



Ministry of Energy and Mining

MINISTRY PAPERS *2008-2009*



Driving Development through the rational use of Energy and other Natural Resources...

TABLE OF CONTENTS

LIST OF MINISTRY PAPERS BY AGENCIES Page

ENERGY

I. The Centre of Excellence for Renewable Energy (CERE)	1
II. The Electricity Division	10
III. The PETROJAM Ethanol Limited (PEL)	19
IV. The Petroleum Company of Jamaica (PETCOM)	26
V. PETROJAM Limited (PETROJAM)	32
VI. The Petroleum Corporation of Jamaica (PCJ)	44
VII. The Rural Electrification Programme Limited (REP)	52
VIII. Wigton Windfarm Limited (WWFL)	58

MINING

IX. Bauxite and Alumina Trading Company of Jamaica Limited (BATCO)	64
X. Clarendon Alumina Production Limited (CAP)	68
XI. Jamaica Bauxite Institute (JBI)	80
XII. Jamaica Bauxite Mining Limited (JBM)	87

MINISTRY OF ENERGY AND MINING

MINISTRY PAPERS FOR FINANCIAL YEAR 2008/2009

INTRODUCTION

The Ministry of Energy and Mining was formed in April 2009. Its responsibilities relate broadly to policy development, regulation, research, promotion and the implementation of programmes specific to energy security, the development of local energy resources and all areas of the energy sector; and also to minerals management and the development of an efficient and profitable minerals industry.

PURPOSE OF MINISTRY PAPERS

These Ministry Papers are presented to allow Parliament and the general public to obtain an insight into the operations of the various agencies of the Ministry during the 2008/2009 financial year. They provide information on the entities' budgets, work programmes and the successes and challenges achieved and encountered. Additionally, they also provide an indication of the programmes that the agencies will follow during the 2009/2010 financial year.

VISION

The vision of the Ministry is that Jamaica will be able to ensure its energy security, and provide an abundance of reliable, environmentally benign and affordable energy to power all segments of the economy; and through the implementation of the required policies and economic regime facilitate the development of a competitive minerals industry focused primarily on the manufacturing of value-added products, contributing to national sustainable development and existing in harmony with other land-users and sections of the economy.

MISSION STATEMENT

The mission of the Ministry of Energy and Mining is to:

- Develop, implement, monitor and evaluate policies and the required legislative mechanisms aimed at ensuring Jamaica's energy security, the provision of a constantly adequate, reliable and affordable energy supply system, which facilitates development and helps to make the economy competitive with its trading partners.
- Create, actively implement, monitor and evaluate policies aimed at developing and diversifying the country's minerals industry within the context of sustainability, facilitate sequential land-use and provide the enabling legal and other frameworks to encourage a competitive industry and an example of best practice in the global minerals industry.
- Introduce policies, recommend and create structures which will facilitate the effective management of the country's mineral resources, the management of its mineral-bearing lands and enhance the Government's ability to maximize national gains from its mineral resources while limiting the opportunity cost of developing our mineral wealth.
- Promote investment in Jamaica's energy and minerals sectors and their development as globally competitive and modern sectors of the Jamaican economy.

MANDATE

The mandate of the Ministry is to:

- Promote the development of the energy and minerals industries within the context of sustainability.
- Promote the diversification of the energy industry, with a particular need for investments in new energy sources and the development of all local energy sources, including fossil fuels and renewables.
- Promote the development of a modern electricity sector, especially in respect to efficient and competitive power generation, transmission, distribution and metering.
- Promote scholarship and the development of best practices in the energy and minerals/mining sectors.
- Promote the diversification of the minerals industries, with a particular need for investments to be made in the Industrial Minerals Sector to complement the Bauxite and Alumina Sector.
- Monitor and inspect the operations of companies involved in mineral extraction
- Manage the country's mineral resources, including mineral-bearing lands.
- Facilitate and promote sequential land use and harmony between mineral development and other aspects of the economy.

FUNCTIONS

The key functions of the Ministry are to:

- a. Provide oversight of the energy and minerals/mining portfolios.
- b. Provide a forward-looking policy framework to guide operations of its internal core and its agencies.
- c. Pilot the promulgation and amendment of legislations and regulations, which guide the operations of the agencies.
- d. Provide strategic direction to agencies on subject matters, as may be necessary.
- e. Restructure and form new agencies as required to address aspects of the portfolios and close agencies no longer required.
- f. Set priorities, ensure good governance and facilitate the allocation of resources to enable the Ministry's internal core and its agencies to achieve their mandates.
- g. Monitor performance of agencies.
- h. Resolve difficult issues relating to the subject areas and agencies.

INTERNAL DIVISIONS, DEPARTMENTS AND PORTFOLIO AGENCIES OF THE MINISTRY

Led by the Office of the Minister (the political head, which also includes the Office of the Minister of State) and the Office of the Permanent Secretary (the administrative head), the Ministry of Energy and Mining comprises the following internal divisions and external agencies:

INTERNAL DIVISIONS

1. **Energy** - Oversees the effective development and regulating of all segments of the country's energy sector.

2. **Mines and Geology** - Ensures the effective management of the country's mineral resources and the monitoring of companies involved in minerals development.
3. **Technology** - Ensures the implementation and maintenance of a leading edge, efficient, reliable and functional and information technology system within the Ministry.
4. **Policy, Planning and Development** – Provides policy and planning guidance and support for the Ministry and monitors policy priority areas along-side budgetary allocation.
5. **Finance and Accounts** – Prepares the budget and oversees the efficient allocation and management of financial resources to facilitate the effective implementation of the Ministry's mandate.
6. **Internal Audit** – Ensures compliance with the Financial Audit and Administration Act (F.A.A. Act).
7. **Human Resource Management and Administration** - Coordinates and administers personnel and facilitate human resource development of staff.
8. **Communications and Public Relations** – Serves as the information arm of the Ministry.
9. **Legal** – Prepares and monitors the drafting of legislation to give effect to the policies of the Ministry and agencies and to provide guidance in relation to legal matters.

EXTERNAL AGENCIES

ENERGY

1. PETROJAM Ethanol Limited (PEL)

A subsidiary of the Petroleum Corporation of Jamaica (PCJ), PETROJAM Ethanol Limited (PEL) was established in 2002 to ensure the accelerated implementation of the Jamaica Energy Sector Policy. PEL processes fuel grade anhydrous ethanol for the local and foreign markets, and qualifies under the Caribbean Basin Economy Recovery Act, 1983 for the exemption of duty in the exportation of fuel grade ethanol in the U.S.A.

2. Petroleum Company of Jamaica (PETCOM)

The Petroleum Company of Jamaica Limited (PETCOM) is a subsidiary of the Petroleum Corporation of Jamaica (PCJ), and functions as the retail arm of the PCJ Group. Its main retail activities include the marketing and sale of petroleum products and lubricants through a network of service stations and Liquid Petroleum Gas (LPG) filling stations across the country. The company retails through these outlets by a dealer operated franchise agreement.

The company also operates in the industrial market and supplies clients in the

transportation and hospitality sectors with petroleum products (heavy fuel oil, diesel oil and asphalt) and LPG.

3. **PETROJAM Limited (PETROJAM)**

A member of the Petroleum Corporation of Jamaica (PCJ) Group of Companies, PETROJAM Limited's (PETROJAM) core business is the operation of the country's sole 36,000 barrel per day oil refinery, which is being upgraded to a 50,000 barrel per pay facility under an agreement between the Government of Jamaica and the Government of Venezuela. This agreement has resulted in the GOJ owning 51% and the GOV owning 49% of the emerging facility.

PETROJAM satisfied approximately 80% (12.1 million barrels) of the country's petroleum demand (minus the demand of the bauxite/alumina sector) through a mix of products refined from crude oil, and imported finished products.

4. **Petroleum Corporation of Jamaica (PCJ)**

A statutory Corporation established in 1979 through the promulgation of the Petroleum Act, 1979, the Petroleum Corporation of Jamaica (PCJ) has been mandated to undertake the development and promotion of Jamaica's energy resources and seek, where necessary, business partners through joint ventures with the private sector.

The Petroleum Act, 1979, empowers the PCJ to explore for oil and gas within Jamaica's territories and to bid for supply contracts, refining, transportation and retail marketing of petroleum products. Additionally, in 1995 the PCJ was mandated to develop indigenous renewable energy resources to prevent adverse effects on the environment and to assist the Government in realizing the goals of the Jamaica Energy Sector Policy. The PCJ is also charged with implementing the country's National Energy Policy.

Since its inception, the PCJ has evolved into a group of companies, which consist of PETROJAM Limited (PETROJAM), PETROJAM Ethanol Limited (PEL), Petroleum Company of Jamaica Limited (PETCOM), Wigton Windfarm and the Centre of Excellence for Renewable Energy (CERE).

4.1. **The Centre of Excellence for Renewable Energy (CERE)**

Established in November 2006 as a division of the Petroleum Corporation of Jamaica (PCJ), the Centre of Excellence for Renewable Energy (CERE) is mandated to develop Jamaica's renewable energy potential. In executing its mandate the CERE therefore promotes the development and diversification of renewable energy sources and technologies; supports research, development, demonstration and implementation of renewable energy technologies; facilitates training and development opportunities; and collaborates with various energy and environmental stakeholders, the public and the international community to ensure the development of renewable energy sources and technologies.

5. **Rural Electrification Programme Limited (REP)**

The Rural Electrification Programme Limited (REP) was incorporated in 1975 as an executing agency of the Government to provide electricity services to rural areas, where the expansion of such service would not be financially viable to a commercial electricity

retailer such as the Jamaica Public Service Company Limited (JPSCo). The company has also facilitated the regularizing of urban electrification in economically challenged urban communities.

The REP's mandate remains 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 are given access to the service by the newly erected lines. Additionally, the REP offers house-wiring assistance to needy householders in already electrified areas through a Revolving Fund Programme.

Up to March 2009, the REP had facilitated access to electricity in approximately 74,000 accounts. Through its initiative, approximately ninety per cent of rural areas now have electricity, an achievement that has facilitated the development of economic and social activities in the beneficiary communities.

6. Wigton Windfarm Limited (WWFL)

Incorporated on April 12, 2000, under the Companies Act as a Limited Company, the Wigton Windfarm Limited (WWFL) is a subsidiary of the Petroleum Corporation of Jamaica (PCJ).

The WWFL is mandated to assist in diversifying Jamaica's energy mix by providing and/or facilitating increased wind power and other renewable energy sources to generate electricity. The company owns and operates a 20.7 MW capacity wind farm that was commissioned on April 29, 2004. The company is expanding the wind farm located some 12 km South South West of Mandeville, Manchester, by an additional 18 MW of generating capacity.

MINING

7. Bauxite Alumina Trading Company of Jamaica Limited (BATCO)

Established in 1977, the Bauxite Alumina Trading Company of Jamaica Limited (BATCO) is the government-owned company mandated to market the bauxite and alumina from the Government's equity in the Bauxite and Alumina Sector.

8. Clarendon Alumina Production Limited (CAP)

Incorporated in 1985, Clarendon Alumina Production Limited (CAP) is the Government of Jamaica (GOJ) owned entity mandated to manage the Government's interest in the Halse Hall, Clarendon-based Clarendon Alumina Works joint venture with ALCOA of the USA.

9. Jamaica Bauxite Mining Limited (JBM)

Incorporated in 1975, the Jamaica Bauxite Mining Limited (JBM) holds the Government of Jamaica's equity in WINDALCO and St. Ann Bauxite Partners and owns the former Reynolds property in Lydford, St. Ann and the old Reynolds Bauxite Port at Ocho Rios, St. Ann.

10. **The Jamaica Bauxite Institute**

Established in 1975, the Jamaica Bauxite Institute (JBI) is a regulatory, planning, research and development agency, with responsibility to facilitate the development of the Bauxite and Alumina Sector, research, gather and evaluate information on and monitor all aspects of the sector, including mineral exploration, environmental impact, industrial relations and fiscal matters.

Through the Bauxite Community Development Programme (BCDP), a collaborative effort with bauxite and alumina companies and community councils, JBI implements programmes that reinvest part of the sector's earnings in communities affected by its operations. This takes the form of long-term sustainable income-generating, physical and social infrastructure projects.

MINISTRY PAPER NO.: _____

PERFORMANCE OF CENTRE OF EXCELLENCE FOR RENEWABLE ENERGY FOR 2008/2009 AND FOCUS FOR 2009/2010 FINANCIAL YEAR

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), its performance during the 2008/2009 Financial Year and its intended focus for the 2009/2010 Financial Year.

2.0 VISION

The vision of CERE is that Jamaica will regularly implement new ideas and technologies in Renewable Energy (RE) in recognition of our excellent and abundant supply of natural resources.

3.0 MISSION

The Mission of CERE is to support the development of Renewable Energy (RE) for increased usage in Jamaica and to:

- Promote the development and diversification of renewable energy sources and technologies;
- Support research, development, demonstration and implementation of renewable energy technologies;
- Recognise and reward individuals and teams that showcase renewable energy successfully;
- Facilitate training and development opportunities; and
- Collaborate with various energy and environmental stakeholders, the public and the international community.

4.0 BACKGROUND

The Centre of Excellence for Renewable Energy (CERE) is a division of the Petroleum Corporation of Jamaica (PCJ), and was established in November 2006. The PCJ is a statutory body set up in 1979 in response to the energy crisis of the 1970s as the implementing agency for the Energy Portfolio of the Ministry with responsibility for Energy. CERE is mandated to develop the country's renewable energy potential. The Centre's mandate, like that of the PCJ's, is aligned to the National Energy Policy and the Petroleum Act of Jamaica.

Renewable energy is energy that is generated from natural resources such as solar (from sunlight producing light and heat), hydro power, wind energy, geo-thermal, bio-mass, waste to energy and bio-fuels.

About 18% of global final energy consumption comes from renewables, with 13% coming from traditional biomass, such as wood-burning. Hydroelectricity is the next largest renewable source, providing 3% (15% of global electricity generation), followed by solar hot water/heating, which contributes 1.3%. Modern technologies, such as

geothermal energy, wind power, solar power, and ocean energy together provide some 0.8% of final energy consumption

Jamaica is over 90% dependent on imported fuel oil and has set targets to increase the percentage of renewable energy in the nation's energy mix.

5.0 FUNCTIONS

- Build key functional skills/capacities in Renewable Energy for example:-
 - to estimate the potential of a renewable energy resource,
 - to analyze renewable energy projects and present them for financing, and
 - to do intrinsic research on solar radiation, wind measurements and stream flow analysis.
- 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.

Having established the Strategic Plan, the RE potential for the various resources and the programme of work to achieve the policy objectives in 2007/2008, the focus for 2008/09 was to prepare documentation for funding projects, prepare planning and feasibility studies and get project construction ready. Towards these objectives the programme of work for 2008 /09 was outlined.

6.0 KEY ACHIEVEMENTS FOR FINANCIAL YEAR 2008/2009

In 2008/2009 CERE completed substantial work to build institutional capacity and to conduct pre-feasibility and feasibility studies for waste to energy, bio-fuels, and the Laughlands Hydro Power Development to lay the foundation for additional renewable energy developments. The research and development activities conducted are outlined below:

Strategic Planning

A range of Renewable Energy project initiatives, such as wind, hydro, solar, waste to energy, and bio-fuels, have been researched and modelled to estimate the development potentials for Jamaica. Each project component is being reviewed with regards to estimated technical and capital requirements, benefits and carbon emission reductions. Policy and legislation will be required to support the timely and effective development of these initiatives. This information was used to develop the Corporate, Operational and Budget Plan inputs for the period 2008 – 2013.

Hydro Potential

Jamaica currently has 23 MW of hydro electric power capacity in eight plants across the island. This produces on average 150,000 MWh of energy annually and hence avoids the importation of 88,000 Bbls of oil for electricity generation and the emission of 108,000 tonnes of CO₂ annually.

In the 2008/09 financial year a request for proposal was issued to the interested parties to develop small hydro plants in Jamaica of up to 10 MW per project. Subsequently, only one bid was received from SCP / BPR Hydro International, Canada. The Laughlands 2MW project is well advanced and SCP/ BPR will be engaged with the PCJ in seeking to develop as many of the Hydro power projects as possible.

SCP has since begun finalizing the feasibility study and project document for the Laughlands Great River (**≈ 2 MW**) small hydro power plant.

The PCJ applied for grant funding from the IADB to support the hydro power development. The sites were ranked as follows:

- 1) Great River ≈ 8 MW
- 2) Spanish River ≈ 2.5 MW
- 3) Yallahs River ≈ 2.6 MW
- 4) Martha Brae River ≈ 4.8 MW

These plants, when commissioned, will provide 97,000 MWh of energy that will avoid the importation of 56,000 Bbls of fuel oil annually and emissions of 69,000 tonnes of CO₂.

The IDB has indicated that the development of project documentation/study can be done through a retainer of approximately US\$150,000.00. The Corporation also applied for grant funding from the CARICOM Secretariat to support the project documentation/study of the Back Rio Grande Project (**≈ 25 MW**) costing approximately US\$ 107,000.00. The amount will cover the development of the project documentation. An MOU was subsequently executed between PCJ and CARICOM Secretariat.

Waste to Energy Potential

The conversion of municipal and other solid waste to energy is practiced in many countries. It provides a solution for the treatment of garbage and also provides energy without employing fossil fuel. For Jamaica this results in a reduction in the requirement for the amount of fuel needed to supply our demand.

Jamaica produces about 1.4 million tonnes of municipal solid waste annually. Technologies exist to convert this waste to electricity, or bio fuel such as Ethanol, Biodiesel or Synthesis gas (Syngas). It is estimated that up to 60 MW capacity of electricity or equivalent fuel can be generated from Jamaica's municipal waste. This will obviate the need to import up to 150,000 barrels of oil annually needed for electricity.

Some of the technologies for waste-to-energy are emerging hence Jamaica will seek to engage technologies that are tried, tested and proven and have demonstrated that they can successfully operate in a commercial environment.

PCJ in collaboration with the National Solid Waste Management Authority (NSWMA) developed a Waste to Energy Request for Proposal which was issued to the

international and local market on January 19, 2009. The proposal referred to two sites; one eastern facility, adjacent to Soapberry/Riverton in St. Andrew and a western facility, adjacent to Retirement in St James. Subsequently, a pre-bid meeting and site visits were held March 17- 19, 2009.

Twelve (12) potential investors/companies participated in the site visits to Riverton City Waste disposal site and the proposed eastern site on March 17, 2009 and to Retirement St. James and the proposed western site on March 18, 2009. The pre-bid meeting of March 19, 2009 was attended by over fifty persons, twenty six (26) of whom were investor representatives.

At the closing date for return of the bids on April 30, 2009, four (4) entities, some of which were formed out of partnerships, responded to the RFP. These proposals are now being evaluated by an independent consultant. Based on the ranking by the consultant, a multi-agency team will make a recommendation for an award.

The Department of Local Government is spearheading a process to finalize a Waste – to-Energy policy. This collaborative effort includes representatives from the Office of the Prime Minister, the Ministry of Energy and Mining and the PCJ.

Bio-fuels Potential

Transport activity is one of the demand drivers for overall oil imports, thereby contributing to the nation's "addiction to oil". The trend in gasoline consumption for transport indicates a growth rate of about six per cent (6%) per annum, while automotive diesel consumption for transport indicates steady growth in diesel demand, of about seven per cent (7%) over the past decade. These growth rates may be attributed to the 1995 Motor Vehicle Import Policy, which revised, expanded and liberalized the importation of motor vehicles; and the expansion in the public bus transportation fleet. Jamaica's National Energy Policy (2009 – 2030), which supports an increase in the efficiency of the transport sector, details several recommendations as follows:

- Incentives to encourage the importation of smaller engines,
- Incentives to encourage the importation of diesel-powered engines to a target of 30% of annual imports by 2016,
- Fuel economy promotions,
- Replacement of Mtbe with ten per cent (10%) ethanol, and incremental increases in the blend to 15% within five years,
- Promotion of the wider use of hybrid and flexi vehicles through a discriminating tax regime and the
- "Balancing" of public and private transportation modes.

Against this background, CERE's Biofuels Action Plan is aimed at:

- Strengthening of bilateral relationships and the implementation of a tri-lateral agreement with Brazil – USA – Jamaica to support capacity building;

- Support for the phasing out of Mtbh and introduction of ten per cent (10%) ethanol in gasoline as an octane enhancer and clean energy alternative; and
- Biofuels research and development to support project mapping and policy.

