITB for the CCR Complex was also issued to the three (3) who prequalified for only the CCR Complex. For the Alkylation and Acid

Units bidders were directed to procure propriety equipment directly from the Licensors.

Only one (1) lump sum EPC bid was received for the CCR Complex including the New 66kV Substation.

The single lump sum bid received for CCR Complex including the New 66kV Substation, was evaluated by the PMT in accordance with the ETC approved evaluation criteria and found to be substantially responsive and technically acceptable; however, the bid price was 16% above PETROTRIN's estimate computed at that time by Bechtel. Approval was requested by the PMT and received from the ETC to enter into negotiations with the bidder. Following negotiations the bid price was reduced to 14% above PETROTRIN's estimate and recommendation for Board approval was made for an award by the PMT via the General Manager, Engineering and Construction, and supported by the ETC.

On 2006 October 13, the Executive Chairman was advised by the Corporate Secretary that the Board of Directors approved via round robin a **lump sum EPC contract for the CCR Complex and the New 66kV Substation.**

Only one (1) lump sum EPC bid from another contractor was received for the Alky/Acid Units including the New 66kV Substation. The bidder advised that due to the current uncertainty and volatility in the market it may be beneficial for PETROTRIN to explore alternative arrangements with the bidder to execute the project on a reimbursable cost form of EPC Contract. An **alternative EPCM bid** (engineering, procurement and construction management) lump sum services with procured equipment, bulk materials and construction on a reimbursable basis was proposed by the Bidder with a potential savings of 18.85%.

The single lump sum EPC bid received for the Alky/acid Units was evaluated by the PMT in accordance with the ETC approved evaluation criteria and found to be substantially responsive and technically acceptable; however the bid price was 60% (excluding the New 66kV Substation) above PETROTRIN's estimate computed at that time by Bechtel. Approval was requested by the PMT and received from the ETC to negotiate an acceptable lump sum

price, or failing that, negotiate a hybrid lump sum/cost reimbursable contract based on the alternative proposal. An acceptable lump sum was not achievable and Bechtel advised PETROTRIN that the bid price was too high and that PETROTRIN can complete these Units at a lower cost if PETROTRIN was to accept the reimbursable cost risk. Bechtel (Project Manager, PMT) led the commercial negotiations on the EPCM hybrid sum/reimbursable alternate. The PETROTRIN Project Team had no prior experience with this model contract and relied on Bechtel's guidance.

The EPCM model that was offered by the bidder included a lump sum for EPCM services plus a fee structure for solely corporate overheads and profits as percentage of the reimbursable costs. The EPCM contractor would be acting as agent for PETROTRIN. Bids would be solicited from vendors and subcontractors and evaluated by the EPCM contractor and recommendations for awards would be submitted for PETROTRIN approval. Monthly payments by PETROTRIN to the EPCM contractor for reimbursable portion would be based on a zero cost balancing accounting method for anticipated payments to vendors and subcontractors and reconciliation with the previous month's payment. Subsequently payment to vendors and subcontractors would be made by the EPCM contractor on PETROTRIN's behalf.

Negotiations resulted in a limited reduction in the lump sum EPCM services but with a change in the fee to fixed lump sum value from a percentage of the reimbursable costs. The bidder expressed unwillingness to participate in an incentive scheme by putting its fee at risk.

Other options considered by Bechtel were (1) negotiate a reimbursable contract with a selected contractor, (2) re-tender on a cost reimbursable basis. These options were not recommended since no other contractor of those that were invited to bid expressed interest and retendering would have delayed the project by approx. five (5) months. Based on the EPC industry workload at that time, it was expected that interest by other contractors would be limited resulting in higher prices and few or no bids.

A recommendation was made by Bechtel (Project Manager, PMT) supported by the General Manager Engineering Construction and the ETC for the Board's approval to accept the negotiated EPCM Services hybrid lump sum (including fixed fee)/cost reimbursable type contract with the single bidder with an estimated reimbursable value including an amount for incentives.

On 2006 November 29, the Board of Directors approved the recommendations and a contract was awarded with an effective date of 2007 January 08 with the bidder who remained unwilling to agree on an incentive scheme.

3.2.4 FCCU Phase II Upgrade

First Stage

Invitation for Prequalification was issued in August 2005 to seven (7) EPC Contractors - Three (3) responses were received. Three (3) prequalified.

Second Stage

Invitation to Bid (ITB) for lump sum for defined scope and provisional sums estimated by PETROTRIN for undefined works was issued in April 2006 to the three (3) prequalified EPC Contractors.

Only one (1) bid was received. The bid received listed one hundred and fifty four (154) exceptions to the ITB and the price was 73.6% above PETROTRIN's estimate computed by Bechtel at that time. Some of the exceptions if unacceptable to PETROTRIN would result in significant additional cost to the bid price for compliance. Some other exceptions had cost impact, but were not priced. After adjustment to the bid price for cost adders for ITB compliance, the price increased to 91.3% above the PETROTRIN estimate. The bid was evaluated and was determined to be technically acceptable but commercially unacceptable.

Several options were considered by the PMT as follows:

- Negotiate with sole bidder with a view to achieving a reduction of the lump sum price to an acceptable level - The challenge would be great, but this may be the best alternative.

- Re-tender for Lump sum – Not recommended
 - Reluctance of some bidders identified for pre-qualified bidders to enter into lump sum contract.
 - Non-responsiveness of two of the three pre-qualified bidders
 - Market forces and conditions have not changed. There is no reason to believe that a second attempt will produce more favourable results
- Scope Reduction - Retendering for lump sum not recommended. Scope reduction can be made during design engineering phase in a cost reimbursable contract
- Re-tender for Competitive Bidding for Cost Reimbursable
 - Cost reimbursable contract is recommended for revamp works due to discovery of scope items
 - Delay in award of contract by seven to eight months and prices may escalate further
 - There may be poor response based on the high level of construction activity in the industry
 - Increased need to manage change and cost control
 - Transfer risk from contractor to PETROTRIN
 - Requirement for additional PMT staff to participate in design decisions and to monitor the contractor
- Negotiate Cost Reimbursable with Sole Bidder
 - Only bidder that has demonstrated interest in the lump sum bid
 - Project team has shown active interest and appear to be available
 - Establishing an acceptable fee and target price will be difficult given the current lump sum proposal preferred by the bidder

On 2006 August 17 approval was sought and the ETC approved the recommendation to enter into negotiations with the bidder to achieve a reduced acceptable price for an EPC contract.

If unsuccessful then competitive bids shall be sought for a cost reimbursable contract from the three (3) pre-qualified bidders. If sufficient interest is shown then additional bidders should be considered.

Negotiations were held with the sole bidder to resolve exceptions for conformance with the ITB and to agree on a lump sum price with the estimated provisional sums for undefined scope. A revised lump sum proposal with the estimated provisional sums for undefined scope was received from the bidder which was found to be unacceptably higher than the budget and PETROTRIN's estimate computed by Bechtel.

On 2006 September 28 the ETC approved the recommendation to enter into negotiations with the bidder for EPC works on a hybrid lump sum and cost reimbursable basis.

The bidder was not convinced that his lump sum offer was too high and challenged Bechtel (Project Manager, PMT) to produce its counter estimate without success. Negotiations were difficult but the bidder agreed to Bechtel's suggested EPC hybrid lump sum for services and reimbursable pricing structure and submitted a proposal. The EPC lump sum for services included fabrication services for the Merox unit to be done at the bidder facilities overseas. Monthly payments to the EPC contractor for the reimbursable portion by PETROTRIN would be based on a zero cost balancing accounting method for anticipated payments for all costs with reconciliation with the previous month's payment. A management fee on the cost of reimbursables was also to be paid to cover administrative cost including corporate overhead personnel. Payment to third parties would be made by the EPC contractor on PETROTRIN's behalf. The bidder advised that the hybrid offer would not be valid if other alternatives are pursued with other contractors.

Further negotiations on pricing with the sole bidder on the hybrid offer did not effect any further reduction or modifications. The price differential between the revised lump sum proposal with provisional sums and the hybrid proposal was sufficiently close to cause concern as to whether the hybrid model was cost effective when compared to the additional cost control measures and resources would be required to manage this model contract and the risk transferred from the contractor to PETROTRIN. The PETROTRIN Project Manager (G. Acosta) for this Unit disagreed with this approach and advised that the lump sum offer

by the bidder for the defined scope should not be converted to reimbursable and that there was already sufficient risk in the estimated provisional sums for undefined scope.

Bechtel maintained its position that the hybrid model would offer PETROTRIN reduced cost by accepting the reimbursable risk.

Bechtel/PETROTRIN Executives considered obtaining proposals from the two other pre-qualified EPC contractors who had at that time been awarded contracts for either the C₅/C₆ Isomerization Complex or the Alkylation/Acid Units.

- The EPC Contractor for C₅/C₆ Isomerization Complex indicated that a proposal for cost reimbursable was conditional on converting the C₅/C₆ Isomerization Complex contract to a reimbursable contract. This was not recommended as construction cost escalation since contract award and schedule liabilities will be transferred to PETROTRIN.
- There would be project delay of two to four months to negotiate a similar hybrid type contract with the EPCM Contractor for the Alkylation/Acid Units and there was no guarantee that the price will be lower. In the interim the bid validity of sole bidder's hybrid offer would expire and would become invalid.

Bechtel considered that the sole bidder had a strong technical team with in-debt knowledge gained during the bidding and negotiation process and it was expected to better manage the project. Bechtel maintained its position that the EPC hybrid lump sum for services and reimbursable pricing structure with the sole bidder would be more cost effective. Bechtel recommended this proposal with the negotiated lump sum price plus an estimated value for reimbursable cost and in addition an amount for cost incentives for shutdown duration during the execution of the work and final contract price less than the estimated award price for approval. This recommendation was supported by the General Manager, Engineering and Construction and submitted to the ETC for support and Board approval.

On 2006 November 29, the Board of Directors approved the award as recommended by Bechtel.

The Contractor accepted the award effective 2006 December 11 but did not agree to Bechtel's estimated target price for incentives and no incentive structure was agreed upon.

3.2.5 EPCM for Utilities and Offsites (U&O)

Refer to Item 2 Project Management Consultant (PMC) for the rest of the GOP.

C. GTL

The GTL project was an unsolicited proposal referred to PETROTRIN by the Natural Gas Export Task Force.

7. Has PETROTRIN identified a preferred method of procurement that will be used for future projects?

8. Who is responsible for determining the method of procurement to be used?

Entity response in writing for questions 7 and 8 indicated;

PETROTRIN has indicated under its procurement policy with respect to standard procurement methods that the practice of competitive bidding, whether formal or informal, not only tends to ensure reasonable prices, but also guards against favouritism and fraud and should be used to the extent practicable. All purchases shall be based on competitive tendering with the exception of Emergency Purchases and Merit Awards.

The Company recognises three forms of Tendering, namely:

- **Open Tendering**, where invitations to bid are issued through advertisements or other forms of public notice. Open tendering shall be used in the following instances:
 1. When the Company's list of approved Contractors does not cater for particular types of Works and/or Services,
 2. Where it is competitively more advantageous,
 3. Where the terms and conditions of Company borrowings so require.

Our policy further identifies that under the open tendering method, the process of issuing two separate procurements documents is best used for large high value contracts or regardless of value when Works and/or Services including consultancy services are major or complex or of critical importance and/or where the contract duration is long. The first document is an Invitation to Pre-qualify for Works and/or Services or, alternatively, an Invitation for Expressions of Interest for consultancy services in the first stage, and the second document is an Invitation to Bid (ITB) in the second stage. Only those responsive applicants substantially meeting the specified qualification criteria shall proceed to the second stage, where they would be invited to bid.

The Vice President, Refining and Marketing and the Vice President, Exploration and Production, shall approve the advertisement or public notice and, the method of procurement.

- **Selective Tendering**, where tenders are invited from the Company's list of approved contractors for the respective class code, financial range and location for which the specific works are to be performed. The Bidders' list shall consist of a minimum of ten contractors generated by random selection from the pool, and a maximum of five contractors which the Executing Department has the option to manually add, in order to increase the degree of competition and competency.
- **Electronic Auction (e-auction)**, where selected pre-qualified vendors submit quotes electronically via a secure, interactive IT-based system. E-auction shall be used in cases where the procurement is of sufficient value to attract competition, with criteria, which can be accurately specified, and for which there is a competitive market. Authority to use e-auction as the method of procurement shall be in accordance with the Schedule of Financial Authorities residing with the Vice-Presidents and President, and such approval shall be on a case by case basis.

Invitations to Bid to International Contractors or Local Unregistered Contractors require the approval of the President.

9. Provide copies of the Curriculum Vitae for all current Members of the Board of Directors and the top Executive team at PETROTRIN.

Entity response in writing indicated;

Copies of the Curriculum Vitae for PETROTRIN's Board of Directors and Executive Leadership Team are attached as follows:

(See Appendix IV)

Board Members

Mr. Lindsay Gillette	-	Chairman
Mr. Aleem Hosein	-	Deputy Chairman
Mr. Charles Baisden	-	Member
Mr. Carl Hector	-	Member
Mr. Khemram Jokhoo	-	Member
Mr. Reshard Khan	-	Member
Mr. Rudranath Maharaj	-	Member
Dr. Vernon Paltoo	-	Member
Mr. Arnold Ram	-	Member

Executive Leadership Team

Mr. Khalid Hassanali	-	President
Mr. Mado Bachan	-	Vice President, Refining and Marketing
Mr. Jamaludin Khan	-	Vice President, Exploration and Production
Mr. Keith Ramnath	-	Vice President, Human Resources and Corporate Services
Mr. Hemraj Ramdath	-	Vice President, Strategy and Business Development
Mr. Carl McLean	-	Vice President, Finance (Ag.)

Questions issued to the Ministry of Finance and the Economy for written response

1. What is the Ministry of Finance and the Economy's policy for paying dividends when PETROTRIN makes a profit or loss?

The Ministry of Finance and the Economy is guided by the dividend policy which was established by the Government of the Republic of Trinidad and Tobago (GORTT) on December 11, 2003. The policy states that all profitable State Enterprises are required to pay dividends up to 100% of distributable profits. However, in determining dividend payment, consideration should be given to amounts paid in servicing loan commitment for expenditure on capital projects.

Section 3.1.7 of the State Enterprises Performance Monitoring Manual states that the profitability of the Enterprise, its liquidity, legal restrictions/loan covenants and the replacement cost of essential capital goods are considered in determining the quantum of dividends that a company would be required to pay. State Enterprises are also required to pay interim dividends based on semi-annual financial results. Actual distributions of profit are to be agreed with the Minister of Finance and the Economy and appropriately disclosed in the financial statements.

2. If PETROTRIN records a financial loss, is it supplemented by the State?

The Ministry of Finance and the Economy does not supplement PETROTRIN when the company records a financial loss.

3. What is the Ministry's role in ensuring that PETROTRIN complies with OSHA's requirements?

The monitoring of state enterprises is a joint responsibility of the Investments Division of the Ministry of Finance and the Economy and the relevant Line Ministry. The Investments Division is responsible for Corporate Governance and the Line Ministry is responsible for the day to day operations on policy mandates of State Enterprises. The Line Ministry's role include technical supervision of planning, monitoring and evaluating project, plan and programme implementation and ensuring that State Enterprises adhere to the Sectoral policy guidelines of GORTT.

Additionally, the Occupational Safety and Health Agency is an enforcing body with legal powers of access to every industrial establishment, to undertake investigations and to use their legal intervention powers which includes the issuing of Improvement Notices, Prohibition Notices and starting prosecution procedures in the Industrial Court, or in specific cases, the Criminal Court. As of August 2007 the Occupational Safety and Health Agency commenced its general operations placing emphasis in the areas of Oil and Gas, Ports, Chemical and Petrochemical Industry, General Manufacturing Construction and Quarries, Agriculture and Public Services, and Occupational Health.

