



MINISTRY OF ENERGY



BREAKING THE DEPENDENCY

MINISTRY PAPERS
2008-2009

HONOURABLE CLIVE MULLINGS
MINISTER OF ENERGY

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INTRODUCTION

The Ministry of Energy was created in May, 2008. Along with its portfolio agencies, its responsibilities relate broadly to policy development, monitoring and regulation, research, promotion, purchasing, importation and distribution, plant operation and the implementation of programmes and projects specific to energy.

VISION, MISSION AND FUNCTIONS OF THE MINISTRY OF ENERGY

The Vision of the Ministry is that Jamaica will attain rational energy use and productivity.

MISSION STATEMENT

The mission of the Ministry of Energy is to:

- Ensure security of energy supplies at least cost and the development of alternative energy sources to promote national development. The emphasis on the development of alternative, and particularly non-fossil fuel based, energy sources is aimed at reducing the country's exposure to external shocks associated with the escalating price of fossil fuels, develop local energy sources and reduce our environmental impact linked to energy consumption
- Promote optimal/rational energy use and expansion of Demand Side Energy Management Programme
- Diversify Jamaica's energy sources and reduce our reliance on oil
- Reduce the country's high energy bill by utilizing a mix of strategies.

MANDATE

Based on the subject areas assigned, the mandate of the Ministry is to:

- Promote energy conservation and energy efficiency
- Promote renewable energy sources and industrial (petroleum) safety
- Facilitate the refining of products from crude oil and supply imported finished products for the local and export markets
- Provide inspection service for electricity installations island-wide to enable safety
- Expand electricity services to rural areas and regularize urban electrification

FUNCTIONS

The key functions of the Ministry are to:

- a. Perform an overall oversight role of the portfolio
- b. Provide policy framework to guide operations of agencies
- c. Pilot the promulgation and amendments of legislation and regulation which guide the operations of the agencies

- d. Provide strategic direction to agencies on a particular subject matter as may be necessary
- e. Form new agencies as required to address aspects of the portfolio and close agencies no longer required
- f. Set priorities and allocates financial resources to agencies accordingly
- g. Monitor performance of agencies
- h. Resolve difficult issues relating to the subject areas and agencies.

INTERNAL DIVISIONS AND PORTFOLIO AGENCIES OF THE MINISTRY

The Ministry of Energy comprises the following divisions and portfolio agencies, the core missions of which are indicated below:

INTERNAL DIVISIONS

1. **Energy** - To monitor and ensure adequate supply of energy at the least possible cost to consumers and to diversify the energy supply mix, while promoting energy conservation and safety in the petroleum sector.
2. **Electricity** - To ensure that electrical installations in the country are safe and effected consistent with the Jamaica Standards Regulations; educate the public on the importance of having electrical installations inspected and certified; and to monitor electrical installation practices with the aim of preventing loss of life and property as a result of electrical accidents.
3. **Policy, Planning and Development** – To provide policy and planning guidance and support for the Ministry and monitor policy priority areas along-side budgetary allocation.
4. **Finance and Accounts (Corporate Services)** – To prepare the budget and oversee the efficient allocation of financial resources.
5. **Internal Audit** – To ensure compliance with the Financial Audit and Administration Act (F.A.A. Act).
6. **Human Resource Management and Administration (Corporate Services)** - To coordinate and administer personnel and facilitate human resource development of staff.
7. **Communications and Public Relations** – Serves as the information arm of the Ministry.
8. **Legal** – To prepare and monitor legislation to give effect to the policies of the Ministry and agencies and to provide guidance in relation to legal matters.

EXTERNAL AGENCIES

1. Petroleum Corporation of Jamaica (PCJ)

The Petroleum Corporation of Jamaica (PCJ) formed in June 1977, is empowered by the Petroleum Act of 1979, with exclusive rights to explore for oil and develop Jamaica's petroleum and indigenous renewable energy resources. It seeks to prevent adverse effects on the environment and assist the Government in realizing the goals of the Energy Sector Policy. The PCJ also acts as the national link with state oil companies in oil producing countries.

2. Petrojam Limited

As the island's only oil refinery, the mission of Petrojam is to supply petroleum products at internationally competitive prices and quality while acting at all times in the best interests of its stakeholders.

3. Petrojam Ethanol Limited

This subsidiary of Petrojam Limited is primarily involved in the procurement of ethanol feedstock (hydrous alcohol), the dehydration of the ethanol feedstock (anhydrous alcohol) and the exporting of fuel ethanol to the United States. The ethanol plant has a capacity of 41.8 million US gallons per year.

4. Petroleum Company of Jamaica (PETCOM)

PETCOM strives to be responsive to customers' needs, profitable in its operations and socially responsible, while endeavouring to implement positive changes in the petroleum trade in Jamaica.

5. Wigton Windfarm Limited

Wigton Windfarm Limited (WWF) was formed by the Petroleum Corporation of Jamaica with the primary objectives being that of operating a wind farm and selling wind power in Jamaica.

The initial focus of WWF was the development of the first commercialized wind power plant at Wigton, Manchester. The power which it generates is being sold to the Jamaica Public Service Company at agreed prices under an executed power purchase agreement. Currently, WWF is expanding its involvement in wind-generated energy on the island.

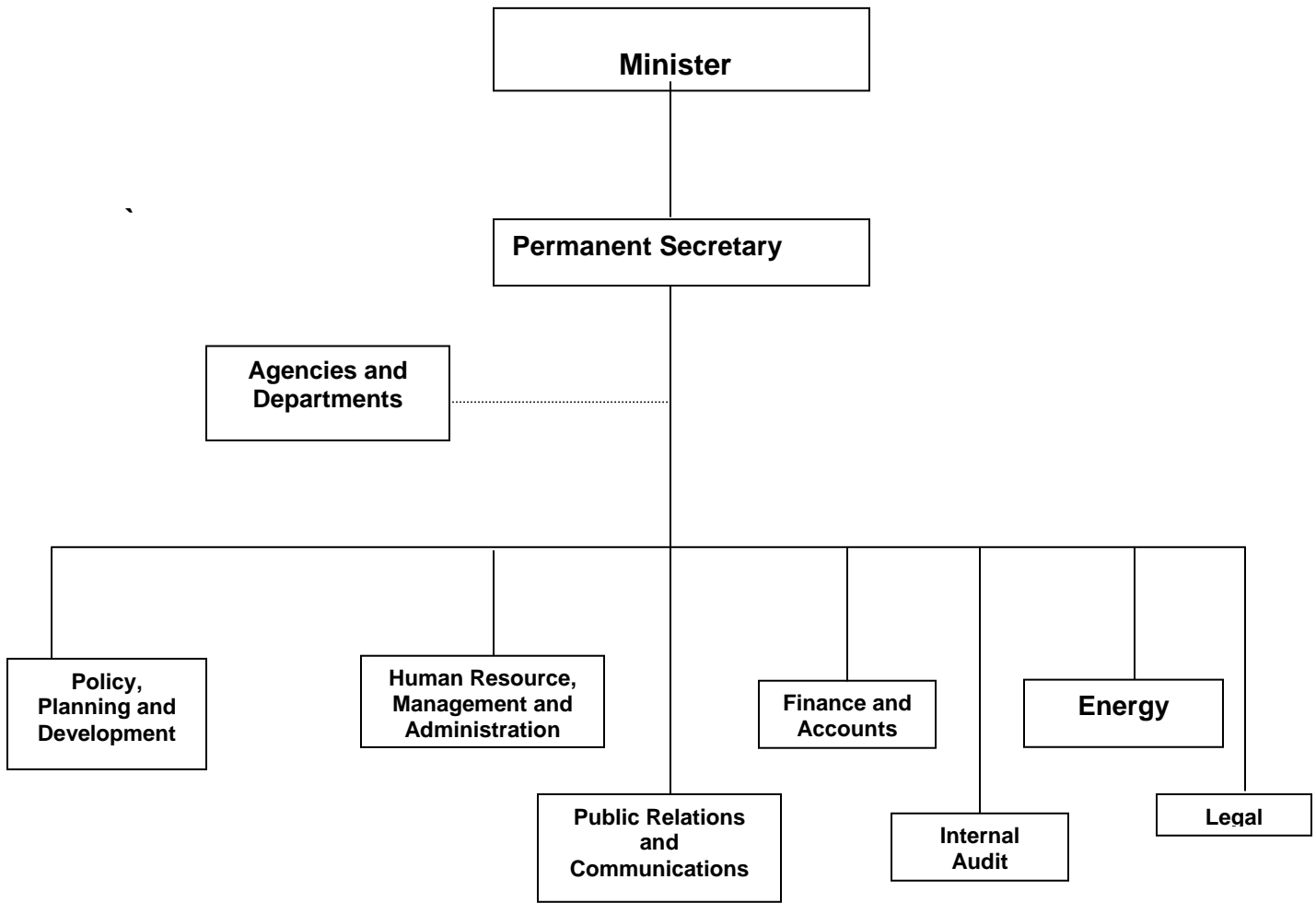
6. Rural Electrification Programme Limited (REP)

The Rural Electrification Programme sources funding for projects directly related to its mandate to provide electricity supply to rural communities in Jamaica. Recently, its mandate was expanded to include the Urban Electrification Regularization Programme.

7. Centre of Excellence for Renewable Energy (CERE)

This agency seeks to enhance the contribution of renewable energy sources to Jamaica's energy mix. Its mission is therefore to bring focus to the development of renewable energy sources; research, develop and demonstrate new technologies and methods; and collaborate with various energy stakeholders, local and foreign investors and environmental stewards.

ORGANIZATIONAL STRUCTURE



MINISTRY PAPER

**PERFORMANCE OF THE CENTRE OF EXCELLENCE FOR
RENEWABLE ENERGY
FOR THE FINANCIAL YEAR 2007/2008 AND FOCUS FOR
2008/2009.**

**PERFORMANCE OF THE CENTRE OF EXCELLENCE FOR RENEWABLE ENERGY
FOR THE FINANCIAL YEAR 2007/2008 AND FOCUS FOR 2008/2009.**

1.0 INTRODUCTION

The purpose of this Ministry Paper is to inform Parliament and the public of the work of the Centre of Excellence for Renewable Energy (CERE) and its performance for the Financial Year 2007/2008.

2.0 MISSION

CERE seeks to enhance the contribution of renewables to Jamaica's energy mix. Its mission is therefore to:

- Bring focus to the development of Renewable Energy sources;
- Research, develop and demonstrate new technologies and methods and
- Collaborate with various energy stakeholders, local and foreign investors and environmental stewards.

3.0 VISION

The vision of CERE is to support the development of Renewable Energy supporting the efforts of the Jamaican people to continuously implement innovations in Renewable Energy that are economically viable leading to sustainability, improved health, productivity and energy supply security, exceeding 15% renewables in our electricity sector capacity by 2020.

4.0 BACKGROUND

The Centre of Excellence, a division of The Petroleum Corporation of Jamaica (PCJ), was established in November 2006. The Centre's mandate is aligned to the National Energy Policy and the Petroleum Act of Jamaica.

5.0 FUNCTIONS

- Build key functional skills/capacities in Renewable Energy
- Perform pre-feasibility and feasibility studies of potential Renewable Energy projects
- Support the assessment of Renewable energy potential across Jamaica
- Perform economic analysis, costing and ranking of renewable energy options

6.0 KEY ACHIEVEMENTS FOR FINANCIAL YEAR 2007/2008

In 2007/8 CERE completed substantial work to build institutional capacity and to conduct pre-feasibility and feasibility studies to lay the foundation for additional renewable energy developments. The research and development activities conducted are outlined below:

Strategic Planning

A range of new and expansion project initiatives for wind, hydro, solar, waste to energy, and biofuels have been researched and modeled to estimate the development potentials for Jamaica. Each project component has been reviewed with regards to estimated technical and capital requirements, benefits and carbon emission reductions. Renewable energy in Jamaica has the potential to offset 392,000 barrels of oil equivalent by the year 2010, with associated fuel savings of US\$27.8 million. This information was used to develop the Corporate, Operational and Budget Plan inputs for the period 2008 – 2013.