During the fiscal year 2008-2009 CERE supported the E10 Programme through policy research and analysis on the sugar sector transformation. A policy paper titled “Policy Options for the Use of Locally Produced Ethanol” was completed in collaboration with the Ministry of Energy and Mining. Subsequently, a Cabinet Submission was tendered and approved.

CERE also supported the staging of a Biofuels Policy Workshop for intergovernmental agencies. The policy workshop was jointly sponsored by the Economic Commission for Latin America and the Caribbean (ECLAC), the Ministry of Energy and Mining, and the PCJ. The workshop was titled “Formulating Public Policies in Biofuels”, and was held on December 15 and 16, 2008, at the Knutsford Court Hotel. A workshop report was prepared for dissemination. Participants identified the main challenges and opportunities to the implementation of locally grown biofuels, the main actors and the policy formulation process. Twenty six (26) persons attended representing the following agencies:

- a. Ministry of Transport and Works
- b. Office of the Prime Minister
- c. Ministry of Agriculture
- d. Petroleum Corporation of Jamaica
- e. Jamaica Trade and Invest
- f. Caricom’s Energy Programme Unit
- g. CREDP/GTZ
- h. Petrojam Ethanol Limited
- i. Ministry of Energy and Mining
- j. National Environment and Planning Agency
- k. Economic Commission for Latin America and the Caribbean.

At PCJ’s Font Hill Farm a biodiesel cultivation trial was undertaken in March 2008 in which 2.8 kg of Nordestina seeds were planted on a 0.75 acre plot. The plants matured within five months with an estimated harvest of over 740 kg of seeds. Testing was carried out in collaboration with the Jamaica Bureau of Standards and the Bodles Agricultural Research Unit. Test results indicated the seeds’ oil content was forty six per cent (46%). This compares favourably with the vegetable oil productivity of the castor oilseeds grown in Brazil, which are reported to contain 45% – 55% oil.

Further to the trial, a Small Scale Biodiesel Pilot Project Plan was prepared to support the review of best agronomic practices, biodiesel production and engine testing. The Small Scale Biodiesel Pilot Project is designed to determine the productivity and profitability for producing biodiesel from oilseeds cultivated on local marginal lands. CERE has recommended the development of forty (40) acres of marginal lands at Font Hill Farm, twenty (20) acres of saline lands and twenty (20) acres of mined out bauxite lands. The harvested oilseeds will be processed to American Society for Testing and

Materials (ASTM) D 6751 Specifications, and used in bus engine testing. The Request for Proposals (RFPs) for associated biodiesel production equipment and oilseeds were prepared. Testing is planned for the fourth quarter of the 2009-2010 fiscal year.

Presentations on the Biofuels Strategic Plans were prepared for various groups during the fiscal year, including: The Ministry of Energy and Mining, the Jamaica Bureau of Standards, the Food and Agriculture Organization, the European Union, the World Bank and the Economic Commission for Latin America and the Caribbean's Regional Biofuels Seminar.

Meetings were held with several company representatives who are exploring opportunities in Biofuels. The companies are: NevEast Office Supplies, Energy Solutions & Advanced Technologies LLC, Greenergy Renewables Ltd., Horizon Biodiesel, GETCO and Chesapeake Green Fuels. CERE has conducted preliminary screenings of several proposals for biodiesel production, using jathropa and waste vegetable oil. CERE has advised the potential investors of the steps required to enter the biofuels sector.

Over the period November 17 – 21, 2008, the Ministry of Energy and PCJ CERE, represented Jamaica at an international conference on Biofuels hosted by the Government of Brazil in Sao Paulo. The Theme of the conference was **"Bio-fuels as a driving force of Sustainable Development"**. The Conference was staged to encourage International discussion about the challenges and opportunities posed by bio-fuels and to provide an occasion for addressing issues related to bio-fuels, such as energy security, sustainability of the production and use, agricultural and industrial processing, as well as issues related to technical specifications and standards, international trade, climate change, bio-fuels and innovation and bio-fuels' future. Arising from the meeting, the Government of Jamaica signed a tri-lateral agreement with the Republic of Brazil and the United States of America to support advancement of the biofuels agenda. In March 2009, a Biofuels Taskforce was launched to pave the way for new biofuels developments. The OAS' Department of Sustainable Development has signaled its commitment to the process by offering financial resources of US\$150,000 - US\$250,000.

In February 2009, CERE participated in the Ministry of Agriculture's Agri-Investment Seminar by preparing biofuels posters and exhibits to showcase castor and jathropa plants along with crude biodiesel oil and fertilizer meal to agricultural investors.

Biofuels project funding requests were prepared for submission to the Caribbean Renewable Energy Development Programme, the Inter-American Development Bank and UNEP's Sustainable Energy Advisory Facility. CERE participated in the development of internal strategic planning processes and project manuals to streamline approval processes and standardize project development.

Wind Energy Potential

The PCJ applied for grant funding from the IADB to support the funding of wind studies in Jamaica. The funds will be used to procure the instrumentation, supporting hardware, software and meteorological towers.

Solar Potential

The PCJ developed project concept documentation and applied for financial support from the PetroCaribe Development Fund to execute the following projects:

- The development of a solar panel manufacturing facility (thermal and photovoltaic)
- The development of solar street lighting
- Solar Photovoltaic for rural electrification
- The development of a solar farm in Portmore
- The installation of grid-tied PV systems for 2000 households in Portmore
- The installation of stand alone PV systems for 2000 households on the Rural Electrification Programme (REP) list that have been marked as unfeasible

CERE developed and submitted a concept paper on Net-Metering to the Office of Utilities Regulation (OUR) and the Ministry of Energy. CERE also developed and submitted a Terms of Reference (TOR) for Inter-Connection Standards for Net-Metering Applications for Hybrid Systems to the Development Bank of Jamaica (DBJ). The main objective of the TOR will be to develop standards for net metering interconnectivity. DBJ has selected a UWI undergraduate to undertake this initiative. The project will be funded by the DBJ.

Capacity Building and Development

A definition mission and a Renewable Energy Workshop were conducted in Jamaica during the week of April 14-18, 2008. The workshop was hosted by CERE in collaboration with Mexico's Non-Conventional Institute of Electrical Energy.

A CERE team member attended a two month international training course on Renewable Energy for Developing Countries, which was sponsored by China's Ministry of Commerce. The course which was organized by the Biogas Institute of the Ministry of Agriculture was held from September 22 to November 20, 2008 in Chengdu, Sichuan, China.

Two summer interns were hired in June 2008 to support research work for the Biofuels Unit. Additional team members are being recruited to support Renewable energy development.

A CERE team member attended the Forum for Sustainable Development for Central and North America on December 11 & 12, 2008, which was sponsored by the Organization of American States' Department of Sustainable Development. The meeting was arranged to support the promotion of sustainable energy projects in the region, and to discuss the development of policies for bioenergy and renewable

electricity. Various countries shared their experiences in using advanced technologies to harness renewable energy.

Create an Enabling Environment & Promote Regional Integration

CERE coordinated and hosted a Renewable Energy exposure tour for representatives from Suriname's State Oil Company (STAATSOLIE). The tour was conducted during the week of June 16 – 20, 2008. Energy from June 16 – 20, 2008 to learn more about the Centre's day to day operations, strategic plans, policy, regulation and interconnection prospects. STAATOLIE is planning to explore renewable energy potentials further by implementing a Renewable Energy Unit, with a cadre of specialists.

SUMMARY OF OPERATIONAL PLAN FOR FINANCIAL YEAR 2008/2009

The 2008/09 Operational Plan had the broad objective of investigating and reporting economically and technically viable renewable energy options for Jamaica through extensive research and development. The plan identified several performance measures including:-

- The agricultural performance of genetically engineered castor beans and the systems required for biofuels development.
- Integrating tertiary institutions into renewable energy development.
- Facilitating investment interests in small hydro development for grid-tied electricity generation.
- The development of Waste to Energy Request for Proposals.

CERE conducted experimentation to validate the performance of solar PV and solar heating collector.

8.0 FINANCIAL PERFORMANCE FOR THE YEAR 2008/2009

Purpose	Actual Ja\$'000	Budgeted Ja\$'000
Research and Development	886,212	2,072,000
Employee cost	1,086,242	2,409,000
Marketing and Public Relations	647,664	240,000
Total	2,620,118	4,721,000

8.1 BUDGETARY PROPOSAL FOR FINANCIAL YEAR 2009/2010

Purpose	Budgeted Ja\$'000
Research and Development	2,410,000
Employee Cost	4,000,580
Marketing and Public Relations	6,791,150
Project Preparation and Development	600,000
Total	13,801,730

Strategic Focus for FY2009-10

The focus of fiscal year 2009-10 will include the following:

- The development of four hydro sites; namely Great River, Yallahs River, Spanish River and Martha Brae River. The IDB has signaled its initial commitment to funding feasibility updates of these sites.
- The development of the Back Rio Grande River; a feasibility study update. The CARICOM Secretariat has dedicated a total of US\$105,000.00 to this project.
- Twelve (12) met towers will be installed for wind measurement and analysis.
- Bio-ethanol policy work, a small scale Bio-diesel pilot project at the Font Hill Farm in St. Elizabeth and land use mapping. CERE is planning to involve the tertiary institutions in all work programmes to ensure that student interest is maintained and fostered. Ethanol and Bio-diesel Programmes will depend heavily on the development of highly structured agricultural and waste oil recovery projects. The range of agricultural feedstocks currently under investigation include: castor plants, jatropha, sunflower and sugarcane. Issues of biofuels pricing, agricultural and industrial processing capacity and international trade are still being finalized to ensure sustainable development.

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER NO.: _____

**PERFORMANCE OF THE ELECTRICITY DIVISION FOR FINANCIAL YEAR
2008/2009 AND FOCUS FOR 2009/2010**

1.0 Purpose of Ministry Paper

This Ministry Paper is intended to provide highlights of the performance of the Electricity Division over the 2008/2009 Financial Year and the main focus for the 2009/2010 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, 1958. However, a decision taken by the Ministry in 2008, resulted in the mandate being expanded to include the inspection and certification of petroleum facilities, tanker wagons and their garages, in accordance with the Petroleum Landing and Storage Act, 1925.

The Division operates four (4) offices across the island to ensure maximum and timely access to customers. These 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, petroleum facilities, tanker wagons and associated garages island-wide are safe and satisfy the Jamaica Standards and/or 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.
- (c) To educate the public on the requirements and importance of having safe petroleum facilities and tanker wagons for the conveyance, storage and distribution of petroleum products and the need for their inspection and certifications. To monitor the status of these facilities and tanker wagons with the aim of preventing loss of life and property resulting from unsafe conditions that might exist.

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 and the conveyance, storage and distribution of petroleum products. The objectives of the Division are accomplished by an orderly system of inspections, tests, and certification of electrical installations, petroleum facilities and tanker wagons,

thereby ensuring that the essential provisions considered necessary for safety are satisfied in accordance with the Electric Lighting Law, the Petroleum Storage and Landing Act and the relevant regulations. A related certificate of fitness is subsequently issued by this Division (also known as the Government Electrical Inspectorate, GEI) to the Electricity Supplying Authority, Owners/Operators of petroleum facilities and Petroleum Marketing Companies, attesting to the safety of the installation, facility or tanker wagon and its adherence to the governing standards.

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. Likewise, only facilities and tanker wagons that are granted the required petroleum certification are allowed to store, convey or distribute petroleum products.

The Chief Electrical Inspector is the sole arbiter on all electrical matters on which the regulations are silent.

2.3 The Main Functions of the Electricity Division are: Electrical Functions

- (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 carry out, upon request, energy audits of buildings with the aim of recommending measures that may result in reduced energy consumption without compromising operation or operating time;
- (v) to inspect and to certify new installations of the JPSCo's electrical system (transmission and distribution) and the Rural Electrification Programme (REP);
- (vi) to process, comment on, and approve all electrical designs submitted by consultants, contractors, developers and consumers;
- (vii) to investigate accidents/fire relating resulting from the use/misuse of electricity and to make recommendations aimed at improving the safety of the installations involved;
- (viii) to provide technical information to consultants, architects, electrical engineers, local and foreign contractors, police and fire officials and the general public;
- (ix) to monitor the performance of all licensed electricians and advise the Board of Examiners accordingly; and
- (x) to meet with members of technical committees of the Board of Examiners and Bureau of Standards Jamaica, to discuss technical standards, materials, equipment and/or the preparation of new specifications.

Petroleum related Functions

- i. Ensure that all Petroleum Service Stations island-wide conform with the Petroleum Landing and Storage Act and related regulations so that the public in general may utilize same without endangering life and/or property;
- ii. To carry out annual physical inspection of all Petroleum Service Stations, Jet-fuel Stations, Garages for petroleum tanker wagons and the refineries and certify same to carry out their functions in the local petroleum industry;
- iii. To investigate petroleum related accidents/fires resulting from the storage, distribution and/or conveyance of petroleum products and make recommendations aimed at improving conditions, so as to prevent a recurrence of similar incident;
- iv. To meet with members of technical committees of the Bureau of Standards, National Environment and Planning Agency (NEPA), Fire Brigade and Parish Councils to discuss technical standards, preparation of new specifications and any other matter relevant to the operation of safe petroleum facilities;
- v. Monitor the performance of Drivers of tanker wagons, Petroleum Contractors and Petroleum Marketing Companies and report on same to the Senior Director of Energy of the Ministry of Energy and Mining.

3.0 Achievements for Financial Year 2008/2009

3.1 Main Achievements

Over the past five years, an average twenty eight thousand (28,000) electrical inspections were done annually. However, during the period under review, a total of thirty one thousand nine hundred and forty-six (31,946) applications were received of which thirty thousand two hundred and seventy-five (30,275) or 94.7% of installations were inspected. Of this amount, twenty five thousand one hundred and ninety-six (25,196) or 83.3 % were granted certification and five thousand and seventy-nine (5,079) or 16.8 % were rejected.

Additionally, the Division began the process of auditing petroleum service stations in July 2008. This was done to facilitate the roll-out of the proposed ethanol-based petroleum fuel E10. The audits were done to ensure that the equipment being utilized at service stations were compatible with E10 – a fuel containing 10% to the volume of ethanol. A total of 263 Service Stations, representing 18 petroleum marketing companies, were submitted for audit. Of this amount a total 186 stations were audited and 143 of this amount were certified for the storage and distribution of the E10. The remaining stations were those not supplied by the Petrojam's Refinery and the initial roll-out of E10 targeted only those stations supplied by that refinery. However, we continue to carry out audits as prepare for the full roll-out of E10.

As part of our Public Education Programme, the Division hosted four (4) meetings with practicing Electricians island-wide. The meetings were geared towards informing electricians of changes in our portfolio responsibility, changes in electrical standards and/or our operations and addressing their concerns. The meetings were conducted at the PCJ Auditorium at 36 Trafalgar Road, Kingston 10, The Old RADA Building,

Mandeville, Manchester, The Freemason Church, Davis Street, St. Ann's Bay, St. Ann and the Wexford Court Hotel, Montego Bay, St. James. Of the four meetings, Kingston, Montego Bay and Mandeville witnessed the largest turn-out, as more than a hundred electricians were in attendance. Their participation was on a level in line with our objectives and at the end of the function calls were already been made for such meetings to be held on a quarterly basis. The Kingston based function attracted a crowd that overflowed on to the corridor of the PCJ building. The St. Ann's Bay function, though attracting the smallest crowd, had equally energetic bunch as that of the others and the same sentiments within respect to the frequency of the meetings were expressed.

In response to an increase in development in the northern region of the island, the Division found it necessary to establish an office in the parish of Portland. This office would be responsible for petroleum and electrical related activities in the parishes of Portland and St. Thomas and sections of St. Mary. The areas are partly serviced by officers from our Kingston and St. Ann's Bay offices. The increase in requests for inspections from these areas have placed tremendous strain on the officers to process the applications in timely manner. Additionally, these areas usually suffer during the hurricane season (especially after a hurricane, storm or tropical depression) from our inability to access at a time when our presence is most necessary. The Division has located a suitable accommodation in Port Antonio and currently the National Land Agency, who is currently in receipt of the contract, is in dialog with the owners.

The Inspectors of the Division benefited from several seminars and workshops hosted by Petrojam Limited and several Petroleum Marketing Companies, as we prepared for undertaking our responsibilities as it relates to safe operation of petroleum facilities. Present at these seminars/workshops were Service Station Attendants, Tanker Drivers, Service Station Owners/Operators and several others who operate in the industry.

The Division was called upon to investigate approximately three (3) accidents involving petroleum facilities/tanker wagons. These incidents are as follows:

1. Fire at the Ethanol Plant Petrojam Refinery;
2. Fire involving a tanker wagon in St. Mary;
3. Fire at Cool Petroleum Fuel Depot, Port Bustamante, Newport West, Kingston 15.

Reports with respect to the above were prepared and recommendations aimed at preventing any re-occurrence were also forwarded to entities and/or Marketing Companies involved. Be informed that re-inspection of these facilities represents the mean through which the implementation of our recommendations are monitored.

Investigations into the probability of possibility fuel spill at a petroleum service station in St. Ann's Bay, St. Ann, was conducted. Several agencies were involved (mainly through the Division's effort in bringing it their attention) and, even though to date there is no conclusive evidence of a spill, efforts have been made on the part of all involved to rectify the situation. The investigation is on-going.

3.2 Approved Budget

A total of \$87 M was approved for the Division's budget for the 2008/2009 Financial Year. Of this amount \$74 M was for emoluments including traveling (278,944.88 km) and subsistence. The balance of approximately \$13 M was to cover all other costs including rental of offices at four (4) locations island-wide. An additional amount of approximately \$10 M was approved to take care of expenses associated with activities associated with our petroleum responsibilities.

It must be noted that the budget of this Division mainly surrounds expenses related to traveling allowances and the purchase of goods and services. This results because our Inspectors represent a group that utilizes their personal vehicle, on a daily basis, to assist in carrying out inspections of electrical installations and petroleum facilities. They are duly compensated through the motor vehicle upkeep and mileage allowances.

The purchase of stationery, Inspection and certification books along with technical instruments are but some of the most important items on which the Division spends annually. The need for contemporary measuring instruments is critical in the process of effecting tests on electrical installations based on contemporary methods of testing. Additionally, changes in technology from time to time influence a change in test methods and by extension, the need for a change in the type of measuring instruments the Division utilize. Currently, most of our instruments are modern ones however, there is still a need for other instruments that would allow us to be more efficient and comprehensive in carrying out our duties both under the petroleum and electrical side.

3.3 Service Fees

For the financial year 2008/09, the revenue collected was \$19.99 M, with an average collection of approximately \$5 M per quarter. The amount collected during this period is unusually high, as a result of revenue collected from the inspections of the 2500 rooms FIESTA Hotel conducted during 2008/09. Bear in mind that the cost of an inspection is dependent on the charges associated with the elements of the installation. Different installations comprise different elements (or even numbers of similar elements) and therefore their inspection costs vary.

Our calculations, taking into consideration budgetary allocation (\$97M), revenue collected and the average cost of inspection services this year (2008/09), have led to the fact that for each inspection request made; the Ministry subsidized the cost of inspection to the tune of approximately two thousand five hundred and forty six dollars (\$2,546.00) per inspection. This represents a significant amount of money, bearing in mind that a total of 30,275 electrical inspections were carried out this year (2008/09). The subsidy for 2008/09 is calculated as follows:

Total annual subsidy = Budgetary allocation – Revenue = \$97 M - \$19.9 M = \$77.1 M

Subsidy per inspection = Total annual subsidy / (# of inspection done in 2008/09)
= \$77.1 M / (30,275)
= \$2,546.66 per inspection

The Division's responsibilities as it pertains to the petroleum facilities have also been subsidized by government. In this area, no revenue was collected as there were (and still are) no user fees/rates associated with petroleum inspection activities. Although the Division's involvement in this sector only began last year (2008), the Energy Division of the Ministry of Energy and Mining has always been carrying out inspection of petroleum facilities at no cost at all. We are confident that the establishment of user fees in this area, coupled with an increase in the rates charged for electrical inspections could result in erasing the huge annual government subsidy and increasing the possibility of the Division becoming self-sufficient.

