



MINISTRY OF SCIENCE, ENERGY & TECHNOLOGY (MSET)

FOURTH QUARTER (JANUARY 2019 – MARCH 2019) PERFORMANCE REVIEW REPORT



April 23, 2019

i. INTRODUCTION

This report covers the performance of the Ministry of Science, Energy and Technology (**MSET**) three (3) portfolio areas for the **FOURTH** quarter, (**January – March**) of the 2018 – 2019 financial year. The performance report highlights and assesses performance based on the monitoring of plans, policies, programmes and projects identified from the Ministry’s Business and Operational Plans for the 2018 - 2019 financial year.

The plans reflect the mandate of the Ministry, along with the national priorities, policies and programmes that fall under this Ministry’s portfolios. These include some of the priorities, programmes and outcomes identified under the National Development Plan Vision 2030, that Jamaica is a technology enabled society, with internationally competitive industry structures.

The three (3) years Medium Term Socio-Economic Policy Framework 2019 – 2021 has specifically identified the priority outcomes, strategies and actions to be taken now to further advance the implementation of Vision 2030. It is based on these immediate priorities, activities and targets that the Ministry’s current performance and trajectory is being monitored and assessed.

ii. HIGHLIGHTS OF MAIN ACHIEVEMENTS / MILESTONES DURING FY 2018-2019

The main achievements/milestones during the year included:

ENERGY SECTOR

Jamalco CHP 100MW Power Plant

- Pursuant to a Cabinet Decision, Jamalco engaged New Fortress Energy (NFE) to build, maintain and operate a Combined Heat and Power (CHP) facility that will supply steam for Jamalco and electricity to JPS. NFE commenced project development process and has secured a Generation Licence, Power Purchase Agreement and Gas Supply Agreement. The project is scheduled for commercial operation in 2020 and is estimated to cost in excess of US\$300M.

Wigton Wind Farm

- Wigton successfully refinanced US Dollar loan at PetroCaribe Development bank to Jamaican Dollar loan with JN Bank in December 2018 and this was also a preparatory stage for the sale of shares planned for early Q1 2019/2020.

SCIENCE SECTOR

National Council for Science and Technology (NCST)

- Under the initiative “Promote the Development of S&T” (International Scientific and Technological Bilateral Cooperation between Jamaica and South Africa (SA) meeting was held with South African Representative, the Permanent Secretary and NCST to discuss South Africa’s Ministerial visit to Jamaica in 2019
- Joint committee hosted in collaboration with the SA High Commission a three (3) days Youth workshop themed “ See Touch Innovate”

Scientific Research Council

- Under the Objective: Customer productivity is increased and the quality of goods and services is improved through the provision of S & T solutions
The agency developed 30 new personal care products to support MSME's
- Twenty-five (25) active projects are in progress; Steady progress has been made with eight (8) projects; three Certificate of Analyses (COA) completed

TECHNOLOGY SECTOR

e-GovJa

- Under the initiative, Provide project management, application integration and infrastructure support services
Workshops are being held during which the project team evaluates the various proposals and systems to make a selection. Members of the eGov-Ja team are an integral part of the process and have been onsite participating in the workshops as well.

GOJ Transformation Programme

- Under the initiative “fostering strategic partnerships to aid in the research and innovation process”
A total of nine (9) Research Papers were developed for the year exceeding the set target of five (5)

1.0 ENERGY PORTFOLIO:

MAIN DRIVERS: Energy Division, PCJ, PETROJAM, PETCOM, WIGTON, NESoL, and the GEI

1.1 INTRODUCTION

The energy priorities include reducing the county's dependence on fossil fuels, improving efficiency levels and sourcing cheaper fuels. In addition to this, MSET and its partners seek to advance the development and growth into renewable energy sources, investments in modern and electricity generation plants, pursue energy efficiency and conservation through energy efficient systems and enforcement of an updated building code.

Under the Medium Term Socio-Economic Framework 2015-2018, the priorities for the Energy Sector are to:

- Advance the implementation of the LNG fuel diversification project;
- Complete the development of the Energy Policy Framework including the sub-policies;
- Expand the contribution of renewable energy sources;
- Promote energy conservation and efficiency; and
- Lower the cost of electricity through increased efficiency, competition and fuel source diversification.

The fuel diversification strategy pursued, seeks to reduce the current heavy dependence on oil for Jamaica's energy usage. The diversification activities pursued centred on the introduction of an alternative and cheaper fuel such as liquefied natural gas (LNG). A decision was taken in 2013 to facilitate, rather than take the lead in the introduction of LNG as a fuel choice and further leave other fuel options open to the private sector and this has continued to date.

1.2 WIGTON

Wind Energy

Objective: Diversify Energy Mix

Strategy: Efficiently Operate Wind Energy Facility (WIGTON I, II & III)

- Wigton I = 89.4%
- Wigton II = 90 %
- Wigton III = 99%

****Variance**:** Major repairs for Wigton I as the plant is 14 years old (70% of lifetime) therefore parts are not readily available and have to be special ordered or taken from wind turbines that have already been decommissioned. Wigton II has experienced several blade structural failures hence a blade was replaced in February 2019.