Wind Potential

In July 2007, a Request for Proposals (RFP) for the sale of Wigton WindFarm Ltd was purchased by eight (8) interested investors. The farm was being sold to support full cost recovery by the Government and a doubling of the capacity for wind energy. No bids were received by the closing date of September 14, 2007. The development of additional wind farms in Jamaica is currently under review in coordination with the Wigton WindFarm Ltd. Negotiations on the price of energy purchased from the Wigton WindFarm Ltd. by the Jamaica Public Service Company Ltd. were initiated with the Office of Utilities Regulation in light of their September 2007 dissemination of the Declaration of Avoided Cost, the current utility avoided cost and the rising cost of oil on the world market. A document was prepared to challenge the assumptions and methods used to arrive at the Declaration of Avoided Cost.

Hydro Potential

Pre-feasibility hydro studies conducted by the United Nations Economic Commission for Latin America and the Caribbean were used to identify hydro sites for possible development. The sites identified are:

Location	Potential Capacity (MW)
Back Rio Grande	3.9
Great River	8.0
Spanish River	2.5
Negro River	1.0
Yallahs River	2.6
Wild Cane River	2.5
Morgan's River	2.3
Green River	1.4
Rio Grande	3.6
Dry River	0.8
Martha Brae River	4.8
Total	33.4

In October 2007 an invitation for Hydro Development Expressions of Interest was issued to seek interested investors. Proposals were received from three (3) interested investors who were invited to bid for the expansion of hydropower in Jamaica. Bid proposals are due in April 2008.

Solar Potential

Research on local solar irradiance levels was conducted during the period. Joint project concepts for solar installations at National Water Commission, Rural Electrification Sites and Protective Shelters were developed in collaboration with the following agencies:

- ✓ National Water Commission,
- ✓ Rural Electrification Programme Ltd.,
- ✓ Scientific Research Council and
- ✓ University of the West Indies.

The proposal to utilize solar energy to power remote locations was submitted for presentation to the Petro-Caribe for funding consideration. The joint project proposal for Protective Shelters Powered by Renewable Energy was completed and submitted to the Global Environment Foundation (GEF) to seek funding. The GEF responded with a Project Information Request, which is currently being reviewed.

Biofuels Potential – Ethanol & Biodiesel

A Jamaica-Brazil Biofuels Seminar was held in August 2007 to inform policymakers, investors and academics of the potentials for local biofuels production, legislation, regulation and economics. Biofuels project research was conducted to inform the design of a National Biofuels Project. The land requirements and crop yields for various biofuel feedstocks were researched. CERE has suggested that the castor bean, jatropha bean, rapeseed or canola bean, sunflower seeds and palm nuts be considered for planting. Investigations into land availability have focused on the use of mined out bauxite lands, sub-par lands and sugar lands. A Request for Proposals (RFP) was drafted in 2007 to support the development of an agro-energy farm and a biodiesel production plant in Manchester, Jamaica.

In November 2007, the United Nations Economic Commission for Latin America and the Caribbean hosted a meeting to discuss the biofuels experience in the region and to begin strategic planning to support development. A biodiesel experiment was initiated at PCJ's Font Hill Farm in March 2008 and will seek to ascertain the yield and oil content of selected oleaginous plants; build knowledge capacity regarding the cultivation of biodiesel feedstocks; investigate the financial costs and benefits of biodiesel farming and inform policymakers of local opportunities and challenges related to biodiesel production.

Waste-To-Energy Potential

Research on waste to energy conversion options, NSWMA's landfill/disposal sites and energy potentials was prepared to inform decision-making. A pre-qualification document was drafted in May 2007 to invite interested investors to bid on waste-to-energy (wte) opportunities in Jamaica. A waste to energy potentials overview was prepared to inform decision-making. A Request for Proposals (RFP) for solid waste to energy treatment was drafted in February 2008. Site audits were conducted at the Riverton City, Haddon and Martin's Hill sites. Several waste to energy developers have made presentations to PCJ during the year, with a view to introducing their technological and business approaches to waste conversion. An information addendum was subsequently prepared to integrate waste to energy project potentials in the Office of Utilities' Regulation Request for Proposals.

The E-Grass Potential

An E-Grass project proposal was reviewed and discussed with a potential investor interested in leasing marginal sugar lands to produce clean electricity. A Memorandum of Understanding and a project assessment were prepared in December 2007 to inform project approvals.

Renewable Energy Project for PCJ's Font Hill Farm

Research on biogas systems for agricultural self-generation led to the development of a proposal to retrofit Font Hill with a 150m³ bio-digester, a methane driven electric generator, and Photovoltaic panels. A Request for Proposals was also prepared to invite tenders for architectural works at the site. The proposal is currently under review.

S&T Related Workshops, Training Sessions & Seminars

Additionally, the following workshops, training sessions and seminars were hosted and/or attended by CERE team members during 2007-8:

- ✓ Workshops and meetings convened to develop PIOJ's Long Term Plan were attended during the period to support energy prospects, goals, T21 computer modeling and action plans.
- ✓ A Regional Seminar on Carbon Trading Exchange, was held in Paraguay, and was attended by a Senior Research Officer on April 19-20, 2007.

- ✓ A two-week Energy & Power Evaluation Program (ENPEP) workshop was held at the Petroleum Corporation of Jamaica auditorium in February 2007 to support energy sector data collection, modeling and planning for Jamaica.
- ✓ A Sustainable Living Pavilion was launched at Wellfest 2007 in April 2007 to inform the public about renewable energy and energy efficiency alternatives available to reduce their energy costs.
- ✓ Presentations were made at a meeting on Renewable Energy research and development convened by the Ministry of Mining, Energy & Telecommunications for Venezuela's PDVSA Energy Group on July 19, 2007.
- ✓ A meeting to discuss solar manufacturing possibilities for Jamaica was held with TCT Solar on July 27, 2007.
- ✓ A seminar on new waste to energy conversion technology was conducted on September 25, 2007 for a cross-sectional group of Government leaders in Science & Technology.

Curriculum Development

CERE completed a review of the current renewable energy curriculum employed by the primary and secondary schools with a view to identifying appropriate guidelines for curriculum development. Initial meetings were held with U-Tech and CASE to discuss the proposals.

7.0 SUMMARY OF OPERATIONAL PLAN FOR FINANCIAL YEAR 2007/2008

The 2007/08 Operational plan had the broad objective of investigating and reporting economical and technical viable renewable energy options for Jamaica and the rest of the Caribbean through extensive research and development. The plan identified several performance measures including:-

- The identification of cultivars and the systems required for biofuels development.
- The conducting and validation of experiments designed to support biofuels research.
- The facilitation of a landfill gas project.
- The validation and publishing of PV and solar collector performance.

8.0 FINANCIAL PERFORMANCE FOR THE YEAR 2007/2008

Purpose	Actual, J\$	<i>Budgeted, J\$</i>
Research and Development	762,125	5,135,000
Employee Cost	441,757.33	3,684,000
Marketing and Public Relations	581,178.33	6,500,000
Staff Remunerations and Benefits	13,383,382.91	26,456,000
Administrative Equipment	625,887.96	6,530,000
Motor Vehicle Upkeep and License	721,263.64	7,760,000
Maintenance	26,855.31	
Customs Duty	110,094.47	
Sundry & Miscellaneous Expenses	38,521.33	
Total	16,691,066.53	56,065,000

The organizational structure for CERE identifies ten (10) firm positions, excluding those from the consulting resource pool. To date, only five (5) of these positions have been filled. The variance between the actual and proposed budget for FY 2007/2008 is due primarily to the fact that the requisite staff complement was not in place to fully support the outlined activities.

9.0 BUDGETARY PROPOSAL FOR FINANCIAL YEAR 2008/2009

Purpose	<i>Budgeted J\$</i>
Research and Development	5,524,000
Employee Cost	2,700,580
Marketing and Public Relations	5,202,400
Staff Remunerations and Benefits	31,156,000
Administrative Equipment	2,886,000
Motor Vehicle Upkeep and License	3,146,500
Sub-total	50,615,480
Contingency (5%)	2,530,774
Total	53,146,254

Outlook for 2008/9

Jamaica's renewable energy sector has large untapped potential. The Centre of Excellence for Renewable Energy plans to explore the development alternatives with local and overseas potential investors. The Division is also engaged in active research projects at the PCJ's Font Hill Farm & Beach Park Property.

In April 2008, the Office of Utilities' Regulation issued a Request for Renewable Energy Proposals, which is currently being promulgated to interested investors. The Centre plans to support the RFP process to ensure renewable energy projects are implemented in a timely manner. The Centre will also increase activities in resource measurement and mapping in partnership with the tertiary institutions to update developmental databases and Corporate Maps.

A two day seminar co-sponsored by Jamaica & Mexico titled "Building Human Capacities for Renewable Energy Developments" was held on April 16 – 17, 2008. This was supported by the Development of a Technical Cooperation proposal between Jamaica and Mexico to exchange information and build institutional Capacities in Renewable Energy.

The Division plans to conduct public education and outreach seminars and/or workshops, and will seek to survey attitudes and evaluate interest levels towards the development of various renewable energy sources.

Hon. Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE ELECTRICITY DIVISION FOR
FINANCIAL YEAR 2007/2008 AND FOCUS FOR 2008/2009**

MINISTRY PAPER NO.: _____

**PERFORMANCE OF THE ELECTRICITY DIVISION FOR FINANCIAL YEAR 2007/2008 AND
FOCUS FOR 2008/2009**

1.0 Purpose of Ministry Paper

This Ministry Paper is intended to provide highlights of the performance of the Electricity Division over the 2007/2008 Financial Year and the main focus for the 2008/2009 Financial Year.

2.0 Role and Functions of the Electricity Division

Established in 1956, the Electricity Division is responsible for the inspection of electrical installations throughout the island in accordance with the Electric Lighting Law.

The Electricity Division operates four (4) offices across the island to ensure maximum and timely access to customers. The offices are located in Kingston (head office), St. Ann, St. James and Manchester.

2.1 Mission

The Mission of the Electricity Division is:

- (a) to ensure that electrical installations island-wide are safe and effected consistent with the Jamaica Standards Regulations; and
- (b) to educate the public on the importance of having their electrical installations inspected and certified and to monitor electrical installation practices with the aim of preventing loss of life and property as a result of electrical accidents.

2.2 Objectives

The main objective of the Division is to ensure the practical safeguarding of persons and property (buildings and their contents) from hazards arising from the use of electricity. The objectives of the Division are accomplished by an orderly system of inspections, tests, and certification of electrical installations, thereby ensuring that the essential provisions considered necessary for safety are satisfied in accordance with the regulations and the Electric Lighting Law. A certificate of fitness is subsequently issued to the supplying authority by the Electricity Division, also called the Government Electrical Inspectorate (G.E.I.) attesting to the safety of the installation and its adherence to the governing standards. The Chief Electrical Inspector is the sole arbiter on all electrical matters on which the regulations are silent.

Only installations for which certification has been issued by the GEI are allowed to be connected to the Jamaica Public Service Company Limited (JPSCo.) system.