The lack of adequate funds, as a consequence of low and non-existence fees, has significantly impeded the Division in its efforts towards becoming a self-sufficient organization. It has also placed great strain on the government to continue to subsidize the cost of our operations. Increasing the 18 year-old rates (since 1991, 18 years) charged by this Division and establishing rates for the petroleum sector is definitely the solution to some of the problems faced. We are confident that these long standing issues will be given adequate attention and that the decision to adjust the electrical inspection rates upwards and establish a petroleum facilities inspection rates will be expedited.

4.0 Main Programmes for 2009/2010 Financial Year.

The target is thirty-five thousand (35,000) electrical inspections and the re-inspection of all three hundred and twenty (320) petroleum service stations 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 2008/09, there may be an increase in proposed budget submitted for approval, as we will be fully committed to fulfilling our mandate on the petroleum side.

The overall aim for the 2009/2010 Financial Year is to create a better public image for the Division by maximizing revenue, minimizing processing time of applications, decreasing response time to application, increase accessibility by establishing an office in the Portland region, 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 additional measuring instruments;
- (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 capable of increasing our efficiency and effectiveness;
- (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 all our 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.);
- (f) Influence tertiary institution to offer courses aimed at improving the knowledge-base of practicing Electricians;
- (g) Continue to offer seminars on energy conservation in the home and at work;
- (h) Maximize revenue through greater efficiency and the implementation of cost recovery inspection fees;
- (i) Request an increase in rates charged for electrical inspections and the establishment of user fees for inspections of petroleum facilities;
- (j) Enforce a re-inspection drive aimed at recertifying installation of public buildings, markets, plazas 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.

Rate increase and rate structure

The Division intends to submit a proposal on the present rate structure and request and increase in the rates charged. The present rate structure is not user-friendly and the rates are not consistent with current economic rates. The present rates represent fees established approximately eighteen (18) years ago and have been the reason for the huge subsidy that the government has been providing to this Division. Currently, fees as low as \$5.00 is being charged for inspection of elements of electrical installation/wirings.

5.0 Budget for the Financial Year 2009/2010

The proposed 2009/2010 budget is approximately \$101 M and comprises provisions for the compensation of employees in the amount of \$52 M, with minimum allocations for goods and services, traveling and subsistence allowance. 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. Last year, two (2) Technical Assistants were successful in the Electricians Licensing and were duly promoted to act in temporarily vacant posts as Electrical Inspectors. Currently, their contribution as acting Electrical Inspectors is invaluable to the Division as acceptable candidates for such posts are not readily found. Additionally, it has now become necessary for us to intensify the training required to transform the Electrical Inspectors into efficient Electrical and Petroleum (E & P) Inspectors. Several have already benefited from training programme conducted by Petrojam and a few multi-national marketing companies.

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. The course outline and curriculum for Electrical Inspectors and Practicing Electricians have already been 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 electrical installations for inspections by licensed electricians, a process that can be conducted at any of the offices, irrespective of the location of the installation itself. At present, the submission of electrical installations for inspections, by licensed electricians, is confined to that office of the Division in whose constituency (parishes for which that office is responsible) the installation is located. This, another step towards providing quality customer service, would allow licensed electricians to make submissions at the nearest office, for installations located in a remote constituency, without having to journey to the office in whose constituency the installation is located.

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 capturing, 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 the then Ministry of Industry, Technology, Energy and Commerce (MITEC) have, in the past, done much work towards making this a reality.

5.3 Electrical Inspection Report and Certificate books

The need for such books is critical to the efficient operation of this Division. These books are used to collect information from the Inspectors' fieldwork and utilized to produce the Electrical Inspection Certificates that are necessary to influence the process of getting an installation/wiring connected to the JPSCo's energy grid.

Any shortage of these books will result in a complete halt of our operations and building developments that require an electrical connection to the energy grid will definitely suffer from the inability to access connection. Therefore, these books are at the very top of our priority list and their procurement cannot be delayed.

5.4 Measuring Instruments

These instruments use to be just those necessary for measuring certain characteristics of an electrical installation/wiring. However, with our mandate now expanded to include

activities within the petroleum sector, these instruments now include petroleum related measuring instruments. Some of these are instruments to measure the intensity of petroleum fumes, light meter to measure the amount of light in the service area of a service station, beakers and measuring cylinders and intrinsic digital cameras.

The need for the instruments on both the electrical and petroleum side of our mandate cannot be overstated.

5.5 Compensation of Traveling allowances

Although not an activity, this component of the budget is responsible for a large part of our budget. Last year 30,275 electrical inspections and 256 petroleum service stations were inspected by the officers of this Division. The fact that over 33,000 electrical installations were actually submitted for inspections, clearly illustrate that the daily worksheets for Inspectors reflected the maximum amount of jobs that an Inspector could have accommodated daily. Even then, a significant backlog of jobs existed daily, as the number of Inspectors was limited and the jobs submitted were more than that which could be handled by the complement (15) of Inspectors.

Although each Inspector was given a mileage quota, the total mileage covered collectively by the traveling officers of this Division was significant resulting in an enormous traveling allowance bill that had to be compensated from the budget.

In closing, I must say that the Division has always sought to reduce the cost of its operation however, rising costs and increase in salaries and allowances that occur from time to time has resulted high expenses in most areas of our operations. We intend to continue on serving the public in carrying out our mandate in an efficient and effective manner, such that the preservation of life and property in the conductance of our duties remains of paramount importance to every single employee of this Division.

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER NO. _____

**PERFORMANCE OF THE PETROJAM ETHANOL LIMITED
FOR FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010**

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 2008/2009 Financial Year and its focus for the 2009/2010 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 is a processor of fuel grade anhydrous ethanol (removal of the water) and qualifies under the Caribbean Basin Economy Recovery Act 1983 for the exemption of duty in the exportation of fuel grade ethanol in the U.S.A. Under existing legislation there is a quota of approximately 200 m USG annually to those countries qualifying. The market for ethanol has continued to grow with the banning of MTBE and the growing trend to lowering lead emissions and a cleaner environment. PEL primarily acquires its feedstock by importation from Brazil. PEL seeks 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 suppliers and from local suppliers when available.
- The dehydration of hydrous ethanol to fuel ethanol (anhydrous alcohol).
- The marketing and sale of fuel ethanol locally, the United States and other markets.
- Exportation of ethanol.

4.0 Priority Targets/Objectives and Budgetary Allocation for Financial Year 2008/2009

During the financial year PEL's operations were to a large extent influenced by the pending divestment, which occurred after the priority targets were set for the financial year. PEL had an existing agreement with Coimex, an overseas company that was entitled to a settlement. As a result, a significant amount of the ethanol produced was diverted to Coimex so that they could be compensated from the sale of the ethanol on the world market.

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 3.3 million US gallons per month, the production target was 36 million US gallons for the year ending March 2008. This represented a performance target of 90 per cent of designed capacity and a service factor of 90.0 per cent.
- The plant was scheduled to operate for 330 days of the year with the remaining 35 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 directly assigned to production.
- Petrojam Limited 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 up to the next four 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 2008/2009 were as follows:

●	Financial	COST
●	Sales Revenue	J\$5,753 M
●	Cost of Sales	J\$4,981M
●	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**

4.3 Some key strategic objectives for Financial Year 2008/2009 were as follows:

- To reduce operating cost by achieving operational efficiency of 90%.
- Expansion through the construction of additional dehydrating capacity at a new location either aligned with a sugar factory or independently in close proximity to a port. The intention was to double capacity.
- Feedstock supply security, initially through the diversification of the supply source and in the long term through backward integration into the sugar industry through a stake in the government owned sugar factories and lands. Currently the feedstock overwhelmingly comes from Brazil.
- Ensure reliable supply of utility by owning water wells and acquisition of reverse osmosis facilities. The intention here is to reduce cost of operations as this source of water is cheaper.
- Improve steam utility supplies through the acquisition of a new boiler. This would reduce cost by about 15% as currently the boiler is below the necessary efficiency.
- Address infrastructural constraints relating to lack of adequate finished product storage and dock facilities.
- Continue lobbying efforts 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. These efforts will be made in concurrence with the other CBI ethanol producers.
- 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 a cheaper alternate feedstock source.

5.0 Performance/Achievement – Financial Year 2008/2009

5.1 The achievements as at the end of the Financial Year 2008/2009 are as follows:

The operations of Petrojam Ethanol Limited for year ending March 31, 2009, resulted in **an un-audited loss of JA\$421.8M**. This was below objective by \$556M.

The variances in the budget are analyzed per category below:

SALES REVENUE – (JA\$4,161M)

Sales revenue was below target by 72% primarily because the arrangements to finalize partnership with Coimex resulted in Coimex being the sole beneficiary of sales proceeds for the period July to November 2008. Sales details are as follows:

- Coimex Sales (7,031,609 USG):	JA\$1,214,381,342
- Coimex Processing Fees:	JA\$165,702,406
- Petrojam Sales (1,222,954 USG):	JA\$207,521,033
- PCJ Handling Fees:	JA\$4,244,352

Actual year to date anhydrous sales totalled 8.2 million US Gallons versus budget of 36 million US Gallon. Sales price for the period averaged US\$2.4 per US gallon (excluding income from processing fees and handling charges) compared to budget of US\$2.13 per US gallon.

COST OF SALES – JA\$3,741M

Cost of sales was below target by 75%. Targeted sales volumes were not realized resulting in cost of sales being below budget.

GROSS MARGIN - (\$420.2M)

Gross margin was below target by 54%. This adverse variance is due primarily to the fact that no significant sale of anhydrous ethanol was made for the period July 2008 to March 2009. Processing activities were terminated in October 2008 in order to bring the contractual arrangement with Coimex to a closure.

The primary activities since November relates to the supply of 1,222,954 USG of anhydrous ethanol for E-10 gasoline blending. All of this volume was sourced as finished product from local suppliers.

OTHER INCOME

▪ **Investment Income – (\$26.1M)**

This adverse variance is due to non-placement of funds on investment instruments as sufficient funds are not currently available for such purposes. Since July 2008 there has been no placement of funds on interest bearing instruments.

▪ **Foreign Exchange Gain/(Loss) - \$30M**

The devaluation of the Jamaican Dollar in relation to business activities conducted in US\$ resulted in foreign exchange gains of \$30.2M.

EXPENSES

For the period ending March 31, 2009, total expenditures were above budget by \$207.5M or 34%.

Of significance, were the following expenses:

▪ **Interest & Bank Charges – (\$0.5M)**

This adverse variance is due to the devaluation of the Jamaican Dollar on interest payments made to Coimex Limited under the hire purchase agreement.

▪ **Utilities –\$93.8M**

No production took place between November 2008 and March 2009 as the plant has been out of operation.

▪ **Repairs & Maintenance – (28.9M)**

This adverse variance was primarily as a result of unplanned expenditure for the repairs of the damaged cooling tower.

▪ **Extra-ordinary Expenses – (311.1M)**

This extra-ordinary expense was in relation to the settlement of the contractual arrangements with Coimex as detailed below:

T.E.C Settlement	=JA\$ 98,983,846
Termination greement	=JA\$155,025,600
Coimex's Dead Freight & Demurrage Claim	=JA\$ 57,170,540

Note: The above settlement with Coimex was necessary to meet the requirements of the Government as it relates to the divestment of the sugar cane industry.

Production	Actual	Plan	Variance (%)
Feedstock Importation (USG/mth)	1,628,164	3,333,333	- 51.0
No. Days Operations	154	330	- 53.0
Avg. Daily Production (USG/day)	126,298	110,000	+15.0
Service Factor (%)	46.8	90.0	- 48.0
Production Losses (%)	0.76	0.92	+18.0
Sales	Actual	Plan	Variance (%)
Export Volumes per month (USG)	687,880	3,000,000	- 77.0

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 and the local sugar industry. The target is to produce a minimum of 36 million gallons for current period and continue the traditional export to the United States of America and to meet the full requirements of the domestic E10 fuel market through Petrojam Limited.

The partnership with Coimex Trading of Brazil has now been concluded and PEL intends to maximize its profitability going forward, through any one or a combination of the following options:

- Independently through own supply and off-take agreements.
- Equity partnership with new owners/operators of the government-owned sugar cane factories.
- Tolling agreement with suitable partner(s) on a medium to long term basis.

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 through sales and service charges. These funds will contribute to financing expansion of plant and storage facility along with the relocation of the plant operation from its existing location to facilitate the Petrojam refinery upgrade programme.

The operation for the period is expected to be financially viable through projected sales of J\$3,202,800,000.00 based on finished product sales in Jamaica and exports to the USA. Other projected performance measures are as follows:

- Projected gross margin of J\$788,988,358.00.
- Profit before tax of J\$108,193,823.00.

The opportunities still exist for ethanol producers in Jamaica and the Caribbean as the USA continues to expand the blending programme. Several new and expansion ethanol projects are being implemented in the Caribbean to take advantage of the existing markets and to explore new ones. This also provides great potential for Jamaica to develop the local sugar cane industry to meet both local and export demands for fuel grade ethanol.

7.0 Longer Term Outlook & Implications

PEL continues to actively seek opportunities for expansion of its existing capacity through alignment with potential investors for additional capacity. 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 local sugar factories for the production of ethanol feedstock to allow for improved accessibility of ethanol for local blending in gasoline.

8.0 Budgetary Proposal for Financial Year 2009/2010

The budgetary proposal for the Financial Year 2009/2010 is outlined as follows:

Financial	COST (J\$ million)
Sales Revenue	\$3,202
Cost of Sales	\$2,414
Profit (before tax)	\$ 108
Expenses (operating, administrative, other)	\$ 691
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 (%)	0.90
Sales	
Export Volumes per month (USG)	3,000,000

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER No.: _____

PERFORMANCE OF THE PETROLEUM COMPANY OF JAMAICA (PETCOM) FOR FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010

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 2008/2009 Financial Year and its focus for 2009/2010.

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 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.

5.0 Background

The Petroleum Company of Jamaica Limited (PETCOM) is a subsidiary of the Petroleum Corporation of Jamaica (PCJ), and functions as the retail arm of the PCJ Group. Its main retail activities include the marketing and sale of petroleum products and lubricants. The sales are conducted through a network of thirty two (32) service stations across the country and through fourteen (14) Liquefied Petroleum Gas (LPG) filling stations. The company retails through these outlets by a dealer operated franchise agreement.

The company also operates in the industrial market and supplies a number of clients in the transportation and hospitality sectors with petroleum products (heavy fuel oil, diesel oil and asphalt) and LPG.

6.0 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. The latter segments provide the greatest opportunities to improve sales revenue and ultimately improvement in profitability.

7.0 Service Stations

Through its strategically located network of twenty-eight (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). Since November 2008, unleaded E10 87 has been added to the company's product mix. In addition, a number of PETCOM's Service Stations offer augmented products and services, including Service Bays, Car Wash, Oil Change and Vehicle Accessories.

8.0 Industrial Fuels

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

9.0 Liquefied Petroleum Gas (LPG)

PETCOM's LPG is distributed through its fourteen (14) Filling Plants and marketed to both domestic and industrial customers 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.

10.0 Lubricants

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

11.0 Financing

Currently, PETCOM derives its financing from the following sources:-

- Operating Income,
- Suppliers' Credit (main fuel supplier - Petrojam, lubricants - National Petroleum, EFG Industries and LPG cylinders, and
- Loan from its parent company, The Petroleum Corporation of Jamaica (PCJ).

12.0 Major Challenges

The Petroleum Industry declined by ten per cent (10%) during the period under review. This contraction was triggered by recession in some industrial economies and; inflation and fluctuation in the exchange rate in the Jamaican economy. A major cause of the decline can be traced to the significant increase in oil prices on the world market up to

July 2008. Despite significant reduction since July 2008, the net effect on the industry is an overall increase in petroleum prices.

For the first half of the fiscal year, the company's operating revenue and profitability were significantly affected due to its inability to respond to the competitive pricing of the major players in the industry. The major competitors were able to pursue a market penetration strategy due primarily to direct importation of forty per cent (40%) of their fuel needs. Their collaborative efforts allowed them to import fuels at prices lower than the ex-refinery price offered by the state oil refinery. This strategic move by these multinationals has resulted in PETCOM losing its competitiveness in the retail and industrial segments of the petroleum trade.

Responses

E10 was a new product introduced during the year and is a blend of petroleum and ethanol (10%), hence the name E10. E10 has a number of benefits. The chief ones being the price competitiveness relative to 87 & 90, enhancement of the performance of the vehicle and less harmful to the environment since ethanol is a substitute for MTBE. E10 was introduced in the latter part of the fiscal year and has brought about a leveling of the competitive landscape and allowed PETCOM to claw-back some of its competitiveness within the industry. The company was in the forefront in the introduction of E 10 which the market responded to very favorably. This was so although E10 was not introduced island wide.

Other major challenges faced by the company include:-

- Under capitalization by three hundred million dollars (\$300,000,000).
- Ageing fleet of Bobtail trucks.
- Inadequate cylinders of various sizes.
- High cost of sales which represent 92% of sales revenue. Cost of sales refers to fuels sourced from Petrojam.
- Difficulties obtaining some contracts from Government Agencies.
- Inadequate credit period from Petrojam. Some Government Agencies receive 30 days credit and PETCOM receives 10 days credit.
- Lack of funding for expansion of Service Station network.

13.0 Corporate Performance Highlights for the Budget Year 2008/2009

▪ Financial Performance – Table 1

Fiscal Year	2007/2008	2008/2009	Growth (%)
Sales (Core Business)	7.314 billion	8.064 billion	10.2 %
Cost of Sales	6.790 billion	7.506 billion	10.5 %
Cost of Sales/Percentage of Sales	93 %	93 %	

Gross Profit	524.7 million	578.2 million	10.2 %
Total Expenses	488.8million	499.7 million	2.2 %
Net Profit (before tax)	35.9 million	50 million	39.3%

Notes : The gross profit was maintained throughout the year.

The programmed target for overall sales income for 2008-09 was **J\$ 8.364 Billion**. This was largely achieved.

The targets set for gross profit and net profit before and after tax were \$522.67M, \$49.488M and \$46.121M. These were surpassed as indicated in table 1.

Table 2 provides further highlights of the achievements during the fiscal year.

14.0 Highlights of some Key Performance Indicators (KPIs) 2008-09 – Table 2

KPI	KPI Targets	Actual KPIs	Variances
Sales Volume (barrels)	885,834	840,356	(45,478)
Overall Market Share	13.0 %	12%	(1%)
Gross Margins	7%	7%	
Expense to Sales Ratio	5.5%	6.32%	0.82%
Net Profit Before Tax	\$47,287 million	\$ 57 million	\$9.7 million
Receivables Outstanding	13 days	9 days	4 days
Release of Invoices	2 days	1 day	1 day
Safety Education Programme	On going	Achieved	
Safety Audit and Review	On going	Achieved	
Protection of the Company's Assets	Increase internal controls	Achieved	
Training and Development	On going	Achieved	
Identify IT Hardware and Software Solutions	Study, Acquire and Implement	Achieved	Resulted in increased efficiency in transaction processing

15.0 Strategic Direction for 2009/2010

PETCOM's focus for the budget year 2009/2010 will be guided by a strategic plan which was commissioned by the Board of Directors and prepared by Deloitte and Touche. The main strategic themes involve the identification of market niches which can be exploited through linkages with the company's critical success factors. These strategic themes

are outlined below with summaries of the strategic imperatives and some major initiatives to be undertaken:-

1. Ensure Long Term Competitiveness

Efforts to secure the future viability of PETCOM will continue to be a priority item. In this regard, the firm's operations will be streamlined to increase efficiency, reliability and cohesiveness. This will be augmented by a competitive pricing strategy, market research and the adoption of functional strategies to achieve targeted objectives.

2. Development of the LPG Infrastructure

An analysis of our product mix shows that LPG is our second most profitable product. To this end, we will seek to improve the LPG infrastructure by the acquisition of two new bobtail trucks, one crane and a 5000 gallon trailer. This will be supported by the procurement of twenty thousand cylinders of various sizes and a robust cylinder recovery schedule.

3. Widen the Distribution Network for PACE Lubricants

PACE lubricant is the most profitable product in our product mix. During the latter part of the previous budget year, a renewed thrust for the marketing and sale of this product allowed PETCOM to achieve significant improvement in volumes. For the ensuing year, the distribution network for this product will be significantly increased through the appointment of independent dealers.