The main objective of the Agency is compliance with the Act and related regulations. As such, public awareness, the sensitization of industrial partners and stakeholders close cooperation with other Ministries and institutions and conduct of training are critical to the promotion of a preventative safety and health culture in Trinidad and Tobago.

The Agency is responsible for the implementation of the policies formulated by the Occupational Safety and Health Authority, for initiating consultation with government entities performing various inspection functions, with the objective of formulating memoranda of understanding, establishing mechanisms for co-ordination across jurisdictional lines and the provision for the implementation of integrated occupational safety and health programs.

The Occupational Safety and Health Authority has the primary function of policy formulation. The Authority is the regulatory body that is responsible to the Government for the implementation of the provisions of the Occupational Safety and Health Act. It acts as an Advisory Body on policy, standards and matters related to Occupational Safety and Health and makes recommends on regulations and establishment of codes of practice.

It is therefore the role of the Line Ministry and the Occupational Health and Safety Agency to ensure that PETROTRIN complies with the Occupational Safety and Health Act's requirements.

Questions issued to the Ministry of Energy and Energy Affairs for written response

1. In relation to the Marabella Barge, please state:

i. the year the barge was secured;

Barge Marabella was purchased by Texaco Trinidad Incorporated (Textrin) in October 1977 and vested in Trinidad and Tobago Oil Company Limited (Trintoc) in 1985 by means of the Textrin Vesting Act 1985.

ii. whether the barge is leased or owned by PETROTRIN;

Barge Marabella is owned by PETROTRIN.

iii. whether the barge is leased, provide details of the lease agreements including cost;

Not Applicable

iv. whether the barge is owned, state the purchase price?

It was purchased by Textrin in 1977 for **One Million, Six Hundred and Five Thousand United States Dollars (US\$1,605,000.00)**.

2. Provide a detailed list of all International Conventions that PETROTRIN is party to and confirmation that the rules of all treaties and agreements are adhered to.

A detailed listing of all international Conventions to which Trinidad and Tobago is a party has been requested from Director of Treaties, International Agreement and Legal Division, Ministry of Foreign Affairs.

All international conventions as required by the Maritime Services Division are up to date as follows:

(a) International Load Line Certificate (1966) – Expires 2015 October 16. (This is issued under the International Convention on Load Lines, 1966, under the authority of the Government of the Republic of Trinidad and Tobago by the Maritime Services Division).

(b) Qualified Cargo Ship Safety Equipment Certificate – Expires 2015 October 16. (This is issued under the provisions of the International Convention for Safety of Life at Sea, 1974 as modified by the Protocol of 1988 relating thereto under the authority of the Government of the Shipping Act No.24 of 1.987 of the Government .of the Republic of Trinidad and Tobago by the Maritime Services Division).

(c) Licence to Navigate Coastwise and Certificate of Drogher – Valid until 2014 December 31.

Certificates (a) & (b) are now being processed for its annual/periodical endorsements.

The Barge Marabella operates in accordance with regulation III126.1.1.1 within the limits of the trade area Gulf of Paria waters of Trinidad and Tobago.

3. Provide the exact values and details of all bonds secured by PETROTRIN.

Bonds raised US\$1.6 billion	Interest Rate	Issue Date	Expiry Date	Terms
US\$750 million Gasoline Optimisation Project (GOP)	6.0%	2007 May 08	2022 May 08	Semi-annual payments of principal, interest and withholding tax.
US\$850 million of which *US\$550 million relates to GOP *US\$300 million relates to the Ultra-Low Sulphur Diesel Plant	9.75%	2009 Aug 14	2019 Aug 14 tax with bullet principal	Semi-annual payments of interest and withholding payment at maturity.

4. Does PETROTRIN have a formal and comprehensive Risk Management Policy, if yes, please provide a copy and if not, provide reasons for same.

The company has an approved Risk Management Policy dated 2005 February 01.

5. What is the Ministry's role in ensuring that PETROTRIN complies with OSHA's requirements?

The Health, Safety, Environment and Measurement (HSEM) Division of MEEA conducts annual inspections at PETROTRIN's gathering stations, compressor stations, Trinmar platforms, tank farms, well sites (these are sampled for every field as the quantity of well sites is beyond our staffing capabilities) and onshore rigs.

The HSEM division began an audit of the refinery this year but the audit has not been completed. To date there have been audits of the new GOP plants as well as ongoing consultation regarding the new Ultra Low Sulphur Diesel (ULSD) plant.

The HSEM Division, as part of its audit, also reviews documentation generated by the PETROTRIN. This includes reports of audits of the facilities by the HSE Department of PETROTRIN, Preventative Maintenance programmes for the equipment, training of staff and third party audits that may be conducted. The HSEM Division also reviews the status of recommendations made by OSHA. New projects require OSHA's approval before the MEEA grants its approval for start-up and pre-commissioning. Inspections of these facilities are usually performed in conjunction with OSHA.

Additionally, all accident investigations are usually conducted together with OSHA and recommendations made from the investigations reports are required to be implemented before the facility can resume operations. It is the purview of OSHA to ensure compliance with the OSH Act.

Appendix IV

ATTACHMENT 1

DETAILED BREAKDOWN FOR THE BUDGET INCREASE FROM US\$ 350 MILLION TO US\$ 650 MILLION AND US\$ 850 MILLION TO US\$ 1.3 BILLION

DESCRIPTION	2004 to Oct 2005	Nov. 2005 to Sept 2006	INCREASE	Oct 2006 to April 2007	June 2008 to June 2010	INCREASE
	PROJECT BUDGET	ESTIMATE TO COMPLETION	ESTIMATE TO COMPLETION	ESTIMATE TO COMPLETION	ESTIMATE TO COMPLETION	ESTIMATE TO COMPLETION
	\$US	\$US	\$US	\$US	\$US	\$US
	A	B	A-B	C	D	D-C
ISBL FACILITIES						
ISOM COMPLEX	42,682,322.03	68,000,000.00	25,317,677.97	66,924,229.00	70,954,725.43	4,030,496.43
CCR COMPLEX	72,000,000.00	165,024,169.00	93,024,169.00	202,356,091.44	199,065,324.27	(3,290,767.17)
ALKY & ACID	75,805,750.00	165,216,928.00	89,411,178.00	220,420,000.00	291,880,946.06	71,460,946.06
FCCU UPGRADE	51,667,830.00	81,900,000.00	30,232,170.00	173,083,900.00	340,897,100.00	167,813,200.00
			-			-
SUBTOTAL	242,155,902.03	480,141,097.00	237,985,194.97	662,784,220.44	902,798,095.76	240,013,875.32
OSBL(U&O) FACILITES	67,321,977.97	104,897,337.75	37,575,359.78	107,281,496.48	272,755,107.12	165,473,610.64
OWNERS COST						
PROJECT MANAGEMENT	19,408,000.00	41,897,428.86	22,489,428.86	49,409,014.10	62,816,322.18	13,407,308.08
OTHER (Licensor BEP, Cataylsts, Training, Start Up, etc)	21,114,120.00	23,064,136.39	1,950,016.39	24,256,834.98	47,767,485.93	23,510,650.95
SUBTOTAL	40,522,120.00	64,961,565.25	24,439,445.25	73,665,849.08	110,583,808.11	36,917,959.03
CONTINGENCY				6,268,434.00	13,862,989.01	7,594,555.01
GRAND TOTAL	350,000,000.00	650,000,000.00	300,000,000.00	850,000,000.00	1,300,000,000.00	450,000,000.00

Notes:

ISBL - Inside Battery Limits

OSBL U&O - Outside Battery Limits (Offsites & Utilities)

Appendix V

Board Members:

JOHN LINDSAY GILLETTE

*92, Elm Avenue,
Bayshore, Trinidad*

Cell:

Email:

Date of Birth	:	1959 September 07
Education	:	(1978 – 1982) McMaster University, Hamilton, Ontario Bachelor of Engineering, Civil Engineering
		(1972 – 1978) Fatima College, Port of Spain Three (3) A' Levels Eight (8) O' Levels
Work Experience	:	(2000 – 2001) Minister of Energy and Energy Industries – Responsible for all energy related matters
		(1999 – 2000) Minister in the Office of the Prime Minister
		(1982 – 1999) Gillette Group of Companies

ALEEM HOSEIN

17, Riverview Gardens, Maracas Royal Road, Maracas St. Joseph

Tel:

E-mail:

OBJECTIVE

With 40 years of diversified experience in all aspects (technical, operational and managerial) with the local energy industry, I am seeking a position at a Senior Management level in a Company with good growth potential.

EXPERIENCE

❖ *Ansa Technologiz Limited*

(July 2008 – present)

Managing Director

Major achievements

- Maintained a reasonable level of profitability of the Company despite the downturn in the global economy and the collapse of oil prices in 2008.
- Developed a motivated workforce with emphasis on improving the Quality Management System and the Health, Safety, Security and Environmental aspects of the organization.

❖ *BG Trinidad and Tobago*

(2003 – 2007)

Head, Public Affairs and Community Relations

Apr 2004 - Nov 2007

Major achievements

- Played a key role in raising the profile of BG T&T in Trinidad and Tobago and in establishing very good relations with the Government.
- Developed a Government relations Plan, a Public Affairs Plan and Community Relations Plans for the four fence-line communities in which BG T&T operates.
- Directed BG T&T's major social investment funding towards:
 - The BG Energy Challenge (the biggest single event for raising funds for charity - \$TT 6.5 million raised in 5 years)
 - Co-sponsorship of the BG T&T/Scotiabank Stand at the Queens Park Oval
 - Expanded the sponsorship of youth cricket to include Under-13, Under-15, Under-17 and Under-19 youth teams
 - Sponsorship of the Secondary Schools Football League and Girls Intercol
 - Sponsorship of 10 primary school reading books with cricket as the theme for learning for distribution to all primary schools

Vice President, South and East Asset

Jan 2003 - Mar 2004

Major achievement

- Played a key role in the negotiations between Chevron and BG T&T as to the order of development of the Dolphin Deep Field Development and the drilling of Dolphin Field Infill wells.

CURRICULUM VITAE
Charles C Baisden

15 Santa Margarita Circular Road, St Augustine
Contact:
Email:

Post Secondary Education:

- | <u>Year:</u> | |
|--------------|--|
| 1982 | <u>Master of Business Administration (MBA)</u> (Finance, Operations Management / Decision Sciences concen.) - Ivey Business School, University of Western Ontario, London, Canada. |
| 1978 | <u>Post-graduate Diploma(Degree)-Petroleum Engineering</u>
- University of the West Indies(UWI), St. Augustine. |
| 1973 | <u>BSc (Chemistry& Zoology- major)</u>
- University of the West Indies(UWI), St. Augustine,
<ul style="list-style-type: none">▪ On-the-job local and foreign short courses, seminars or workshops ranging from technical, managerial to personal development. |

EMPLOYMENT HISTORY

May 2012 – Present

Independent Energy Consultant

Conceptualization & development of natural gas reserve development & monetization plans
Advisory & project management role in implementation of gas and petrochemical estates.

January 2005 to
April 2012
[now retired]

Senior Manager, President's Office

- **National Gas Company of Trinidad and Tobago Limited**

- Overall responsibility for implementing a fully automated web-based Gas Management system for the new 56 in cross-island gas pipeline
- Member of Ministry of Energy's Team to develop a new National Energy Policy.
- Provided lead professional support to the Export Gas Task Force – advisory, analytical and negotiation role on LNG 4 implementation, ethylene and several other projects as well as to develop a policy on Tax incentives review.

June 1992 to
December 2004

Divisional Manager, Project Planning & Development - Business Development Group

- **National Gas Company (post NEC acquisition)**

- Responsible for submitting recommendations and action plans to Board/ upper management on the conceptualization, assessment and development of gas- based projects.
- Promotion of new projects and support of negotiation process in attracting investors.
- Support functions included initiating draft agreements and negotiating technical and managerial issues prior to finalizing with legal and higher level personnel.
- Supervisory and managerial functions compatible with divisional management position.
- Provided leadership in several inter & intra company, multidisciplinary project teams.
- Considerable skills developed including: leadership/coaching, analytical, research, negotiating, presentation/promotional, market intelligence, computer modelling and networking.
- Projects included : LNG trains 1, 2-3, 4; Ethylene/ plastics, Gas-to-liquids, TTMC II (project conceptualization, initial feasibility, promotion & development to construction), Methanol IV (initiation, initial feasibility), Farmland (project conceptualization, initial feasibility, promotion & development), aluminium.
- Leader – Two Separate Joint Study teams with Shell and Chevron-Sasol on local GTL feasibility.

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CURRICULUM VITAE
Charles C Baisden

MAJOR CAREER ACCOMPLISHMENTS -SUMMARISED

- Authored and successfully defended **Flexible Gas Pricing Formula Mechanism** before Cabinet appointed gas pricing committee. This later served as a significant factor in the attraction to the country of over US \$ 5 billion of petrochemical investments over the period 1993 to present. It was also mainly responsible for the on-going survival and improved performance of local methanol and ammonia plants existing prior to 1988.
- Contributed towards start-up of country's first methanol plant (TTMC I), including accounting & HR Admin departments (pension plan, initial policies & procedures). Authored and manually completed first operating and management budgets of country's first methanol and urea plants.
- Played lead hands-on role in conceptualization, analysis, promotion and development of **Trinidad and Tobago Methanol Company's 2nd methanol plant (TTMC II)**-US \$300 million investment and **Farmland/Misschem ammonia plant** - US \$300 million investment.
- Played major hands-on role in initiation, planning and/or development of the following investments: **Methanol IV (M 4)**- US \$300 million, **Cleveland Cliffs reduced iron plant** - US \$150 million, **LNG -Train 1,2/3** - US \$2 billion, **Train IV** - US \$1 bn (Cabinet appointed team member)
- Formulated and advised on strategies and action plans for **expansion of local methanol, ammonia and metal industries** as well as for entry into **petrochemical downstream and LPG based industries** (ethylene, MTBE, polypropylene, acetic acid, hydrogen peroxide etc).
- Leadership role in joint NGC/CONOCO study on **Ethane (ethylene cracker) Feedstock Availability Study**. Active participation in negotiation of ethane feedstock acquisition for plant.
- Lead role in project conceptualization/initiation, definition, rationale and strategy formulation for an **Ethylene Petrochemicals Complex** and the development of the downstream (plastics) sector. Led study & negotiations with several prospective investors, notably - Nova, Braskem, Total, Phillips
- Team leader in the initiation, promotion, analysis and facilitation of several project opportunities including **Gas-to-liquids, methanol-to-olefins and fuel cells**.
- Pioneered local in-house micro-computer based financial analysis model building for analysis and development of gas based projects - effected considerable cost savings from hiring of foreign consultants.

Sept. '88 to May 1992.

Manager Planning & Research (Planning & Research Division) - post TTMC separation
- **National Energy Corporation,**

- Acted as **CHIEF EXECUTIVE OFFICER** on several occasions during 1991.
- Lead role in the identification and development of new viable petrochemical projects.
- Duties included: technical and market research, project definition /initiation, feasibility study preparation and investment analysis, including micro-computer based spreadsheet modelling.
- Advised on formulation of Governmental Policies and Strategies in Petroleum downstream
- Provided technical resource input and Leadership to Governmental committees involving natural gas and petroleum downstream products.
- Led in-house Job Evaluation, Salary review, and Computer Network specification and implementation teams.
- **Formulated first petrochemical product related gas pricing formula with support of direct supervisor, Basharat Ali.**
- Chairman/Project leader - LPG Optimal usage inter-agency study group.(Cabinet approved).
- Chairman - inter-agency MTBE Technical Working group.
- Project officer/member - Cabinet appointed Aluminium committee. [Prof. King - Chairman.]
- Chairman - inter-agency and joint T.T. / Jamaica Aluminium Task Force.[included TT diplomat]
- Advisory /resource input role with Ministry of Planning (and Minister Dookeran) on consideration and analysis of Petrotrin refinery upgrade project and other energy-based PSIP projects.