2.3 The Main Functions of the Electricity Division are:

- (i) To ensure that all electrical installations constructed in Jamaica comply with the Electric Lighting Law and the related regulations so that electrical systems can provide light and power without hazard to life and property;
- (ii) To physically inspect all new installations (industrial, commercial, and domestic) and certify them before they are connected to the JPSCo's grid;

- (iii) To carry out periodic checks of old installations, including transmission and distribution lines and substations, and recommend modifications and improvements as necessary;
- (iv) To inspect and to certify new installations of the JPSCo. electrical system (transmission and distribution) and the Rural Electrification Programme (REP);
- (v) To process, comment on, and approve all electrical designs submitted by consultants, contractors, developers and consumers;
- (vi) To investigate accidents relating to electricity and to prepare reports to improve the safety of installations involved;
- (vii) To provide technical information to consultants, architects, electrical engineers, local and foreign contractors, police and fire officials and the general public;
- (viii) To monitor the performance of all licensed electricians and advise the Board of Examiners accordingly; and
- (ix) To meet with members of technical committees of the Board of Examiners and Bureau of Standards Jamaica, to discuss technical standards, materials, equipment and the preparation of new specifications.

3.0 Achievements for Financial Year 2007/2008

3.1 Main Achievements

The Electricity Division has done close to thirty thousand (30,000) inspections annually. During the period under review, a total of thirty thousand three hundred and sixty eight (30,368) applications were received of which twenty nine thousand and twenty three (29,023) or 95.6% were inspected. Of this amount, twenty four thousand six hundred and sixty-three (24,663) or 85% were granted certification and four thousand three hundred and sixty (4,360) or 15% were rejected.

3.2 Approved Budget

A total of \$61.326 M was approved for the Division's budget for the 2007/2008 financial year. Of this amount \$33.825 M was for emoluments, \$14.269 M for traveling and subsistence. The balance of approximately \$13.232 M was to cover all other costs including rental of offices at four (4) locations island-wide.

3.3 Service Fees

For the financial year 2007/2008, the revenue collected stood at \$12.12 M, with an average collection of approximately \$3.03 M per quarter.

Our calculations, taking into consideration budgetary allocation, revenue collected and the average cost of inspection services this year (2007/08), have led to the fact that for each inspection request made, the Ministry subsidizes the cost of inspection to the tune of one thousand dollars (\$1,000.00) per request. Bearing in mind that 30,368 requests were made during 2007/08, the total subsidy stands at \$30.37 M. This significant sum is approximately 50% of our budgetary allocation for that year.

The lack of adequate funds has placed significant constraints on the Division upgrading itself to become a more efficient and professional organization. It has also placed by extension much constraint on the government to facilitate this upgrading. The awaited increase in the rates of the Electricity Division bringing them on par with current economical rates would address the constraints in a comprehensive way.

4.0 Main Programmes for 2008/2009 Financial Year.

The target is thirty-five thousand (35,000) inspections for the Financial Year. This is a significant increase in the amount of jobs that have been inspected in previous years. It must be noted that while the amount of revenue collected should result in an increase over that which was collected in 2007/08, there may be an increase in proposed budget submitted for approval.

The Division has also been given responsibility of enforcing the necessary regulations and standards through the inspection of Liquid Petroleum Gas Petrol-filling stations and refineries and Cooking Gas retail outlets. Five (5) engineering Inspector's posts have been attached to the Division's complement, to assist in satisfying our new responsibilities. Two (2) of the five posts are already occupied and therefore immediate steps will have to be taken to equip these individuals with the necessary instruments and tools to be effective.

It therefore follows that with this increase in our inspection activities and staff, the mileage traveled in carrying out these activities will be significantly increased. This will have a significant impact on our travel expenses and subsistence, which will witness significant increases in these areas. It is anticipated that the rates to be charged for inspections of petrol and gas facilities or outlets will be such that they reflect fair compensation for our services.

The overall aim for the 2008/2009 Financial Year is to create a better public image for the Division, maximize revenue, provide quality customer service and generally operate in a more efficient and effective manner. To achieve this, there are a number of programmes and targets that the Division plans to implement over the course of the year. The main ones are as follows:

- (a) Procurement of the necessary measuring instruments to effect energy audits, assess the safety levels of Petroleum and Gas outlets and carry out inspections of electrical installations;
- (b) Maintain the public awareness campaign that started with our achievement of fifty years (50 yrs) of existence;
- (c) Procurement of computer hardware and software necessary for the installation of an electronic communications network;
- (d) Tightly monitor the operations of the Division with the aim of maximizing of our effectiveness thereby increasing the revenue intake in the absence of the proposed rate increase;
- (e) Provide training for Electrical and Petroleum safety inspectors and technical assistants (this is to be geared towards improving knowledge of contemporary inspection methods and the implementation of a single performance standard throughout the Division.). Influencing tertiary institution to offer courses aimed at improving the knowledge-base of practicing Electricians and persons operating as contractors of Petrol filling stations and refineries and Cooking Gas outlets;

- (f) Maximizing revenue through greater efficiency and the implementation of programmes aimed at detecting insufficient fees paid for our services;
- (g) Enforcing a re-inspection drive aimed at recertifying installation of public buildings, markets, plazas, petrol filling stations and refineries and cooking gas retail outlets thereby ensuring that the current standards are upheld and safety is assured;

The Electric Lighting Act gives the Division the “right to entry” to any premises to carry out inspection of the installation therein. The Division intends to effect the re-inspection of the premises mentioned above under this clause.

5.0 Budget for the Financial Year 2008/2009

The proposed 2008/2009 budget is approximately \$79.529 M comprising provisions for the compensation of employees in the amount of \$44.287 M and procurement of goods and services amounting to some \$6.133 M and traveling & subsistence allowance amounts to \$20.369 M. Some key activities are highlighted below.

5.1 Staff Training

This year the Division intends to continue its focus on the training of technical assistants, who work along with the Electrical Inspectors in carrying out inspection duties. The aim is to ensure that all our technical assistants are so trained that they will assume vacant posts of Electrical Inspectors.

The training of Electrical Inspectors and Petroleum Facilities Inspectors to be able to operate under the umbrella of a single Safety Inspector is our salient objective for this financial year. Though the Petroleum Inspectors are yet to be received, we are already in the process of searching for international accredited courses for both sets of Inspectors.

The Division has also recognized the need to have some staff members trained in customer service and store keeping. The HEART Trust NTA has assured us that they will be working on the preparation of the relevant courses to facilitate the Division's needs. Currently, the course outline and curriculum for Electrical Inspectors and Practicing Electricians are now being prepared by the HEART Trust in conjunction with representatives from the Division and stakeholders of the industry..

5.2 Computer Programme and Network

The Division aims to make the submission of requests for inspection of electrical installations and Petrol and Gas related facilities, a process that can be conducted at any of the offices, irrespective of the location of the installation or facility. At present, request for inspections of electrical installations, is confined to that office of the Division in which constituency (parishes for which that office is responsible) the installation is located. This, another step towards providing quality customer service, would allow requests for inspections to be made through the any office of the Division.

The development of a computer programme and network is crucial to the smooth operation of the Division and will assist in the accessing of information from any of the four (4) offices with minimum delay. From time to time efficiency has been compromised by inability to capture relevant data that could help to better plan the operations and optimize the use of resources. A computer network would enable research/data capture, and evaluation and manipulation of data to facilitate prompt responses to internal and external requests.

In linking all offices to a single databank, information received by the Division in general, can be accessed from any of the offices. The Central Information Technology Office (CITO), along with the Technology Department of MITEC, has done much work towards making this a reality. We are hoping that much effort will be made this year to ensure the completion of this very necessary project.

Hon. Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE PETROLEUM COMPANY OF
JAMACA FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR
FINANCIAL YEAR 2008/2009**

MINISTRY PAPER No.: _____

PERFORMANCE OF THE PETROLEUM COMPANY OF JAMACA FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR FINANCIAL YEAR 2008/2009

1.0 Purpose of the Ministry Paper

This Ministry paper is intended to inform Parliament and the public in general on the performance of the Petroleum Company of Jamaica (PETCOM) during the 2007/2008 Financial Year and its plans for 2008/2009.

2.0 Corporate Mission

The corporate mission of PETCOM is to build a company that is responsive to customers' needs, profitable in its operations, and socially responsible, while endeavouring to implement positive changes in the petroleum trade in Jamaica

3.0 Vision Statement

The vision of the company is to be Jamaica's premier provider in the petroleum industry, through its hallmark of quality products and services and affordable prices at convenient locations.

4.0 Background

The Petroleum Company of Jamaica Limited (PETCOM) is a subsidiary of the Petroleum Corporation of Jamaica (PCJ), an agency in the Ministry of Commerce, Science & Technology with energy. It was established in 1973 as the government's sole marketing company of petroleum products, but became active in 1984, when it made its first sale of solvents, and later in the same year, secured a fuel supply contract from the Caribbean Cement Company.

In 1986, PETCOM seriously adopted a more proactive posture as a marketing company. The company aggressively sought new opportunities for supplying petroleum products and lubricants to the transportation sector; LPG to the domestic and industrial markets; and asphalt, heavy fuel and diesel oils to the industrial sector.

In 1989 PETCOM opened its doors to welcome its first service station in Portmore, St. Catherine and today boast a complement of twenty eight (28) stations island-wide.

Products

PETCOM presently serves the transportation and energy sectors with a wide range of petroleum products that fall under four major product segments; Service Stations, Industrial Fuels, Liquefied Petroleum Gas (LPG) and Lubricants.

Service Stations

Through its strategically located network of 28 service stations, PETCOM supplies the full range of petroleum products, to include Unleaded 87 and 90 gasoline as well as Automotive Diesel Oil (ADO). In addition, a number of PETCOM's service stations offer augmented products and services such as; Service Bays, Car Wash, Oil Change, Vehicle Accessories.

Industrial Fuels

PETCOM takes pride in supplying local industries including transportation, construction, manufacturing with a variety of industrial fuels. These industrial fuels include gasoline (87 and 90), ADO, Kerosene, Asphalt and Heavy Fuel Oils.

Liquefied Petroleum Gas (LPG)

PETCOM's LPG is marketed to both domestic and industrial consumers under the "Cookie Gas" brand name with its motto "Real Value To Keep You Cooking". Cylinder sizes; 20lb, 25lb, 30lb and 100lb are available to domestic consumers through its extensive dealer network, while bulk tanks ranging from 100 - 2,000 gallons are distributed to industrial consumers by PETCOM.

Lubricants

PETCOM's lubricants are marketed in a wide range of service applications under the brand name "Pace". The recently re-launched Pace lubricants with its motto, "High Standards By Any Standard", is ranked among the best on the market and is available at a number of convenient locations island wide.

4.1 Corporate Objectives

The objectives of the company are:

- (a) to be the benchmark for competitive pricing of petroleum products to the public;
- (b) to set example of good corporate relationship with key stakeholders in the critical petroleum trade;
- (c) to maximize sales and profit by pursuing strategies that seeks to give the customer the best possible service and satisfaction;
- (d) to gain market share by providing superior all-round service to the customer; and
- (e) to conduct operations in a safe manner, with due regard to employees, contractors, customers, the general public and the environment.

4.2 Financing

Currently, PETCOM derives its financing from the following sources:

- Operating Income.
- Suppliers' Credit (main fuel supplier-PETROJAM, lubricants-National Petroleum and LPG cylinders-EFG Limited).

4.3 Major Challenges

Overall, industry retail fuel sales have fallen by a minimum of ten percent (10%) in recent months, owing to spiraling world oil prices. This has led to reduced sales activity and usage of petroleum products by almost all sectors of the economy.

The operating environment in the sector has been having adverse impact on the profitability of the entity. This has manifested itself more recently as a result of the significant level of direct fuel import activity by the major marketing companies. For the period April 2007 to March 2008, direct fuel imports by the multinationals was approximately (40%) of the total retail industry sales. The marketing companies have gotten extremely aggressive in their pricing strategy. The "pump price" variance ranges

from as low as \$1.50 to as high as \$6.00 per liter in one instance. As a result of the low prices being offered by the competition, PETCOM has lost competitiveness within the retail and industrial fuel segments of its business, since in very many instances, the competition is retailing below Petrojam's ex-refinery billing price.