4. Meet and Exceed Customers Needs

Operating in a competitive market environment requires PETCOM to develop operational efficiency to ensure consistent supply of products, at competitive prices; and in the required quantities in order to ensure that customers receive the best value for money at all times. It is a well known fact that our competitors have become more customer-centered; consequently it is imperative that PETCOM not only maintain good customer relationship but also develop high service standards in order to retain key customers and also to attract new ones. To this end, the customer focus strategy developed approximately two years ago will be strengthened to ensure targeted objectives are achieved.

5. Maintain and Expand Market Share

PETCOM's market share has gradually increased over the years to its present level of twelve per cent (12%). Despite this achievement, the company faces significant competition from the major players in both segments of the industry. A primary objective will therefore be to consolidate existing business and aggressively pursue opportunities for increasing the company's share in the local petroleum industry. The options available to achieve this objective include increasing the number of service stations in the corporate area and other strategic locations across the island; and also reposition PETCOM in the LPG sector in the industry.

6. Increase Business Process Efficiency and Cost Savings

PETCOM has identified some key success factors which were centered on improving the efficiency of various internal processes. The supporting initiatives consist of cost reduction programmes, attaining best practices in critical areas, leveraging information technology to improve workflow and productivity; and timely procurement of products geared towards reducing losses and improving margin and profitability.

7. Strengthen Organizational Capability

The development of core competences through human capital development, the adherence to industry safety requirements and environmental compliance are critical organizational capabilities, which support the core business processes. To this end, the focus is on ensuring alignment of human resources to the strategic plan through a comprehensive manpower requirement planning as well as employee retention.

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER NO.: _____

**PERFORMANCE OF PETROJAM LIMITED FOR FINANCIAL YEAR 2008/2009 AND
FOCUS FOR FINANCIAL YEAR 2009/10**

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 2008/09 as well as a summary of the strategic focus, targets and programmes for the Financial Year 2009/10.

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 Harbour.

Petrojam satisfied approximately 80% of the local non-bauxite petroleum demand¹ 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 14.16 million barrels, of which Petrojam supplied 12.1 million barrels with the remaining 2.0 million barrels supplied by the Multinational Marketing Companies (MNC).

Table 3.0 Sales by Market Segment

Product Sales by Market Segment	
Market Segment	Volume Barrels (000)
*Transportation(includes air transport)	4,336
Energy	6,604
Bauxite	483
Commercial/Manufacturing	1,092
*Bunker	3,430

* Bunker and Jet fuel sales are not included in local sales, but classified as export sales.

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

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 tug/barge is used primarily to deliver bunker fuel to vessels calling in the Kingston Harbour; while under a time-charter agreement with Aegean Shipping, two (2) ships are used to transport fuel oil to the power producers as well as to Petrojam's Montego Bay Terminal.

3.3 Bunkering Operations

Petrojam Limited has a supply agreement with AGEAN Marine Petroleum SA Limited of Liberia, through its local subsidiary AGEAN Bunkering Jamaica Limited, for sale of bunker fuels to vessels outside of Kingston. The volume of bunker fuel sold under this arrangement in fiscal year 2008/9 was 3.4 million barrels, which is 0.5 million barrels less than supplied in 2007/8. Contribution to total revenue was J\$18.1 billion compared to J\$17.7 billion in 2007/8.

4.0 Petrojam Targets and Objectives for 2008/09

Table 4: PROFITABILITY TARGETS

ITEMS	Target at March 09 J\$M	Prelim. YTD March 09 J\$M
Refinery Gross Margin	4,995	1,054
Other Operating Income	121	(120)
Admin and Operating Expenses	(3,121)	(3,372)
Other Operating Expenses	(1,360)	(1,899)
INCOME FROM OPERATIONS	635	(4,337)
Non-operating Income	65	(3082)
PROFIT/(LOSS) Before Tax	700	(7,419)
Taxation	(235)	2,473
NET PROFIT/ (LOSS)	456	(4,946)
Sales Volume	18,243 kbbls	17,368 kbbls

5.0 CORPORATE PERFORMANCE HIGHLIGHTS FOR 2008/09

This section provides highlights of Petrojam's financial and operational performance for fiscal year 2008/09.

Financial performance for FY 2008/9 was below target due to:

- Steep decrease in crude and product prices - during the period August to December 2008, prices fell from a high of US\$145/barrel to record low of US\$35/barrel.
- Devaluation of the Jamaican dollar- the Jamaican dollar devalued by an average of 10% in fiscal year 2008/09. In actual terms the Jamaican dollar commenced trading on April 1, 2008, at J\$71.2394 to US\$1 and closed trading on March 31, 2009, at J\$88.4564 to US\$1. This was an actual devaluation of \$17.2710.

- Negative margins experienced during the period September 2008 to January 2009 due to unfavourable market conditions (acquisition cost of finished products was higher than selling price).

Operating performance for fiscal year 2008/09 improved, compared to the previous year. However, performance was modest when compared to target.

Performance was impacted by a refinery shutdown of 41 days to effect catalyst regeneration and major mechanical maintenance. The number of days targeted for completion of the exercise was 35 days aligned to a budget of J\$104 million. The actual cost of the shutdown was J\$114million with an extended refinery shut shutdown for 35 days to effect catalyst regeneration and major mechanical maintenance work and several power related stoppages.

A number of performance parameters were affected and include:

- Service factor – the refinery YTD service factor at March was 83.8% vs a target of 88.5%.
- Maintenance expenses –higher than budgeted due to unplanned maintenance work and depreciation of the Jamaican dollar.
- Lower than planned total sales volume due to reduction in demand as a result of high prices in the first quarter and the global recession in the second half of the year.

Good performance was achieved in the following areas:

- High supply reliability; no delivery downtime was experienced.
- Better than target oil loss due to initiative implemented to improve losses, such as changes in the crude sampling and testing technique and improved metering.

6.0 Major Projects

Petrojam's capital budget for fiscal year 2008/09 was J\$2.697 billion, actual expenditure was J\$ 1,541,768,830. Major projects and percentage utilization of budget are listed below:

- | | |
|---------------------------------------|----------------------------|
| (1) Refinery Upgrade Project | - 33% of total expenditure |
| (2) Rehabilitation of the EKT Dock | - 18% of total expenditure |
| (3) Rehabilitation of Tanks No. 1 & 2 | - 11% of total expenditure |
| (4) Rehabilitation of Tug & Barge | - 7% of total expenditure. |

6.1 Update on Refinery Upgrade Project (RUP)

The Refinery Upgrade Project is currently in the Front End Engineering Design (FEED) phase, from which the basic engineering design and a $\pm 15\%$ capital cost estimate for the project will be obtained. These deliverables will be used as input to the detailed Engineering, Procurement and Construction (EPC) phase, and to raise financing for the project.

- **Feed study** – Work continues on all aspects of the FEED study, which is 86% complete. Target completion date of the FEED is end of May 2009.

- **Environmental Activities** – First draft of the Environmental Impact Assessment (EIA) report was reviewed by financial and risk consultants. An updated report was issued and is being reviewed. It is expected that a submission will be made to the National Environment and Planning Agency (NEPA) by the first week of May 2009. Collaboration with JPS on the ambient air monitoring programme, to meet the requirements of the new Air Quality Control Act continues. The Memorandum of Understanding (MOU) is to be finalized between JPS and Petrojam Limited.
- **Facilities Preparation-** Work continues on the plans for upgrading the supporting infrastructure facilities (control room, workshop, etc.) in line with the project schedule. Relocation of some of the administrative staff to the new Corporate Office facilities completed with accounting staff to follow by 1st Q 2009/10. Prequalification exercise done and tender documents for execution of repairs to the ground floor and building externals sent to pre-qualified contractors. Financial proposals were received on January 2009. RSS Engineering was retained to conduct an explosion Risk assessment study for facilities with respect to location of buildings. – **Further work on this project delayed pending availability of funds to complete.**
- **Land Reclamation** - The report from the pre-feasibility study was received from the consultant on March 18, 2009, and is being reviewed by Petrojam's technical personnel. The civil consultant is to be advised of the preferred option and the way forward for the feasibility study on conclusion of the report.
- **Joint Venture Activities** – PDVSA continues to provide support, however additional personnel support has been requested to assist with project management and other aspects of the FEED.
- **JPS** – The focus team comprising of representatives from JPS, PCJ and Petrojam agreed on the technical aspects of the MOU, which has now been sent for legal input. The MOU is required for the supply of petcoke, electricity, steam and condensate between the parties.
- **Project Economics and Financing** - The latest project Capital Expenditure (CAPEX) estimate obtained from SNC Lavalin is approximately US\$758 million, excluding owner's costs. This latest estimate is still being refined. Ernst and Young have indicated that the refinery cash flows will not be able to service the debt load of the current total project cost estimate (\$1.1 – 1.6 billion), including financing costs, in the 70/30 debt to equity ratio assumed. The Board of Directors (BOD) has subsequently approved a Value Engineering Exercise to be undertaken with the objective of identifying opportunities for reducing the cost of the project.

6.2 Ethanol in Gasoline (E-10 Project)

The project involves installation of a new loading bay at the Montego Bay Loading Terminal and modification of the loading bays at the Kingston Loading Terminal in order to facilitate the expected increase in sales volume for E-10 (87& 90R) gasoline. Detailed

mechanical and process engineering designs were completed for changes to Montego Bay and Kingston Industrial Loading Racks (KILR). Conversion of KILR to enable delivery of E-10 from 4 bays versus 2 bays is scheduled to be completed by end of May 2009. All aspects of the project are scheduled to be completed by the end of October 2009.

7.0 Performance in Key Result Area

Table 7.1 Key initiatives for Long Term Competitiveness and Survival

Strategic Thrusts	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar 2008/09
LONG TERM COMPETITIVENESS	To minimize procurement costs, and maximize the yield & efficiency of the production process	Unit gross margin (US\$/barrel)	3.65	0.79

Table 7.2 Key initiatives for Market Growth

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar. 2008/09
MAINTAIN & EXPAND MARKET SHARE	To consolidate existing market share and pursue opportunities for increasing local market share as well as export markets	1. Local Market Share (%)	83.3%	79.9% (est.)
		2. Export Volume (000 barrels)	5,868	5,176

Major Achievements:

- **Construction of New MDO Tank – Non-destructive testing, commissioning and hand-over are scheduled for completion by May 2009.**

Table 7.3 Key initiatives to Meet and Exceed Customer Needs

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar. 2008/09
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 (days products unavailable)	0 days	0 days
		2. Customer Satisfaction Index	85 %	80
Major Achievements:				
<ul style="list-style-type: none"> ▪ No product run out experienced. ▪ Construction of 20kb MOGAS tank in Montego Bay - Awaiting regulatory approval from NCC and St. James Parish Council. ▪ ISO Accreditation - Implementation of ISO 17025 in the laboratory continues with documentation of procedures, training and review of documents. 				

Table 7.4 Key initiatives for Plant Reliability

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar. 2008/09
IMPROVE PLANT RELIABILITY	To maintain operating facilities and related systems to ensure optimum use of plant and equipment.	1. Maintenance Expenses (US\$/bbl sales)	0.28	0.32
		2. Operational Availability (% service factor)	88.5%	85.3%
		3. Productivity (%)	95 %	92.8 %
Major Achievements:				
<p>Reliability Centered Maintenance (RCM) Program – Various aspects of the program is currently being implemented.</p> <ul style="list-style-type: none"> ▪ Oil Analysis Programme (OAP), a predictive maintenance tool, was rolled out in March 2009, and should assist with reliability of some rotating and fixed equipment. ▪ Electrical Equipment Reliability – several projects being executed to improve overall reliability of electrical equipment. ▪ Replace and Repair of Major Equipment Tanks: - Repairs to 2 tanks out of 13 needing critical attention were completed. Furnaces: - Integrity of physical properties of furnace (F-1) improved. 				

7.5 Key initiatives for Business Process Efficiency and Cost Savings Improvements

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar. 2008/09
INCREASE BUSINESS PROCESS EFFICIENCY & COST SAVINGS	To increase efficiency, reduce costs, and streamline internal business processes	1. Energy Intensity Index	96 max	110
		2. Oil Loss	0.4%	0.10%
		3. Other Operating and Admin. Expenses(US\$/bbl sales)	2.28	2.21
		4. Receivables Past due	4%	13.7%

Major Achievements

- Cabinet approved contract for installation of dock to shore piping and contractor commenced prefabrication work March 2009. Commissioning of some product lines, including electrical work is expected in June 2009 and for other product lines in August 2009. The Dock crane is on site and commissioning is scheduled to be completed by June 2009. Dock Oily water sump ordered and scheduled to arrive in Jamaica in May 2009.
- Tank refurbishment – Works and testing on tanks No.1 & No. 2 completed. Commissioning into service scheduled for 2nd Quarter 2009/10.

7.6 Key initiatives for Human Capital & Health Safety & Environmental compliance

Strategic Thrust	GOAL	PERFORMANCE MEASURES	Target 2008/09	Actual YTD Mar. 2008/09
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 min	20
		2. Environmental Compliance	66% min	33%
		3. Employee Satisfaction	80%	73%

Major Achievements:

- For Fiscal year 2008/09 there were 24 major incidents, which included 13 fires, 10

oil spills and 1 referred medical case. This resulted in an unfavorable safety index. Development and implementation of training programmes for contractors and employees; enforcement of the Process Safety Management Programme; implementation of recommendations from incident reports and improvement of mechanical integrity of vessels are some of the activities being undertaken by the company to reduce the number of incidents.

- No lost time incident was recorded to date for the FY.
- Negotiations between management and the PWA continued into the new fiscal year. Settlement is expected during first quarter 2009/10.
- No industrial action experienced during the period.
- Website launched

SAP S& D Project –

The full implementation of the SD project has been delayed due to concerns regarding perceived operational safety risks. Mitigating actions are being explored, if implemented this will add to the project cost.

8.0 STRATEGIC DIRECTION 2009- 2010

Petrojam’s thrust for the last three fiscal years (2005/6 – 2008/09) has been on centered around six (6) strategic themes. The themes evolved from 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. For fiscal year 2009 -10 Petrojam will continue to focus on the strategic thrusts embarked upon since 2005/06

Strategic Themes	
<i>Ensure Long Term Competitiveness</i>	Efforts to ensure the viability of the refinery will continue to be a priority item, given its key role in the national strategy. In this regard, development of the refinery upgrade project continues, the project is expected to address most of the threats identified, including introduction of LNG, removal of CET and implementation of more stringent environmental specification for fuel. The upgrade will also result in improved profitability through greater capacity utilization and improved product yield of higher value clean products
<i>Improve Plant Reliability</i>	Reliability refers to the operating availability of the refining facilities; high reliability is fundamental for all aspects of the business. Reliability impacts the company’s ability to optimize refinery margin, and reduce demurrage and maintenance expenses. Low levels of reliability increases the risk of supply shortages and results in fatigue and low morale.
<i>Meet & Exceed Customer Needs</i>	In order to ensure that customers receive the best value for money at all times, Petrojam must consistently supply of products at the specified quality, best price and in the required quantities. In order to retain key customers it is imperative that Petrojam maintains good customer relationships and high service standards

Maintain & expand market share	Although Petrojam's has maintained an average market share of approximately 82% over the years, the company still faces the threat of significant competition from alternative fuels and alternative suppliers. A primary objective is to consolidate existing business and aggressively pursue opportunities to increase local market share.
Increase Business Process Efficiency & Cost Savings	Improving the efficiency of various internal processes is critical. In benchmarking favorably against our peers. Initiatives to support this thrust include leveraging information technology to improve workflow and productivity and other projects aimed at improving the refining margin and reducing losses.
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.

9.0 Capital Projects for 2009-10

Petrojam's capital budget for fiscal year 2009/10 is estimated J\$7.692 billion, planned expenditure for the period is J\$ 4.358 billion. Major projects and their contribution to the budget are outlined below:

- | | |
|-------------------------------------|----------------------------|
| (1) Refinery Upgrade Project | – 60% of total expenditure |
| (2) Antilles Facility Redevelopment | – 8% of total expenditure |
| (3) Major Repairs Tanks | – 5% of total expenditure |
| (4) EKT Dock Rehabilitation | – 4% of total expenditure |
| (5) E-4 Replacement | – 3% of total expenditure |

Table 9.1: Summary of Major Capital Projects for 2009/10

Project Title	Synopsis of Project Justification / Description
Refinery Upgrade Project	Project to upgrade the refinery capacity from 36 kbbl to 50kbbl
Major Maintenance – Storage Tanks	Execute repairs to several storage tanks to improve the mechanical integrity, minimize environmental impacts due to leaks and evaporative losses and reduce the possibility of fires.
De-Ethanizer Tower Replacement	Replace the existing De-ethanizer tower with one constructed of new metallurgy. The new tower is designed to meet both existing process requirements and those of the upgraded refinery. This installation will result in (1) Improved plant reliability of the vessel, and minimized failure risk
E-4 Replacement	Purchase and install a new Heat exchanger with removable cover design, forced draft cooling and increased cooling capacity. The new exchanger will result in increased crude charge throughput, reduction in maintenance costs and the fire risks posed by the existing unit.
Remote Vibration Monitoring System	Installation of a remote vibration monitoring system to determine potential failures of motors, gear boxes and other rotating equipment. Use of this tool will result in improved plant reliability of rotating machinery and aid in the Refinery's planning and

	predictive maintenance capabilities.
Refinery Motor Replacement	Installation of new High efficiency motors and starters to enable increased reliability of motor equipment, ease of maintenance and align the company with international best practice standards. Use of these motors should also result in significant cost savings compared to the opportunity cost of operating of low efficiency motors.
RS-1 Process Improvement	Installation of asphalt emulsion facilities that will enable flexibility in the blending of asphalt products to meet quality specifications and also meet environmental requirements.
Sub1 13.8kV Switchgears Replacement	Installation of new 13.8kV switch gear that will result in increased protection, monitoring and co-ordination of electrical systems and deterministic operations.
Portable Compressor	Replacement of the obsolete and inefficient compressor with a new one that will result in reduced maintenance costs, provide for shutdown and start-up of the Refinery Unit in the event of loss of electrical power to the Refinery.
Rundown Slop Metering	Installation of flow meters on the refinery product run-down streams. The meters will reduce economic penalties that would accrue through man-hours losses and provide more accurate data on the Plant balances.
Tank drainage and product recovery	Install facilities that will comply with International Jet Fuel facility requirements.
Fire Pump and Pump Station	Upgrade the existing firewater system to extend firewater coverage and fire capability to remote locations of the Refinery operations.
New Laboratory	The proposed project seeks to construct a new state-of-the-art laboratory to meet international testing standards.

10.0 MAIN PERFORMANCE TARGETS FOR FINANCIAL YEAR 2009/10

Below is a summary of the main performance targets.

Performance Targets 2009/10		
	Performance Measure	Target 2009/10
<i>FINANCIAL</i>	<i>Gross Margin Ratio</i>	6.19%
	<i>Profit before tax</i>	\$770,161 mil
	<i>ROCE</i>	5.18%
CUSTOMER/MARKET	Local Mkt. Share	85%
	Export Volume	5,985 Kbbbls
	Customer Satisfaction	80%
	Delivery Downtime	0 days
INTERNAL BUSINESS	Gross Margin	US\$3.51/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	5.0% max
	Maintenance Expenses	US\$0.33/b
	Other Admin Expenses	US\$2.00/b
ORGANIZATIONAL EFFECTIVENESS, LEARNING & GROWTH	Employee Satisfaction Index	80% min
	Training Hours per employee	40 min

11.0 BUDGET FOR 2008/09 and 2009/10

Table 11.1 shows budgeted financial performance for 2008/09 and projection for financial year 2009/10.

Table 11.1: Budget for Financial Years 2008/09 & 2009/10

ITEMS	2008/09 J\$M	2009/10 J\$M
Refinery Gross Margin	4,995	5,723
Other Operating Income	121	564
Admin and Operating Expenses	(3,121)	(3,795)
Other Operating Expenses	(1,360)	(1,712)
INCOME FROM OPERATIONS	635	781
Non-operating Income	65	0
PROFIT/(LOSS) Before Tax	700	436
Taxation	(235)	(256)
NET PROFIT/ (LOSS)	456	770
Sales Volume	18,243 kbbl	19,177 kbbl

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER NO. _____

**PERFORMANCE OF THE PETROLEUM CORPORATION OF JAMAICA
FOR FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010**

1.0 Purpose of Ministry Paper

This Ministry Paper is intended to inform Parliament and the public on the performance of the Petroleum Corporation of Jamaica (PCJ) during the 2008/2009 Financial Year and its focus for the 2009/2010 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 Background

The Petroleum Corporation of Jamaica (PCJ) is a statutory Corporation under the Ministry of Energy and Mining. The establishment of the Corporation in 1979 was fuelled by the energy crisis of the early 1970s. With the promulgation of the Petroleum Act, PCJ was authorized to explore for oil and gas onshore and offshore and was also empowered to bid for supply contracts, refining, transportation and retail marketing of petroleum products.