Sept. '82 to Aug' 88

Senior Project Research Analyst/Senior Project Officer (Corporate Planning Div., Finance and Commerce Div.)
- **National Energy Corporation,**

- Duties included - market study appraisals; miscellaneous petroleum downstream project research & development; Cassia Amoco/NEC and Teak Amoco/GOTT/T&TEC gas contracts administration development.
- Provided technical resource input and Leadership to Governmental committees involving natural gas and petroleum downstream products.

CURRICULUM VITAE
Charles C Baisden

- Major roles in in-house preliminary studies on options for increasing efficiency and output of first Methanol (TTMC I) and Urea (TTUC) plants and for integration with acetic acid.
- Project support officer/member - Cabinet appointed Committee on Rationalization of State assets in the petrochemical industry. [Chairman: Mr K. Birchwood]
- Researcher/project officer in several projects including, inter alia: LNG (People's gas JV), Penal Gas storage project, Point Fortin Methanol, Trintodan ammonia, Kellogg/Norsk Hydro ammonia, CdF Chemie/UHDE ammonia, aluminium smelter, Acetic acid, melamine, Integrated formaldehyde resins, MTBE, Mixed fertilizer, Nitric Acid /AN/UAN, MTBE/ Polypropylene.
- Pioneered legwork on establishment of local MTBE production facilities -including implemented Petrotrin refinery plant.
- Pioneered local in-house micro-computer based financial analysis model building for analysis of gas based projects. Displaced the hiring of high cost foreign advisors, Morgan Grenfellin NEC after 1984. Passed on training subsequently to several subordinates over intervening years.
- Initiated building and maintenance of oil, gas and petrochemical electronic data bases. Contributed significantly towards development of the company's sophisticated, well stocked library and information management facilities as well as its presentation skills.

Jan. '79 to Oct. '80

Petroleum Engineer

- Ministry of Petroleum and Mines (now Min. of Energy & Energy Affairs)

- Monitored and approved Oil Company activities relating to well drilling, production and workovers so as to ensure good engineering and safety practices and conformance with the country's Petroleum and Industrial regulations.
- Frequently exposed to field supervision through site visits with company engineers.
- Collected, collated and reported petroleum data.
- Contributed to formulation of policies for management of country's hydrocarbon resources.
- Assessed and/or independently conducted gas reserve studies, reserve allocation studies, secondary recovery programmes, production optimization studies.
- Short-term full time assignments with operating companies such as Trintoc's P.E. Dept., and Gaffney, Cline, Assoc. Petroleum Consultants (initial Penal Gas storage project)
- Participated in exploratory well drill stem testing at Mahaica and Offshore East and West Coasts.
- Attended numerous seminars and training courses, including AMOCO's Drilling Training Programme for Senior Platform Supervisors, Schlumberger well logging course, Camco Gas Lift

1982 to present

Tertiary Teaching Career : [31 consecutive years part-time]

- **Part-time lecturer - UWI, St Augustine, 1982 - present**
 - BSc Management Studies - Production Operations Management [30 yrs]
 - BSc Chem. Engineering -- Chemical Process economics [1999, 2001 -- 2 yrs]
 - MSc Petroleum. Engineering & Management -- Planning & control [3 yrs]
 - Post Graduate Diploma Management studies- Operations Management 1982 -- '90
- **Module writer & Coordinator - UWI Open Campus ON-LINE - POM & OPC [2008 -- present]**

2008 to present

- **Adjunct Faculty -- Arthur Lok Jack Graduate School of Business, - UWI, Mt Hope**
 - MBA -- Energy Business Strategy Electives - Oil, Gas and LNG -- The Technical & Commercial challenge as well as Petroleum Industry Overview. Prod Ops Mgmt
 - Assessor on GSB's ILEA panel for selection of new students.(occasional)
- **Other - Occasional & /or Guest Lecturer stints**
 - UTT /NESC -- BSc, MSc, -- Energy education
 - ROYTEC / Univ of New Brunswick -- Management (POM)

Professional Memberships & Other Activities

- **Member of Board of Directors, Petroleum Company of Trinidad & Tobago Ltd (PETROTRIN) -- 2010 to pres.**
- **Member of:** Society of Petroleum Engineers of AIME, U.S.A; American Chemical Society; Project Management Institute; International Energy Economics Association

CURRICULUM VITAE
Charles C Baisden

MAJOR PUBLICATIONS AND PRESENTATIONS

- (1) 2007, June : "Criteria for Selection of Gas Conversion Options in Trinidad & Tobago" – Gas Technology Conference, Tobago Hilton, Trinidad & Tobago (published in Gasco News, Dec 2007)
- (2) 2006, April : "Implementation of NGC's Gas Management System" published Gasco News
- (3) 2005, July : "Renewable Energy Options for Trinidad & Tobago", published Gasco News
- (4) 2003, September : "*GTL as a Viable Gas Utilization Option for Trinidad & Tobago*"- SMi Gas to Liquids 1 annual Conference, London, England. UK.
- (5) 2003, February: "*Review of Downstream Gas Developments*" - South Chamber of Industry & Commerce 2003 Petroleum Conference , Trinidad Hilton, Port of Spain, Trinidad.
- (6) 2002, October: "*Processors Prepared for Ethylene Complex*"- The New Executive Times – the Caribbean News Magazine (author cited & quoted)
- (7) 2002, October: "*Update on Gas-to-Market Developments in Trinidad & Tobago*"- Energy Frontiers International (EFI) Gas-to-market Conference, San Francisco, CA, U.S.A. [published Gasco News, Jul 2003]
- (8) 2002, September: "*Technology Driven Gas Utilization Options*"- Best Uses of Our Petroleum Resources Conference, University of the West Indies, St Augustine, Trinidad.
- (9) 2002, July: "*New Horizons for Ethylene - the challenges of Implementing a local Ethylene Cracker*"- Natural Gas in the Americas 6 conference, Hilton Tobago. [published Gasco News, Sept 2002]
- (10) 2002, May: "*Trinidad and Tobago Gas Industry Update*" - 2002 Latin American Methanol Conference International Methanol Producers and Consumers Association (IMPCA), San Juan, Puerto Rico.
- (11) 2002, March: "*Importance of the Gas Industry*"- Focus report on Trinidad & Tobago, Institutional Investor Magazine [International Rating Agency magazine]
- (12) 2002, January: "*Gas Industry History, Status & Future Trends - Trinidad & Tobago*"- Powergen Technics Symposium, Powergen plant, Pt Lisas, Trinidad.
- (13) 2001, October: "*Gas Utilization Options for the Future*"- NGC & the Natural Gas Value Chain, breakfast seminar presentation to employees, NGC, Pt Lisas, Trinidad.
- (14) 2001, July: "*A Comparison of the Traditional Added value Products from natural gas versus GTL and DME Looking at the crystal ball*"- Society of Petroleum Engineers Gas to Power Technology Workshop, Hilton Hotel, Port of Spain, Trinidad.
- (15) 2001, June: "*Gas Industry Trends - Trinidad & Tobago Case Study*"- Economist(EIU) Fifth Annual Latin American Energy Summit, Four Seasons Hotel, Caracas, Venezuela.
- (16) 2001, May: "*Fuel Cell Power Generation and Transportation Market Opportunities in the Caribbean*"- UN , World Bank sponsored meetings & workshop on Fuel Cell Distributed Power Generation and Transportatic applications in Developing Countries: Opportunities and Market Intervention Strategies, International Energy Agency (IEA) headquarters & World Bank headquarters, Paris, France.
- (17) 2001, February: "*Prospects for Implementation of a Methanol-to-Olefins facility in Trinidad & Tobago*" South Chamber of Industry & Commerce - 2001 Petroleum Conference, Gulf City, San Fernando. [published Gasco News, NGC, May 2002 , also T&T Pipeline magazine, August 2002]
- (18) 2001, January/March : "*Higher Oil Prices fuel GTL Interest*" - Caribbean Executive Time (author featured & quoted)

CURRICULUM VITAE

Charles C Baisden

- (19) 2000, October: "*Gas-to-Market Developments in Trinidad & Tobago –Historical Overview & Future Perspectives*"- Energy Frontiers International (EFI) GTM Conference, Sheraton Palace Hotel, San Francisco, CA. U.S.A. [published Gasco News, NGC, May 2002]
- (20) 2000, September : "*GTL and GTO as alternatives to LNG in a Gas Monetization Strategy*"- SMI Gas to Liquids III Conference, London, England, UK. [Published Gasco News, NGC, April 2001; featured and quoted Hart's E&P international, March 2001; Hart's GTL News, Nov 2000]
- (21) 2000, June: "*Forecast for Petrochemical/Gas Based Developments in Trinidad and Tobago*" - 2000 Latin American Methanol Conference - International Methanol Producers and Consumers Association (IMPCA), Port of Spain, Trinidad. [Published Gasco News, NGC, Jul/Oct 2000]
- (22) 2000, February: "*Prospects for Ethylene Derivatives and Potential Impact on the Manufacturing Sector*" - South Chamber of Industry & Commerce - 2000 Petroleum Conference, Gulf City, San Fernando, Trinidad. [Published Gasco News, NGC, April 2000]
- (23) 1999, October: "*Long Range LNG Applications & A Case For Niche Technologies and Markets*"-Society of Petroleum Engineers Applied Technology Workshop, Hilton - Port of Spain, Trinidad.
- (24) 1999, October:"*Prospects for Plastics Arising from a Proposed Ethylene Petrochemicals Complex*"-Couva Pt Lisas Chamber of Industry & Commerce - Plastics Opportunities Seminar, Learning Resource Centre, Couva, Trinidad.
- (25) 1999, September: "*GTL Opportunities in the Caribbean*"-SMI Gas to LiquidsII Conference, London, England, UK. [Featured & quoted Carib Ed Executive Times- J. Bus. & Tech, Jan-Mar 2000]
- (26) 1999, August: "*New Approaches to Accessing (Alternative) Energy Resources*"-Niherst Caribbean Youth Science Forum, UWI, St Augustine. TT.
- (27) 1999, March 1999: "*GTL Strategy as a Mechanism For Long Term Gas Commercialization and For Promotion of a Cleaner Environment*"-XII Caribbean Conference of Chemistry and Chemical Engineering, UWI, St Augustine. TT.
- (28) 1999, February:"*Deepening The Gas Based Petrochemicals Sector-Prospects for the Manufacture of Ethylene and its Derivatives*"-South Chamber of Industry & Commerce 1999 Petroleum Conference, Gulf City, San Fernando, Trinidad.
- (29) 1998, November: "*GTL Strategy for Trinidad & Tobago*"-SMI Gas to LiquidsI: Clean Fuels Strategy Conference, London, England. [published Gasco News, NGC, Jan 1999; Featured & quoted Carib Ed Executive Times- J. Bus. & Tech, Jan-Mar 2001]
- (30) 1998, June: "*Implementation of a Local Ethylene Petrochemicals Complex*" - published Gasco News, NGC, Pt Lisas.
- (31) 1998, March: "*Macro-Economic Benefits of the Gas-based Energy Sector*",UWI-Institute of Business-Macroeconomics Workshop for visiting economists from the Caribbean Project of Georgetown University, Washington,D.C.;Friedrich Ebert Foundation of Mexico and University of Havana, Cuba.-UWI,IOB, St Augustine. [Published June 1998 - Gasco News, NGC, Pt Lisas.]
- (32) 1997,August: "*Downstream Opportunities,a Strategic Perspective*" - Gasco News,Special 22nd Anniversary Edition, NGC, Pt Lisas.
- (33) 1997, August: "*Trinidad and Tobago-the Centre for Gas-based Manufacture in the Caribbean.*" - Gasco News, Special 22nd Anniversary Edition, NGC, Pt Lisas.
- (34) 1997, February: "*Downstream Petrochemical Strategy*" - OWTU 1st National Public Policy Forum, San Fernando, Trinidad.

CURRICULUM VITAE
Charles C Baisden

- (35) 1996, June : *"Trinidad's Gas-based Ammonia and Methanol Industries"*-FINDS (Stokes Engin. International Publication)
- (36) 1996, May: *"The Growth of Trinidad and Tobago as a Methanol Supplier"*-Proceedings of the 1996 Latin American Methanol Conference, Port of Spain, Trinidad.
- (37) 1995, December: *"Trinidad and Tobago: A Location for Gas Based Petrochemical Manufacture"*, CMAI- Proceedings of the 1995 World Methanol Conference, Phoenix, Arizona, USA.
- (38) 1993, June : *"The Petrochemical Industry of Trinidad and Tobago"*, Caribbean Academy of Sciences- Panel discussion on the Petrochemical Industry, UWI, St Augustine, Trinidad.
- (39) 1990, July : *"Review of the Regional Aluminium Industry from a Trinidad and Tobago Perspective"* - UNIDO Regional Expert Group Meeting on Production Complementarities in the Aluminium Industry in Latin America - Kingston, Jamaica.
- (40) 1990, April : *"Design of a Microcomputer Simulation Model and its Application in the Assessment of Gas Transmission Economics in Trinidad and Tobago"* - MPhil (Petroleum Engineering) Research seminar, UWI, St Augustine, Trinidad.
- (41) 1989, November : *"MTBE Production Potential for Trinidad and Tobago"* - South Chamber of Commerce Second Petroleum and Petrochemical Conference, San Fernando, Trinidad.

1984-1985

Research Officer: Fisheries Department, Tobago House of Assembly

- Responsible for data collection
- Liaised with fisherman to ensure compliance with protocols
- Conducted inspection of fishing boats

1981-1983

Licence Sea Captain: Institute of Marine Affairs

- Facilitated data collection for research
- Manoeuvred research vessels

1974-1980

Coast Guardsman: Trinidad and Tobago Defence Force

- Specialized deep sea diver
- Responsible for signal and communication information
- Captained boats 150 feet and under

EDUCATION AND TRAINING

- Diploma, Occupational Health and Safety, Cipriani Labour College (2004-2005)
- Certificate, Occupational Health and Safety, Cipriani Labour College (2003-2004)
- Marine Technology, Outboard Motors Cooperation Marine Institute, Florida (1981)
- Licence Sea Captain, Coxswain, Port Marine (1987)
- GCE O'Level London, Geography (1973)
- O'Level English, Commerce, Osmond High School (1972)
- O'level History, Health Science, Scarborough Secondary School (1971)

SKILLS

- Microsoft Office (Excel, Word, Access, Power Point, and Publisher)
- Boat building, diving, marine technician

PROFESSIONAL AFFILIATIONS

- Manager, Zion Vision Soca band (2005)
- Vice President, Tobago Wildlife Framers Association (1998-2000)
- President, Granby Improvement Committee (1995-2000)
- Member, Save the Coast Foundation
- Founder, Flying Colours Organisation
- Song writer and Calypsonian
- Board Member – Environmental Management Authority (2001)

PERSONAL INFORMATION

- Interests – reading, photography, hiking singing, practical courses with juveniles, and writing.
- Excellent references available upon request

May 2013

SUMMARY OF RESUME

NAME : Khemram Jokhoo

CITIZENSHIP : Trinidad & Tobago

DATE OF BIRTH : 1945 November 05

ADDRESS : 148 Coral Drive, Gulf View, La Romaine.
Trinidad. WI
cell: Work.
E mail :
Web Page: <http://Sites.google.com/site/rajyogikhem>

EDUCATION: :

- (1) **Masters in Petroleum Engineering (MPhil)**
University of the West Indies. (1988)
- (2) **B.Sc. Honours in Physics/Mathematics,**
University of Manitoba, Canada. (1971)
- (3) Executive Training in Management of Managers Program
Financial Accounting for Non Finance Executives Program
Marketing, Trade and Negotiations Program
Cox School of Business,
Southern Methodist University, Dallas
- (4) **Change Management Specialist.** Trained Teacher in Self-
Management, Positive Thinking and Stress Management.
**Moral Values Education. Brahma Kumaris World
Spiritual University, Rajasthan India.**
- (5) Fully computer literate and functional with many
applications and systems.