The serious and erosive effect of the prevailing industry pricing strategies warrants immediate address both at the policy level as well as among concerned influential industry players.

5.0 Achievements & Priority Targets for the 2007/2008 Financial Year

- Growth in overall sales volume to 1.147 M barrels representing 5% above 2006/2007 year, and market share of fourteen percent (14%).
- Growth of 4% in retail sales volume to achieve approximately 601,057 barrels in sales, reflecting a segment market share of eleven percent (11%).
- Growth of one percent (1.0%) in LPG volume sales to 155,178 barrels, increasing the segment market share to seventeen percent (17%).
- Land Fuel sales volume of 386,428 barrels
- Growth of 13.2% in lubricant volume sales to 5,314 barrels, increasing the segment market share from four percent (4%) to five percent (5%).
- Growth in overall sales income to \$8.367Bln.
- Growth in gross profit to \$630.091 M.
- Projected net operating income of \$24.513 M.
- Projected net profit before tax of \$18.058 M.
- Projected net profit after tax of \$18.058 M.
- Continued expansion of the service station network with the addition of a minimum of five (5) locations.
- Continued monitoring of the re-launch programme to improve brand image, existing performance and the company's financial viability.
- Restructuring and strengthening of the LPG and Lubricants Department with the goal of increasing efficiency in product and service delivery.
- Reduction in the company's overall operational break-even levels with a view to reducing expenses in all areas (e.g. outsourcing LPG operations).
- Widen distribution of the Pace Lubricant line of products to significantly increase sales via expanding our network of independent dealers.
- Continued development of human resource capability through training.
- Implementation of tracking system for LPG cylinders.

5.1 Performance/Achievement – Financial Year 2007/2008

- PETCOM's market share at the end of 2007/2008 is projected to be approximately twelve percent (12.0%)
- Total product sales will be approximately 972,735 barrels.
- Retail sales will be approximately 506,104 bbls, 16% below projections due mainly to the proliferation of new marketing companies all competing in a flat to declining market. In addition, there has been a persistent rise in the level of direct imports by the multinational oil marketing companies who has managed to create huge price differentials in the retail and direct commercial segments thus rendering PETCOM's prices uncompetitive.
- Land fuel sales is projected to be approximately 313,676 bbls (19% below target) owing to the inactivity of a few major accounts (Sugar Company and Johnson's Petroleum), coupled by a major shortfall in construction and road work activity. We embarked on a

customer rationalization program, whereby a number of unprofitable businesses were dropped from the line and more lucrative accounts engaged.

- LPG sales will be approximately 147,993 bbls, reflecting a 5% fallout when compared to budget, this yielded a category market share of 16%. There was a marginal decline in the total LPG market of approximately 5% for the year, coupled by our inability to make timely deliveries, owing to a defective trucking fleet.
- Lubricants sales will be approximately 4,962 barrels or about twelve percent (12%) above prior year sales.
- Sales income of an estimated \$7.301Bln.
- Net Operating Income is estimated at \$29.653 M.
- Net profit before tax is estimated at \$37.889 M.
- Net profit after tax is estimated at \$37.889 M (since there is an expected write-back of taxes paid on prior year's loss). This represents an increase of approximately 109% when compared to budget. This could be primarily attributed to our strategy of margin improvement and cost /expense containment.
- The company added two (2) new service stations to its network (Lluidas Vale and Ocho Rios)
- The company continues its re-launch program and is experiencing greater brand exposure and visibility
- Human resource training and development are ongoing.
- PETCOM experienced a most successful sponsorship and support for the JMMC Rally of which the company was integrally involved as lead sponsor for the seventh consecutive year.
- The company enjoyed successful sponsorship of the Portmore Metropolitan Cricket League for the second consecutive year.
- PETCOM successfully redesigned its corporate website in order to facilitate a two- way communication system with its target audience.
- Discontinue the retail of LPG at PETCOM's Head Office, leading to greater marketing efficiency and cost savings.
- Change in pricing policy from fixed dollar margins to percentage base. This has significantly improved our average gross margins and levels of profitability.

6.0 Programmes and Targets for Financial Year 2008/2009

The overall sales projections had to be adjusted to reflect a correction the total numbers, owing to the detection of a systems error which caused duplication in the sales volumes.

- Retail sales volume (524,817 bbls)
- Growth of three percent (3.0%) in LPG volume sales to 152,450 barrels, maintaining the segment market share to sixteen percent (16%).
- Land Fuel sales volume of (204,168) barrels
- Lubricant sales of (4,399) barrels, increasing the segment market share to seven percent (7%).
- Growth in overall sales income to \$8.364Bln.
- Growth in gross profit to \$522.671 M.
- Projected net operating income of \$57.500 M.
- Projected net profit before tax of \$49.488 M.
- Projected net profit after tax of \$46.121 M.
- Continued expansion of the service station network with the addition of a minimum of two (2) locations.

- Continued monitoring of the re-launch program to improve brand image, existing performance and the company's financial viability.
- Restructuring and strengthening of the LPG and Lubricants Department with the goal of increasing efficiency in product and service delivery.
- Reduction in the company's overall operational break-even levels with a view to reducing expenses in all areas (e.g. outsourcing LPG operations).
- Widen distribution of the Pace Lubricant line of products to significantly increase sales via expanding our network of independent dealers.
- Continued development of human resource capability through training.
- Implementation of tracking system for LPG cylinders.
- Upgrade of Service Station network to accommodate the introduction of E10. Being the government's sole marketing company, PETCOM is expected to play a lead role in the launch of the Ethanol project.

Hon. Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE PETROLEUM CORPORATION OF
JAMAICA**

**FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR
FINANCIAL YEAR 2008/2009**

MINISTRY PAPER NO. _____

**PERFORMANCE OF THE PETROLEUM CORPORATION OF JAMAICA
FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR FINANCIAL YEAR 2008/2009**

1.0 Purpose of Ministry Paper

The purpose of this Ministry Paper is to inform Parliament and the public on the performance of the Petroleum Corporation of Jamaica (PCJ) during the 2007/2008 Financial Year and its focus for the 2008/2009 Financial Year.

2.0 Mission

“The Petroleum Corporation of Jamaica, as mandated by the Petroleum Act of 1979, will undertake the development and promotion of Jamaica's energy resources and will seek, where necessary, business partners through joint ventures with the private sector.

The Corporation will conduct its affairs in a manner beneficial to Jamaica and will ensure that the environment is protected at all times.

The Corporation will act with integrity and will strive for excellence in all its operations”.

3.0 Role and Functions

Cabinet mandated the Petroleum Corporation of Jamaica in 2002 to ensure the accelerated implementation of the Energy Sector Policy of Jamaica. Objectives of the Policy include:

- Facilitating negotiations to ensure stable and adequate energy supplies at least cost (e.g., San Jose Accord, PetroCaribe, Nigerian agreements and Ecuadorian crude oil purchases).
- Promoting the diversification of the energy base and development of indigenous energy resources.

- Encouraging energy efficiency and conservation to reduce Jamaica’s annual energy bill.
- Complementing the objectives of the National Industrial Policy (NIP) as it relates to energy demand and outputs.

- Minimizing the adverse environmental effects of fuel production and use.
- Supporting the regulatory framework to protect consumers, investors and the environment against unsafe conditions and unsafe practices within the local petroleum industry.

4.0 Priority Targets/Objectives and Budgetary Allocation for Financial Year 2007/2008

4.1 Among the matters of priority were:

- Continuing the Petrojam Refinery Upgrade Project.

- Bringing cleaner energy types and technologies to Jamaica in support of the policy objectives for energy diversification and reduced environmental impacts of fuel importation, processing and use.

- Increasing the proportion of local renewable energy sources in the national energy mix. Focus was directed at the possibility of increasing the capacity of wind-generated power beyond the 20 megawatt plant located at Wigton in Manchester. Efforts were also being made to increase the use of solar energy especially in regard to solar water heaters and photovoltaics.
- Improving energy efficiency at the domestic, commercial and industrial levels. This included energy efficiency demonstration projects and public education to target community groups, professionals, and schools island wide.
- Further promoting energy efficiency and conservation through the Public Education Campaign.
- Developing an Environmental Management System for the PCJ Group and further improving environmental awareness, responsiveness and sensitivity within the Group.
- Developing a pay-for-performance and merit-based human resource management system.
- Expanding the Group's Information Technology capabilities through the introduction of hardware and training software to improve efficiency, productivity and competitive advantage.
- Providing technical and financial support for the expansion of PETCOM's network of service stations.

4.2 Budgetary allocations for Financial Year 2007/2008 were as follows;

Purpose	Actual \$'000
General Administrative Expenses: Inclusive of utilities, staffing, taxes, insurance, stationery, maintenance, professional fees, business charges, public relations and community outreach, board expenses, and depreciation.	327,142
Building Maintenance: Including contracted services, staffing, maintenance and taxes.	83,171
Other Expenses: Oil & gas exploration programme, energy conservation awareness, alternative energy & environment management, Font Hill property	133,021
TOTAL	543,334

5.0 Performance/Achievements – Financial Year 2007/2008

5.1 The achievements to date are as follows:

- Continued the Front End Engineering Design for the Petrojam Refinery Upgrade Project.
- Completed sale of 49% of shares of Petrojam Refinery.
- Public Education Programmes on energy efficiency and conservation and alternative energy usage.
- Continued Sale of compact fluorescent lamps (CFL's), at Energy Efficiency exhibition island-wide.

- Maintenance of a web page devoted to the Energy Efficiency Unit, which targets various audiences, including residential, commercial and small businesses, large industrial and public sector users.
- Continuing the implementation of energy efficiency projects at four (4) hospitals (Princess Margaret, St. Ann's Bay, Cornwall Regional and the Bustamante Hospital for Children), and commencing implementation in six (6) other hospitals (Black River, Lionel Town, Percy Junor, Annotto Bay, Spanish Town and Port Antonio).
- Completion of energy audits for 8 educational institutions.
- Provision of training in preventative maintenance for hospital maintenance personnel in order to ensure the sustainability of the hospital energy efficiency programme.
- Completion of Front End Engineering Design (FEED) of the Natural Gas Project.
- Production Sharing Agreements for Oil & Gas exploration have been awarded for Blocks 1, 5, 8 & 17 to an exploration company known as Proteam.
- Commenced negotiations with Colombia on the joint exploration of the Joint Regime Area (JRA). Finalizing an agreement to collect seismic data in the JRA is a first step.
- Negotiations for the conduct of a new regional seismic survey in the Jamaica offshore area are well advanced. Such a survey may be conducted in the latter half of 2008
- Finalised PetroCaribe Agreement and associated loan benefits for Jamaica under this partnership.
- Production and launch of the PCJ Corporate Documentary.

6.0 Medium to Long Term Focus

The PCJ Group of companies aims to advance its leadership position environmentally to one that is even more proactive and innovative. The Group has committed itself to adopt Process Safety Management (PSM) to ensure successful competition/compliance as well as environmental and public responsibility on its part.

Emphasis will be on energy diversification (Petcoke, natural gas), Energy Efficiency and Conservation and the development of policy mechanisms to increase renewable energy (such as wind, biomass, hydropower and solar). Policy mechanisms will include finalizing the Jamaica Energy Sector Policy and the Energy Efficiency and Conservation Policy and stimulating development of an ethanol industry for both domestic and export use.

7.0 Programmes and Targets for Financial Year 2008/2009

7.1 Implementation of PetroCaribe Agreement

The PCJ will continue to work with stakeholders towards streamlining all activities relating to the PetroCaribe Agreement, including the Petrojam Refinery Upgrade. The PetroCaribe quota will also be renegotiated.

7.2 Energy Fund

The Energy Fund was launched on May 1, 2008 with the Development Bank of Jamaica committing J\$1B to the SME Energy Line of Credit. This will be on-lent through AFI's such as commercial banks, Merchant Banks, National People's Cooperative Banks (NOCB), Credit Union and Micro Financing Institutions. Funds will be disbursed at an interest rate of 10% p.a. fixed for the life of the loan with a repayment period of up to 7 years.