In 1995, the Corporation was mandated to develop indigenous renewable energy resources, to prevent adverse effects on the environment and to assist the government in realizing the goals of the Jamaica Energy Sector Policy.

To date, PCJ's initiatives have resulted in six (6 %) per cent of Jamaica's energy being generated from renewable sources. In order to achieve the national goal to reduce the country's dependence on imported fossil fuel, the Petroleum Corporation of Jamaica in collaboration with the Ministry of Energy and Mining, as part of its mandate, will accelerate the implementation of the National Energy Policy. This will be in conjunction with Vision 2030 Jamaica National Development Plan.

In an effort to consolidate and develop on the work previously done in implementing the Energy Policy, the Ministry of Energy and Mining and the PCJ Group of Companies (Petrojam, Petrojam Ethanol, Petcom, Wigton Windfarm and CERE) have spearheaded a number of initiatives.

4.0 The Global and Local Environment

Jamaica's oil import bill continues to increase sharply despite the government's efforts to reduce the rate of growth of consumption. In the past, there have been concerns when oil prices exceed US\$100 per barrel; however these concerns are quickly relaxed when prices decline. Such an approach cannot be practiced given Jamaica's vulnerability to increase in oil prices.

July 2008 marked yet another milestone in high energy prices as crude oil prices went up to US\$147 per barrel. We are unable to sustain this rate of growth in consumption or in the demand for foreign exchange to pay the oil bill for a non-oil producing, energy intensive economy such as ours. Jamaica has become over 94% dependent on petroleum imports to satisfy our energy needs.

In previous years the upward trend in prices was promoted by, among other things:

- Geopolitical issues;
- Low spare production capacity;
- Refinery bottlenecks and crude oil stock declines in the USA;
- The weakening of the United States dollar; and
- Increased demand associated with the pace of global economic growth.

5.0 Role and Functions

Cabinet mandated the Petroleum Corporation of Jamaica in 2002 to ensure the accelerated implementation of the Jamaica Energy Sector Policy. 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 diversification of the energy base and development of indigenous energy resources, through entities within the PCJ Group of Companies namely CERE and Wigton Windfarm.
- Encouraging energy efficiency and conservation to reduce Jamaica's energy bill through the National Public Education Campaign.
- Complementing the objectives of the National Industrial Policy (NIP) as it relates to energy demand and outputs.
- Minimizing the adverse environmental effects of fuel use.
- Supporting the regulatory framework to protect consumers, investors and the environment against unsafe conditions and unsafe practices within the local petroleum industry.

6.0 Priority Targets/Objectives and Budgetary Allocation for Financial Year 2008/2009

6.1 Among the matters of priority were:

- Continuing the Petrojam Refinery Upgrade Project.
- Expanding its business opportunities in Ethanol, oil trading and carbon trading.
- Expanding fuel options through joint venture to improve the Corporation's earnings through government to government Agreements, and to expand income from carbon trading opportunities while improving our carbon footprint.
- Bringing cleaner energy types and technologies to Jamaica in support of the policy objectives for energy diversification and reduced environmental impacts from fuel importation 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.
- Developing an Environmental Management System for the PCJ Group and further improving environmental awareness, responsiveness and sensitivity within the Group.
- Improving the Group's Information Technology capabilities through the introduction of hardware and training software to improve efficiency, productivity and competitive advantage (PCJ, Petcom).
- Providing technical and financial support for the expansion of PETCOM's network of service stations.
- Rationalizing the operations of Petcom to create a viable business by transforming the marketing arm of the Group into a profitable operation.

6.2 Budgetary allocations for Financial Year 2008/2009 were as follows:

Unaudited as at March 31st 2009

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	370,216,923
Building Maintenance: Including contracted services, staffing, maintenance and taxes.	89,933,237
Other Expenses: Corporate investment/contributions to Energy Fund, contracted services and purchases, research, seminars, feasibility studies, regulatory fees and charges, and promotions.	125,143,728
TOTAL	585,293,889

7.0 Performance/Achievement – Financial Year 2008/2009

7.1 The achievements for the Financial Year 2008/2009 are as follows:

- Continuation of the Front End Engineering Design (FEED) study for the Petrojam Refinery Upgrade Project, which was approximately 86% complete as at the end of March 2009. In addition, the Environmental Impact Assessment (EIA) was approximately 95% complete at the end of the financial year.
- Continuation of Public Education Programmes on energy conservation and alternative energy usage. The Petroleum Corporation of Jamaica, in collaboration with the Ministry of Energy and Mining, as part of its mandate to accelerate the implementation of the National Energy Policy, embarked on a public education campaign aimed at creating a cultural shift towards the efficient use of energy, and conservation. Several exhibitions were held in the parishes of Kingston, St. Mary, St. Ann, Portland and St. Thomas.
- 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. This information can be accessed via the PCJ's website www.pcj.com and click on Energy Efficiency and Conservation tab in the main menu.
- Implementation of solar outdoor photovoltaic (PV) lighting systems in two (2) hospitals (Princess Margaret and St. Ann's Bay Hospital), each with an approximate size of 2 - 3kW.
- Implementation of solar water heating systems in seven (7) hospitals (Cornwall Regional, Lionel Town, Black River, St. Ann's Bay, Annotto Bay, Port Antonio and Spanish Town Hospitals), each with a minimum capacity of 5,700 litres.
- Upgrading and refurbishing of internal hot water piping in Lionel Town and Black River Hospitals. This action enables maximum end-use of the new solar water heating systems installed to areas previously lacking this facility such as wards and dietary departments among other areas.
- In order to realize the full benefits of the energy efficiency and conservation measures implemented, correction of electrical faults were carried out in two (2) hospitals (Princess Margaret and Annotto Bay Hospitals).
- Completed energy audit in one (1) technical high school. This audit will be used with the other (8) eight energy audits previously completed in schools to develop a comprehensive energy efficiency programme for the educational institutions in Jamaica.

- Licensing of blocks to three overseas exploration companies and carrying out of seismic surveys along Jamaica's south coast as the preliminary stage of oil and gas exploration.
- A large scale Multi-Client survey was initiated with the conduct of 6,200 line kms of 2D seismic data in the open Jamaican acreage (area of sea within the scope of Jamaican territory. The survey, which will cost approximately US\$9 million, is being paid for entirely by the seismic contractor, Wavefield Inseis, and is due for completion on May 20, 2009. The data from the survey will be used as the basis to promote the open acreage in a formal bid round that could end by April 2010.
- A Joint Regime Area (JRA) arrangement was signed between Jamaica and Colombia on November 4, 2008, allowing for the acquisition of geophysical, geochemical and geological data on the 52,000 km² which covers the JRA. The acquisition of approximately 700 km of seismic data on a multi-client basis is being arranged in the Joint Regime Area. That survey should be conducted in the first half of June 2009. The Contractor will be Wavefield Inseis of Norway using the same vessel, Discoverer 2, which collected the seismic data in Jamaican waters. The next meeting to discuss matters relating to the JRA, including a Baseline Environmental Study, is to be held on San Andreas Island on 21-22nd May 2009.
- During the Financial Year 2008/9 approximately US\$348,000 was earned for sale of data as well as acreage and training fees. The acreage and training fees are presently held in an escrow account.
- Finalised PetroCaribe Agreement and associated loan benefits for Jamaica under this partnership.
- As a result of the government's shift in the policy direction towards clean coal technology from LNG, continued development on the LNG project remained dormant.

8.0 Medium to Long Term Focus

The Petroleum Corporation of Jamaica (PCJ) will maintain its strategy of energy diversification and the development of policy mechanisms to increase the utilization of renewable energy (such as wind, biomass, hydropower and solar), and cleaner fuels (such as natural gas) in the energy mix.

Strategic methods employed will include collaborating with the Ministry of Energy and Mining and other Ministries towards finalizing the Jamaica Energy Sector Policy, the Energy Efficiency & Conservation Policy and Biofuels Policy while stimulating the development of an ethanol industry for both domestic consumption and export.

The PCJ through its wholly owned subsidiaries will continue the development of its leadership position to be more proactive and innovative environmentally. The Group in this regard will continue to adopt Best Practice Industry Standards in Environmental Management in accordance with ISO14001.

9.0 Programmes and Targets for Financial Year 2009/2010

9.1 Energy Fund

In October 2008, the Government launched the Development Bank of Jamaica DBJ-Petrocaribe SME Energy Fund to assist the financing of energy efficiency and renewable energy projects among small and medium-sized enterprises.

DBJ committed JA\$1 Billion to the Small and Medium Sized Enterprises (SME) Energy Line of Credit. SME Companies can borrow funds of up to \$5 million, representing no more than 75 per cent of the installation cost, including a compulsory energy audit. Loans are offered at a fixed rate of 10 per cent repayable over seven years. The funds will be on-lent via approved financial institutions (AFIs), such as commercial banks, merchant banks, the National People's Co-operative Bank (NPCB), credit unions and micro financing institutions.

The PCJ, along with Jamaica Trade and Invest and the University of Technology, Jamaica, has signed on as partners with the Development Bank's PETROCARIBE SME Energy Fund. PCJ's primary role is to provide technical support to the DBJ by reviewing energy audits and project proposals submitted for funding. To date there has been no takers of this fund. However, the PCJ will work with the DBJ to develop the net metering legislation and increase the attractiveness of renewable energy projects. This will be in conjunction with the public education campaign to sensitize Jamaicans about the benefits to be derived from energy efficiency and conservation.

9.2 Energy Initiatives to be pursued:

- The accelerated development and promotion of renewable energy options by contributing a greater percentage of renewable energy to Jamaica's energy mix especially for electricity generation, an expected target of 10% of Jamaica's energy mix by 2010 from the current level of 6% and 15% by 2020.
- Investigate and report on economical and technically viable renewable energy options for Jamaica through extensive research and development.
- Diversification of the energy mix to include natural gas, ethanol and other bio-fuels in Jamaica's Energy supply for electricity generation, industrial development and transportation fuels.
- The application and promotion of energy efficiency and conservation nationally and through discrete projects. As a holistic approach to the energy challenge, which the country faces, energy efficiency and conservation offer the most immediate solution without incurring major capital investments.
- Upgrading of its Petroleum Refinery through Joint Venture. To transform the existing refinery from a hydro skimming facility of 36,000 bbls/d to a modern

facility enabling refining of 50,000 bb/d of crude resulting in the production of more value added products.

- Develop and implement by 2014 the Petcoke Cogeneration Project, which involves the construction of a 120 MW cogeneration power plant at the JPSCo's Hunts Bay Power Station. The project will be a joint venture between JPSCo, PCJ and Petrojam Limited and the plant will utilize Petcoke from the upgraded refinery as the primary fuel source.
- Initiate further development work on the LNG project and Natural Gas market in Jamaica, which includes the development of a facility to distribute Liquid Natural Gas and securing long term contract for the supply of Natural Gas. Negotiations are expected to begin in the 2009/2010 financial year.
- Expansion of its business opportunities in Ethanol, Oil Trading, and Carbon Trading. To expand fuel options through joint ventures, improve the corporation's earnings through Government to Government Agreements and to expand income from carbon trading opportunities while improving our Carbon Footprint.
- Rationalising the operations of Petcom to create a more viable business and to transform the marketing arm of the Group into a more profitable operation. Increase overall market share to 18% by 2013 from that of 12% obtained in 2008/2009.
- Growing its international relationships and alliances through bilateral and multilateral ventures to build capacity through learning opportunities for example, through ARPEL, open new trade opportunities with counterpart companies, example PetroBras, PDVSA, Petro Ecuador, and Pertamina.
- 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.

9.3 Energy Efficiency & Conservation

- 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 encourage a national cultural shift towards the efficient use of energy and energy conservation.
- Promote the integration and strengthening of energy conservation and efficiency in the national science curriculum.
- Promote the implementation of energy efficiency measures and renewable energy within the private sector. The Corporation will also seek financial opportunities for energy efficiency projects with private sector, bilateral and multilateral funding agencies.

9.4 Environment

- Facilitate Group compliance with national environmental, health and safety standards and regulations.
- Develop and implement environmental management systems in accordance with ISO 14000.

- 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).

9.5 Other Initiatives

- Continued development and implementation of projects at Font Hill, St. Elizabeth, particularly in the areas of biofuels. CERE has recommended the development of forty (40) acres of marginal lands at Font Hill Farm, twenty (20) acres of saline lands and twenty (20) acres of mined out bauxite lands.
- Improve the efficiency in the operations of the Specialized Library within Information and Corporate Affairs Department whilst fostering recognition of importance of records management at all levels within the organisation.

10.0 Budgetary Proposal for Financial Year 2009/2010

The budgetary proposal for the Financial Year 2009/2010 is approximately \$851,785M 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	538,863
Building Maintenance: Including contracted services, staffing, maintenance and taxes.	82,248
Other Expenses: Corporate investment/contributions to Energy Fund, contracted services and purchases, research, seminars, feasibility studies, regulatory fees and charges, and promotions.	230,674
TOTAL	851,785

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER No. _____

**PERFORMANCE OF THE RURAL ELECTRIFICATION PROGRAMME LIMITED FOR
FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010**

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 Limited (REP) for the **2008/2009** Financial Year and its focus for the **2009/2010** 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 island-wide and regularizing urban electrification.

3.0 Background

3.1 REP Mandate

The Rural Electrification Programme Limited (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 remains 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. During its existence the REP has facilitated access to electricity in approximately 74,000 accounts up to March 2009. Approximately 90% of rural areas now have electricity. This has facilitated the development of economic and social activities in the communities involved.

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.
- Remove the threat to personal and property safety posed by illegal abstraction of electricity and faulty house wiring.

In carrying out these functions the REP works closely with the Government Electrical Inspectorate, Parish Councils, Land Agency, JPS and Paymaster to ensure the success of the programme.

The REP currently has two main programmes, which can be segmented into:

1. Constructing single phase distribution pole lines, and
2. House-wiring

As at March 2009 REP implemented through four main programmes. These are:-

1. GOJ 2006-7 40 km: This project was done at a cost of approximately \$88M. All parishes, except Kingston, benefitted from this project. The source of funding is through GOJ and the Constituency Development Fund (CDF).
2. GOJ 2006-07 Phase II 47km: The cost of this project is approximately \$68.5M. The parishes which will benefit include: Portland, St. Mary, St. Ann, St. Catherine, Clarendon, Manchester, St. Elizabeth and St. James. The source of funding is through GOJ and Constituency Development Fund (CDF)
3. GOJ 2006/07 Phase II - Housewiring: REP will wire 850 houses under this project. The source of funding is through the GOJ. Revolving fund for 750 houses – Source of funding is through the revolving scheme.
4. The REP also participated in a Pilot Project to assist urban householders to regularize their electricity supply through wiring. This pilot has ended and 600 householders were regularized.

5.0 Objectives and Targets for Financial Year 2008/2009

For the 2008/2009 Financial Year, the REP was allocated a budget of **\$130 million** but this could only provide overhead support to achieve the targets set for that financial year. These were:

- (a) 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 750.
- (b) 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.
- (c) 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.

6.0 Highlights of Achievements – Financial Year 2008/2009

The programmes were to some extent influenced by unavailability of funding. This affected implementation schedules. Funding under the Bandes Agreement was US\$9.4. As a result some targets had to be revised.

6.1 Table 1: Summary of Achievements for Financial Year 2008/2009

Target	Actual
1) GOJ 2006/07 – 40 km distribution lines	Construction of 40 km of these pole line extensions is completed. Construction was originally targeted at 87 km and was affected by unavailability of materials.
2) GOJ 2006/07 Phase II – 47 km	Construction of 7 km of these pole line extensions is completed. This has met target.
2a) GOJ 2006/07 Phase II – wiring 850 houses	638 houses have been marketed. 128 houses have been wired. 43 houses have been certified.
4) Revolving Fund ‘P’ 750 houses	750 houses have been marketed and 750 have responded by paying their deposits. Of this amount 750 units have been awarded in house wiring contracts and 722 are already completed and certified. This aspect of the programme met target in full.

7.0 - Corporate Plan - Summary of Main Programmes 2009/2012

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	Year 2	Year 3
				2009/10	2010/11	2011/12
<u>Rural Electrification</u>						
				(M)	(M)	(M)
Provide access to the entire rural Jamaica.	Construct 370 km Of distribution power lines	Seek grant and loan Funds to implement projects	# of km of power lines built # of rural houses Wire	Material 94.00 Labour 56.04 Other Capital Cost 5.20 Overheads <u>114.86</u> Total	315.84 188.29 8.60 <u>119.26</u> \$270.10	322.16 192.06 10.00 <u>127.61</u> <u>651.83</u>
	Wire 6,660 houses					

The estimated total for house wiring over the three year period is 6,660 houses in parishes island-wide.

8.0 Operational Plan - Summary of Main Programmes 2008/2009

Estimated Expenditure: \$270.0 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, 2009)	Second Quarter (Jul 1- Sept 30, 2009)	Third Quarter (Oct.1 – Dec . 31, 2009)	Fourth Quarter (Jan.1 – Mar. 31, 2010)
				(M)	(M)	(M\$)	(M\$)
Provide access to electricity to the entire rural Jamaica	Construct 50 km of distribution power lines islandwide Wire 900 houses	Utilize Grant funding	# of km of power lines built	Material	50.88	-	-
				43.12			18.11
				Labour	13.91	18.11	-
				5.91			
				Other	-		
				5.20	<u>29.02</u>	-	<u>28.00</u>
Overheads	<u>29.69</u>						
Total	93.81	<u>27.71</u>	46.5				
						45.82	

9.0 Summary Operational Plan for Financial Year 2009/2010

9.1 The proposed targets for the Financial Year 2009/2010 are as follows:

- a) Complete construction of 47 km of distribution lines.
- b) Complete 850 houses under GOJ 2006/07 Phase II.
- c) Construct 50 km of distribution lines.
- d) Complete 750 houses under Revolving Fund P.
- 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 **2008/09** was **\$130M**. The budget allocation for the **2009/2010** Financial Year is **\$150M**. The allocation leaves a gap of \$120M. This gap will have to be filled by funding from the Constituency Development Fund.

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009

MINISTRY PAPER No.: _____

**PERFORMANCE OF WIGTON WINDFARM LIMITED FOR 2008/2009
AND FOCUS FOR 2009/2010 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 2008/2009.

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 (target is 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) April 17, 2003, and signed a Power Purchase Agreement with the Jamaica Public Service Company (JPSCo) on December 13, 2001, agreeing to sell all the electricity generated by the wind farm to the power company over a period of twenty (20) years at a base rate of US 5.6 cents/ kWh for years 1-5 and US 5.051 cents/ kWh for years 6-20. Therefore, all the electricity generated by Wigton is sold to JPSCo, except that which is used to operate the wind farm. For instances where the wind speed is below the electricity production level of the wind turbines, electricity is imported from the grid at industrial customer rates.

The wind farm was commissioned April 29, 2004, and has been operating successfully with minimum interruption due to the threat of hurricane and planned maintenance. The cumulative output generated cumulatively since April 2004 to March 2009 was 250,518,736 kWh.

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.

Global Situation

According to the *Global Wind Energy Council (GWEC) Global Wind Report 2008*, global wind energy capacity surged by 28.8% in 2008. The US passed Germany to become the number one market in wind power, and China's total capacity doubled for the fourth year in a row. The GWEC 2008 report also indicated that the world's total installed capacity reached 120.8 GW at the end of 2008 over 27 GW of which came online in 2008 alone, representing a 36% growth rate in the annual market. These figures show that there is a growing demand for emissions-free wind power, which can be installed quickly, virtually everywhere in the world. Also, the wind industry creates new jobs as over 400,000 people are now employed world wide in the industry. This global demand for wind power equipment means that Jamaica with its smaller projects may have extended 'wait times' for equipment therefore, it is critical for the country to streamline the policies and procedures to implement wind energy projects in a timely manner to meet the national objectives of reduced reliance on imported fuels.

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.
- Develop additional wind power projects.

- Negotiate the sale of carbon credits realized from operating a clean development mechanism.