CURRENTLY EMPLOYED : **President of Trinidad Nitrogen Co., Limited (Since
June 1995 until present).**

***Director on Board of Petrotrin since Oct 2010**

WORK EXPERIENCE: **44 Years in Oil, Gas and Petrochemicals. Started in 1971**
as a Petroleum Engineer. Upgraded through the ranks with
Increasing responsibilities in Operations, Technical, Reservoir
Engineering, Drilling Engineering and assigned at all fields
throughout the Texaco Operations followed by Trintoc and
Petrotrin. **President of Trinidad Nitrogen Co., Limited (Since
June 1995 until present).**

Fifteen (17) Years in the Petrochemical Industry

A Yoga & Meditation Student and Teacher -Since 1993.

OTHER EXPERIENCES:

Self Management

- (a) Teach Positive Thinking courses.
- (b) Teach Stress Management Courses.
- (c) Meditation Teacher
- (d) Development and use of innate values and virtues – Seminars and Workshops.
- (e) Freelance Journalist on Spirituality and Moral Values

CURRENT EMPLOYMENT:

*** President, Trinidad Nitrogen Co., Limited (Tringen).
J/V with Yara Trinidad Ltd at Point Lisas. Trinidad.
June 01, 1995 – to present.**

***Director on Board of Petrotrin since Oct 2010**

PREVIOUS EMPLOYMENT:

**Reservoir Development Manager,
Petroleum Company of Trinidad and Tobago.
February 1993 – May 31, 1995.**

PREVIOUS POSITIONS:

**Operations Manager, Trintoc, 1990-Feb 1993
Drilling and Workover Manager in 1988-1990**

SPECIAL ASSIGNMENT:

Operations Manager – Trinmar Limited(Nov 91- Jul 92)

**SELF-MANAGEMENT
LEADERSHIP**

**Conducts workshops for Chairmen, Boards of Directors,
Executives, Secondary and Private Schools.**

**OTHER EXPERIENC:
PETROCHEMICALS**

**Director of Trinidad Nitrogen Co., Limited
(Tringen). 1987 – February 1994.
:Director of Petrotrin-Oct-December 2000**

Visited major Petrochemical Plants in Norway, Alberta in
Canada and the United States.

PUBLISHED PAPERS:

Six (6) International Papers:

- ◆ Petroleum Engineer's Journal
- ◆ SPE/IADC Preprints

Twenty-five (25) In-house Technical Papers
200 Articles on Spirituality on website

**MANAGERIAL:
TECHNICAL AND
FINANCIAL DEVELOPMENT** :

Extensive training in Management both Local and Foreign.
Extensive training technical both Local and Foreign to keep
abreast with technological advancement.

OTHER TRAINING AND ACHIEVEMENTS :

- ◆ Financial Training – Cox School of Business – Southern Methodist University, Dallas, Texas.
- ◆ In-house Paper – “Managing Changes in Trintoc 1985 – 1990”.
- ◆ Technical and Operational Evaluation of Trinmar, Recommendations and Implementations.
- ◆ Member of Several teams in Mergers and Joint Venture arrangements.
- ◆ Two Papers for Ministry of Education on Teaching of Moral Values Education in 1998.
- ◆ Spiritual Approach to Road Safety. Presentation at World Bank by Ministry of Works and Transport. Feb 1999.
- ◆ A Spiritual Writer and Author of Book “Festivals, Values and Commentaries of the World’s Oldest Religion”.

OTHER :

Lawn Tennis, Golf, Cricket, Keeping fit and Ecstatic Communion with the Supreme, Student/Teacher of Yoga and Meditation

SOME OTHER NOTABLE EXPERIENCES

FINANCIAL MANAGEMENT :

- ◆ Strategic Initiatives – Short Term (15 Years) - Medium Term - Long Term
- ◆ Budget Preparation - Capital Budgets (30 Years) - Operating Budgets (Activity Based Budgeting)
- ◆ Financial Controls - Development of **commitment and expenditure** control techniques. (30 Years)
- ◆ Finance Audits - Checks and Balances Audit for Integrity, transparency and authenticity. (20 Years)
- ◆ Income Generation - Use of cost-cutting exercises but Not at the expense of the integrity of the operations. Minimizing Wastage
- ◆ Market Trends - Keep abreast with market trends to Forecast production and prices, and the reasons for same.

INDUSTRIAL RELATIONS :

Active Participation : Headed negotiating teams for Company with major unions. Trinmar, Trintoc and Petrotrin.

Consultancy : Normal job function in handling

Participation issues and grievances.

SAFETY AND ENVIRONMENT:

Active Participation :An active adviser that Safety and The Environment should be Embodied as part of the work Functions, duties and Responsibilities.

Developed extensive expertise in Safety and environment, via Training, implementation and Audits.
Behavioral Safety and Environment Systems

**MANAGEMENT TRAINING :
ADVISER**

Training and Technology : Consistently advised on Training with respect to skills required and Technology Enhancement.

OTHER INTERESTS

: Self Management (Voluntary Work)
(a) Teach Positive Thinking courses.
(b) Teach Stress Management Courses.
(f) Meditation Teacher
(g) Development and use of innate values and virtues – Seminars and Workshops.

MOTIVATIONAL AID

First, transform yourself and be a sample, and others will follow by example. For there to be Institutional, Organizational or World Transformation, there must first be Self Transformation.

REFERENCES

Will be provided on request.

Last Updated: may 2013 - Khemram Jokhoo

CURRICULUM VITAE

NAME	RESHARD KHAN
Address	No. 97, SS Erin Road, Debe
Occupation	Attorney at Law
Date of Birth	12 th October 1977
Marital Status	Married
Religion	Islam

PROFESSIONAL QUALIFICATIONS:

2002:	L.E.C., Sir Hugh Wooding Law School
2000:	LL.B [Upper Second Class Honours], University of the West Indies

EDUCATIONAL BACKGROUND:

Advanced Level:	Chemistry: Grade A Biology: Grade A Mathematics: Grade A
Advanced Ordinary:	General Paper: Grade A
Ordinary Level:	Mathematics, English Literature, English Language, Chemistry, Biology, History, Art
	Currently pursuing MA in Mass Communications and Public Relations
2000 – 2002:	Sir Hugh Wooding Law School
1998 – 2000:	University of the West Indies

1989 – 1997: San Fernando Government Secondary School
1982 – 1989: Debe Hindu School

WORK EXPERIENCE:

2002 – 2010: Associate Attorney at Law
Messrs. Dipnarine Rampersad & Company
No. 5, Gordon Street [North]
San Fernando

2010 – 2013: Attorney in Sole Private Civil Practice

OTHER INTERESTS:

Art, Agriculture, Horticulture, Music
Member of Debe Anjuman Sunnatul Jamaat Association Masjid
Member of the Anjuman Sunnatul Jamaat Association
Community Activist

3 Ashblan Lane
La Romain
Trinidad, W.I.

Office: 1 (868) 657-5438
Mobile: 1 (868)
Home: 1 (868)

RUDRANATH MAHARAJ

Work Experience 2005 – Present Course Director / Tutor – Law of Succession, Civil Procedure and Practice 1, Hugh Wooding Law School, St. Augustine.

2003- Present Attorney-at-Law -Private Practice, 7A Harris Promenade, San Fernando

Practice Areas

- Civil Litigation, Injunctions, Matrimonial Matters, Custody Applications, Domestic Violence Applications, Personal Injury Claims, Running down Actions, Land Matters Including Trespass, Vesting Order applications, Tax Appeals, Commercial Debt Recovery.
- Conveyancing, Loan Agreements, Mortgage Bills of Sale, Mortgages.
- Corporate Commercial, Incorporation and Continuance of Companies, Preparation of By Laws, Shareholder Agreements, Corporate Contracts, Registration of External Companies, Share Transfers and Sales.
- Probate and Estate Matters (Drafting of Wills, Estate Planning, Non Contentious Applications for Grants of Representation).

2009-2010 . . . Consultant Part-time, Lex Caribbean Attorneys-at-Law.

2005 – 2006 Consultant Part-time, National Gas Company of Trinidad and Tobago Limited.

2003 - 2004 Consultant Part-time, Lex Caribbean Attorneys-at-Law.

1996-2003- Attorney-at- Law, Lex Caribbean

Positions Held:

- Associate 1996-2000
- Manager San Fernando Office 1997-2003
- Senior Associate 2001-2003
- Head of Probate Department 2001-2003

Responsibilities:

- Instructing Attorney-at-Law for firms diverse litigation portfolio including mortgagee actions, personal injury claims, running down actions, debt collection, commercial litigation.
- Senior Attorney in firms conveyancing

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wills and codicils, preparation of various types of applications for grants of representation including grants of probate, letters of administration, letters of administration with will annexed, de bonis non applications, resealing of grants obtained in foreign jurisdictions and all ancillary documents related thereto.

- Other Responsibilities- the undertaking of the full management and administration of the firms south office including staff supervision, performance reviews, procurement of materials, clients relations and all other related matters. Supervision of staff in probate and conveyancing departments in Port-of-Spain, marketing and clients services including presentations to clients of the firm.

- Conveyancing Practice and Procedure- Mortgages- First Citizens Bank Limited Maraval.
- Will Preparation and Estate planning- TATECO Credit Union Co-operative Society.
- Will Preparation and Estate planning- Trinidad Government Pensioners' Association.
- Law Legal Systems/ Constitutional Law- Immigration Officers
- Legal Issues affecting Regional Corporations Rio Claro/Mayaro Regional Corporation

Other Interests Classical Music, Football, Cricket, Swimming.

- Hugh Wooding Law School
- Legal Education Certificate (LEC)

Other Activities

- Institute of Tertiary Tutors- Part-time lecturer, University of London external LLB Degree- Constitutional Law, Law of Tort.
- Institute of Law and Academic Studies - Part-time lecturer, University of London external LLB Degree- Law of Tort
- University of the West Indies- School of Continuing Studies- Part-time lecturer, APS and ABE Programs- Business and Commercial Law.

Professional Memberships

- Law Association of Trinidad and Tobago- Past Executive member of Council, Present Ordinary member.
- The Assembly of Southern Lawyers- Executive member for nine years, past Secretary and Treasurer of Assembly.
- The South Trinidad Chamber of Industry and Commerce- Past member

Other Memberships

- NCIC Foundation- Past Executive member and current ordinary member
- St. Michael's Swimming Pool Association- Secretary to management committee.
- Krishna Mandir Todd Street San Fernando- Chairman -Management Committee.
- San Fernando Hindu Primary School Committee-Committee Member
- International Academy of Kundalini Dhyaan Yoga- Committee Member

Vernon Paltoo

127A Tunapuna Road
Tunapuna, Trinidad and Tobago

TEL: (868)

EMAIL:

D.O.B. 06 April 1971

Education

1997 – 2002 The University of the West Indies, St. Augustine, Trinidad & Tobago
1991 – 1994 The University of the West Indies, St. Augustine, Trinidad & Tobago
1982 – 1990 Hillview College, Tunapuna, Trinidad & Tobago

Qualifications

2002 Ph.D. Chemical Engineering
1994 B.Sc. Chemical and Process Engineering (*Upper Second Class Honours*)
Electives Natural Gas Technology
Food Processing Technology

Advanced Training

Level 1 Spanish Certificate	UWI (Distinction)	Trinidad and Tobago (2002)
Financial Modelling with EXCEL	Euromoney/VAIR	Trinidad and Tobago (2006)
International Project Finance	Euromoney	New York (2008)
Advanced Financial Modelling	Euromoney	New York (2010)
Corporate Governance	Euromoney	Miami (2011)

Current Employment

From 2004 National Energy Corporation of Trinidad and Tobago Limited (NEC)

Present President
Position (From 01/01/2013 to present)

Previous Positions President Designate
(From 01/11/2012 to 31/12/2012)
Vice President – Operations
(From 01/06/2012 to 31/10/2012)
Manager – Energy Industry Development
(From 08/07/2011 to 31/05/2012)
Team Leader – Office of the President
(From 03/01/2011 to 07/07/2011)
Vice President (Coordinator) – Business Development
(From 01/05/2008 to 31/01/2010)
Team Leader – Business Development
(From 06/12/2004 to 30/4/2008 & from 01/02/2010 to 02/01/2011)

Vernon Paltoo

Key Duties - Present

- Provide effective leadership to ensure that NEC and LABIDCO achieve its strategic goals.
- Develop and implement the Strategic Plan and to introduce management systems aimed at maximizing shareholder value while developing a highly motivated, business oriented and customer driven organization.
- Lead in the conceptualization, identification, attraction, marketing, promotion and development of new energy-based downstream and derivative industries in accordance with the Government's policy framework.
- Develop annual and long term objectives for the Company relative to market conditions.
- Plans and direct financial, technical, legal and contractual aspects of the company and its assets.

Selected Projects (2004 to 2012)

- Member of Team working on the Structure of the Natural Gas Industry in Trinidad and Tobago 2005
- Member of Team working on developing a framework for Future Supply of Natural Gas 2005
- Member of Team working on the Expansion of the LNG Industry 2005
- Member for Team for developing Syngas Refinery Project in Trinidad 2005
- Team Leader for developing Investment Promotional Material in the Energy Industries of T&T 2005
- Participated in National Petrochemical Marketing Mission to USA, 2005 & 2006
- Member of Team for formulating CARICOM Energy Policy 2006
- Team Leader for developing Titanium Dioxide Project in Trinidad 2005-2006
- Team Leader for developing Gas to Polypropylene Project in Trinidad 2005-2006
- Team Leader for developing Protein Production Plant in Trinidad 2005-2010
- Team Leader for developing Methanol to Power Project in Trinidad 2005-2010
- Team Leader for developing Maleic Anhydride Project in Trinidad 2006-2010
- Team Leader for developing Ethylene Project in Trinidad 2006-2010
- Team Leader for developing Calcium Chloride Project in Trinidad 2006-2010
- Member of GORTT Team for evaluating LNG expansion with Petronas (Malaysia) 2006-2007
- Member of GORTT Natural Gas Pricing Committee 2006-2007
- Member of GORTT Ethane Negotiation Team 2007-2008
- Team Leader for Developing Downstream Petrochemical Investment Profiles 2008
- Member of Committee for Gas Exporting Negotiations 2009
- Prepared conceptual framework for establishing a National Oil and Gas Company in T&T 2009
- Team Leader for competitive selection of Investor for development of Downstream Ammonia Proj. 2010
- Lead Coordinator to develop "Framework for Creation of a Sustainable Energy Services Sector" 2010
- Team Leader for developing manufacturing industries from melamine production 2010-2012
- Member of MEEA Team for developing Green Paper on "Energy Policy for T'dad and T'go" 2011-2012
- Team Lead for National Energy Marketing Mission to USA, 2012

Board Memberships

- **June 2006 to Present** Energy Chamber. of Trinidad and Tobago (ECTT).
- **November 2012 to Present** Petroleum Company of Trinidad and Tobago Limited (Petrotrin)
- **February 2013 to Present** InvestTT Limited

Vernon Paltoo

Previous Employment History

2008 – 2010 *The University of the Trinidad and Tobago (UTT)*

Position Part-time Lecturer - Department of Process and Utilities Engineering

Duties

1. Lectures in Engineering Economics and Financial Principles (ECON304)
2. Supervisor for Chemical Engineering Design Project (DESP412, PROJ310B, PROJ317B)

2002 – 2010 *The University of the West Indies (UWI)*

Positions Part-time Lecturer

- Department of Chemical Engineering
- Department of Chemistry
- Department of Economics

Duties

1. Lectures in Separation Processes II (CH35A)
2. Lectures in Industrial Chemistry (C31G, CHEM3569)
3. Lectures in Energy Economics (EC39F, ECON3068)
4. Lectures in Management and Leadership (ENGR 6017)
5. Supervisor for Chemical Engineering M.Sc. Project (CHNG 6302)

2003-2004 *Tourism and Industrial Development Co. of T'dad and T'go (TIDCO)*

Position Industry Specialist (05/03/03 – 03/12/04)

Duties

1. Sector and Business Development of the Chemicals and Plastics Industries in Trinidad & Tobago
2. Promotion of Investment Opportunities in the Chemicals and Plastics Sectors of Trinidad and Tobago

Additional Duties

- Member of the Working Group on Gas to Petrochemicals – Natural Gas Export Task Force (*A Sub-committee of the Cabinet Standing Committee on Energy*), responsible for recommending Energy Based Projects for approval and development to the GORTT.
- Member of the Government Committee on Agriculture and Food Production (*A Sub-committee of the Cabinet Full Employment Committee*), responsible for recommending mechanisms for the restructuring of the agro and food processing sector to the GORTT.
- Member of the Plastics, Printing and Packaging (PPP) Task Force of Trinidad and Tobago responsible for expansion and development of the plastic industries in Trinidad and Tobago.
- Member of the Printing and Packaging Industry Team (*A Sub-committee of the Cabinet Standing Committee on Business Development*), with responsibility for advising the GORTT on strategies for growth and expansion of this sector in Trinidad and Tobago.