The Fund will accommodate eligible enterprises such as commercial institutions, small & medium business users, large commercial and industrial users, commercial business requiring energy audits, energy service companies (ESCOs) and manufacturers of energy efficiency equipment and devices.

7.3 Energy Initiatives to be Pursued

- Continue implementation of the Petrojam Refinery Upgrade
- Continue development work on the LNG project

- Encourage the utilisation of cogeneration within commercial and industrial entities
- Promote and facilitate the use of renewable energy and cleaner transportation fuels

- Promote application of appropriate solar and other renewable energy technologies
- Investigate and report on economical and technically viable renewable energy options for Jamaica through extensive research and development

- Generate and disseminate information for public awareness and attract private investors in small and large renewable energy projects
- Pursue oil and gas exploration to determine Jamaica's prospects for commercial quantities of oil and gas and to reduce dependence on imported fuel and increase energy security

- Roll out of 10% Ethanol in Gasoline.
- Secure trade agreements with other state companies on behalf of GOJ

- Explore the options for international petroleum product trading.

7.4 Energy Efficiency & Conservation

- PCJ will partner with the Development Bank of Jamaica (DBJ) in the selection of energy efficiency and renewable energy projects to receive funding from the J\$1 Billion provided by the GOJ for loans in these categories.
- Improve energy efficiency in the Public Sector, particularly in schools, hospitals and the National Water Commission as well as continue the implementation of the energy efficiency projects in hospitals island-wide.

- Promote and maintain public awareness programmes to address a cultural shift towards the efficient use of energy and energy conservation.

- Promote the integration and strengthening of energy conservation and efficiency on the national science curriculum.
- Expand the promotional thrust for energy efficiency and further promotion of use of solar water heaters and compact fluorescent lamps (CFLs).

7.5 Environment

- Facilitate Group compliance with national environmental, health and safety standards and regulations
- Develop and implement environmental management system in accordance with ISO 14000
- Track environmental benefits of programmes: Carbon credit, energy efficiency, ethanol etc.
- Completion of a feasibility study to bio-digest all organic waste on the Font Hill farm and property in St. Elizabeth for biogas (energy) production
- Completion of the Environmental Impact Assessments (EIA) of major projects (Petrojam Refinery Upgrade, Natural Gas and Oil & Gas projects).

7.6 Other Initiatives

- Continued development and implementation of projects at Font Hill, St. Elizabeth, particularly in the areas of agriculture, resort development and eco-tourism
- Improve the efficiency in the operations of the Library Information and Corporate Affairs Department
- Foster recognition of records management at all levels
- Pursue effective training and development programme (capable of providing the Corporation with an equipped and motivated staff, capable of meeting the present and future needs and challenges of the company)
- Seek to implement improvements to existing HR system in order to improve the service to the Corporation
- Increase the utilisation of information technology to improve efficiency
- Seek to build relationships within and beyond PCJ
- Ensure that new information generated by PCJ's projects and programmes are published.

8.0 Budgetary Proposal for Financial Year 2008/2009

The budgetary proposal for the Financial Year 2008/2009 is approximately \$M and funds will be allocated as follows:

Purpose	Budgeted \$'000
General Administrative Expenses: Inclusive of utilities, staffing, taxes, insurance, stationery, maintenance, professional fees, project management, business charges, public relations and community outreach, board expenses and depreciation	459,401
Building Maintenance: Including contracted services, staffing, maintenance and taxes.	87,985
Other Expenses: Corporate investment/contributions to Energy Fund, contracted services and purchases, research, seminars, feasibility studies, regulatory fees and charges, and promotions.	530,919
TOTAL	1,078,305

Hon. Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE PETROJAM ETHANOL LIMITED
FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR
FINANCIAL YEAR 2008/2009**

MINISTRY PAPER NO. _____

**PERFORMANCE OF THE PETROJAM ETHANOL LIMITED
FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR FINANCIAL YEAR 2008/2009**

1.0 Purpose of Ministry Paper

This Ministry Paper is intended to inform Parliament and the public on the performance of the Petrojam Ethanol Limited (PEL) during the 2007/2008 Financial Year and its focus for the 2008/2009 Financial Year.

2.0 Mission

To utilize the opportunities created by and available to Petrojam Ethanol Limited, for the production, exportation and sale of Ethanol to maximize profit margins in the interest of all stakeholders.

PEL will conduct its affairs in a manner beneficial to Jamaica at all times.

The Company will act with integrity and will strive for excellence in all its operations.

3.0 Role and Functions

Cabinet mandated the Petroleum Corporation of Jamaica in 2002 to ensure the accelerated implementation of the Jamaica Energy Sector Policy. PEL being part of this group aim to further developments in renewable energy sector and as such has embarked upon the following objectives:

- The procurement of ethanol feedstock (hydrous alcohol) from international & local suppliers
- The dehydration of ethanol to fuel ethanol (anhydrous alcohol)
- The marketing of fuel ethanol in the United States, local and other markets
- Export

**4.0 Priority Targets/Objectives and Budgetary Allocation for Financial Year
2007/2008**

4.1 The operating plans were as follows:

- Considering the output capacity of the plant at 41.8 million US gallon of finished product per year and with feedstock supply from Brazil projected to be 3.70 million US gallons per month or 42.1 million US gallons per year, the production target was 40 million US

gallons for the year ending March 2008. This represented a performance target of 96% percent of designed capacity and a service factor of 90.0 percent.

- The plant was scheduled to operate for 333 days of the year with the remaining 32 days ear-marked to be used for plant preventative maintenance. For the period the company was expected to function with the existing 12 employees of which nine (9) are assigned to production.
- Petrojam Limited, the parent company, provides several services to Petrojam Ethanol Limited such as; utilities, maintenance, accounting, shipping, laboratory, human resources and some technical support. Allocations were made to offset these expenses appropriately. With regards to capital repayment, for the period and up to the next 16 months, it was the intention of PEL to totally repay to Coimex the capital investment and interest for the plant.

4.2 Budgetary proposal for Financial Year 2007/2008 were as follows:

Financial	
Sales Revenue	J\$5,828 M
Cost of Sales	J\$4,899 M
Profit (before tax)	J\$477 M
Expenses (operating, administrative, other)	J\$487 M
Production	
Feedstock Importation (USG/mth)	3,632,365
No. Days Operations	330
Avg. Daily Production (USG/day)	121,212
Service Factor (%)	90.0
Production Losses (%)	1.00
Sales	
Export Volumes per month (USG)	3,333,333

4.3 Some key strategic objectives for Financial Year 2007/2008 were as follows:

- To reduce operating cost by achieving operational excellence
- Increase capacity- expanding the capacity of the existing plant by 100% or by constructing a new 60 million gallon plant.
- Ensure secure supply of feed stock, initially, by the diversification of the sources of supply and in the long term by backward integrating into the sugar industry through ownership in sugar factory(s) and lands.

- Ensure reliable supply of utility by owning water wells and acquisition of reverse osmosis facilities.
- Address infrastructural constraints relating to tankage and dock facilities.
- Continue lobbying with specific groups in the USA Government on proposed changes for CBI ethanol imports that could limit the access of our full plant production into the USA market. In particular, efforts will be made in concurrence with the other grand fathered plants.
- Partner with the Governments in the region to lobby the US for the continuation of benefits under CBERA for CBI countries if necessary.
- Explore opportunities to expand the ethanol operation into neighbouring countries as far as the current market growth can support.
- Lobby the European Union for the resumption of wine alcohol supply as alternate feedstock source.

5.0 Performance/Achievement – Financial Year 2007/2008

5.1 The achievements as at the end of the Financial Year 2007/2008 are as follows:

The financial performance of PEL for the Financial Year 2007/2008 resulted in a loss of \$50.8M (un-audited). This was below objective by J\$528M and the variances are analyzed below:

Sales Revenue – (\$1,8071m)

Sales revenue was below target by 31% primarily as a result of sales volumes being below target by 13 million USG. Sales price for the period averaged US\$2.15per US gallon compared to budget of US\$2.20 per US gallon.

Cost of Sales – \$1,164m

Cost of sales was above target by 24%.

Gross Margin - (\$643m)

Gross margin was below target by 69% as indicated below. This adverse variance is due primarily to:

- Payment of US\$1,772,347.88 (JA\$124,674,216.51) to The Ethanol Corporation (TEC) for cessation of supply agreement.
- Raw material purchases being above budget by US\$0.18 per USG for the period being reviewed. See table below for more details.

Other Income

- ◆ Investment & Other Income – **(\$.372M)**
- ◆ Foreign Exchange Gain/(Loss) - **\$18.3M**

Expenses

For the period ending March 2008 total expenditures were below budget by \$98.5M or 8%.

Production	Actual	Plan	Variance (%)
			- 39.0
Feedstock Importation (USG/mth)	2,200,713	3,632,365	
No. Days Operations	209	330	- 37.0
Avg. Daily Production (USG/day)	119,980	121,212	- 1.0
Service Factor (%)	63.5	90.0	- 29.5
Production Losses (%)	0.9	1.0	+10.0
<hr/>			
Sales	Actual	Plan	Variance (%)
Export Volumes per month (USG)	2,239,975	3,333,333	- 33.0

6.0 Medium Term Focus

Petrojam Ethanol Limited (PEL) intends to continue the production of anhydrous ethanol (fuel grade ethanol) at its plant located at Marcus Garvey Drive. The product will be derived from feedstock (hydrated alcohol) sourced primarily from Brazil. In addition, feedstock will be sourced from Argentina, Paraguay, Guatemala, Nicaragua and any other country including Jamaica. The target is to produce a minimum of 36 million gallons per year and export primarily to the United States of America and to supply the domestic E10 fuel market through Petrojam Limited.

The partnership with Coimex Trading of Brazil will expire in June 2008. PEL intends to maximize its profitability beyond June 2008, the initial contract period with Coimex, through any one or a combination of the following options:

- Continued partnership with Coimex for an extended period to be determined
- Partnership with other suitable partner for production under similar arrangement as with Coimex or for a part of the production
- Tolling agreement with suitable partner(s)

The primary goal for the period is to process a minimum of 36 million gallons of ethanol for the year which will earn income for the company and its Shareholders, some of which may be used to finance expansion and diversification activities as dictated by the ethanol industry both locally and internationally. Additional contributions will also be made through the building of international trading relationships.

The operation for the period is expected to be financially viable through projected sales of J\$5,752,841,456 based on finished product sales to the USA only. Other projected performance measures are as follows:

- Projected gross margin of J\$772,116,945
- Profit before tax of J\$202,093,567.
- Expenses of J\$606,423,377.

With the USA passing of a Farm Bill to extend the 54cents tariff until December 31, 2010 and the USA predicted to continue on its rapid growth path due to the Renewable Fuels Standard (RFS) that has been expanded to meet consumption of 36 billion gallons of renewable fuels by 2022, opportunities will continue to be created for ethanol producers in Jamaica and the Caribbean. This also provides great potential for Jamaica to develop the local sugar cane industry to meet both local and export demands.

7.0 Longer Term Outlook & Implications

With more than 139 ethanol plants operating in the USA today and several more either under construction or undergoing expansion, the domestic supply will invariably aid in balancing the demand and will help to establish a more structured pricing mechanism for the ethanol market. However, the opportunities for ethanol producers in Jamaica remains encouraging due to the fact that most of the plants are located in the US mid-west region and does not effectively cover supplies in the coastal areas especially along the US east coast. In addition, the second highest fuel consuming state, Florida, is expected to be the next state to launch ethanol blending in gasoline. With our proximity to that state it is expected that greater volumes will be exported from the Jamaican plants to Florida.