6.0 KEY ACHIEVEMENTS FOR FINANCIAL YEAR 2008/2009

For the financial year 2008/2009 the operational objectives were to:

- Expand the Wigton Windfarm.
- Pursue feasibility of low wind technology through a demonstration project.
 - Technical assistance was offered to the Port Authority as a potential wind site as well as an MOU was executed with the Munro Dickensen Trust to develop the Munro College site.
- Continue Wind data collection.
- Development of staff capacity in renewables.
- Negotiation of Carbon Credits through wind farm expansion.
- Development of a small hydro electric plant.

The key achievements are discussed in the items below.

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% of installed capacity.

b. Environmental Benefits

- Wigton Windfarm is a clean development mechanism and based on actual production between April 2008 and March 2009 the emission of approximately 38,306 tonnes of carbon dioxide (CO₂, a greenhouse gas) have been avoided. Since commencement to March 2009, 208,934 tonnes of CO₂ emissions have been avoided, thus 147,365 barrels of oil import have also been avoided, which translates to savings of US\$ 9,495,978.00² 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.
- A summer internship programme was conducted with 2 university students.

d. Expansion

- Wigton Windfarm Limited obtained government approvals for an 18 MW expansion of the Wigton facility. The contracts have been developed and negotiated with suppliers.
- The project is in train, but construction did not commence during the financial year due to delays with the approvals and financial closing process partially due to the economic downturn and depressed market conditions.

² Using US\$ per barrel of oil as follows 2004/05: \$36, 2005/06: \$51, 2006/07: \$61, 2007/08: 80, 2008/09: \$ 93.

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 credits realized from the operation of the plant between April 29, 2004 and March 31, 2009. The term of the contract is nine years at a price of Euro 5.5 per ton of carbon dioxide.
- As the design of the Wigton expansion has not been completed, the negotiations for carbon credits for the expanded plant were postponed to financial year 2009/2010.

f. Small Hydroelectric Plants (SHP)

- Wigton Windfarm Limited short-listed three (3) hydropower development companies as potential partners for hydroelectric development and invited the companies to participate in a Request for Proposal process in December 2008 for the development of 4 MW of hydropower within 2 years and a long term plan for the development of an additional 20 MW.
- Only one proposal was received from BPR Canada and the proposal was evaluated in May 2008.
- Wigton Windfarm Limited Board of Directors subsequently directed that Wigton would focus on wind projects and hydro development was to be transferred to the Petroleum Corporation of Jamaica - Centre of Excellence for Renewable Energy.

g Wind Mapping

- Wigton Windfarm Limited started wind data collected at Great Valley, Manchester; Hellshire Hills, St. Catherine and Munro, St. Elizabeth during 2008. These sites were selected as high potential areas for further study based on an electronic wind map of the island previously procured by Wigton Windfarm. For bankable project data, at least one year of on-site wind data collection is recommended. Therefore, for these sites, one year of data collection will be obtained in the summer of 2009.
- Wigton Windfarm Limited Board of Directors recommended that Petroleum Corporation of Jamaica - Centre of Excellence for Renewable Energy (PCJ-CERE) continue wind mapping of the island. Wigton Windfarm had selected over 25 high potential wind sites for further study. Therefore, PCJ-CERE is in the process of procuring equipment to conduct these studies.

h. Research Collaboration

- Wigton Wind Farm Limited and the Petroleum Corporation of Jamaica – Centre of Excellence for Renewable Energy signed a Memorandum of Understanding with the University of the West Indies, Mona in July 2008 for Research and Development in Renewable Energy. The work programme is being determined.

i. Wigton Plant Production

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

Year	kWh sold to grid	Electricity Production Income US\$M
April 2004 – March 2005	44,204,036	2.48
April 2005 – March 2006	51,433,650	2.89
April 2006 – March 2007	55,734,200	2.94
April 2007 – March 2008	53,216,750	2.94
April 2008 – March 2009	45,930,100	2.57
Total	250,518,736	13.82

7.0 SUMMARY OF OPERATIONAL PLAN FOR FINANCIAL YEAR 2009/2010

- Negotiate a Power Interchange Agreement for the expanded Wigton facility.
- Expand facilities to include nine (9) 2MW wind turbines.
- Negotiate carbon credits trading arrangement for expanded facilities.
- Outline a framework for Joint Venture Partners for further wind projects.
- Work through agencies and legal channels to obtain an upward adjustment to the energy payment rates to enable financial viability of the existing 20.7 MW facility.
- Continue to build capacity through staff training so that equipment supplier involvement may be reduced.

8.0 FINANCIAL PERFORMANCE FOR THE YEAR 2008/2009

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	203,203	226,360	23,157
Project Expenses: Including contracted services and purchases, seminars, regulatory fees, finance charges and promotions.	<u>320,765</u>	<u>101,149</u>	<u>(219,615)</u>
Total	523,968	327,509	(196,458)

8.1 BUDGETARY PROPOSAL FOR FINANCIAL YEAR 2009/2010

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.	247,789
Project Expenses: Including contracted services and purchases, seminars, regulatory fees, finance charges and promotions.	<u>324,302</u>
Total	572,091

9. PROJECTIONS FOR YEAR 2009/2010

- Execute a Power Purchase Agreement for an expanded wind farm.
- 95% completion of the 18 MW expansion (estimated commissioning is April 2010).
- Secure a relationship for carbon credits trading for the additional production.
- Obtain a rate increase to enable financial viability of both the 20.7 MW wind farm and the expanded facility.
- Develop a policy for joint venture partnering to develop Wigton phase III.

Hon. James Robertson
Minister
Ministry of Energy and Mining

July

2009

MINISTRY PAPER NO: _____

PERFORMANCE OF THE BAUXITE & ALUMINA TRADING COMPANY OF JAMAICA LIMITED (BATCO) FOR FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010

1.0 Purpose of Ministry Paper.

The purpose of this document is to update Parliament and the general public with respect to the performance of BATCO for the financial year 2008/2009 and its focus for 2009/2010.

2.0 Background

The Bauxite and Alumina Trading Company of Jamaica Limited (BATCO) was incorporated in 1977 as the entity charged with trading the Government's alumina available as a result of its equity in the bauxite and alumina industry.

3.0 Mission

Utilizing the expertise of its experienced staff, efficiently market the Government of Jamaica's (GOJ) off-take, optimize the returns on GOJ sector investment and promote sector expansion and development in a manner that maximizes the accrual of socio-economic benefits to Jamaica.

4.0 Objectives

To prudently trade Jamaica Bauxite Mining Limited's (JBM) and Clarendon Alumina Production Limited's (CAP) alumina in strategically advantageous markets at the best possible price, taking into account fluctuations in the market:

- To diligently monitor production, product quality and cost structure in the interest of maintaining Jamaica's competitive advantage.
- Systematically track supply, demand and price trajectory as well as other important market developments as a basis for crafting supply contracts that yield the most favourable and stable revenue stream.
- Management of the company's revenue and cost so as to return an appropriate profit.
- To ensure off-take from joint venture partners is ISO 14000 certified as a means of building source integrity for alumina from Jamaica.
- Encourage research on the beryllium in Jamaican alumina and lobby partners to develop methods to reduce content.
- To seek new markets for our alumina.
- To trade alumina beyond the entitlements from WINDALCO and CAP and to also trade in related minerals and invest in allied industries.

5.0 Core Functions

- Renegotiate contracts with buyers to obtain better prices when applicable. Negotiations are based on economic conditions and the strategic initiatives of management and the Board of Directors.
- View each contract as a strategic initiative on the part of the customer to lock in supplies of a vital feedstock on the best available terms. We are currently engaged in long-term supply contracts with Glencore AG, and as such we must ensure adherence to contractual obligations, such as product quality (as outlined by each contract) and orderly shipping arrangements.
- As a member of Windalco's Executive Committee, make the case for capacity expansion or appropriate development when the plants reopen as the Joint Venture is currently under voluntary shutdown, priority has now shifted to functions such as the orderly mothballing of both plants, and to increase efforts to have production restarted as quickly as possible.
- Continuously seek to reconcile joint venture-supplied data on off take specifications with contractual customer requirements.
- Resolve all variances on the customer's terms. The obligations set out by the supply contracts are specific in a number of areas, such as pricing, shipment scheduling and product quality. Any variation from that which is stipulated by the contracts is resolved by BATCO according to the guidelines of the contracts and through negotiations undertaken by BATCO depending on the specifics of the situation.
- Authorize shipping schedule after consultation with Jamalco and resolve differences between Jamalco and customer. These include issues such as demurrage and quality assurance. However, as BATCO is proactive in its management of the supply contracts, any claims are resolved expeditiously and efficiently.
- Negotiate the London Metal Exchange rate as base for alumina price.
- Use market intelligence gleaned from international publications, industry conference attendance as well as from regional and international contacts to update pricing formula on a quarterly basis.
- Seek to maintain favourable relations with the Russian Partners in WINDALCO.
- Explore new markets for CAP/JBM alumina so as to achieve higher margins on sale. With Windalco now out of production, our current supply contracts now pledge in excess of 100% of the GOJ's alumina entitlement. As such, in the short term, there are no opportunities. However, a specific framework is being developed that would allow this to occur when demand rebounds.

6.0 Physical Achievements for Year 2008/2009

The operations were to some extent affected by the global situation which has adversely affected the bauxite industry and by extension alumina production and markets.

The global fall out has resulted in a significant drop in demand for alumina and consequently prices have fallen. The Windalco plant will be closed going forward in 2009-10. Below is a status of the physical achievements for 2008-09:

- Serviced loan related to Clarendon Alumina Production (CAP). The Jamaica Bauxite Mining company has a US\$65 million loan from Glencore on behalf of CAP and this is serviced by BATCO utilizing funds from the sale of alumina. Monitored and approved shipping schedules from CAP and Windalco.
- Shipped 706,757 tonnes of alumina for CAP and Windalco. The production cost per tonne varied significantly throughout the fiscal year as the price of oil and caustic soda experienced drastic fluctuations and there was even greater variation between CAP and Windalco with the older plant cost being over US\$350 per tonne.
- Monitored specification of alumina to customers. At fiscal year end, March 31 2009, BATCO maintained 100% acceptance of all alumina shipped.
- Collected US\$155.93 million (J\$12.5 billion) from buyers in revenue for the above mentioned companies according to long-term supply contracts with Glencore AG.
- Monitored market conditions so as to determine opportune time to fix future prices utilizing the London Metal Exchange (LME) prices.

7.0 Revenue and Expenditure for Financial Year 2008/2009

- Unaudited accounts for fiscal year 2008/2009 reveal that total revenue was J\$480 million with a total expenditure of J\$52.3 million and pre-tax profit of J\$427.7 million.
- Estimated Tax for the year was J\$142.5 million.
- BATCO hosted the Metal Bulletin's International Bauxite and Alumina Conference. The conference was held from February 11-13 at the Ritz Carlton Hotel and Spa in Montego Bay. It was well attended despite the sharp economic downturn. We received numerous enquiries with respect to the sale of alumina and bauxite, but none fulfilled our basic criteria (quality requirements too low, small quantities, unsure of ability to pay).

8.0 Human Resources

One staff member completed a Bachelors degree in Accounting. On the job training was conducted with a new Analyst/Trader. As this industry is unique in many respects, on the job training is critical to understanding the logistics of the job as well as some of the nuances and quirks that will not be found in other industries. The training is also to facilitate succession planning.

9.0 Budgeted Revenue and Expenditure for Year 2009/2010

- Budgeted revenue of J\$156.9 million and expenditure of J\$63.3 million with a profit before tax of J\$93.7. Budgeted revenue is projected to fall sharply, by approximately 60%, in line with the precipitous fall in aluminium prices as tracked by the London Metal Exchange. BATCO's revenues are a combination of interest income and commission on the sale of alumina. As the realized price of alumina falls, BATCO's revenue from commission will fall accordingly.

- Expenditures have increased by less than 20% mostly due to improvements in the wage structure offered to employees through a reclassification exercise undertaken during the previous fiscal year. Furthermore, the addition of one staff member also increased the projected outlay.
- Expenditures will be contained by cutting all non-essential and non-core services as categorized by BATCO's management team.

10.0 Focus for 2009/2010 Financial Year

- For the 2009/2010 Financial Year BATCO will continue its core functions of trading alumina on behalf of CAP and JBM.
- Seek to renegotiate alumina prices with our contract-holders Glencore AG.
- Retrieval of US\$12.2 million owed by CAP. Recovery of this loan amount will facilitate BATCO facilitating its sister company JBM in the payment of its obligation to WINDALCO.
- Continue to invest reserves prudently to enhance revenue. While commission revenue is expected to fall sharply, BATCO's investment portfolio will constantly be reviewed to ensure maximization of interest income. We will also continue the search for partners to reopen the Windalco plants in case the present owner fails to operate them.
- So as to reduce cost of operation, the wage freeze will be implemented along with the continuation of other cost cutting measures in the organisation.

Hon. James Robertson
Minister
Minister of Energy and Mining
July 2009

MINISTRY PAPER NO: _____

**PERFORMANCE OF CLARENDON ALUMINA PRODUCTION LIMITED FOR YEAR
2008/09 AND FOCUS FOR FINANCIAL YEAR 2009/10**

1.0 PURPOSE

The main purpose of this paper is to provide highlights of the performance of Clarendon Alumina Production Limited (CAP) during the 2008/2009 financial year, and outline the focus for the financial year 2009/10.

2.0 BACKGROUND

Clarendon Alumina Production Limited (CAP) was created in 1985, as a strategic response to a number of challenges that faced the sector at that time.

CAP executes the Jamalco joint venture with Alcoa Minerals of Jamaica (AMJ), a company owned by Alcoa World Alumina LLC, and Alcoa Caribbean Holding, LLC, collectively called AWA (60% Alcoa in and 40% Alumina Limited formerly Western Mining Corporation Australia). Since April 2007 and following on the completion of the Early Works Expansion of approximately 150,000 tonnes, CAP's share of the joint venture has been adjusted from 50% to 45%. The change in equity reflects Alcoa's entitlement to the incremental production arising from that project which it funded 100%.

Since the year 2000, CAP's financial position has been under stress, due to a series of extraordinary events that have affected the operations. The cumulative effect of these events is that major arrears were accrued with Alcoa requiring:

- A. The Government to guarantee and undertake repayment, by December 2009, of a US\$127 million bond approved by Parliament in January 2009 in respect of arrears arising from its share of the Jamalco operation to October 31, 2008.
- B. The Government having to borrow US\$10 million from Glencore in January 2009 to assist with payments to Alcoa.
- C. The Government having to pay US\$18.8 million to cover the additional net arrears to Alcoa, incurred to February 2009.
- D. A build up of unpaid arrears of US\$6.5 million incurred on the shortfall on operations for the month of March 2009.
- E. CAP being left with a total debt portfolio, outside of amounts listed above, of US\$352 million. The debt includes outstanding current payments as of February 28, 2009, of US\$19.758 million, including US\$2.863 million owed to the Petrocaribe Fund. Of the outstanding payments of US\$19.758 million, US\$16.8 million is owed to other Public Sector entities, including US\$12.79 million to BATCO, and US\$4.105 million to the Accountant General. The US\$12.79 million owed to BATCO includes overdue interest of US\$0.515 million as at March 31, 2009.

- F. The prospect of meeting monthly shortfalls of about US\$2.4 million per month, incurred on the Jamalco operation for the fiscal year 2009/10.
- G. Apart from the debts to Alcoa and Glencore referred to at (a) and (b) above, the debt servicing requirement for fiscal year is estimated and summarized as follows:

	<u>US\$M</u>
1. Jamalco arrears to March 31, 2009 (c above)	6.5
2. Other debt of US\$352M	65.6
3. Overdue payments	19.8
4. Shortfall on Jamalco due operation 2009 to 2010	<u>26.4</u>
	118.3
Royalty falling due during 2009/10	<u>1.1</u>
	119.4

CAP has a difficulty funding its way having regard for the following occurrences:

- A. Between 2000 and 2002 the Company incurred two loans amounting to US\$190 million to assist the country's fiscal budget and fund plant expansions, thereby increasing its debt while enduring terms of repayment incorporating less favourable prices for its alumina.
- B. In October 2001 the University and Allied Workers Union (UAWU) called a wildcat strike which cost CAP 125,000 tonnes of alumina and net losses of US\$20 million.
- C. The high price of oil has, between calendar year 2003 and March 2009, cost the Company some US\$170 million beyond the annual amount spent in 2002. The difference for energy in the financial year (above 2002) is approximately US\$61 million. In the case of caustic soda, the main non-fuel input to the refinery, the accumulated cost above the annual amount spent in 2002 is approximately US\$30 million.
- D. Hostile weather experienced since 2004, arising from six separate storms contributed to the loss of an estimated 170,000 tonnes of alumina, a combined insurance excess cost of US\$16 million and is substantially responsible for the US\$35 million in production cost overruns to calendar year 2007, all of these being CAP's portion of the burden.
- E. The current need to fund two major infrastructural projects: (i) expansion and conversion of the residue disposal system, and, (ii) relocating the Company's mining operation in Manchester. CAP's share of these two extraordinary projects over 10 years is projected at US\$402 million up from \$166M, which was originally projected. Approximately US\$90 million has been spent by CAP above what was originally projected for these two extraordinary projects.
- F. Major adjustments to the plant's inventory levels and liability provision requiring immediate funding of US\$8 million by CAP.

- G. Disadvantageous contract: Roughly half of the supply has been fixed at US\$178, resulting in a loss to March 31, 2009 of about \$154.6M since 2000 (compared to the amount realized via London Metal Exchange (LME)).
- H. The recent downturn in the world aluminium market, characterized by high inventory levels and plummeting prices on the LME since the last quarter of 2008, reducing the earnings from the LME linked portion of CAP's contract to well below half of what obtained 10 months ago.

Among the available options that could lead to an improvement in CAP's position are the following:

1. Disposing of all or a portion of GOJ's equity or alumina entitlement in Jamalco to improve financial strength, and
2. Pursuing an alternative energy solution.

Among the ways in which the company has contributed to the country's economy are the following:

- CAP made payments of US\$159 million in Royalty and Net Levy to date.
- CAP made a total cash contribution to the economy of approximately US\$1.1 billion.
- Jamalco currently employs some 541 persons.
- Jamalco is a mainstay of the economy of the south central region of the country.

2.1 Managing CAP

Through its Chairman, Board and Management, CAP initiates, executes and monitors appropriate plans and programmes to facilitate the effective and efficient performance of the JAMALCO alumina refinery Joint Venture in Clarendon, which produces alumina to be marketed by its agent, the Bauxite and Alumina Trading Company of Jamaica Limited (BATCO).

Four representatives of CAP, including the Board Chairman, sit on the Joint Venture's Executive Committee of the partnership. Also, four representatives of CAP, including its Chairman, serve on the Operations Committee. Through its representation on these bodies, as well as in day to day liaison with the plant manager, CAP approves and monitors the strategic goals, objectives, programmes and projects of the Joint Venture as well as the overall performance of the operation to ensure that the Joint Ventures functions as a first rate operation, both technically, cost effectively and as a good corporate citizen, contributing to development of the country and the immediate community in which it operates.

The Executive Committee of the Joint Venture has responsibility for the strategic leadership of the Joint Venture. It approves strategic plans and budgets (including Capital, Production and Employment Budgets) as well as major corporate initiatives.

The Operations Committee is responsible for tactical direction in relation to the technical operations of the plant, with a view to achieving effectiveness and efficiency in all aspects of the operations, including Financial, Safety, Environmental, Production, Engineering, Construction and Administration.