Selected Projects

- Technical and Financial Evaluation of Projects from investors in various sectors including Natural Gas, Chemicals, Plastics, Metals, Minerals, Agro-processing and Information Technology

Vernon Paltoo

- Member of Team for Rev. of Fiscal Incentives and Tax Concessions in the Petrochem. Sector (2003)
- Preparation of Sector Profile of the Chemicals Industry in T&T (2003)
- Preparation of Sector Profile of the Plastics, Printing and Packaging Ind. in T&T (2003)
- Participated in Joint National Petrochemical Marketing Missions (TIDCO, NGC & Petrotrin) to Texas, USA (2003 & 2004)
- Team Leader for Plastics Marketing Mission to Chicago, USA (2003)
- Team Leader for Investment Opportunities Seminars in T&T (2004)

2002 – 2003 Caribbean Industrial Research Institute (CARIRI)

Position **Chemical Engineer – Biotechnology Unit (01/04/02 – 28/02/03)**

Duties

1. Development and Implementation of Commercial and Technical Projects
2. Design and Execute Major Expansion of a Large Food Processing Facility
3. Supervise Design and Fabrication of Industrial Scale Processing Equipment
4. Extensive Procurement and Commissioning of Commercial Processing Equipment

1996 – 2002 The University of the West Indies (UWI)

Positions

- **Research Assistant - Department of Chemical Engineering (01/04/98 – 31/03/02)**
- **Consultant - Inter-American Development Bank /UWI (01/01/97 – 31/03/98)**
- **Research Assistant - Department of Chemical Engineering (02/09/96 – 31/12/96)**
- **Technical Assistant - Department of Chemical Engineering (03/06/96 – 30/08/96)**
- **Demonstrator - Department of Chemical Engineering (22/01/96 – 31/05/96)**
- **Marker - Department of Mathematics and Computer Science (01/10/97 – 31/12/99)**

Duties

1. Development of the Supercritical Fluids Research Facility at the Department of Chemical Engineering
2. Procurement, installation and commissioning of equipment at the Department of Chemical Engineering
3. Planning and managing operations for the Supercritical Fluid Extraction Plants
4. Financial management of the Supercritical Fluids Program
5. Demonstrator of Fluid Mechanics Laboratory Course (CH16B)
6. Demonstrator of Chemistry Laboratory Course (CH11B)
7. Demonstrator of Chemical Engineering Laboratory Course (CH17B)
8. Tutor in Particle Technology (CH27B)
9. Lectures and Tutor in Separation Processes II (CH35A)
10. Lectures in Computer Aided Engineering (HYSYS) (CH24B)
11. Lectures in Economic Botany (BT38E)
12. Lectures in Separation and Purification Processes (FE60D)
13. Lectures in Fundamentals of Food Process Engineering (FS60B)
14. Lectures in Plant Design and Economics (CH22A)
15. Develop and supervise Research and Design Projects in Chemical Engineering (CH36B & CH35B)

Vernon Paltoo

Research Projects Supervised

- Supercritical Fluid Extraction of Orange Oil from Orange Peels (B.Sc.)
- Supercritical Fluid Extraction of Clove Oil (B.Sc.)
- Supercritical Fluid Extraction of Nutmeg Oil (B.Sc.)
- Supercritical Fluid Extraction of Tonka Beans (B.Sc.)
- Supercritical Fluid Extraction of Turmeric (M.Sc.)
- Supercritical Fluid Extraction of Peanuts (M.Sc.)
- Supercritical Fluid Extraction of Grapefruit Peels (B.Sc.)
- Supercritical Fluid Extraction of Ylang Ylang Flowers (B.Sc.)
- Supercritical Fluid Extraction of Garlic (B.Sc.)
- Flow-rate Studies for the SFE of Jasmine (B.Sc.)
- Drying of Grapefruit Peels (B.Sc.)
- Drying of Orange Peels (B.Sc.)
- Microwave Drying of Selected Food Material (B.Sc.)
- Steam Distillation of Thyme (B.Sc.)
- Steam Distillation of Jasmine Flowers (B.Sc.)
- Orange Oil (B.Sc.)
- Extraction of Oils from Basil (B.Sc.)
- Evaluation of Anise Oil Production from Steam Distillation (M.Sc.)
- Optimization of A Methanol Plant (M.Sc.)

Design Projects Supervised

- Design of a Supercritical Fluid Extraction Processing Plant (B.Sc.)
- Design of a Decaffeination Coffee Plant (B.Sc.)
- Design of a Hydrogen Peroxide Manufacturing Plant (B.Sc.)
- Design of a Sulfuric Acid Manufacturing Plant (B.Sc.)

Grant Funding

- Secured US\$80,000.00 in Grants to Acquire a GCMS for Dept. of Chemical Engineering

1993 **Nestle (Trinidad & Tobago) Limited**

Position **Engineer Intern (05/07/93 – 27/08/93)**

Duties Projects involving evaluation of various aspects of plant and equipment

1990 – 1991 **Deloitte & Touche Chartered Accountants**

Position **Audit Assistant (01/10/90 – 31/08/91)**

Duties Auditing, accounting, and financial management in a wide range of commercial and industrial organizations

Vernon Paltoo

Voluntary Professional Service

- **August 2001 to 2008** – Assisted the Ministry of Foreign Affairs on the establishment of a National Authority to implement the Chemical Weapons Convention (CWC) in Trinidad and Tobago.
Duties include: Advising petrochemical plants on procedures for submissions of annual declarations; Meetings with international chemical plant inspectors to facilitate inspections of chemical plants in Trinidad and Tobago; Assist in drafting legislation for implementing the CWC in Trinidad and Tobago; Attending meetings and workshops on behalf of the GORTT.
 - **April 2010 to April 2013** – Member of the Government Appointed Printing and Packaging Industry Council
-

Selected Publications (as author or co-author)

1. "Supercritical Fluid Extraction for the Food Industry of Trinidad and Tobago"
Proceedings of The Ninth Seminar on Agricultural Research and Development,
4 – 5 November 1997, RCLRC, Trinidad. (NIHERST) pp 83 – 93
2. "Supercritical Fluids – The Future of Flavours and Fragrances"
CarlFST Newsletter, Vol 7, No 2, June 1997 pp 2-3
3. "Production of Marketable Extracts from Indigenous Caribbean Crops using Supercrit. Extraction"
UWI/IDB R&D Update, April 1998 pp 4
4. "Extraction of Nutmeg Oils using Supercritical Carbon Dioxide"
Proceedings of the XIIIth Caribbean Conference of Chemistry and Chemical Engineering,
29 March – 1 April 1999, UWI, St. Augustine, Trinidad. (UWI)
ISBN: 976-620-153-6 pp 69 – 72
5. "Supercritical Carbon Dioxide Extraction of Nutmegs – Parameters and Modelling"
Proceedings of the 6th Meeting on Supercritical Fluids,
10-13 April 1999, Nottingham, U.K. (ISASF)
ISBN: 2-905-267-30-5 pp 531 – 535
6. "Impact of Supercritical Fluid Extraction on the Flavour and Fragrance Industry of the Caribbean"
Proceedings of the 6th Meeting on Supercritical Fluids,
10-13 April 1999, Nottingham, U.K. (ISASF)
ISBN: 2-905-267-30-5 pp 495 – 499
7. "An Economic Model for Predicting The Viability of Extracting Essential Oils Using Supercritical Carbon Dioxide"
CD ROM Proceedings of the 5th International Symposium on Supercritical Fluids,
8-10 April 2000, Atlanta. U.S.A. (ISSF2000)
Paper No. 3309397 (9 pages)

Vernon Paltoo

8. "Extraction of Turmeric (*Curcuma longa*) with Supercritical Carbon Dioxide"
CD ROM Proceedings of the 5th International Symposium on Supercritical Fluids,
8-10 April 2000, Atlanta, U.S.A. (ISSF2000)
Paper No. 3216821 (9 pages)
9. "Chemical from Crops for St. Kitts-Nevis"
Beyond Walls: Multi Disciplinary Perspectives (Volume 1)
The School Of Continuing Studies 2002: pp 151 - 162
ISBN: 976-620-179-X
10. "The Drying of Coffee Beans"
CD ROM Proceedings of the 12th International Drying Symposium,
28-31 August 2000, Noorwijkerhout, The Netherlands. (IDS2000)
ISBN: 0-444-50422-2 (7 pages)
11. "The Choice of Drying Conditions in the Processing of Orange Peel to Produce Orange Oil by Supercritical Fluid Extraction"
CD ROM Proceedings of the 12th International Drying Symposium,
28-31 August 2000, Noorwijkerhout, The Netherlands. (IDS2000)
ISBN: 0-444-50422-2 (8 pages)
12. "The Drying Characteristics of Coffee Beans"
CD ROM Proceedings of 19th International Conference on Coffee Science, ASCI 2001
14-18 May 2001, Trieste, Italy (ASIC)
ISBN: 2-90012-18-9 (7 pages)
13. "Penetrating the Barriers of Process Engineering – Operating in the Supercritical Region"
APETT Journal 2002: Vol 34(1) pp 38 – 43
ISSN: 1000-7924
14. "A Comparison of Methods for Extraction of Essential Oil from Ylang Ylang"
CD ROM Proceedings of the 8th Meeting on Supercritical Fluids
28 – 30 April 2003, Versailles, France (ISASF) (6 pages)
15. "Sector Profile – The Printing, Packaging and Plastics Industry in T'dad and T'go"
TIDCO Publications 2003
ISBN: 976-95070-2-4 (21 pages)
16. "Sector Profile – The Chemicals Industry in Trinidad and Tobago"
TIDCO Publications 2003
ISBN: 976-95070-1-6 (21 pages)
17. "Natural Gas Chemical Derivatives and Polyolefin Production in Trinidad and Tobago"
GASCO News, March 2006, Vol. 18(3) pp 5 – 10

Vernon Paltoo

18. "Strategy for Expanded Production of Natural Gas Chemical Derivatives in Trinidad and Tobago"
Proceedings of the Tobago Gas Technology Conference (TGTC) 2006
22-24 May 2006, Tobago Hilton, Trinidad and Tobago pp.41 – 47
 19. "Vision 2020 Energy and its Implications for National Energy Corporation of Trinidad and Tobago"
GASCO News, March 2007, Vol. 20(1) pp 5 – 7
 20. "An Economic Model for the Development of a Downstream Gas industry"
Proceedings of the Tobago Gas Technology Conference (TGTC) 2007
13 – 15 June 2007, Tobago Hilton, Trinidad and Tobago pp. 3 – 10
ISBN: 978-976-8210-02-9
 21. "Potential for Biochemical Products from Natural Gas in Trinidad and Tobago"
GASCO News, June 2008, Vol. 21(2) pp 13 – 16
 22. "Commercial Considerations for Development of a Single Cell Protein Manuf. Industry in T&T"
Proceedings of the Tobago Gas Technology Conference (TGTC) 2008
7-10 October 2008, VHL Tobago Resort, Trinidad and Tobago pp. 39 – 47
ISBN: 978-976-8223-88-3
 23. "Moving Trinidad and Tobago towards the Production of Specialty Chemicals"
GASCO News, March 2009, Vol. 22(1) pp 2 – 6
 24. "Developing the Energy Industry of Trinidad and Tobago – Update on NEC Projects 2010"
GASCO News, March 2010, Vol. 23(1) pp 2 – 4
 25. "Building a Sustainable and Diversified Energy Sector – Linking Energy with Manufacturing"
GASCO News, July 2011, Vol. 23(6) pp 6 – 10
-

Selected Conference and Seminar Presentations (as presenter or co-author)

1. "Extraction of Oils from Tropical Crops"
Drying Technologies,
14 November 1997, RCLRC, Trinidad. (UWI/IDB)
2. "The Potential for Supercritical Fluid Extraction as a tool for Eng. Education in the Caribbean"
2nd Latin-American and the Caribbean Forum on Engineering and Tech. Education,
11-13 January 1999, UWI, St. Augustine, Trinidad. (APETT/CCEO/CEEC/UICEE)
3. "The Economic Potential of SFE. on the Flavour and Fragrance Ind. of the Caribbean"
XIth Caribbean Conference of Chemistry and Chemical Engineering,
29 March –1 April 1999, UWI, St. Augustine, Trinidad. (UWI)
4. "Development of a Commercial Supercritical Fluid Extraction Ind. in the Caribbean"
Joint Meeting of the Caribbean Academy of Sciences and The Academy of Sciences of Cuba,
21-24 April 2000, Havana, Cuba.