Although the past six months have seen Brazilian ethanol prices higher than normal, the prices have been trending downwards as buyers pull back from the market in the face of increased availability. This trend is projected to continue for the next few months until May 2008 where prices are expected to drop sharply due to increased production and supply. Flex Fuel Vehicle (FFV) sales will continue to drive the growth in Brazilian ethanol consumption as in 2007. The impact on the Jamaica ethanol industry remains negligible since over 3 billion litres of ethanol is slated for export and unless the hydrous ethanol prices drop significantly in the domestic market it will be more favourable for exports to the CBI countries prior to the final market in the USA.

In response to the potential for expansion to meet international and local demands, PEL continues to actively seek opportunities for expansion of its existing capacity through alignment with existing and potential investors for an additional 60 to 100 million gallons per year dehydration facilities. This includes collaboration with the successful entities involved in the bid for the privatization and development of the local sugar cane industry. The partnership will allow for a backward integration into the Jamaica Sugar Industry for the production of ethanol feedstock to allow for improved accessibility of ethanol for local blending in gasoline. The estimated cost for a 60M USG (green field) ethanol dehydration plant is approximately 25 to 30 million US dollars.

8.0 Budgetary Proposal for Financial Year 2008/2009

The budgetary proposal for the Financial Year 2008/2009 is outlined as follows:

Financial	
Sales Revenue	J\$5,753 M
Cost of Sales	J\$4,891 M
Profit (before tax)	J\$202 M
Expenses (operating, administrative, other)	J\$606 M

Production	
Feedstock Importation (USG/mth)	3,333,333
No. Days Operations	330
Avg. Daily Production (USG/day)	110,000
Service Factor (%)	90.0
Production Losses (%)	0.92

Sales	
Export Volumes per month (USG)	3,000,000

Hon. Clive Mullings

Minister

Ministry of Energy

July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE PETROJAM LIMITED FOR
FINANCIAL YEAR 2007/2008 AND FOCUS FOR FINANCIAL
YEAR 2008/9**

MINISTRY PAPER NO. _____

**PERFORMANCE OF THE PETROJAM LIMITED FOR FINANCIAL YEAR 2007/2008 AND
FOCUS FOR FINANCIAL YEAR 2008/9**

1.0 Purpose of Ministry Paper

The purpose of this Ministry Paper is to present information on the performance of Petrojam Limited for the Financial Year 2007/08 as well as a summary of the strategic focus, targets and programmes for the Financial Year 2008/09.

2.0 Mission of Petrojam Limited

Petrojam's mission is to refine and supply petroleum products at internationally competitive prices and quality, acting in the best interest of Jamaica and all other stakeholders.

Our vision is to be the Petroleum product supplier of choice, best at what we do".

3.0 Roles and Functions of Petrojam Limited

3.1 Refinery

The core business of Petrojam Limited is the operation of a 36,000 barrel per day oil refinery located on the Kingston Harbor.

Petrojam satisfied approximately 79% of the local non-bauxite petroleum demand¹ in the country, through a mix of products refined from crude oil, and imported finished products. Preliminary data indicate total year to date local (non-bauxite) demand was approximately 14.2 million barrels, of which Petrojam supplied 11.9 million barrels with the remaining 2.9 million barrels supplied by the Multinational Marketing Companies (MNCs). Total demand for 2006-7 was 14.9 million barrels

3.2 Shipping

Petrojam Shipping manages the vessels used in its marine operations. Petrojam owns a tug/barge and charters vessels as required to effect movement of crude and finished products into the country. The vessels are also used to make round island movements (RIM's) with products for Power producers, as well as to Petrojam's Montego Bay Terminal. The tug/barge is used primarily to deliver bunker fuel to vessels calling in the Kingston Harbour. Additionally the MT Kingston, under a time-charter agreement with Aegean Shipping is primarily used to transport fuel oil to the power producing companies and is also available for short spot charters.

3.3 Bunkering Operations

A supply agreement with AGEAN Marine Petroleum SA Ltd. of Liberia through its local subsidiary AGEAN Bunkering Jamaica Ltd. for sale of bunker fuels for vessels outside of the Kingston has resulted in significant increase in sales volume over the last 3 years.

3.4 Subsidiaries

Both subsidiaries, JARS and Petrojam Ethanol were transferred to PCJ under the joint venture agreement signed between PDVSA and PCJ to sell 49% shares in Petrojam.

¹ The local non-bauxite demand does not include Turbo fuel, or bunker fuels, which are both classified as export

3.5 PETROJAM TARGETS AND OBJECTIVES FOR 2007/08

Profitability Targets

Table 1

ITEMS	Target at March 08 J\$M	Preliminary YTD March 08 J\$M
Refinery Gross Margin	4,561	5,345
Other Operating Income	211	2
Admin and Operating Expenses	(2,879)	(2,925)
Other Operating Expenses	(1,354)	(1,489)
INCOME FROM OPERATIONS	540	923
Non-operating Income	52	348
PROFIT/(LOSS) Before Tax	592	1,270
Taxation	(197)	(423)
NET PROFIT/ (LOSS)	395	847
Sales Volume	17,615 kbbls	17,452 kbbls

5.0 CORPORATE PERFORMANCE HIGHLIGHTS FOR 2006/07

Above target financial performance was attained for FY 2008 due to:

- Consistently high world oil prices throughout the year
- Strong margins experienced through out the year to strong market conditions up to the end of the third quarter i.e., healthy prices on clean products and good service factor (i.e. plant efficiency levels).

Operating performance year to date March 2008 was modest due to:

- An extended refinery shut shutdown for 53 days to effect catalyst regeneration and major mechanical maintenance work.

A number of performance parameters were affected and include:

- Service factor – the refinery YTD service factor at March was 82% vs a target of 91%.
- Maintenance expenses –higher than planned due to extended plant turnaround, the extension was necessary to conduct unforeseen maintenance activities
- Lower than planned total sales volume.

Good performance was however achieved in the following areas:

- Export Volume - higher than planned sales driven primarily by sales increase in export volumes
- High supply reliability
- Improved safety record over last period, primarily in the number of lost time incidents and cost of incidents
- Lower than planned demurrage due to consistent plant operations and less scheduling disturbances.

6.0 Major Projects

6.1 Update on Refinery Upgrade Project (RUP)

The Front End Engineering Design (FEED) study for the refinery upgrade project commenced in March 2006, is slated for completion in February 2009. The extended duration has resulted from incorporation of the Delayed Coker Unit (DCU) into the present phase of the design (the DCU was originally slated to be done in a later Phase of the project). The FEED packages for the various process units will be issued according to the following schedule:

- Process Units not impacted by the Delayed Coker Unit – by June 2008
- Process Units to be integrated with the Delayed Coker Unit – by August 2008
- Delayed Coker and other associated grass roots units and the Utilities Systems – by February 2009.

The process technologies being employed in the refinery upgrade project are well proven, industry standard technologies, provided by only a very few engineering and technology licensor firms.

Project Cost

The latest estimate for Capital Expenditure for the project is US\$594.8 million, provided by SNC Lavalin in May 2008. It is estimated that financing, interest costs and reserve requirements will add approximately US\$100 million to the total project cost.

Project Schedule

The Project Team at the present time is engaged with a number of activities concurrent with the FEED study. These include making preparation for the EPC (Detailed Engineering, Procurement and Construction) Phase, carrying out an Environmental Impact Assessment, and developing a Financing plan for the project. It is expected that these activities will dovetail in order for execution of the EPC works to begin by mid-end 2009. The upgraded refinery is thereafter slated for start up in 3Q2012.

Product Slate

The expected slate of products from the upgraded refinery is shown below (*note that these are still subject to revision, pending finalization of the design of the Delayed Coker processing unit*). Approximately 70,000 BPD will be sold, compared to the present 50,000 BPD.

6.2 E-10 Project

Petrojam plans to roll out E10 on a limited basis to the motoring public. E10 87 octane gasoline will be available at the pump either as a third grade of gasoline or as the available 87 blend. The product will be available from both Kingston and Montego Bay loading racks. The fuel will be made available in quantities to supply all interested parties.

Ethanol will be supplied from the Petrojam Ethanol Limited operations. The supply of gasoline blendstock will be from the Petrojam Refinery. It is estimated the fuel will be available to the motoring public by October 2008. However, several policy issues (relevant standards, national reserves) will need to be addressed before the fuel is offered for sale.

7 Performance in Key Result Area

Table 2

Strategic Thrusts	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
LONG TERM COMPETITIVENESS	To minimize procurement costs, and maximize the yield and efficiency of the production process	1. Unit gross margin (US\$/barrel)	3.66	3.21
Major Achievements:				
<ul style="list-style-type: none"> ▪ Refer to section on RUP and E-10 projects 				

Table 3

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
MAINTAIN & EXPAND MARKET SHARE	To consolidate existing market share and aggressively pursue opportunities for increasing local market share as well as export markets	1. Local Market Share (%) 2. Export Volume (000 barrels)	85.4% 3,186	80.5%est. 3,871
Major Achievements: <ul style="list-style-type: none"> ▪ Increased sales of bunker fuel ▪ Obtained contract to supply bauxite companies with ADO ▪ Obtained contract to supply Jamaica Broilers with fuel oil. ▪ Increase in local market share for LPG ▪ Reduction in demurrage expense 				

Table 4

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
MEET AND EXCEED CUSTOMER NEEDS	To ensure consistent supply of products at the specified quality at the best price and in the required quantity.	1. Delivery Downtime (supply days down) 2. Customer Satisfaction Index	0 days 85	0 days 80
Major Achievements: <ul style="list-style-type: none"> ▪ No product run out experienced ▪ Increased emulsion asphalt capacity - New asphalt tower installed ▪ Implementation of ISO 17025 in the laboratory in progress. ▪ Significant work done on dock rehabilitation project 				

Table 5

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
IMPROVE PLANT RELIABILITY	To maintain the companies facilities and system to ensure the optimum use of plant and equipment to meet the country's energy requirements at all times.	1. Maintenance Expenses (US\$/bbl sales) 2. Operational Availability (% service factor) 3. Productivity (%)	0.19 91% 95	0.36 82% 93.8
Major Achievements: <ul style="list-style-type: none"> ▪ Several aspects of the major plant and tank maintenance program implemented ▪ Increased use of the computerized maintenance management module of SAP to improve maintenance planning and scheduling. ▪ Implementation of a Preventative Maintenance system for critical and non critical equipment ▪ Increased capacity developed in SAP maintenance management module ▪ Increased cost management through improved monitoring and tracking capabilities increased ▪ Loss time due to equipment failure significantly reduced. 				

Table 6

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
INCREASE BUSINESS PROCESS EFFICIENCY & COST SAVINGS	To increase efficiency, reduce costs, and streamline internal business processes	1. Energy Intensity Index	96.0	108
		2. Oil Loss	.4%	.37%
		3. Other Operating and Admin. Expenses	\$2.21	\$2.39
		4. Receivables Past due	4%	5%
Major Achievements:				
<ul style="list-style-type: none"> ▪ 50% reduction in use of nitrogen – rehabilitation of Inert Gas Generator ▪ Increased throughput by 2,000 bbls/day through retrofitting of Naphtha debutanizer ▪ Reduction in oil loss due to adoption of industry best practices to reconcile crude ▪ Optimization of production of gasoline and kerosene production through replacement of related catalyst ▪ Increased efficiency of furnace operations (2-3%) through replacement of Furnace (F-1) burners 				

Table 7

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2007/08	Actual YTD Mar 2007/08
STRENGTHEN ORGANIZATIONAL SUPPORT	Improved safety and environmental compliance, alignment of human resources to strategic plan, , and leverage IT to improve business process	1. Safety Index	100	75
		2. Environmental Compliance	66% min	22
		3. Employee Satisfaction	80%	73%
		4.		
Major Achievements:				
<ul style="list-style-type: none"> ▪ Continued execution of the Process Safety Management Program ▪ 100% compliance with contractor training ▪ 100% inspection and certification of firewater system ▪ Zero citation for breach of regulatory requirements implemented ▪ Several security and safety initiatives were implemented resulting in improved security at the ILR, improved industrial relations climate and reduction in loss time incidents. ▪ One loss time incident experienced ▪ Hosted members from the PDVSA as a part of the language training and technical interaction programmed ▪ Training target exceeded ▪ Partnership with HEART Trust for training initiated ▪ Several job descriptions and policies updated ▪ Intranet fully deployed 				

8.0 STRATEGIC DIRECTION FOR 2008/09

Petrojam's focus from Fiscal Year 2005/6 has been centered around six (6) main Strategic Themes which evolved from the mapping the strategic linkages between the critical success factors across all perspectives of the Balanced Scorecard. These are outlined below with summaries of the strategic imperatives and some of the major initiatives to be undertaken.