The management of CAP is accountable to the Board, through its Chairman, for the execution of oversight responsibility for the company's operations, ensuring the development of practices and procedures that optimise the performance of CAP's resources and facilitate the execution of an appropriate watching brief on CAP's behalf regarding the operation of the JAMALCO Joint Venture and generally, administering an effective, efficient and professional internal operation. The day-to-day management functions include but are not limited to the following:

2.1.1 Functions of CAP

- (a) Interfacing on a regular basis with Alcoa, the managers of the JAMALCO joint venture, and reporting to the Finance Committee of the Board, the Chairman of the Board and / or the full Board of Directors on all aspects of the performance of the Joint Venture, including the Plant expansion, with specific emphasis on its financial performance.
- (b) Where required, monitoring the implementation of the decisions of CAP's Board of Directors or the Executive Committee of JAMALCO as appropriate.
- (c) Monitoring, elaborating, and generally managing, on behalf of CAP the following budgets:
 - JAMALCO's operating budget
 - JAMALCO's capital budget
 - CAP's budget
- (d) Monitoring the capital expenditure programme to ensure compatibility with CAP's position in relation to cash flow and its objectives.
- (e) Overseeing the execution of JAMALCO Plant expansion programmes and other priority programmes undertaken by the plant.
- (f) Liaising with the Jamaica Bauxite Mining Ltd. (JBM), the Bauxite and Alumina Trading Company of Jamaica Ltd. (BATCO), and any other agency in respect of the marketing and sale of CAP's alumina and the respective financing arrangements.
- (g) Liaising with the Ministry of Finance and the Public Service in regard to its obligations pursuant to loan/bondholders' agreements and any decision of Cabinet, which may be taken from time to time.
- (h) Coordinating loan programmes in which CAP may be engaged and being responsible for the reporting, monitoring compliance and claims management requirements of such programmes.
- (i) Anticipating, expediting and generally overseeing the provision of funds to the joint venture operations.
- (j) Ensuring that operational efficiencies are sufficiently addressed and that the available economies are achieved.

- (k) Monitoring and reporting to the Board of Directors on a timely basis on financial and operational efficiencies.
- (l) Providing the Board of Directors with timely and regular statements of CAP's finances.
- (m) Managing CAP's funds with prudence while ensuring that investments are carried out on a basis consistent with competitive returns to CAP.
- (n) Monitoring CAP's alumina shipments and sales, ensuring prompt and accurate payment of proceeds.
- (o) Ensuring that CAP's expenditures, made on its behalf by Alcoa, are audited as necessary to ensure the most efficient use of CAP's funds.
- (p) Liaising with the company's auditors to ensure the provision of audited accounts on a timely basis.
- (q) Liaising with our parent Ministry, JBM, BATCO, the Ministry of Finance and the Public Service, the Jamaica Bauxite Institute, JAMALCO's managers, the Bank of Jamaica, the relevant financial and other institutions (public or private) as required by the Board of Directors of CAP.
- (r) Ensuring that the company complies fully with statutory obligations (including reporting) and that its procedures and practices are consistent with guidelines for the management of Public Sector Companies.
- (s) To be conversant with the JAMALCO Joint Venture Agreement, and with all agreements in respect of the company's financing agreements (including loans and bond issues).
- (t) Monitoring, evaluating and maintaining records of Requests for Authorizations (RFAs) in relation to plant projects.
- (u) As required, providing information to the Jamaica Bauxite Institute (JBI) in relation to the company's contribution to the bauxite/alumina sector and the overall economy.

3.0 PRIORITY POLICY ISSUES, OBJECTIVES AND BUDGETARY ALLOCATION FOR FY 2008/09.

3.1 Priority Policies

3.1.1 The priority Policy issues established for 2008/09 were:

- A. The priority areas of activity were primarily those essential to achieve the goals and objectives of the Joint Venture during the period. These included:
 1. Working with Alcoa to ensure that no opportunity was missed to reactivate the major expansion programme to double the refinery's capacity to 2.8 million tonnes.
 2. The introduction of a more cost effective fuel alternative at the refinery as part of the expansion programme.
 3. The use of Alcoa's technical and business methods which ensured that the average cost of producing a tonne of alumina does not exceed the target established for the JAMALCO plant.

4. Plant production targets which were achieved and while meeting the unit targets set for resources utilized, including fuel, bauxite, caustic soda and other raw materials. The target in tonnes of alumina produced by calendar year is:

2008	-	1.35M
2009	-	1.42M
2010	-	1.45M

5. Effecting the plant's sustaining capital programme within a budget of approximately US\$11 million per annum and meeting all related performance objectives.
6. Completing cost reduction projects at the budgeted costs, in order to contribute to the ongoing efficiency of the plant and bring returns in the areas referred to in the capital programme.
7. Completing the expansion of the residue disposal facilities and conversion from wet ponds to 'dry stacking' technology. This overall expansion and conversion is to cost approximately US\$398 million. Approximately US\$180M will be spent to December 2009. CAP's share of the overall expenditure will be \$179 million and US\$81 million to December 2009.
8. Completion of the Manchester Mining Infrastructure project at a cost of US\$322 million, the amount to be spent by 2009 being \$243 million; CAP's approximate portion of the cost being 44%.
9. Continuing the automation of the Company's records retrieval system in the Document Centre to facilitate the efficient and effective fulfillment of the requirements of the Access to Information Act.

3.1.2 The priority policy results achieved in 2008/2009 were:

1. The refinery expansion to 2.8 million tonnes was delayed, the related cost projections having escalated considerably and the outstanding issue of sourcing the energy being overtaken by (a) the downturn in the world economy and (b) the overall aluminium sector. A positive development was the implementation of the Early Works phase of the project at April 1, 2008. The programme contributed an additional 150,000 tonnes of capacity with the ability to eliminate bottlenecks in certain key areas of the process. The improvement was demonstrated in the last quarter of the period when the production rate was 1.39 million tonnes, compared to the original rated capacity of 1.275 million tonnes.

2. The average cost of producing a tonne of alumina was off target by 26%. The higher than projected cost of production arose mainly due to a higher contribution from energy, fixed costs arising from lower than expected volumes, maintenance, caustic soda recovery, the cost of producing ore (bauxite) and the relative cost of various outside services. The volume and attendant fixed cost efficiency, as well as the energy efficiency were inhibited by a high level of impurity in the bauxite, related to organic material. The higher energy cost was related both to the higher cost price of oil, the

higher consumption required to cope with the organics in the bauxite and the overall reduced efficiency caused by the operating difficulties encountered. There were extra operational costs incurred to filter the impurities and maintain the related equipment.

3. The efficiency programme was set back over the first three quarters of the period due to the problems encountered with organics in the ore referred to at 2 (above) and 4 (below). However, as stated at 1 (above) the improvement demonstrated during the fourth quarter was encouraging; production costs being reduced from an average of \$328 per tonne for calendar year 2008 to an average of \$178 per tonne for the January to March quarter of 2009, demonstrating that the plant operation had achieved a level of stability.

4. The production achieved in calendar year 2009 was 1.13120M tonnes, versus the target of 1.42 tonnes. The problem arising from organics from bauxite, outlined at 2 (above) were substantially responsible for the loss of production.

5. The sustaining capital programme including year 2008 was carried out at a cost of US\$6.977M (CAP's share: \$3.14M versus CAP's budget of US\$10.08M).

Sustaining capital works are required to maintain an alumina plant, in order to avoid lost production and productivity. This includes expenditure at the port and mine. Usually the cost of correcting and avoiding the related problems would significantly outweigh that of doing the project. Sustaining capital is also required to continue operating within minimum standards at the target volumes of production established for the period.

6. There was moderate activity in relation to cost reduction projects, at a cost of US\$0.87M.

7. It became imperative during the period for the Jamalco operation to reduce the capital outflow. The expenditure on Residue Disposal Areas (RDAs) during the fiscal year period was US\$63.55M (CAP's share; US\$28.6) versus the target of US\$60.18 (CAP's share US\$27.08M). There was a shift in the mud storage methodology from dry stacking to modified dry stacking. The capacity of lake number 5 was extended through the extension of the dykes. In the context of the postponement of the expansion, time was gained in the life of the third fourth and fifth lakes and construction of the sixth lake has been put back. Additional expenditure was necessary to raise the dykes of RDA 5. Construction of the dykes was pursued as an alternative solution to storage ponds. The storage pond approach was delayed because environmental approval and land acquisition were not completed in time. Hence the dykes were raised to meet the short term need for capacity until the pond can be completed to store the bulk of the water from the residue lake.

The overall expenditure on the project to date is US\$168.04M; (CAP's share: US\$75.62M). The expenditure on RDA 5 alone is US\$154.76 M.

8. The first major component of the Manchester Mining Infrastructure project has been implemented, providing a state of art conveyor system to deliver bauxite from the Mount Oliphant areas of Manchester to the St. Jago railhead. The North Manchester component of the project will be delayed until dictated by the requirements of the operation. The amount spent on the project to date is US\$142.86 (CAP's share: US\$64.29M). The amount spent during the financial year was US\$15.57M (CAP's share: US\$7M) versus the plan of US\$73.51M (CAP's share: US\$33.08M). The expenditure on the Mount Oliphant phase of the project to date is US\$108.74 and except for some loose ends this project is complete and operational. There will be power generation and transmission to the national grid from the conveyor system.

9. The Document Centre project is more than 90% complete including:
- All information readily accessible to the public (fully ATI compliant).
 - The inventorying of all files, current and closed (100%).
 - File Indexing and Numbering system (a) Manual and; (b) Electronic (100%).
 - All files sequenced and stored in order corresponding to index (100%).
 - Catalogue of all files, with brief description of contents (100%).
 - Document Centre's Records Management Policies and Procedures Manual in progress (50% complete).
 - A file loan and tracking system (100%).
 - Organizing and developing and E-mail management system – (65% complete).
 - To manage all internal E-mail and electronic documents for easy retrieval.

3.2 Budget FY 2008/09

For the FY 08/09, CAP established a budget of US\$291.98M as follows:

	US\$
Capital Expenditure	
North & South Manchester Mines	US\$33.08
Mud Lake	US\$27.08
Sustaining Capital	US\$10.08
Other: Health & Safety & Cost reduction	<u>US\$11.37</u>
	<u>US\$82.18</u>
Operating Expenditure	
Salaries, Wages & Related Staff Cost	US\$ 14.23
Board Expenses	US\$ 0.03
Other expenses	US\$ 26.79
Cost of Goods Sold	<u>US\$168.75</u>
	<u>US\$209.80</u>

3.3 HIGHLIGHTS OF PERFORMANCE AS AT March 31, 2009 (unaudited)

3.3.1 Financial Matters

3.3.2 Expenditure vs. Budget

Total operating expenses for the FY amounted to US\$248.9M (inclusive of depreciation) which is approximately US\$39.1M above the budgeted amount of US\$209.8M for the same period. This was mainly due to the high cost of production experienced during the period. The increase in cost of production arose mainly due to higher contribution from energy, fixed cost, maintenance, the cost of producing ore (bauxite) and from the impact of organic material reaching the refinery in the bauxite power failures?

The higher cost of energy was due to the higher than expected price of oil on the market as well as the impact of on the organic impurity in the ore (bauxite). The difficulties in processing the ore resulted in lower production, higher fixed costs, an increase in required maintenance and a higher ratio of fuel consumption to tonnes of alumina produced. The higher cost of producing bauxite arose partly from a need to use diesel fuel in the absence of completion of an arrangement to connect JPS power at the new mines.

3.3.3 Revenues and Collection

Revenues for the FY amounted to US\$135.06M (unaudited); below the target of US\$147.9M by US\$12.84M. This was due to decreased tonnage sold by 20,439 for the financial year and a reduction in projected price of \$232 to a realized price of \$219 per tonne of alumina sold.

4.0 PRIORITY POLICY ISSUES

4.1 The Priority Policy issues established for 2009/10 are:

The priority areas of activity will be in two categories:

- A. Completing the divestment of the Company's interest in the Jamalco' refinery on the best terms attainable.
- B. Undertaking the activities essential to achieving the goals and objectives of the Joint Venture during the period, including:
 1. Seeking to introduce a more cost effective fuel alternative at the refinery.
 2. Making strategic and tactical use of Alcoa's technical and business methods to ensure that the average cost of producing a tonne of alumina does not exceed the target established for the JAMALCO plant.
 3. Achieving the plant's production targets, while meeting the unit targets set for resources utilized, including fuel, bauxite, caustic sod and other raw materials. The target in tonnes of alumina produced by calendar year is:

2009 -	1.33M tonnes
2010 -	1.42M tonnes
2011 -	1.45M tonnes

4. Effecting the plant's regular sustaining capital programme within a budget of approximately US\$16 million per annum and meeting all related performance objectives.
5. Completing cost reduction projects at the budgeted costs, in order to contribute to the ongoing efficiency of the plant and bring returns in the areas referred to in the capital programme.
6. Completing the expansion of the residue lake #5 dyke uplift within the framework of the most efficient phasing rationale and with budget of approximately US\$12.2M for calendar year 2009.
7. Continue automation of the Company's records retrieval system in the Document Centre to facilitate the efficient and effective fulfillment of the requirements of the Access to Information Act.

5.0 FOCUS FOR 2009/10 FINANCIAL YEAR

5.1 Budgetary Allocation for 2009/10

5.1.1 Capital Budget

These are the capital costs that will be incurred in the financial year 2009 - 2010.

Project	Total Cost	CAP's Cost
Sustaining Capital Initiatives & Misc.	10,273	4,623
Residue Disposal Lake	26,068	11,731
Mining Infrastructure	<u>4,697</u>	<u>2,114</u>
	41,038	18,469

The following sets out the rationale for the essential projects.

A. Environmental Health and Safety

Environmental Health and Safety (EHS) projects are necessary if the plant is to operate at the minimum standards required to protect the environment, the community and the employees.

B. Sustaining Capital

Sustaining capital works are required to maintain an alumina plant, in order to avoid lost production and productivity. Usually the cost of correcting and avoiding the related problems would significantly outweigh that of doing the project. Sustaining capital is also required to continue operating within minimum standards at the target volumes of production established for the period.

C. Residue Lake

An ongoing facility for the disposal of plant waste (primarily mud) has to be maintained in order to effectively protect the environment. JAMALCO will be expanding the residue storage facility to provide for both its immediate and long-term needs. The long-term needs are being addressed at this point in order to convert from the conventional wet ponds storage to the more environmentally friendly 'dry stacking' technology. The latter technology uses more space in the short run but is, over time, more efficient in its use of space and allows faster reclamation of the land used. Therefore, two new lakes (#5 and #6) and facilities to enable conversion and ongoing elimination of moisture are being constructed. Construction of Lake #5 and the supporting storm lakes for lakes #5 and #6 will be completed between 2010 and 2013. Lake #6 will be constructed between 2016 and 2019. This infrastructure for another 20 to 25 years at the rates of production set out in the policy objectives. The extended life will result from the impact of dry stacking methodology.

D. Mining Infrastructure Development

An unusually large expenditure of US\$322 million is being made to establish new mining infrastructure in the parish of Manchester, which is the designated mining area that will sustain the expanded JAMALCO refinery for the twenty-five years. The infrastructure, including conveyor belt, loading bays and rail facility will be used to transport bauxite from areas that do not now have the required infrastructure. Because CAP's share of the operation will be reduced to approximately 45% after phase I of the refinery expansion is completed in early 2007, the Company's share of the cost of this project will be in keeping with that equity arrangement.

The mining infrastructure development is critical to altering the bauxite volumes and specifications required to maintain the refinery at the target volumes referred to in the operational priorities as well as to providing the flexibility required by the ore blending needs of the refinery.

5.1.2 Recurrent Budget

The recurrent budget for the 2009/10 financial year is:

Summary of Recurrent Budget for 2009/2010 Financial Year

Categories of Cost	Total (US\$M)
	2008/2009
Salaries & Related Staff Costs	14.79 *
Board Expense	0.01
Other Expense	26.31

Cost of Goods Sold	157.08
Total	198.19

* Salaries & Related Staff Cost for CAP's head office is US\$0.3M.

5.2 Financing the Budget

For the FY 2009/2010 CAP is projected to collect revenue totalling \$120.6M to meet its budgetary needs. Of this amount, US\$119.7M represents projected Alumina sales, a 11.4% decrease from actual collections (US\$135.1 unaudited) for 2008/2009.

A breakdown of the CAP's projected revenue plan for FY 2009/2010 is shown in the following table.

Revenue Plan FY 09/10

Revenue Categories	Revenue \$USM
Alumina Sales	119.7
Other Income	1.0
TOTAL	120.7

Hon. James Robertson
Minister
Minister of Energy and Mining
July 2009

MINISTRY PAPER NO: _____

PERFORMANCE OF THE JAMAICA BAUXITE INSTITUTE FOR FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010

1.0 Purpose of Ministry Paper

The purpose of this document is to update Parliament and the public in respect of the performance of the Jamaica Bauxite Institute (the JBI) for the Financial Year 2008/2009 and its focus for the Financial Year 2009/2010.

2.0 Mission

The JBI's mission revolves around three important themes. Firstly, to assertively pursue research and development programmes aimed at enhancing the productivity of local operations as well as the competitiveness of the Jamaican bauxite and alumina industry. Secondly, to ensure that the industry's operations involve minimal adverse impact on the environment and the surrounding communities. Thirdly, to assist in alleviating the impact of production cutbacks on community outreach programmes, while planning for and ensuring that the industry operates on a sustainable basis.

3.0 Core Functions

Following its establishment by the Government of Jamaica (GOJ) in 1975, the JBI has sought to, inter alia:

- Undertake research and development activities on various challenges related to the processing of Jamaican bauxite;
- Continually assess and ensure rationalization in the use of Jamaica's bauxite reserves and (bauxite) lands;
- Monitor and make recommendations to ensure adequate pollution controls and other environmental programmes are in place in the industry; and
- Study and analyse the bauxite, alumina and aluminium industry and provide technical advice on, and personnel for, the negotiation of various agreements.

4.0 Objectives

4.1 *The primary operating objectives of the JBI are:*

- To seek to maximise the returns from production in the bauxite and alumina industry, for the Government and people of Jamaica, in the form of levy, taxes, royalty, payments to workers and through sustainable community projects.

- To work with the companies in diversifying to a more competitive, reliable and cleaner-burning fuel source, while boosting the efficiency of energy use and encouraging investment in capacity expansion.
- To develop and robustly implement a monitoring framework for preventing/deterring encroachment on reserve lands especially in the context of the announced temporary shutdown of two of the alumina refining companies.
- To ensure the industry's sustainability through a disciplined programme of environmental monitoring and reviews.
- To foster harmony between the host communities and the companies and support sustainable development programmes with the active participation of the Joint Bauxite Community Councils.
- To enhance the JBI's role as a centre of expertise for the sustainable development of bauxite and other industrial minerals.

4.2 *The major strategies pursued for achieving these objectives were as follows:*

- Endeavour to keep the various plants operating at the highest possible production and employment levels during the ongoing market downturn and to position the industry to make efficiency gains that will enable it to speedily take advantage of any improvement in market conditions that will eventually ensue.
- Implement the new fiscal regime governing the industry to encourage the efficient use of energy and caustic soda as well as the pursuit of improvements in environmental practices.
- Strengthen reserves assessment and process research activities in order to develop new bauxite reserve areas and thereby help to sustain the companies' long-term viability.
- Continue working with Alcan-Montreal and their consultants, the WRA, the NRCA/NEPA, the MGD and the EHU in de-commissioning the Kirkvine and Mount Rosser mud disposal systems as well as carrying out detailed engineering studies and rehabilitation of these areas.
- Collaborate with MINCENCO to complete the feasibility study for a future Greenfield refinery in the St. Ann area.
- Undertake a stream of commercial projects involving the analysis of bauxite and other industrial materials, including gypsum.
- Promote sustainable economic development in host communities through targeted Bauxite Community Development Programme (BCDP) interventions.
- Maintain the Secretariat for the Bauxite Sector Memorandum of Understanding (MOU) that was signed in 1998.

A cursory analysis of some of the key dynamics of the global bauxite and alumina industry reveals that at the beginning of Financial Year 2008-2009 the Caribbean spot price (fob) for a metric tonne of alumina was US\$405.00, representing roughly 13.5% of

the 3-month price of a metric tonne of aluminium on the London Metal Exchange (LME) which was US\$3,010. At the same time the fob spot price of a barrel of West Texas Intermediate (WTI) oil stood at US\$100.92, while the US Gulf spot price of a dry metric tonne of Caustic Soda averaged around US\$644. However, reflecting the considerable volatility that plagued commodity markets during the year, by the end of March 2009 the alumina price had slumped to US\$185 per metric tonne, or 13.6% of the LME 3-month aluminium price, which had plummeted to US\$1,361 per tonne. Meanwhile, the fob price of a barrel of WTI oil fell to US\$49.64 per barrel and the US Gulf spot price for a dry metric tonne of Caustic Soda slipped to approximately US\$663. Against this background, the Jamaican bauxite and alumina industry shipped 3.82 million metric tonnes of alumina and 4.03 million dry metric tonnes (DMT) of crude bauxite, translating into total bauxite shipments of 13.7 million DMT. On this basis, levy and royalty payments for Financial Year 2008-2009 amounted to roughly US\$69 million.