Vernon Paltoo

5. "Extraction of Fragrances Using Supercritical Carbon Dioxide"
4th International Conf. on Chemistry & 13th Caribbean Conf. on Chemistry and Chem. Engineering
16-20 April 2001, Havana, Cuba (IUPAC/IUBMB)
6. "The Extraction of Fragrances from Jasmine and Ylang Ylang using Supercritical CO₂"
10th Int'l Sym. & Exh. on Supercritical Fluid Chromatography, Extraction, and Processing 2001
19 – 22 August 2001, Myrtle Beach, SC, United States
7. "Opportunities for Investment in the Chemicals Industry of Trinidad and Tobago"
TIDCO Seminar Presentation
22 January 2004, Trinidad Hilton, Trinidad and Tobago
8. "Prospects for Natural Gas Chem. Derivatives and Polyolefin Production in Trinidad and Tobago"
STCIC/GSTT Annual Trinidad and Tobago Petroleum Conference
6 – 7 February 2006, Trinidad Hilton, Trinidad and Tobago
9. "Strategy for Expanded Production of Natural Gas Chemical Derivatives in Trinidad and Tobago"
UTT Tobago Gas Technology Conference (TGTC)
22-24 May 2006, Tobago Hilton, Trinidad and Tobago
10. "An Economic Model for the Development of a Downstream Gas Industry"
UTT Tobago Gas Technology Conference (TGTC)
13 – 15 June 2007, Tobago Hilton, Trinidad and Tobago
11. "Development of Projects in the Downstream Energy Sector"
STCIC/GSTT Annual Trinidad and Tobago Petroleum Conference
25-26 February 2008, Trinidad Hilton, Trinidad and Tobago
12. "Commercial Considerations for Development of a Single Cell Protein Manuf. Industry in T&T"
UTT Tobago Gas Technology Conference
7-10 October 2008, VHL Tobago Resort, Trinidad and Tobago
13. "Development of a Regional Energy Policy for Latin American and Caribbean States" (*panelist*)
UTT Tobago Gas Technology Conference
7-10 October 2008, VHL Tobago Resort, Trinidad and Tobago
14. "Impact of Oil Prices on Transportation Costs and Globalization"
Caribbean Shipping Association 38th Annual General Meeting, Conference and Exhibition
13-15 October 2008, Hyatt Regency Trinidad, Trinidad and Tobago
15. "Update on the Development of Downstream Energy Projects"
STCIC/GSTT Annual Trinidad and Tobago Petroleum Conference
2-4 February 2009, Hyatt Regency Trinidad, Trinidad and Tobago
16. "NEC Projects Update 2010"
ECTT Trinidad and Tobago Energy Conference
25-27 January 2010, Hyatt Regency Trinidad, Trinidad and Tobago

Vernon Paltoo

17. "Development of the Energy Industry in Trinidad and Tobago"
ECTT Trinidad and Tobago Energy Conference
7-9 February 2011, Hyatt Regency Trinidad, Trinidad and Tobago
 18. "Optimizing the Natural Gas Value Chain – Energy Based Manufacturing"
CBC Caribbean Investment Forum 2011
13-14 June 2011, Trinidad Hilton, Trinidad and Tobago
 19. "Opportunities in Melamine Manufacturing"
Trade and Investment Convention Seminar 2011
15-18 June 2011, Hyatt Regency Trinidad, Trinidad and Tobago
 20. "Developing Energy Based Manufacturing Industries in Trinidad and Tobago"
Trade and Investment Convention Seminar 2011
15-18 June 2011, Hyatt Regency Trinidad, Trinidad and Tobago
 21. "Economic Viability of Converting Natural Gas into Animal Feed"
GLS 10 – Gas Liquid Solid Reactor Engineering Congress
26 – 29 June 2011, Universidade do Minho, Braga, Portugal
 22. "Developing Energy Based Manufacturing Industries – Optimizing the Natural Gas Value Chain"
IBC Energy – 11th Annual Energy Caribbean Conference
4-5 October 2011, Trinidad Hilton, Trinidad and Tobago
 23. "Developing Gas Based Industries in Trinidad and Tobago"
SPE Technical Meeting
12 January 2012, Port of Spain, Trinidad and Tobago
 24. "Business Plans for Derivative Melamine Manufacturing Opportunities"
Trade and Investment Convention Seminar 2012
16-19 May 2012, Hyatt Regency Trinidad, Trinidad and Tobago
-

Professional Memberships (past and present)

- American Institute of Chemical Engineers (AIChE)
 - American Chemical Society (ACS)
 - International Society of Plastic Engineers (SPE)
 - International Society for the Advancement of Supercritical Fluids (ISASF)
-

References

Available upon request

Arnold Ram

Address: #238 Arena Road,
Freeport
Phone:
E-mail:

Objective To use my knowledge in the field of Electrical & Computer Engineering, Law and pursuing MBA together with my past work experience to better your organization and myself.

Experience December 2005 - Present

Trinidad & Tobago Electricity Commission (T&TEC)

Job Title: Operations Engineer

- *Responsible for attending to all Emergencies in the Central Distribution Area.*
- *Also responsible for the timely, effective and efficient maintenance of all overhead line conductors, poles, transformers and other equipment to ensure a safe and reliable supply of electricity to all customers in Central Distribution.*
- *Coordinating crews, materials, spares, equipment and other resources for the purposes related to the above responsibilities.*
- *Procuring non-stock items required by the Commission via tenders and direct purchases to ensure continuous operation.*
- *Working alongside other engineers in forecasting electrical growth.*
- *Project Management of Capital jobs undertaken by the Commission in the Central Distribution Area.*

February 2005 - November 2005

Point Lisas Industrial Development Corporation
(PLIPDECO)

Job Title: Engineer - in - Training

- *Working within the Maintenance Department to ensure 99% equipment availability.*
- *Working with technicians for the purpose of diagnosis and*

rectification of problems in electrical, hydraulic and mechanical systems for all port equipment

- *Utilizing the Computerized Maintenance Management System (CMMS) for the record and designation of work orders.*
- *Liaising with different departments to schedule preventative and corrective planned maintenance on port equipment.*
- *Coordinating materials, spares and equipment for efficient, timely and safe maintenance services.*
- *Being responsible include all aspects of crane maintenance, as well as management of supervisors and technicians.*

September 2004– January 2005

Franklyn & Errol Electrical Services

Job Title: Site Superintendent

- *M5000 Methanol Plant
Installation of the electrical and instrumentation systems for the commissioning of this new plant which includes Power, Control, UPS, DCS and SCADA systems.*

September 2003 – May 2004

University of the West Indies

Final Year Project

- *Voltage Sags in T&TEC Transmission system.*

September 2003 – December 2003

University of the West Indies

Job Title: Electromechanical Laboratory Supervisor

- *Completed tests on varying electromechanical machines – dc motors, synchronous motors, induction motors and transformers.*

June 2002 – August 2002

CARIB Glassworks Limited

Job Title: Engineering Trainee

- *Designed and installed detection system for bottling section of factory utilizing sensors and input modules of Allan Bradley PLC's.*

May 2001 – August 2001

Ramdass Transport Limited

Job Title: Office Assistant

- *Administrative and financial responsibilities.*

Education

2011 July -Present

Pursuing an MBA from Herriot-Watt University

6 courses completed @ an average of 72.5marks, 2 courses to be written in June 2013 with remaining course in December 2013.

2006-2009

University of London.

Bachelor of Laws (LLB)

2007

Certificate in Project Cycle Management

2000-2004

University of the West Indies, St. Augustine.

BSc Electrical & Computer Engineering

Majored in Telecommunications and Power System

1999-2000

Naparima Boys College

Advanced Level Subjects

4 passes

1992-1999

Couva Government Secondary

O'Level Subjects
7 passes

- Awards received
- Research Officer, United National Congress National Executive
2010 – Present
 - President of Guild of Students, UWI , St. Augustine
2003-2004
 - Manager UWI cricket team
2004
 - Recipient of Association of Professional Engineers of T&T bursar
2003
 - Football – Semi Professional Football League of T&T
2003-2004.
 - President Engineering Students' Society
2002-2003
 - Football – UWI Inter Campus Games Football Team
2003
 - Recipient of Extra – Curricular bursary from UWI
2002
 - Year 2 Representative
Engineering Students' Society
2001-2002.

Technical Skills

Power Systems :- Transformers, Generation, Distribution, 3 Phase Motors, DC Motors, Synchronous Motors.

Software Programming :- C+ + , Matlab, MPLAB, Visual C, Power World Simulation Software, Microprocessor Programming, Microsoft Office.

Digital Control Systems :- Working knowledge of DCS as well as PLC systems.

Safety Standards :- OSHA (Occupational Safety and Health

Standards For General Industry)

References

Professor Clement Sankat
Principal,
University of the West Indies,
St. Augustine.
Tel: 662-2002
Email: principal@sta.uwi.tt

Dr. Fernando Castellanos
Lecturer
Department of Electrical and Computer Eng.
Tel: 662-2002 ext. 3147
Email: fcastellanos@eng.uwi.tt

Hitesh Mehra
Senior Project Engineer
PROMAN AG (TRINIDAD) LTD
Tel: 620-4648

S.K. Jadoonanan
Project Engineer
Franklyn & Errol Electrical Service
Siparia Erin Road, San Fernando
Tel: 751-8181

Executive Leadership Team;

BIOGRAPHIC SUMMARY - KHALID M. HASSANALI
President/CEO, PETROTRIN

Mr. Hassanali has over 37 years of experience in numerous positions in the local energy and industrial development sector.

He graduated with a BSc. Degree in Mechanical Engineering from the University of the West Indies in 1974 and went on to attain a Diploma in Engineering from Queen Mary College and an MSc. at the Distinction level in Systems Planning and Optimisation from the University of London in 1975. During his professional life, Mr. Hassanali also earned a Bachelor of Laws (LL.B) Degree from the University of London in 1994.

In December 1975, Mr. Hassanali joined a Petrotrin predecessor company, Trinidad-Tesoro Petroleum Company as a trainee engineer. Over the years, he expanded his expertise and held several key positions within the organization, also serving on secondment to Trinmar Limited, the National Energy Corporation of Trinidad and Tobago Limited and Evolving TecKnologies and Enterprise Development Co. Ltd (eTecK). Some key positions held at Petrotrin include Production Superintendent Marine; Senior Projects Engineer, Chief Engineer Trinmar; Manager Strategic Planning; Corporate Support Administrator; Corporate Planning Manager; Vice President Corporate Administrative Services; Vice President, Planning and Technology, Vice President Human Resources & Corporate Services and Acting President/CEO on at least twelve (12) occasions.

A former First Vice President of the South Trinidad Chamber of Industry and Commerce, Mr. Hassanali has served as a member of the Board of Point Lisas Industrial Port Development Corporation Ltd (PLIPDECO), Metal Industries Company Ltd. (MIC), NIHERST and ANSA McAL Chemicals Ltd. He is also a previous Member of the National Insurance Appeals Tribunal and Boards of various Charitable Organizations. In October 2003, Mr. Hassanali joined the Management of eTecK as a Vice President/General Manager and was later appointed President/CEO for the period 2005 to 2008.

He was in early 2000 appointed a part-time member of the Telecommunications Advisory Team which went on to create the Telecommunications Authority of Trinidad and Tobago (TATT). He was initially appointed a member of the Board of TATT and went on to become Chairman of the Board. He was also Chairman of Vanguard Hotels Limited and Chairman of the e-Government Task Force which completed a framework development plan based on the successful Singapore model. In December 2012, Mr. Hassanali joined the Board of The National Gas Company of Trinidad and Tobago Limited.

As Chairman of TATT, he spearheaded the liberalisation of the local telecommunications environment to one that would be globally cost competitive with the availability of state-of-the art services.

Having worked for the past thirty-seven (37) years in some twenty-six (26) positions of increasing responsibility in both Energy and non-Energy operations, Mr. Hassanali has developed experience and competence in Leadership, General Management, a proficiency in Cost & Efficiency Improvement, Organisational Transformation, Business Development, Corporate Planning, Petroleum Production Operations, Project Management, Collective Bargaining & Industrial Relations, International Marketing, Information Technology, Telecommunications, Negotiations and Mediation.

June, 2013

Resume - KHALID M. HASSANALI

Petroleum Company of Trinidad and Tobago Limited (PETROTRIN),

Pointe a Pierre, Trinidad. W.I.

(868) 658-1902 (Office) Email: Khalid.hassanali@petrotrin.com

Contents	Pages
1.0 PROFESSIONAL EXPERIENCE	2
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1.0 **PROFESSIONAL EXPERIENCE**

Possess a broad-based and diversified Executive, Department Management and Professional background, having held some twenty-six (26) positions of increasing responsibility over a thirty-six (36) year period to date, in the energy and energy based, and industrial development industries. Has a demonstrable track record from both leadership and functionary perspectives as an innovative problem solver and effective agent of change and development.

1.1 **EXECUTIVE POSITIONS (10)**

Position	Company	Year
President/CEO at Present	Petrotrin	May 2012
Vice President Human Resources (Ag)	Petrotrin	April 2011 - April 2012
Vice President Planning & Technology	Petrotrin	Jan 2009 – April 2012
President/CEO	e Teck	June 2005 - Sept 2008
Vice President/General Manager - IES (secondment)	e Teck	October 2003 – May 2005
Acted as President and CEO on >12 occasions	Petrotrin	
Vice President, Corporate Administrative Services	Petrotrin	May 2002 – Sept 2003
Executive Manager Corporate Administration	Petrotrin	1999 - 2002
Executive Manager, Support Services	Petrotrin	1998 - 1999
Divisional Manager, Corporate Services	Petrotrin	1994 - 1998
Corporate Planning Manager	Trintopec	1992 - 1993

*Note: Trintopec - Trinidad & Tobago Petroleum Company Limited
T'dad-Tesoro - Trinidad-Tesoro Petroleum Company Limited*

1.2 **DEPARTMENTAL MANAGEMENT POSITIONS (7)**

Position	Company	Year
Corporate Support Administrator/Assistant to Managing Director	Petrotrin	1993 - 1994
Manager - Strategic Planning	Trintopec	1989 - 1993
Senior Projects Engineer (Special Projects),	Trintopec	1987 - 1988
Chief Engineer	Trinmar Ltd	1987
Engineering Services Superintendent	Trinmar Ltd	1986
Manager - Engineering Services	Trintopec	1985 - 1986
Materials Superintendent	T'dad-Tesoro	1984 - 1985

1.3 OTHER POSITIONS IN A PROFESSIONAL CAPACITY (9)

Position	Company	Year
Production Superintendent (Marine) at Galeota Field	T'dad-Tesoro	1983
Senior Projects Engineer - (Special Projects)	T'dad-Tesoro	1982
Senior Mechanical Engineer	T'dad-Tesoro	1981
Projects Engineer (Special Projects)	T'dad-Tesoro	1979 - 1981
Projects Officer (secondment)	NEC of T'dad & T'go/General Electric Company	1980 - 1981
Projects Engineer	T'dad-Tesoro	1979
Assistant Engineer	T'dad-Tesoro	1977 - 1978
Trainee Engineer	T'dad-Tesoro	1975 - 1977

1.4 BOARD/COMMITTEE MEMBERSHIPS

Position	Company/Committee	Year
Member	The National Gas Company of Trinidad and Tobago Limited	2012
Chairman	e-Government Task Force	2008 - 2008
Chairman	Vanguard Hotels Limited	2006 - 2008
Member	National Spatial Strategy Committee	2006 - 2007
Member of Board of Directors	National Institute of Higher Education Research Science Technology (NIHERST)	2006 - 2008
Chairman	Telecommunications Authority of Trinidad and Tobago	2005 - 2008
Deputy Chairman	Telecommunications Authority of Trinidad and Tobago	2003 - 2005
Member of Board of Directors	Metal Industries Company	2003 - 2005
Member of Board of Directors	ANSA McAL Chemicals Limited	2002 - 2005
Member of Board of Directors	The Towers Limited	2001 - 2011
Member of Board of Directors	Telecommunications Authority of Trinidad and Tobago	2002 - 2003
Member of Trinmar Operating Committee	Trinmar Limited (Petrotrin)	2001 - 2003

Member, Telecommunications Advisory Team	Ministry of Science, Technology and Tertiary Education	2000
Mediator	PTSC/Maxi Taxi Association	2000
Member of Board of Directors	Halfway House San Fernando	1987
Member	San Fernando Task Force for Social Care	1987
Member (Business Nominee)	National Insurance Appeals Tribunal	1985 - 1988
Member of Board of Directors	Chamber of Trade and Cooperation Trinidad and Tobago/Venezuela	1986 - 1987
First Vice President	South Trinidad Chamber of Industry and Commerce (STCIC)	1986 - 1987
Second Vice President	South Trinidad Chamber of Industry and Commerce	(1984 - 1986)
Appointed Trinidad-Tesoro representative and then elected as member of Management Council	South Trinidad Chamber of Industry and Commerce	1983
Senior Advisor	Junior Achievement Programme	1983

1.5 KEY ACCOMPLISHMENTS IN VARIOUS ORGANIZATIONAL FUNCTIONS

Petroleum Company of Trinidad and Tobago Limited: Planning and Technology

- Oversaw preparation of Petrotrin's 2009-2014 & 2012-2016 Strategic Plans
- Improved the project delivery for the Refinery Clean Fuel Projects - Isomerisation Unit, CCR, Acid/Alkyl, FCCU and ULSD.
- Simultaneously held the positions of VP Planning & Technology and VP Human Resources Ag.

Evolving TecKnologies and Enterprises Development Company (eTeck)(on Secondment)

- Promoted a new economy for Trinidad and Tobago (T&T) by fostering sustainable industrial and economic development of industrial sector through diversification of the production and export base
- Light Industrial Park Development and Management – 20 Parks with 500+ tenants
- Ownership, Development & Management of Tamana Intech Park
- Management of the lease operatorship for the T&T Hotels operated by Hilton International including rationalisation of responsibility for operations of both Hotels and renovation/repairs

- Branding T&T as a destination for investors including the development of promotional strategy

Change/Transformational Management – General

For PETROTRIN's transformation, lead initiatives mainly in Exploration & Production, Human Resources Management and Information Technology & Telecommunications.