1. *Ensure Long Term Competitiveness*

Efforts to secure the future viability of the Petrojam refinery will continue to be a priority item, given its key role in the national strategy to ensure security of supply for the country. In this regard, the development of the refinery upgrade project continues to advance, the project is expected to address most of the external threats and opportunities identified, including introduction of LNG, removal of CET, more stringent sulphur specifications for diesel and improved profitability through greater capacity utilization and improved product yield structure.

2. *Improve Plant Reliability*

Reliability refers to the operating availability of the refining facilities. High reliability is fundamental for nearly all aspects of the business, impacting upon the ability to optimize the refinery margin, increased demurrage and maintenance expenses, increased risk of supply shortages and results in fatigue, low morale and low productivity of staff.

3. *Meet & Exceed Customer Needs*

Operating as it is in a competitive market environment, Petrojam has to ensure consistent supply of products at the specified quality, at the best price and in the required quantities in order to ensure that customers receive the best value for money at all times. As more customers seek to explore alternative supply options, it is imperative that Petrojam maintains good customer relationships and high service standards in order to retain key customers. To this end a customer service unit was established, service standards will be developed and deployed.

4. *Maintain & expand market share*

Although Petrojam's market share has gradually increased over the years to its present level of about 85%, the company still faces the threat of significant competition from alternative fuels and alternative suppliers. A primary objective will therefore be to consolidate existing business and aggressively pursue opportunities for increasing Petrojam's share of the local market.

5. *Increase Business Process Efficiency and Cost Savings*

Several critical success factors identified were centered on improving the efficiency of various internal processes, in keeping with the thrust to benchmark favorably against our peers. The supporting initiatives include continued attainment of best practices in all areas, leveraging Information Technology to improve workflow and productivity, implementing an alternative dock option geared towards reducing demurrage expenses, and other projects aimed towards improving the refining margin and reducing losses.

6. *Strengthen Organizational Support*

Human Capital Development, and Health, Safety and Environment Compliance (HSE), are critical organizational supports for the core business processes. The focus is on ensuring alignment of human resources to the strategic plan through a comprehensive manning and development plan, as well as focus on employee retention through restructuring the current compensation system. The major projects to be undertaken in support of the strategic themes are presented in summary below

9.0 Capital Projects for 2008/9

A list of the major capital projects for 2008/09 is outlined in Table 8 below.

Table 8: Summary of Major Capital Projects for 2008/09

STRATEGIC THEME	MAJOR PROJECTS	Required Investment	ROI	EXPECTED BENEFIT/IMPACT
LONG TERM COMPETITIVENESS AND SURVIVAL	Refinery Upgrade Project	US\$600M	15.4%	Contribution to GDP- J\$7B
	Renovate offices	J\$40M		Contribution to Exports US\$71M
	Redevelopment of Antilles chemical facility for office, warehouse and maintenance facility.	J\$289M		Contribution to statutory taxes – J\$650 Million Security of energy supply Least cost supply to key sectors
	Introduction of ethanol in gasoline – E-10	J\$220 million		Reduce reliance on petroleum imports. Reduce foreign exchange outflow Reduction in environmental pollutants.
IMPROVE PLANT RELIABILITY	Major maintenance replacement equipment program	J\$ 104 million		Sustaining capital requirements for refining plant facilities.
	Power generation upgrade	J\$ 40 million		Improved reliability of power supply
BUSINESS PROCESS EFFICIENCY IMPROVEMENTS	Upgrade ESSO dock	J\$ 200 million	60%	Risk mitigation measure, and reduction of demurrage expenses
	MIS relocation to ESSO building and installation of new servers	J\$22 million	25%	Improved efficiency and effectiveness of business process
	Tank Maintenance Program and Radar tank gauge & gauging taskmaster installation	J\$195 million		Improved efficiency and effectiveness of business process
ORGANIZATION SUPPORT IMPROVEMENTS	Implement refinery fire, and other safety and emergency response system upgrade	J\$ 38 million		Improvements to emergency response systems
	Purchase laboratory test equipment Construct new laboratory	J\$33 million		Improved facilities and Equipment

6.0 MAIN PERFORMANCE TARGETS FOR FINANCIAL YEAR 2008/09

Table 9 provides a summary of the main performance targets.

Performance Targets 2008/9		
		Table 9
	Performance Measure	Target 2008/9
<i>FINANCIAL</i>	<i>Gross Margin Ratio</i>	<i>5.44%</i>
	<i>Profit before tax</i>	<i>\$700,169 mil</i>
	<i>ROCE</i>	<i>7%</i>
CUSTOMER/MARKET	Local Mkt. Share	83.3%
	Export Volume	5,868 Kbbbls
	Customer Satisfaction	85%
	Delivery Downtime	0 days
INTERNAL BUSINESS	Gross Margin	US\$3.65/b
	Productivity	95% min
	Oil Loss	0.4% max
	EII	96 max
	Service Factor	88.5% min
	Safety Index	100 min
	Environmental Compliance	66%
	Receivables Past Due	4.0% max
	Maintenance Expenses	US\$0.28/b
Other Admin Expenses	US\$2.28/b	
ORGANIZATIONAL EFFECTIVENESS, LEARNING & GROWTH	Employee Satisfaction Index	80% min
	Training Hours per employee	40 min

11.0 BUDGET FOR 2007/08 and 2008/09

Table 10 shows budgeted financial performance for 2007/08 and projection for year financial year 2008/09.

Budget for Financial Years 2007/8 & 2008/9

Table 10

ITEMS	2007/08	2008/09
	J\$M	J\$M
Refinery Gross Margin	4,562	4,319
Other Operating Income	211	142
Admin and Operating Expenses	(2,880)	(2,885)
Other Operating Expenses	(1,353)	(1,333)
INCOME FROM OPERATIONS	540	243
Non-operating Income	280	479
PROFIT/(LOSS) Before Tax	592	436
Taxation	(197)	(145)
NET PROFIT/ (LOSS)	395	290
Sales Volume	17,614 kbbls	18,242 kbbls

Hon. Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF THE RURAL ELECTRIFICATION
PROGRAMME LIMITED FOR FINANCIAL YEAR 2007/2008
AND FOCUS FOR FINANCIAL YEAR 2008/2009**

MINISTRY PAPER No. _____

PERFORMANCE OF THE RURAL ELECTRIFICATION PROGRAMME LIMITED FOR FINANCIAL YEAR 2007/2008 AND FOCUS FOR FINANCIAL YEAR 2008/2009

1.0 Purpose of Ministry Paper

The purpose of this document is to inform Parliament and the public about the performance of the Rural Electrification Programme Ltd. (REP) for the 2007/2008 Financial Year and its focus for the 2008/2009 Financial Year.

2.0 Mission

The mission of the REP is to contribute to the economic growth and development of the country by providing affordable access to electricity islandwide and regularizing urban electrification.

3.0 Background

3.1 REP Mandate

The Rural Electrification Programme (REP) was incorporated in 1975 as an executing agency of the Government, following a feasibility study which indicated a need for rural electrification and a dedicated unit for its implementation. The Company was formed to carry out the expansion of electricity services to rural areas, where the expansion of such service would not be financially viable to a commercial electricity retailer such as the JPSCo. Its mandate was, and still is, the construction of electrical distribution pole lines in non-electrified areas and the provision of house wiring assistance through affordable loan programmes to householders who would be given access to the service by the newly erected lines. Additionally, REP offers house-wiring assistance to needy householders in already electrified areas through a Revolving Fund Programme.

3.2 Broadening of Mandate

The mandate of the REP was expanded in 2003 to incorporate the Urban Electrification Regularization Programme (UERP). This was in an attempt to minimize unauthorized connections and reduce the risk of fires and injury to persons and property. The Programme commenced with implementation of a pilot project aimed at regularizing electrical connections to one thousand (1,000) houses in selected urban communities.

4.0 Function

The primary role and functions of the Agency are to:

- Raise the standard of living of rural householders by providing affordable access to electricity.
- Regularize and formalize the distribution and use of electricity in the inner city communities in order to foster and inculcate a culture of lawful electricity use based on agreed payment for service
- Remove the threat to personal and property safety posed by illegal abstraction of electricity and faulty house wiring.

5.0 Objectives and Targets for Financial Year 2007/2008

For the 2007/2008 Financial Year, the REP was allocated a budget of **\$70 million** but this could only provide overhead support to achieve the targets set for that financial year. These were:

- (a) Complete the wiring of 653 housing units awarded in house wiring contracts under the inner city project - UERP
- (b) Complete construction of 40 km of pole lines in rural Jamaica under the GOJ 2006/2007 project.
- (c) Complete the marketing and wiring of houses given access by the new pole line extensions to be funded by the Revolving Fund P. The total number of houses targeted is 720.
- (d) Undertake the construction of 47km of rural electrical distribution pole lines under the GOJ 2008/2009 project and wire some 850 houses estimated to be given access.
- (e) Complete private projects funded outside the budget and continue to market the services of the Agency so as to become more involved in private ventures as a means of revenue enhancement.

Additionally, within the 2005/2006 reporting year, REP undertook some special projects for the following clients. These include:

(a) Office of National Reconstruction (ONR)

REP was required to provide electrical infrastructure for four (4) subdivisions being developed by the ONR to relocate locals who were dislocated by Hurricane Ivan. These areas are Bourkesfield in St. Catherine, Portland Cottage and Rocky Point in Clarendon, and Brighton in Westmoreland. Total estimated cost is \$19.2 M.

(b) National Housing Development Corporation (NHDC)

REP was to provide electrical infrastructure to three (3) Operation Pride subdivisions being developed by NHDC. These are Vaughnsfield in St. James at an estimated cost of \$2.9M, Belle-Air in St. Ann at an estimated cost of \$19.75 M and Mammee Bay, St. Ann at an estimated cost of \$11.2M.

6.0 Highlights of Achievements - Financial Year 2007/2008

6.1 Table 1: Summary of Achievements for Financial Year 2007/2008

Target	Actual
1) GOJ 2006/07) - 40 km distribution lines	Construction of these pole line extensions are at 50% completed
2) UERP - wire 1,000 inner city houses	Of the 653 houses awarded in house wiring contracts, 529 houses are completed and certified.
4) Revolving Fund 'P' 720 houses	921 houses have been marketed and 702 have responded by paying their deposits. Of this amount 589 units have been awarded in house wiring contracts and 351 are already completed and certified.
5.2) NHDC Projects	<i>Belle Air:</i> Construction 90% completed. <i>Vaughnsfield:</i> Construction completed.