5.0 Achievements for Financial Year 2008/2009

- Pursuant to the JBI's core function of undertaking research and development in respect of the processing of Jamaican bauxite, our laboratory carried out chemical composition tests on Seven Hundred and Seventy Four (774) commercial samples. Five Hundred and Eighty Four (584) or roughly 76% of these represented samples from Phase 2 of the MINCENCO Project.
- A further one hundred and seventy six (176) routine samples were tested, ninety six of these (or 55%) originated from Windalco, sixty four samples (or 36%) from Jamalco and sixteen samples (or 9%) from Alpart. In this regard, it should be noted that by submitting samples to us for analysis, Windalco and Alpart sought to obtain a better understanding of the process behaviour of bauxite ores that are high in goethite and associated phosphates.
- Our reserves assessment work involved evaluation of the mineralogy of four hundred and forty (440) routine samples in furtherance of the stated objective of facilitating the location, analysis and allocation of a steady stream of reserves in order to sustain production at the highest possible level over the long-term.
- Collaborated with RioTinto-Alcan under the Mount Rosser Water Monitoring project in monitoring and testing Two Hundred and Nine (209) water samples for TDS, pH and ppm sodium. These samples were taken mainly from the Mount Rosser Mud Lake, the Mount Rosser Fresh Water Lake and Weatherly Springs. We analysed an additional Sixty-One (61) routine Environment Water Monitoring samples. Furthermore, we reviewed Alcan's Closure Plan for the Mount Rosser and Kirkvine Ponds, with particular attention being paid to the construction of a water treatment plant, which at the end of March 2009 was 90% complete. We – together with NEPA – commenced an assessment of Jamalco's 25-year residue disposal plan.

- Protected bauxite lands and their reserves from encroachment and sterilization through an assertive collaborative programme with NEPA and the Local Planning Authorities. In this context, we assisted in processing five hundred and ten (510) applications for sub-division of properties in the bauxite parishes of St. Ann, St. Catherine, Clarendon, St. Elizabeth and Manchester. In this regard, we approved four hundred and eighty seven (487) or roughly 96% of all applications received, rejecting twenty-three (23) or 4% due mainly to their proximity to bauxite reserves.
- Continued research on bauxitic lands through the Cadmium Mitigation Study. This study seeks to scientifically determine the botanical, chemical and agronomic reasons underlying the uptake of cadmium in plants cultivated on bauxitic lands located in St. Ann and Manchester. To ensure scientific rigour, we have established a control site in the non-bauxitic parish of St. Mary. To date, the Mines and Geology laboratory, the UWI's ICENS facility and the Rural Physical Planning Division's laboratory have done analyses on plant and soil samples. A team of reputable scientists will review the results.
- Verified St. Ann Bauxite Limited's (SABL's) fiscal payments to the GOJ by analyzing the chemistry of one hundred and eighteen (118) samples taken from the company's crude bauxite shipments. Our analysis helped to empirically establish the Calcium Content as well as the appropriate level of Limestone Credit.
- In preparation for a joint JBI/WINDALCO experiment to determine the conditions under which the company's available bauxite reserves could be more easily processed, we have already secured the necessary samples and chemical solution (liquor).
- Promoted sustainable economic development in host communities through BCDP interventions. In particular, the BCDP – working closely with the Joint Bauxite Community Councils – spent J\$23.6 million primarily on skills training, school and community facilities upgrading, agricultural production, road rehabilitation and rural electrification. Of the total BCDP expenditure, J\$10.2 million (or 43%) was disbursed to skills training projects in Manchester and Clarendon. A further J\$4.9 million (or 21%) was spent on programmes aimed at boosting agricultural production in St. Ann and Manchester and J\$2.5 million (or approximately 11%) was allocated to road rehabilitation in St. Ann. In addition, the BCDP expended J\$2.3 million (or 10%) to upgrade school and community facilities as well as J\$0.88 million on a rural electrification initiative in Manchester.
- With support from the BCDP, the JBI continues to use its Plant Nursery capacity (3,120 square feet) to provide high quality and competitively priced vegetable seedlings for small, medium-sized and large farm holdings, some of which are established on bauxitic lands.
- Maintained the Secretariat for the Bauxite Sector MOU by carrying out comprehensive reviews of Ministry of Finance and the Public Service (MOFPS)-approved Productivity Incentive Plans at ALPART, JAMALCO,

SABL and WINDALCO. Our efforts in this regard served as a basis for achieving stable and harmonious industrial relations, while providing a platform for improved labour, capital and process productivity.

- Provided informal technical assistance to a Surinamese delegation led by the Minister of Natural Resources and Energy, Dr. Gregory Rusland. Deliberations revolved around the future ownership configuration of the 2.2 million metric tonnes per year Paranam alumina refinery and all related mining operations currently part of a joint venture between Alcoa. Inc., (55%) and BHP Billiton (45%). Deliberations were held in November 2008.
- From our extensive library holdings, we satisfied requests from one hundred and ninety one (191) students and members of the public for bauxite and alumina industry-related information.

6.0 Human Resources

6.1 Administration/Staffing

During the review period, the staff complement stood at sixty-one (61). Four (4) of these positions are temporary.

6.2 Training and Development

The JBI sent a member of staff employed in the capacity of an Accounting Clerk to pursue Modules 1 to 3 (Level 1) of the Government Accounting Course put on by MIND.

7.0 Financial Performance for 2008/2009

7.1 Budget

For the Financial year 2008/2009, the JBI crafted a Budget amounting to J\$148.050 million, broken down into J\$15.512 million for Capital Expenditure and J\$132.538 million for Recurrent Expenses. The projected actual outturn to March 31, 2009 is expected to level off at J\$183.842 million, with Capital Expenditure at J\$16.101 million and Recurrent Expenses at J\$167.741 million. The difference of J\$35.793 million is largely attributable to MOU-related employee compensation obligations that we honoured during the review year. The Capital and Recurrent Expenses breakdown is shown in the Table below:

Object of Expenditure	Projected Actual J\$M	Budget J\$M
Capital Expenditure	16.101	\$15.512
Recurrent Expenses	167.741	132.538
Total	183.842	148.050

8.0 Focus for 2009/2010 Financial Year

8.1 Statement of Objectives

- More vigorous monitoring and analysis of the global aluminium market;
- Developing strategic short-to-medium term responses to the global situation to ensure that the integrity and sustainability of the local sector is preserved.
- Keeping the plants operating at the highest possible production and employment levels especially during the downturn in the market.
- Protecting the interests of host communities in the light of a reduction in company expenditure on community outreach and assistance programmes.
- Reserve lands protection in the wake of temporary shutdowns.
- Develop and implement multi-agency monitoring framework with specific emphasis on employee benefits, land management, environmental monitoring, safety, health, community impact, closure plan enforcement, legal obligations, as well as plant mothballing and maintenance.
- Collaborate with the MOH's Environmental Health Unit (EHU) and respected international consultants to assess the impact of industry activities on the health of host community residents.

8.2 New Projects

- The energy intensity of the Jamaican bauxite and alumina industry against a background of continuing oil and diesel fuel price volatility is seriously undermining the companies' international competitiveness. This, therefore, calls for a prudent diversification of the energy mix as well as the sources of supply. In the future LNG and coal are likely to present appealing diversification possibilities. With respect to LNG, exploratory talks are continuing with the Norwegian company GOLAR and the Belgian firm EXMAR to establish a Floating Storage and Regasification Unit (FSRU) along Jamaica's South Coast. Coal, on the other hand, is currently being studied by at least one company as a cheaper fuel for power generation. However, in order to minimise any adverse environmental impact from the use of coal for power generation, the JBI will seek to encourage the use of limestone for de-sulphurization during combustion as well as the utilisation of mud disposal systems for the sequestration of CO₂ emissions (thus enabling the CO₂ to chemically neutralise the caustic soda contained in the mud). We will also promote the installation of Electro-Static Precipitators (ESP). Within this context, an Energy Task Force has been established, under the Chairmanship of Dr. Carlton Davis, to make recommendations on and provide cost estimates and timelines for an energy diversification strategy that will help to improve the underlying economics of Jamaica's bauxite and alumina and power generation industries.

- Establish environmental boundaries around bauxite and alumina operations within which compensation may be due and develop an industry compensation policy as a basis for responding to complaints from host communities.

8.3 Audit and Public Relations

There has been ongoing internal auditing of the JBI's records and activities. In addition, the External Audit for 2007/2008 was carried out and is incorporated in the Institute's 2007/2008 Annual Report, which was laid before Parliament. The External Audit for FY 2008/2009 is currently being done.

8.4 Project Monitoring

The downturn in the global bauxite and alumina industry has engendered temporary plant shutdowns locally. However, during this very challenging period, the JBI – through the BCDP – will leverage all available expertise to provide maximum support to host communities. We will focus on agriculture, skills training, the development of community facilities and physical infrastructure as well as on providing assistance to basic, all-age and high schools. In this regard, we will work closely with the Joint Bauxite Community Councils and the companies. With this in mind, we anxiously await the BCDP's subvention for the period April 2009 to March 2010.

**Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009**

MINISTRY PAPER No. _____

**PERFORMANCE OF THE JAMAICA BAUXITE MINING LIMITED (JBM) FOR
FINANCIAL YEAR 2008/2009 AND FOCUS FOR FINANCIAL YEAR 2009/2010**

1.0 Purpose of this Ministry Paper

The purpose of this document is to update Parliament and the general public in respect of the performance of JBM for the financial year 2008/2009 and its focus for the 2009/2010 financial year.

2.0 Mission

Through a competent and experienced staff optimize the returns on Government of Jamaica (GOJ) sector investment, while promoting sector expansion and development in a manner that is not injurious to the environment.

3.0 Background

Jamaica Bauxite Mining Limited (JBM) was incorporated in 1975 to administer the Government's equity in the bauxite/alumina industry. It holds fifty one per cent (51%) in St Ann Jamaica Bauxite Partners, seven per cent (7%) in Windalco and one hundred per cent (100%) of the former Reynolds Operations at Lydford and Ocho Rios.

4.0 Objectives

- To ensure that business processes at Windalco, St. Ann Bauxite Ltd. (SABL), and the former Reynolds operations at Lydford consistently deliver the level of cost savings, productivity improvement and economic value added necessary to maximize the overall returns to GOJ investment.
- To leverage membership on the Executive Committee of joint venture partners to ensure they are Net Present Value (NPV) positive and therefore able to invest in plant development and expansion.
- To leverage membership on the Executive Committee of Windalco to invest in an alternative energy source to reduce cost.
- To meet JBM's financial commitment to Windalco.
- To direct investment towards the reactivation of the former Reynolds facilities at Lydford without undermining the distinctive character of Ocho Rios as a major tourist resort.
- To ensure that JBM's port in Ocho Rios remains a multi-purpose one.
- To substantially increase the value contribution of sugar and limestone storage and shipment at the Ocho Rios port.
- Steadily build capacity and develop the capabilities required to provide berthing, potable water and other home porting services of international standard to a growing number of cruise ships.
- Ensure that alumina from joint venture partners is ISO 14000 certified as a means of building brand integrity for alumina originating from Jamaica.
- To ensure that the benefactors of cruise shipping revenue pay a fair fee for usage of the port.

- To ensure that revenue increases and expenditure is reduced so as to move the company into a profit position.

5.0 Core Functions-

- Negotiations with the NWC have begun with the view of divesting the existing water supply system. This would enable the NWC to expand the supply to communities close by. These negotiations will be time consuming and the renovation of the system will be expensive but should be completed by the end of the fiscal year in 2010.
- To continue the program to reduce the cost of operations at Lydford/Ocho Rios by the introduction of efficiency measures. Such measures include, the rightsizing of staff to match the scope of operations, and improvements in procedures and systems used to manage inventory and maintenance. Also, the conversion to JPS completed during the previous fiscal year will be monitored so as to ensure minimization of costs.
- To make quality, productivity, cost efficiency, reliability and environmental wholesomeness the key drivers of value creation in joint ventures. This applies directly to our participation in Windalco and guides our interaction with the company at Executive meetings. Furthermore, these key drivers guide our interaction with the Century/Minmetals consortium, St. Ann Jamaica Bauxite Partners as well as other ventures undertaken on JBM properties.
- In general, to skew resource flow and utilization in favour of value creating activities away from those that erode value. As such, JBM is focused primarily on the re-opening / expansion / improvements of Windalco and in ensuring that the Century/Minmetal consortium realizes its true potential.
- To continue the partnership with the Minmetal and Century Aluminium to explore the former Reynolds area to determine bauxite reserves and quality.
- To reactivate the bunkering facilities at the port in Ocho Rios so as to enhance revenue at the port. At this time, senior management is engaging in negotiations with multiple entities to ensure the best rate of return for JBM. These negotiations are delicate and tedious and we expect to complete them early in the fiscal year 2009/2010.
- The economic rationale and attractiveness of maintaining the port in Ocho Rios as a multi-purpose port is clear to JBM. As the only sugar-exporting port on the island, it already serves a key multi-function purpose. Moreover, JBM is in advanced negotiations with the Lydford Mining Company with a view to expanding limestone shipments from the port, thereby improving the company's throughput and efficiency. JBM believes that as this multi-use industrial port already exists with the required basic infrastructure, its multi-use status must be preserved.
- Track economic value added per metric tonne of sugar and limestone stored and shipped as well as per cruise vessel serviced to ensure continued viability of the port facilities.
- Encourage joint venture partners to institute and enforce sanctions for non-compliance with ISO environmental standards. Adherence to standards improves the standing of Jamaica's product on the world market as it ensures

- that quality can be trusted and any variations measured and accounted for. This gives our assets more value and enhances JBM's worldwide reputation.
- Investigate and implement measures to mothball closed alumina plants so as to facilitate smooth reopening.
 - Investigate alternatives for Kirkvine plant in case it becomes uneconomic to be utilized for its present use. As the oldest of Jamaica's alumina plants, Kirkvine represents old technology which was optimized for different standards, and most importantly, it was optimized for production using cheap oil. As times have changed dramatically, we must be diligent in studying the most efficient uses of Kirkvine's plant and equipment to ensure that the plant is utilized on the most economically viable basis.
 - Encourage cruise ship beneficiaries to continue to contribute to the upkeep of the port.
 - Continue study with possible joint venture partner to redevelop the port in Ocho Rios with the best potential outcome being the expansion of the port into true multi-use with all parts operating efficiently, effortlessly and economically. JBM wants the port to recognize both the development of the tourist product, and the development of the industrial sector. JBM is of the view that studies and negotiations will conclude favourably by the end of calendar year 2009.
 - See to it that partners reduce the acreage of unrestored lands.

JBM and its partners are facing unprecedented economic challenges. In the history of Jamaica's bauxite and alumina sector, neither Kirkvine nor Ewarton has ever been shuttered. Regardless, Windalco has been prudent in restoring mined out lands and in fact has the best record for doing so. JBM sees to it that this company continues to restore any mined out lands even in difficult time. St. Ann Jamaica Bauxite Partners, on the other hand, has had its challenges and although its efforts in recent times are commendable it still has backlog acreages to be restored. The JBM will encourage this partner to continue to reduce the backlog and keep up with present requirements.

6.0 Achievements for Financial Year 2008/2009

- Serviced US\$65 million loan on behalf of CAP. The loan is currently being serviced on behalf of CAP with just over US\$37million remaining to be serviced.
- Attended Executive Committee meetings of partners (Windalco and St. Ann Jamaica Bauxite Partners). Operational, environmental and matters to do with government relations are discussed at these meetings.
- Continued the rewiring of motors, replacing of control centres at the port, replaced transformers and other activities to accommodate JPSCo's power at the port in Ocho Rios. Maintained the old generators for the supply of power to the Lydford complex, National Meats, Lydford Mining Company and the port up until JPSCO power was available. The completion of this process enabled JBM to shutter the power station which was energy inefficient and costly to maintain and operate. The transition to JPS has significantly improved JBM's bottom

line, freeing up much needed cash to cover debts while the economic downturn continues.

- Maintained motor vehicles and heavy duty equipment.
- Maintained roads and other infrastructure owned by JBM.
- Maintained and conducted major renovation to houses at Lydford.
- Maintained sugar storage and conveyor systems. All of the island's sugar is exported from the Port in Ocho Rios; as such maintenance must be carried out routinely to ensure that all systems operate efficiently whenever sugar vessels are ready to be loaded otherwise breakdowns could result in heavy demurrage charges.
- Supplied treated water to complex and National Meats up until the closure of the power plants. Cruise ships were supplied from the port water system. This provided a small portion of JBM's revenue and a valuable service to the cruise ships.
- Closed the unprofitable clinic which serviced the community and staff. This is in line with the reorganization of Lydford, it will have minimal effect on profits as it was not fully operational before final closure and the communities are served by two government clinics in close proximity.
- Collected rent for several properties on Lydford grounds, which contributed approximately J\$10 million in revenue for the fiscal year.
- Collected alumina revenue and paid over production cost to Windalco. Total alumina sales for the fiscal year amounted to just under J\$2B, while cost of sales exceeded J\$2.7 billion.
- Unloaded sugar from trucks; stored and loaded sugar onto ships. Fees from sugar related activities amounted to J\$97.7 million for the fiscal year. This accounted for more than 75% of revenue earned by port operations. As such, shipping sugar is the most profitable operation undertaken by JBM and serves to cover much of the company's overheads.
- Accommodated sixty five (65) cruise ships at the port for the year 2008 compared to 72 the previous year.
- Shipped high purity limestone from the port on behalf of Lydford Mining Company. The total revenue earned from fees related to limestone shipping amount to J\$14 million.
- Prudently managed the company's revenue to optimize interest from banks.

6.1 Revenue & Expenditure 2008/2009

Revenue	J\$2.39 billion
Expenditure	J\$2.78 billion

- As at March 31, 2009, current assets stood at J\$1.50 billion. The decreased price received from buyers resulted in JBM realizing an operating loss of J\$390 million compared to a profit of \$720 million the previous year.
- The Lydford operations continued its cost cutting, revenue enhancement programme to reduce the loss but ended the year with a lost of J\$11 million mainly because of the high price of J\$66 million paid for fuel to generate power

until closure in January. There were extraordinary expenditures on the purchase of a stand by generator for the port (J\$14 million) and on the rewiring of houses and offices (J\$12 million).

- The increased cost in salary and payment of redundancy (J\$7 million) also influenced the profitability of the company.
- A conveyor which had threatened the safety of the public over the highway close to the port in Ocho Rios was also removed at a cost of J\$7.0 million.
- All expenses were met from reserves, thus no debt was incurred.

7.0 Focus for 2009/2010 Financial Year

- Complete maintenance of the rest of the company houses at a cost of approximately J\$5million.
- Reorganize staff structure to meet reduced activities.
- Receive, store and load all sugar ships leaving Jamaica.
- Receive, store and load limestone ships.
- Conduct repairs to the port including protective and decorative works to an approximate cost of J\$27 million.
- Continue to contribute 7% of the cost of mothballing at Windalco.
- Attend Executive Committee meetings of Windalco and St. Ann Jamaica Bauxite partners.
- Transfer water supply system to National Water Commission so that it can supply water to JBM property, its former customers and other communities that are now without water.
- Sell old equipment and vehicles.
- Maintain sugar silos and conveyor system.
- Pursue the increase in shipment of limestone to enhance revenue by 100%.
- Re-decorate the port to enhance aesthetics to fit in with the tourism product.
- Reclassification of staff at Port to bring their salary in line with other government entities.

7.1 Revenue and Expenditure for financial year 2009/2010

Budgeted revenue:	J\$210 Million
Budgeted Expenses:	J\$461 Million
Budgeted Loss:	J\$251 million

The usual source of revenue from the sale of JBM's entitlement of alumina from Windalco will not be realized. However, the Lydford operation has a budgeted profit of J\$54 million.

The JBM will incur the cost of closure and moth-balling of Windalco. JBM is currently working with Windalco and JBI to streamline closure to ensure that proper mothballing and a smooth restart are both possible.

JBM is funded solely from its revenues. The deficit projected for this fiscal year will be financed by the reduction of Retained Earnings.

7.2 Human Resources

Seventeen permanent staff members were laid off in 2008 because of the reduction of activities at Lydford. Staff training will be done in port security for some staff at the port and accounting for others.

A reclassification and right sizing programme is to be undertaken after the completion of rationalization.

Hon. James Robertson
Minister
Ministry of Energy and Mining
July 2009