- Having been appointed as Trintopec's Creative Cost Improvement Coordinator participated and managed study teams, resulting in a 20% reduction in overall company operating cost over 3 years.
- Facing low company profitability was appointed Chairman of a team to transform organization of production operations, resulting in corporate stabilization and growth during \$10/BBL period.
- Has been trained as a Creative Cost Improvement (CCI) Coach and has functioned as such within the Training Department

Production Operations

- In order to avoid the shut in of mature low producing wells with high unit cost in Trintopec fields, led negotiations to develop contracts with lease/farmout operators, all of which were successfully implemented (1990).
- Project Engineering and Implementation for Thermal Recovery Infrastructure
- Has performed annual economic reviews of drilling and workover operations resulting in increased Enhance Oil Recovery (EOR) operations
- Has performed numerous feasibility studies for the development of new fields from seismic to development drilling resulting *inter alia* in the development of the South East Coast Consortium (SECC) and the Reverse L Block

Business Development

- On secondment to National Energy Corporation of Trinidad & Tobago for diversification of economy, worked on joint-venture feasibility study for Aluminium Industry.
- Participated in smelter and downstream plant studies, including soliciting joint-venture interest, implementation of which was postponed.
- High cost of Medical, EAP and HSE services was mitigated by extending to outside corporate clients.

Corporate Planning

- Owing to low success rate of new project initiatives, started a formal capital portfolio selection system as an integral part of the annual budget process. Improvements resulted in project ranking, corporate resource allocation.
- Corrected short-term company outlook by institutionalization of Strategic/Business Planning and Corporate Performance Monitoring. Result was greater focus on company viability.
- Led preparation of both Trintopec and PETROTRIN first formal strategic plans resulting in a change of culture towards strategic thinking.

- Developed with another a Computerised Planning Model using Fortran programming to produce Company Annual Earnings and Cash Flow Statements and Balance Sheets

Information Technology and Telecommunications

- Oversaw the implementation of an integrated computerized network throughout all fields in south Trinidad, thereby providing instantaneous communications and more economical centralized data and system controls.

Contracts Administration

- Following problems of inconsistent tendering practices, was involved in the redrafting and updating of tenders and contracts policy, procedure and training resulting in greater efficiency and transparency of the process.

Health, Safety, Environment & Quality

- Following the passage of the Environmental Management Act, implemented management systems to facilitate compliance.
- Moved PETROTRIN from a pure safety culture to one of HSE through development of an appropriate department structure resulting in improved stakeholder relationships.

Enterprise-wide Business Information Services

- Installed on time and within budget the SAP R/3 system modules; Accounts Payable, Accounts Receivable, Controlling, Materials Management and Plant Maintenance, to improve financial analysis, process efficiency and reduce cycle time.
- Installed GreatPlains at eTeck

Human Resources

- Resolved many crises when the company's operations were shut down for Industrial Relations issues.
- Completed labour negotiations with 4 bargaining units in 1 year, as company chief negotiator. This performance was unprecedented.
- Resolved 102 long outstanding grievances with 3 unions in 5 months, having been placed on a special assignment. This performance was also unprecedented and saved some \$6MM.
- Implemented the balanced scorecard management system thereby improving the co-relationship between individual and corporate performance.
- Implemented an internet based deliverables oriented performance management system at eTeck

Projects and General Engineering

- Improved the efficiency of sustaining and growth capital projects implementation, instituted a projects office.

Security

- Implemented a study of industrial, facilities and administrative security concerns and thorough organization restructuring, expecting to reduce security cost.

Medical and Employee Assistance Programme Administration

- Implemented the business development of these two services, personally marketing in many instances, resulting in \$1MM external earnings for Medical during a year.
- Outsourced EAP as a separate company, which is still in the development phase.

Corporate Legal

- Led company team to successful arbitration and dispute settlements with third parties.

International Marketing of Crude Oil

- Improved by 100% the pricing of Galeota crude oil exported by Trintopec through direct negotiations with refiners and brokers.

Central Services/Facilities Management

- Created the Lakeview's Workers' Cooperative as a profitable enterprise, thereby avoiding loss of employment for some 20 workers through outsourcing of PETROTRIN's catering facilities

Finance

- Owing to low oil prices and reduced profitability of Trintopec, developed and made presentations for Chairman to Cabinet Committee to revise petroleum tax structure to provide fiscal incentives for new oil. Proposals were adopted and implemented by Government.

2.0 PAPERS/PUBLICATIONS

- Youth Opportunity Creation (May 1988), presented at South Chamber Week
- Factors Affecting Crude Oil Prices in the International Petroleum Market, presented at SPE Conference, (April 1988)
- Tourism in Trinidad and Tobago (1986), written for STCIC and published in daily newspapers
- Materials Management in a Modern and Local Petroleum Industry (1986), presented at SPE Conference
- Long-Range Planning of Oil Refineries in Trinidad and Tobago (1975), Thesis prepared in partial fulfillment of M.Sc. (Systems Engineering) Degree from the University of London, England. Accepted at Distinction Level.

3.0 EDUCATION AND TRAINING

3.1 QUALIFICATIONS

Year	Degree	Institution	Specialization
1994	LL.B,	University of London	Law
1975	M.Sc., Distinction Level*	University of London	Planning and Optimization
1975	Diploma	Queen Mary College	Engineering
1974	B.Sc.	UWI	Mechanical Engineering

*Thesis - Long-Range Planning of Oil Refineries in Trinidad and Tobago

4.0 PROFESSIONAL AFFILIATIONS

Organization	Membership Status
Association of Professional Engineers of Trinidad and Tobago	Member
Society of Petroleum Engineers of AIME	Former Member
American Institute of Industrial Engineers	Former Member

5.0 EXTRACURRICULAR ACTIVITIES AND INTERESTS

- Harmonica Player
- Outdoor activities, physical fitness
- Social work
- Former Violin and Trumpet player
- Former Cub Scout, Boy Scout
- Past Member of Queen's Royal College Jazz Club, Karate Club and Rugby Team

Mado Bachan – Vice President Refining and Marketing
3 School House Lane, Pointe-a-Pierre, Trinidad, West Indies
(868) 658-1204 (office), (868) _____ (home), (868) _____ (c)

EDUCATION:

- Masters of Applied Science (1986)
Industrial Engineering (Major: Operations Research)
University of Windsor
Windsor, Ontario, Canada
- Bachelor of Science (First Class Honours) (1982)
Chemical Engineering
University of the West Indies
St. Augustine, Trinidad

CAREER PATH:

- Trainee Petroleum Engineer (1982 August - 1984 August) – Trinidad-Tesoro Petroleum Company Limited.
- Study Leave to pursue post graduate studies in Canada under a Commonwealth Scholarship (1984 -1986)
- Assistant Petroleum Engineer (1987 January - February 1987) - Trintopec
- Assistant Petroleum Engineer (Special Projects Group) (1987 March - 1988 February) - Trintopec
- Projects Engineer (1988 March - 1989 March) - Trintopec
- Planning Analyst (1989 April - 1992 October) - Trintopec
- Senior Planning Analyst (1992 November - 1993 June) - Trintopec
- Executive Assistant to Divisional Manager, Marketing and Business Development (1993 July - 1997 June) - Petrotrin
- Executive Assistant to Divisional Manager, Refining and Marketing (1997 July - 1998 June) – Petrotrin
- Crude Purchasing and Processing Manager (1998 July - 2008 January) - Petrotrin
- Senior Manager, Marketing and Trading (2008 February – 2011 May) - Petrotrin
- Vice President, Refining and Marketing (2011 June – Present) - Petrotrin

PROFESSIONAL EXPERIENCE:

- International trading of petroleum
- Pricing of energy commodities
- Strategic planning for both upstream and downstream
- Operational planning for both upstream and downstream

PROFESSIONAL EXPERIENCE (continued):

- o Contract negotiations for oil and gas
- o Supply chain economics (Refinery Economics)
- o Project evaluation
- o New business development
- o Petroleum/Reservoir Engineering

INDUSTRY KNOWLEDGE:

- o Strong working knowledge of the operations and fiscal structure of the domestic upstream, downstream and retail sectors - by participation in Industry Committees set-up by the Government.
- o In-depth understanding of the International Energy Markets.
- o Director of Lake Asphalt of Trinidad and Tobago (1978) Ltd. between 1998 February to 2000 February.

COMPETENCIES/SKILLS:

- o Strong communication skills
- o Problem solving
- o Negotiation
- o Business Acumen
- o Planning, organising and leading

LEADERSHIP STYLE:

- o Results-oriented – proven track record
- o Open door
- o Passion for excellence
- o Decisive and focused
- o Ethical
- o Business oriented
- o Lead by example and follow-up

AWARD:

- | | |
|------|--|
| 1984 | Canadian Commonwealth Scholarship to pursue a Masters degree in Industrial Engineering at the University of Windsor, Ontario, Canada |
| 1981 | FedChem Bursary |

COMMUNITY CONTRIBUTION:

- Served as the Chairman of the Parent Action Committee (PAC) of Naparima Girls' High School for 6 years (2000-2006). Provided planning, organising and leadership to this organisation. Highlight of achievement: purchased a 25-seater school bus via fund raisers.

PERSONAL:

Date of Birth : 1959 September 25
Place of Birth : Trinidad
Status: Married with two children

CURRICULUM VITAE: JAMALUDIN KHAN (As at 2013 June)

Personal Information

Name : Jamaludin Khan
Date of Birth : 1956 January 06
Age Last Birthday : Fifty-Seven (57) Years

Company Affiliations

- 1979 July to Present : Petroleum Company of Trinidad and Tobago Limited (Petrotrin) and its predecessor constituent company, Trinidad and Tobago Petroleum Company Limited (Trintopec)/Trinidad Tesoro Petroleum Company Limited
Petrotrin is an Integrated Oil and Gas Company
- 1974 October to 1976 September : Texaco Trinidad Inc.
-

Positions Held

- 2012 July to Present : Vice President Exploration and Production Exploration and Production (E&P) Division
- 2011 December to 2012 June : Senior Manager Exploration and Development Exploration and Production (E&P) Division
- 2004 October to 2011 November : Manager Enhanced Oil Recovery and Reserves Exploration and Production (E&P) Division (Later renamed Manager Reservoir Engineering)
- 2002 June to 2004 September : Reserves and Asset Monetisation Manager Exploration and Production (E&P) Division
- 1998 May to 2002 May : Team Leader: Business Support Unit Exploration & Production (E&P) Division
- 1992 June to 1998 April : Senior Petroleum Engineer
- 1989 mid – year : Senior Planning Analyst (Ag.) (Special Projects)
- 1979 July to 1992 May : From entry level to Engineer level positions in Petroleum/Reservoir Engineering Department
- 1974 October to 1976 September : Student Technician (Texaco Trinidad Inc.)
-

Publications (as Author/Co-Author) International

- 1995 : SPE Annual Technical Conference and Exhibition (ATCE), Dallas, Texas, USA
- 1994 : SPE III Latin American and the Caribbean Petroleum Engineering Conference (III LACPEC): Buenos Aires, Argentina
- 1992 : SPE/US DOE Thermal Recovery Symposium: Tulsa, Oklahoma, USA

- 1990 : INGPET, Lima, Peru
- 1989 : II SIREMCRU (Two (2) Papers):
Maracaibo, Venezuela
- 1987 : I SIREMCRU (Two (2) Papers):
Maracaibo, Venezuela

Trinidad and Tobago Conferences and Caribbean Journals

- 1985 to 1992 : More than ten (10) technical papers published and presented at local technical conferences and Caribbean journals

Professional Service

- 2009 January : Deputy Chairman: Trinidad and Tobago Centennial National Petroleum Awards Committee
- 2003 October - 2004 September : Society of Petroleum Engineers(SPE) International Chairman: Anthony F. Lucas, John Franklin Carll and Lester C. Uren Awards Committee
- 2002 October - 2003 September : Society of Petroleum Engineers(SPE) International Member: Anthony F. Lucas, John Franklin Carll and Lester C. Uren Awards Committee
- 1999 October - 2002 September : Society of Petroleum Engineers(SPE) International Member: Board of Directors (Global)
Regional Director : South America and the Caribbean
- 2001 October - 2002 September : Society of Petroleum Engineers(SPE) International Chairman: SPE International Board Publications Committee
Member: SPE International Board Audit and Administration Committee
- 1999 October - 2002 September : Society of Petroleum Engineers(SPE) International Member: Board Task Forces: Governance, Inter-Society Collaboration and e-SPE, inter alia
- 1997 - 2000 : Society of Petroleum Engineers(SPE) International Cedric K. Ferguson Medal Award Committee
Member: 1998 – 2001 Chairman: 2000
- 1998 - 2001 : Society of Petroleum Engineers(SPE) International International Membership Committee
Member: 1998 – 2001 Chairman: 2001

- 1996 April : Society of Petroleum Engineers(SPE) International Chairman : SPE IV Latin American and the Caribbean Petroleum Engineering Conference (IV LACPEC) Port of Spain, Trinidad, West Indies
- 1993 June - 1999 September : Director: SPE Trinidad and Tobago Section
- 1992 July - 1993 June : Chairman: SPE Trinidad and Tobago Section
- 1986 - 1989 : Trinidad-Tesoro Petroleum Company Limited Representative on Trinidad and Tobago's Joint University-Industry Committee

Awards and Scholarships

- 2001 : Kermitt Walrond Award for Outstanding Service to SPE, Trinidad and Tobago Section: Port of Spain, Trinidad and Tobago
- 1997 : SPE Century Award for recruiting one hundred (100) SPE Members (Life Membership Award): San Antonio, Texas, USA
- 1996 : SPE Regional Service Award for outstanding Leadership at SPE's IV LACPEC Port of Spain, Trinidad
- 1982 : Trinidad-Tesoro Petroleum Company Limited: Post-Graduate Scholarship in Petroleum Engineering: University of Tulsa, Tulsa, Oklahoma, USA
- 1978 : Trinidad-Tesoro Petroleum Company Limited: Undergraduate Scholarship in Mechanical Engineering: University of the West Indies, St. Augustine, Trinidad, West Indies

Teaching Assignments

- 2007 June – 2007 September : Lecturer: EVAL 464: Evaluation of Oil and Gas Projects – Department of Energy Studies, University of Trinidad and Tobago (UTT)

Hobbies

Reading, Music, Tennis, Cricket, Distance Walking/Running, Hiking

2013 June

KEITH RAMNATH

keith.ramnath@petrotrin.com
11 Bon Accord Road
Pointe-a-Pierre, Trinidad

PROFESSIONAL PROFILE

- ◆ Senior-level management professional with 25+ years of management and consulting experience across a variety of industries
- ◆ Creative change agent with demonstrated success in leading HR and IT Transformation initiatives to re-define organizational culture, drive process improvements, enhance effectiveness, and reduce costs
- ◆ Experienced project manager with more than 14 years of demonstrated success in leading technology initiatives to enable organizational transformation
- ◆ Entrepreneurial and performance driven leader who has led Human Resources, Information Systems, Industrial Relations, Health and Safety, Medical Wellness, Facilities Management, Security and Finance functions, as well as created successful business ventures
- ◆ Experienced manager who has led departments of 900+ employees and managed annual budgets of US\$50+ million, as well as project teams of 45+ members and project budgets of up to US\$18 million
- ◆ Proven expertise in developing a collaborative industrial relations
- ◆ Strong reputation and track record as a results oriented leader who is a developer of people and builder of high performing teams

AREAS OF EXPERTISE

- | | | |
|--------------------------------------|---|------------------------------------|
| ◆ HR and Organization Transformation | ◆ Negotiation and Collective Bargaining | ◆ BPO Advisory |
| ◆ Technology Integration | ◆ Change Management | ◆ Leadership and Staff Development |

HR and ORGANIZATION TRANSFORMATION

Pragmatic and multi-disciplinary approach to transformation that utilizes my broad HR functional experience, technology and consulting expertise; selected experiences include:

Global HR Assessment and Process Design for a leading Oilfield Services company

- ◆ Led an assessment of the company's global administrative function and the design of standardized global processes. In scope countries included the U.S., Mexico, Brazil, France and Angola.