7.0 - Corporate Plan - Summary of Main Programmes 2008/2011

Estimated Expenditure: \$ excluding grants and project expenditure independently funded

Priority Policy Issues	Objectives/Policy Outcomes	Strategies	Performance measures/outcome Indicators	Major Tasks, Targets, Resources and cost by Quarter			
				Year 1 2008/09	Year 2 2009/10	Year 3 2010/11	
<u>Rural Electrification</u>							
Provide access to the entire rural Jamaica.	Construct 367 km of distribution power lines	Seek grant and loan	# of km of power lines built		(M)	(M)	
				Material	68.26	235.66	259.23
	Wire 7,010 houses	Funds to implement projects	# of rural houses	Labour	35.30	85.85	98.72
				Other Capital Cost	1.70	8.60	10.00
			Overheads	<u>78.64</u>	<u>119.26</u>	<u>127.61</u>	
			Wire	Total	\$183.90	<u>449.36</u>	<u>495.56</u>

8.0 Operational Plan - Summary of Main Programmes 2008/2009

Estimated Expenditure: \$183.90 Million

Priority Policy Issues	Objectives/ Policy Outcomes	Strategies	Performance Measures/ Outcome indicators	Major Tasks, Targets, Resources and Cost by Quarter				
				First Quarter (April 1- June 30, 2008)	Second Quarter (Jul 1- Sept 30, 2008)	Third Quarter (Oct.1 - Dec . 31, 2008)	Fourth Quarter (Jan.1 - Mar. 31, 2009)	
Provide access to electricity to the entire rural Jamaica	Construct 47 km of distribution power lines islandwide Wire 850 houses	Utilize Grant funding	# of km of power lines built	(M)	(M)	(M\$)	(M\$)	
				Material	54.86	13.40	-	-
				Labour	6.35	11.26	-	3.23
				Other	.50	1.20	14.46	-
				Overheads	<u>20.77</u>	<u>19.87</u>	-	-
					<u>82.48</u>	<u>45.73</u>	<u>18.56</u>	<u>19.44</u>
				Total	82.48	45.73	33.02	22.67

9.0 Summary Operational Plan for Financial Year 2008/2009

9.1 The proposed targets for the Financial Year 2008/2009 are as follows:

- a) Complete construction of 87km of distribution lines
- b) Wire 720 houses under Revolving Fund P.
- c) Wire 1,000 houses under Revolving Fund R.
- d) Complete the UERP project
- e) Continue to pursue private projects
- f) Secure funding under the Bandes agreement for a US\$9.4M project.

10.0 Budgetary Allocation

The revised allocation for 2007/08 was \$64.8M. The budget allocated for the 2008/2009 Financial Year is \$80M.

Honourable Clive Mullings
Minister
Ministry of Energy
July 1, 2008

MINISTRY PAPER

**PERFORMANCE OF WIGTON WINDFARM LIMITED FOR
2007/2008
AND FOCUS FOR 2008/2009 FINANCIAL YEAR**

MINISTRY PAPER No.: _____

**PERFORMANCE OF WIGTON WINDFARM LIMITED FOR 2007/2008
AND FOCUS FOR 2008/2009 FINANCIAL YEAR**

1.0 INTRODUCTION

The purpose of this Ministry Paper is to inform Parliament and the public of the work of the Wigton Windfarm Limited and its performance for the Financial Year 2007/2008.

2.0 MISSION

The mission of Wigton Windfarm Limited (WWFL) is to provide and/or facilitate increased wind power and other renewable energy usage to generate electricity thereby diversifying Jamaica's energy mix.

3.0 VISION

The vision of WWFL is to be a catalyst for increased usage of wind power and other renewable energies to provide electricity to Jamaicans. The vision will be achieved by:

- Having highly motivated, excellence-oriented employees.
- Having proactive leadership that strives to implement provision of assigned policies as well as capitalize promptly on opportunities that are beneficial to the nation and company.
- Promoting and facilitating private sector involvement/investment in wind power as a source of energy.
- Participating jointly with other agencies of Government to facilitate the usage of renewable energy in remote areas for installation of grid electrical systems.
- Negotiating with international financing agencies, Government and Non Governmental Organizations (NGO's) to finance/part-finance the acquisition of renewable energy equipment for use in Jamaica.
- Providing additional wind power to the JPSCo grid (at least 98MW over the next 5 years).
- Facilitating the transfer of renewable energy technologies to Jamaicans thereby developing local expertise and experience with renewable projects.
- Implementing provisions of the Jamaica Energy Sector Policy.
- Diversifying Jamaica's energy mix.
- Meeting the company's financial objectives.

4.0 BACKGROUND

Wigton Windfarm Limited, a wholly owned subsidiary of The Petroleum Corporation of Jamaica (PCJ), was incorporated on April 12, 2000, under the Companies Act as a Limited Company. The company owns and operates a 20.7 MW renewable energy power plant in Manchester, 12 km South South West of the parish capital Mandeville.

Wigton Windfarm (WWF) consists of twenty-three (23) wind turbines of rated power 900 kW each, located along two (2) ridges. The turbines were supplied by NEG Micon, now merged with Vestas Wind Systems A/S and the project was developed by Renewable Energy Systems, a British company with over twenty (20) years of experience in the wind farm industry.

Wigton Windfarm Limited obtained its power generating licence from the Office of Utilities Regulation (OUR) and signed a Power Purchase Agreement with the Jamaica Public Service Company agreeing to sell all the electricity generated by the wind farm to the power company at

base prices of 5.6 US cents/kWh for years one (1) to five (5) and at 5.051 US cents/ kWh for years six (6) to twenty (20).

The wind farm was commissioned April 2004 and has been operating successfully with minimum interruption due to the threat of hurricane and planned maintenance.

4.1 INSTRUMENT OF ESTABLISHMENT

WWFL is a limited liability company incorporated under the Companies Act of Jamaica.

The objectives of WWFL are to: own, develop, construct, and operate windfarms and similar renewable energy systems to harness energy for commercial production that generate electricity for sale to customers of all types.

5.0 FUNCTIONS

- Manage and operate the 20.7 MW wind farm at Wigton, Manchester
- Supply wind power to the local grid at the most competitive rate
- Identify wind potential sites in Jamaica.
- Analyze wind data and ascertain the most feasible site for expansion of wind power as a source of energy for Jamaica.
- Negotiate the sale of carbon credits realized from operating a clean development mechanism.

6.0 KEY ACHIEVEMENTS FOR FINANCIAL YEAR 2006/2007

a. Diversification of Jamaica's energy mix

Wind represents approximately 2.5% of Jamaica's energy mix with renewables (wind and hydro) representing approximately 5%.

b. Environmental Benefits

Wigton wind farm is a clean development mechanism and based on actual production between April 2007 and March 2008 the emission of approximately 44,383 tonnes of carbon dioxide (CO₂, a greenhouse gas) have been avoided. Since commencement to March 2008, 170,627 tonnes CO₂ emissions have been avoided, thus 86,962 barrels of oil import have also been avoided which translates to savings of US\$ 6,982,895² in the nation's oil import bill.

c. Technology Transfer

Local technicians (university graduates) trained in the field of wind energy and sub station operations.

d. Expansion

Wigton Windfarm Limited is currently seeking government approvals to commence the expansion of the current wind park by up to 18 MW.

e. Carbon Credits

Based on an executed Emission Reduction Purchasing Agreement (ERPA) between WWFL and the Kingdom of the Netherlands, Wigton Windfarm Limited has successfully sold carbon

² Using US\$ per barrel of oil as follows 2004/05: \$36, 2005/06: \$51, 2006/07: \$61, 2007/08: 80

credits realized from the operation of the plant between April 29, 2004 and March 31, 2008. The term of the contract is nine years at a price of Euro 5.5 per ton of carbon dioxide.

f. Small Hydroelectric Plants (SHP)

Wigton Windfarm Limited through its parent company PCJ placed an Expression of Interest Call for strategic partners to develop SHP capacity in Jamaica in August 2007. Entities were shortlisted and requested to submit Proposals and the proposals are to be evaluated. In addition, WWFL was working under an MOU with a Canadian Hydro development firm to develop 4 additional hydro sites however, JPSCo has since expressed an interest to rehabilitate two of the facilities on their own.

g. Wind Atlas

From the wind atlas, the top potential sites have been identified and land investigations started to determine suitable sites on which to erect equipment to collect wind data to confirm the potential. The company intends to seek grant funding to procure this wind measuring equipment.

h. Research Collaboration

Wigton Wind Farm Limited has met with UTECH on the possibility of facilitating a joint venture research collaboration effort with the University of Waterloo (Canada), a leading renewable energy/ fuel cell research facility. The Canadian professor is willing to conduct a workshop in the summer of 2008 to kick start the effort.

i. Wigton Plant Production

Wigton supplied the following kilowatt hours of energy (kWh) to the JPSCo grid:

Year	kWh sold to grid
April 2004 – March 2005	44,204,036 ³
April 2005 – March 2006	51,433,650
April 2006 – March 2007	55,734,200
April 2007 – March 2008	53,216,750 ⁴

j. Sale of Wigton Windfarm Limited

In December 2006, the parent ministry (MITEC, no MEMT), instructed that Wigton Windfarm Limited was to be advertised for sale. The RFP documentation was prepared and the facility advertised for sale in July 2007. No bids were received at the submission deadline, September 14, 2007.

7.0 SUMMARY OF OPERATIONAL PLAN FOR FINANCIAL YEAR 2008/2009

- Subject to government approvals and financial closure, start construction of the Wigton wind farm expansion.
- Start investigations on a low wind speed cut in technology demonstration project.
- Continue and expand wind data collection programme.

³ Downtime experienced due to hurricane Ivan inspection and repairs period (JPSCo transmission line damage and wind turbine minor electrical faults)

⁴ Downtime experienced due to hurricane Dean (JPSCo transmission line damage) as well as one wind turbine blade was damaged due to a lightning strike. A replacement blade has been ordered.

- Capacity building of staff and expanded internship programme to develop renewable energy capacity in Jamaica.
- Successfully negotiate the sale of carbon credits to be derived from the operation of an expanded wind farm.
- Successfully conclude the project timeline, cost, etc for the development of a small hydroelectric plant in the parish of St. Ann and enter into partnerships to exploit additional hydro potential.

8.0 FINANCIAL PERFORMANCE FOR THE YEAR 2007/2008

Purpose	Actual Ja\$'000	Budgeted Ja\$'000	Variance Ja\$'000
General Administrative Expenses: Inclusive of utilities, staffing, taxes, insurance, stationery, maintenance, professional fees, project management, business charges, community outreach, board expenses and depreciation	164,605	175,613	11,008
Project Expenses: Including contracted services and purchases, research, seminars, feasibility studies, regulatory fees, finance charges and promotions.	<u>6,097</u>	<u>32,440</u>	<u>26,343</u>
Total	170,702	208,053	37,351

Wigton experienced favourable variances for general administrative and project expenses as a result of:

- Favourable variance in expenses as a result of cost savings,
- NCB loan as at March 31, 2007, being transferred as a shareholder's subordinated loan; hence WWFL will not be required to absorb interest charges in its profit and loss account and,
- Contracted services budgeted was unitized, however, as a result of the nature of WWFL's business, a provision was made.

8.1 BUDGETARY PROPOSAL FOR FINANCIAL YEAR 2008/2009

Purpose	Budgeted Ja\$'000
General Administrative Expenses: Inclusive of utilities, staffing, taxes, insurance, stationery, maintenance, professional fees, project management, business charges, community outreach, board expenses and depreciation	183,916
Project Expenses: Including contracted services and purchases, research, seminars, feasibility studies, regulatory fees, finance charges and promotions.	<u>40,935</u>
Total	224,851

9. PROJECTIONS FOR YEAR 2008/2009

Small Hydro Construct 2MW Laughlands Great River Hydro project. The project budget is US\$4.1Million

Wind Energy

Up to 18 MW expansion on Wigton Lands (phase 1).
Project budget is US\$47.6 Million

Wind Energy

Demonstration project to investigate and test low wind technology wind turbines for an estimated 4 MW project. The project budget is US\$9.6.

Clive Mullings
Minister
Ministry of Energy
July 1, 2008