Technology Strategy for merging organizations forming the world's largest oil and gas drilling company

- ◆ Facilitated pre-merger workshops to identify Day 1 ERP system requirements and other related critical path items. Workshops identified key decisions, dependencies, assumptions and other critical factors to ensure a successful merger. Developed process and technology focused post-merger blueprints and roadmaps.

HR Strategy for a leading U.S. power producer

- ◆ Led the assessment and retooling of the company's HR strategy and developed a roadmap to enable the company's new vision and focus after emergence from bankruptcy.

HR and IT Re-structuring for a global Direct Marketing industry leader

- ◆ Developed and implemented a Transformation strategy that involved centralization of functions and processes, adoption of a new ERP system, adoption of a performance management system based on critical success factors, selective outsourcing, re-structuring of employee benefit plans, aggressive safety and return to work programs, and increased emphasis on market and performance driven compensation. Transformation initiative

resulted in a 40% reduction in the cost of providing HR services and enhanced effectiveness of the HR function, as well as enhanced availability of information for management decision making.

Human Resources Strategy for a start-up U.S. vending technology industry consolidator

- ◆ Developed a strategic plan to facilitate integration of acquired companies for an organization that was attempting to consolidate an industry through acquisitions and the application of newly developed technology. Served as a member of the executive management committee to obtain growth financing and presented the strategy to Venture Capital firms.

HR Service Delivery and Technology Assessment for a leading global pharmaceuticals company

- ◆ Conducted an assessment of the company's global technology and HR service delivery strategy. Provided options for migration towards a more common global service delivery model and technology platform, as well as recommendations for alternative technology and service delivery strategies.

Industrial Relations strategy for a global direct marketing and manufacturing company

- ◆ Led the development of the negotiating strategy and the actual conduct of negotiations with the Teamsters union in the face of a planned strike in reaction to the company's outsourcing of jobs. Negotiated a multi-year agreement with the Teamsters and developed new management strategies which created a more collaborative industrial relations climate.
- ◆ Provided advice to clients on collective bargaining negotiating strategies.

Global Payroll Strategy for a major life Sciences company

- ◆ Developed a global Payroll strategy for a post-merger organization of 100,000+ employees operating in 90 countries.

Process Re-engineering for a Telecommunications company faced with de-monopolization of the market

- ◆ Led the assessment and reengineering of the Financials, Supply Chain and Human Resources systems and processes based on instituting "leading practices" and maximizing the use of its existing ERP systems.

Health and Safety culture transformation of a global direct marketing and manufacturing company

- ◆ Led the complete overhaul of the company's Health and Safety function by developing accident prevention and reporting programs, return to work initiatives and creating a culture focused on employee wellness.

TECHNOLOGY INTEGRATION

Over 14 years of experience utilizing technology to enable organization transformation; deep expertise in conducting project quality and risk assessments; implemented technology solutions for companies ranging in size from 2,000 to 300,000 employees; selected experiences include:

Technology Risk and Readiness Assessment for one of the leading global Telecommunications companies

- ◆ Conducted a Go-Live Risk and Readiness Assessment for the implementation of a company-wide ERP system focused on Organization and Application/Software readiness, including functionality, data conversion, testing, user readiness and adherence to specifications. Developed risk mitigation strategies.

HCM system implementation for one of the world's largest industrial conglomerates

- ◆ Managed the largest implementation (at that time) in PeopleSoft's history, with a team of 5 project managers, 35 consultants and a US\$18 million budget.

HCM system implementation for a global leader in the manufacture of systems for the oil and gas industry

- ◆ Integrated acquired company's global HR and Payroll processes and systems into acquiring company's Oracle HCM *v11i*.
- ◆ Provided guidance on the development of a global HR data and Payroll strategy which facilitated a significant increase in data quality and global reporting capabilities.

BUSINESS PROCESS OUTSOURCING ADVISORY

Deep understanding and multi-faceted view of HRBPO gained from experience as a client and buyer of services, as a vendor and an independent advisor; selected experiences include:

BPO Contract Renegotiation Advisory for a global health service company

- ◆ Led team conducting an analysis of company’s operational, technology, security and information privacy requirements to determine consistency with leading BPO.
- ◆ Developed decision framework for company to determine if it should continue with current service provider.
- ◆ Developed roadmap for RFP development through vendor selection and solution implementation.

Global HRBPO Assessment for a leading global pharmaceuticals company

- ◆ Conducted an assessment of the company’s global HRBPO arrangement to determine the root causes of internal stakeholders dissatisfaction and viability of terminating the contract. Identified solutions to alleviate the current problems and minimize the occurrence of future issues.

HR Outsourcing Strategy for a leading independent power producer

- ◆ Developed a high level service delivery model, including identification of processes that should be outsourced/in-house and centralized/decentralized, and recommendations on technology and tools.

Benefits Administration In-sourcing for a global manufacturer of systems for the oil and gas industry

- ◆ Led the implementation of an internal Benefits Service Center and supporting technology to facilitate the bringing in house of a company’s outsourced processes. Designed the processes and call flows.

EMPLOYMENT HISTORY

Vice President, Human Resources & Corporate Services, Petrotrin; 04/12 - Present
Responsible for the Human Resources, Information Technology, Security, Medical and Facilities & Property Management functions; focus is on transforming Petrotrin’s culture to one of high performance and accountability.

Lead Partner, Consulting & Enterprise Risk Services, Deloitte & Touche Trinidad & Tobago; 09/2010 –02/2012
Responsible for start up and development of the firm’s Consulting and Enterprise Risk Services practices; also responsible for the firm’s internal Human Resources and Marketing functions.

Senior Manager, Deloitte Consulting, LLP; Houston, TX; 09/2006 – 09/2010
As part of the HR Transformation consulting practice, responsible for identifying business opportunities, developing and implementing HR Transformation and Technology strategies to meet needs of clients.

Managing Partner, Meridian Consulting Group, Malvern, PA; 11/2001 – 9/2006

Program Manager – Services Delivery, PeopleSoft, Teaneck, NJ; 06/2000 – 11/2001

Consultant & Owner, Benchmark Management Services, Exton, PA; 12/1996 – 06/2000

Vice-President, Human Resources, Real Time Data, Wayne, PA; (contract position) 09/1998 – 01/2000

Director of Human Resources, The Franklin Mint, Wawa, PA; 1988 – 1994 and 1995 – 12/1996

**Director of Human Resources, Security, Safety and Facilities Administration
Director, I.S. Finance, Administration & End-User Services
Manager, Information Systems Human Resources**

EDUCATION

- ◆ **M.S., Management,** Purdue University; West Lafayette, IN, USA
- ◆ **B.A., Psychology,** York University; Toronto, Canada

Hemraj Ramdath
#2 Schoolhouse Lane
Pointe-a-Pierre

(h); (c)
Email: hramdath@yahoo.com

Profile:

- Twenty five years senior experience in development & implementation of Business Plans & relationship management.
- Exceptional marketing professional with multi channel brand building skills.
- Twelve years of Strategic Leadership within Global Cross Functional teams.
- Proven experience in Strategic Management and Business Development in 26 countries.
- Expertise in building stakeholders value in a sustainable and responsible manner.

Core Competencies

- Business Strategist
- Strategic & talented thinker
- Environmentalist
- Change manager
- Global brand architect
- People development & alignment.
- Supply chain distribution management
- Business development & negotiations

Career Highlights.

V.P Global Business Development: S.M. Jaleel & Co; Cott Beverages, 1996 to 2007, based in Toronto Canada and Miami Florida.

- √ Introduced a brand of kids' beverages to Canadian consumers by partnering with Cott Beverages Canada, under a Franchise agreement
- √ Established Franchises with major beverage bottler in Mexico, Dominican Republic and Detroit as well as negotiated contract packing in St Louis, and Orlando.
- √ Defined entry strategies and reformulated ingredients and packaging to meet the taste and preferences of the North American consumers.
- √ Achieved fourfold sales growth over a five year period and outperformed the industry
- √ Co-ordinated logistical support in the supply chain, with a multifunctional staff of 14.
- √ With 8 Brand Managers and 4 Country Managers, position Chubby as the kids' soda of choice by continuous market research, kids' panels and market dynamics.
- √ Entered the Gulf States (UAE, Qatar, Oman, Dubai, Saudi Arabia) and presented the Franchise model to Iran, Bangladesh, Saudi Arabia, Panama, Costa Rica, Indonesia and Malaysia.
- √ Appointed distributors and provided in-market support for a brand of kids' beverage in USA, Canada, Dominican Republic, Mexico, Panama, Bahamas, Costa Rica, Cuba and Puerto Rico.
- √ Liaised with regulatory agencies, Government agencies, Foreign Embassies, Manufacturer Association, Consumers Affairs and customers on an ongoing basis.
- √ Achieved unprecedented brand awareness within 5 years with a creative team of talented and committed licensing partners.
- √ Prepared and assisted in the executing of marketing programs to build brand recognition and loyalty in key retail locations in Canada and USA.

- √ Defined & managed corporate presence at selected Global Trade and Industry shows.
- √ Articulated and implemented an environmental policy for water treatment & empty bottle redemption.

Country Manager / Aviation Marketing Manager (Caribbean) – Shell oil Co. 1978 to 1995, based in Trinidad and Barbados.

- √ Development and implemented strategic plans to promote the sale of Shell products via a network of 26 retailers, 12 dealers, 14 agents and 185 staff, in 23 countries, in a safe and environmentally sustainable manner.
- √ Negotiated fuelling contracts with major schedule and charter airlines operating at 23 Caribbean airports.
- √ Defined pricing strategy for fuel supplies to all major airports, seaports, retailers and consumers.
- √ Successfully became the preferred supplier of fuel and lubricants for all Caribbean regional and national airlines.
- √ Consistently achieved budgeted sales without compromising safety or any significant losses due to supply restrictions.
- √ Responsible for preparing and achieving budgets for each of 23 airport operations.
- √ Prepared and justify all Capital expenditure.
- √ Managed the joint depot arrangements in the French Caribbean with fuel partners- Texaco, Elf and Total
- √ Administered personnel policies in accordance with local laws, collective agreements and state regulations.
- √ Negotiated with workers representatives and unions for collective agreements
- √ Responsible for safeguarding Shell's assets (US\$445M) and reputation for Health, Safety and the Environment.
- √ Achieved annualized sales growth of 12% in a regulated retail and competitive industry.
- √ Introduced and built a range of Shell Branded Consumer product in 16 Caribbean counties, within the guidelines of social and environmental responsibility.

Research Officer - United Nations (Economic Commissions for Latin America), UNECLA. 1976 to 1978, based in Port Spain, Trinidad.

- √ Developed and implement statistical programs to assist Caribbean governments in analysis of their economic performance.
- √ Preparation for publications of country reports for UN publications and funding agencies (IMF, World Bank, OAS, CIDA, and UNESCO).
- √ Developed and managed a data base of Industrial infrastructure and skilled personnel in the Caribbean basin, with UNIDO funding.
- √ Liaise with all Governmental agencies, Funding agencies and local regulatory bodies to ensure all projects met all the safety, legislative, environmental and workplace specifications.
- √ Prepared and benchmark spending vs. project budgets and provide strategic directions in implementation.

Chief Commercial Officer (CCO): Banks Holdings Ltd. 2011 to 2012, based in Barbados.

- √ Undertaken a needs assessment of the B&B distribution company (Barbados) and made recommendations for its restructuring.
- √ Re-energized the management team by realignment of resources and developing a new strategic direction toward brand management and delivering superior customer service.
- √ Recommended the formal structure of the BHL commercial unit, complete with business plans and KPI benchmarks.
- √ Defined and presented the Strategic business plan for the Banks brand to Master distributors in Europe and North America for the period 2012-2015.
- √ Completed the market entry budgets and present to funding agencies (IDB, CDB, and EU) and government (BIDC) seeking grant funding for market assistance.
- √ Registered and communicated to retailer brands and private label companies that the BHL group of companies have co-packing capabilities in the beverage category.

Managing Director: Lasco Barbados Ltd., 2010 to 2011, based in Barbados

- √ Team member for completion of the due diligence and finalization of the purchase by new owners.
- √ Developed and implemented a new strategic plan towards a more balanced portfolio for Consumer and Pharmaceutical products, to return to profitability.
- √ Negotiated the distribution rights and marketing plans for a range of new consumer/health & beauty products from major suppliers in USA, Canada and UK.
- √ Increased staff compliment and realigned the organization to maximize productivity and resource development.
- √ Managed a staff component of 40 in a non unionized environment, 5 sales contractors and 6 independent transport suppliers.
- √ Developed strategies to transform the company into a dominant and reliable supplier by successfully implementing supply chain management to better manage inventory, increase sales and rebuild credibility.
- √ Responsibility for all pricing strategies and costing to achieve maximum returns on capital employed and increased shareholders value.
- √ Introduced Safety and Good Corporate Governance as an integral part of doing business.

Chief Executive Officer: Bico Ltd., 2010 to 2010, based in Barbados

- √ Developed and implemented a 5 year strategic plan and entry strategy for the Bico brands of ice creams and impulse products in the Caribbean Basin, Canada and United Kingdom.
- √ Negotiated supply sources of products and packaging including Nestle USA, Unilever UK, Flavorite Trinidad, Bon Dominican Republic and Scotsburn of Canada.
- √ Managed the staff component of 90 in a unionized environment (BWU) plus 20 independent contractors/mobilers and 8 suppliers.
- √ Negotiated with staff and their representatives, revised terms and conditions of the collective agreement, to maintain profitability in the post-fire environment.
- √ Maintain the dominant and leading market position by successfully implementing supply chain strategies to increase sales, reward loyalty and build brand equity.

Carl Anthony Mc Lean

Summary of Qualifications

Master of Business Administration (MBA)
Chartered Association of Certified Accountants (FCCA)
Chartered Institute of Management Accountants (ACMA)

Professional Experience

July 2010 – Present - Petroleum Company of Trinidad & Tobago

Manager Financial Reporting

- Define, review and direct the preparation of Financial Management Reports required on a regular basis for controlling business activities against plans.
- Review and direct the preparation of Financial Statutory Reports required on an annual basis to present a true and fair view of the Company's financial activities
- Monitor and coordinates the work relative to taxation, fixed assets, accounts payable, accounts receivable, stocks and sales accounting, joint venture accounting and payroll administration

October 2003 – June 2010 - PETROTRIN

Manager Budgets & Cost Accounting

- Assist in the development of the overall strategy, policy and standards for the company's Budget Process.
- Directs the development, collation and consolidation of the company's budget
- Directs the analysis of variances between Budget vs Actual performances to identify root causes and possible courses of action.
- Directs the collation of the company's Strategic, Business and other long-term plans.

August 1978 – September 2003 - PETROTRIN

Various accounting positions ranging from Accounts Supervisor to Senior Accountant.

- Payroll Accounting
- Pension Administration
- Accounts Payable
- Budget Accounting
- Property Plant & Equipment Accounting

Carl Anthony Mc Lean

- Joint Venture Accounting
- Financial Accounting

Academic Degrees Masters of Business Administration (majoring in Finance) – Brunel University: England

Graduate of Chartered Association of Certified Accountants: England

Graduate of Chartered Institute of Management Accountants: England

Training Courses International Petroleum Accounting

Project Accounting

Industrial Relations Management

Compensation Management

Performance Management

Directorship Member of the Green Fund Advisory Committee October 2008 – May 2010

Lecturing Part-time Lecturer in the following areas:

- Financial Accounting
- Financial Management
- Quantitative Analysis

Date of Birth December 8, 1957

Interests and Activities Lawn Tennis, Football and Steelband Management