Objective: Increase renewable energy penetration towards fulfilment of Energy Policy target of 30% Renewable Energy by 2030

Strategies: Bid for Wigton IV Project (24 - 35 MW)

- No call for renewable energy generation to the electric grid.

****Variance**:** The Generation Procurement Entity (GPE) advised that they will require at least 3 months after the Ministry of Science, Energy and Technology's Integrated Resource Plan (IRP) is issued to assess and call for any new renewable energy generation.

Operational Efficiency

Strategy: Reduce foreign exchange exposure in loan by reducing debt and increasing local equity

- No plan to pay down loan as PCJ will be taking the sale of shares proceeds for other projects
- US Dollar loan at PetroCaribe Development bank refinanced to Jamaican Dollar loan with JN Bank in December 2018 and this was also a preparatory stage for the sale of shares planned for early Q1 2019/2020.

Solar Energy

Objective: Increase renewable energy penetration

Strategy: Bid for Solar Project within Wigton Windfarm layout (10 -30 MW)

- No call for renewable energy generation to the electric grid. ****Variance**:** The Generation Procurement Entity (GPE) advised that they will require at least 3 months after the Ministry of Science, Energy and Technology's Integrated Resource Plan (IRP) is issued to assess and call for any new renewable energy generation.

Strategy: Collaboration with Petroleum Corporation of Jamaica and National Water Commission to Implement Floating Solar at NWC facilities

- PCJ has outsourced the financing of the solar feasibility study to NWC.
- PCJ has not involved Wigton heavily in these projects as there is active plans for 100% of Wigton shares to be sold therefore Wigton would no longer be a subsidiary of PCJ

Green House Gas Reductions and Use of Distributed Renewable Energy

Objective: Increase renewable energy penetration and lower greenhouse gas emissions

Strategy: Demonstrate Electric Vehicle (EV) use for Wigton’s bearer vehicle and power the EV with distributed solar PV with storage in collaboration with PCJ

- The procurement of equipment postponed
- Due to the lower than budgeted production and thus sales revenue from Wigton plant, such demonstration projects that are non-core business are delayed. Wigton is exploring partnerships with Canadian firms who may be able to seek grant funding for a demonstration project with a view to establishing a track record for Wigton to venture into new businesses.

Off Shore Wind Energy Research & Development

Objective: Increase renewable energy penetration

Strategy: Collaboration with Petroleum Corporation of Jamaica

- The feasibility study was submitted to stakeholders for review.

****Variance**:** After the feasibility study is finalized, this information can be fed into updated versions of MSETs Integrated Resource Plan.

Wind Energy

Objective: Operational Efficiency

Strategy: Repowering of Wigton I Site

- Since July 2017, the Generation Procurement Entity could not guide on whether Wigton was allowed to repower to new wind turbines unless the cost recovery could be done in the existing 6 operational years

****Variance**:** GPE indicates that the repowering will be guided by the outcome of the IRP

Renewable Energy (Not on central government budget)

Objective: Capacity Development and Technology Transfer to Jamaicans

Strategy: Facilitate Training of the Wider Public through a resource centre

- A photovoltaics and wind energy course were conducted March 25-29, 2019.
- Collaborating with NCU to develop an undergraduate renewable energy course.

1.3 NATIONAL ENERGY SOLUTIONS LIMITED (NESOL)

The National Energy Solutions Limited (NESoL) (formerly Rural Electrification Programme Ltd.) has three main programmes: *Constructing Single Phase Distribution Pole Lines, House Wiring and Special Projects.*

The agency has embarked on Special Projects geared towards the reformation of the rural electrification programme across these communities. A current project under this initiative is the implementation of Lightening Protection System at various libraries such as the Jamaica Library Services, of which an estimate was provided and presented for their response.

Based on a Cabinet Decision, NESoL is to be wound up and its functions subsumed into the Parent Ministry. The process of winding up has begun with the passing of a resolution by the Board of Directors.

Diversification of Services

Objective: To contribute to increased productivity in the house construction market by offering value added service to other governmental and private institutions

Strategies: Market NESoL's Pole Line Design Services/Secure contracts with other Government Agencies/Execute implementation of works.

- Complete and Energized 3.10km of pole line construction at Grange- St. James with the stringing of conductors.
- Work in Progress on the final 2.9Km of pole line construction in phases "B & C"

****Variance**:** 2AAA Conductor is not available from regular suppliers and currently exploring other sources. **

Implementation of the Street Lighting, Installation, Loss Reduction and Community Renewal Programme (SILC) for communities

Objective: To build a closer relationship and partnership with members of the respective communities that will result in clear tangible benefits to community stakeholders

Strategies: Secure additional funding for the continued implementation of the SILC Programme/Installation of pole line infrastructure/Conduct meetings with community stakeholders/Installation of street light in communities/Execution of House wiring services/Implementation of community renewal programme

- The company continue to explore funding sources to secure additional financing for the continued implementation of the SILC Programme However no additional funding were forthcoming during the period under review

****Variance**:** Project Funding has been exhausted

Provide electricity access to the entire Jamaica

Objectives: To expand electricity supply to various communities in Jamaica that are without electricity

Strategies: Use of GOJ Funding/Private Sector Funding/Special Project Funding/Engage Contractors for construction of pole lines

- A total of 6.64Km pole line construction was effected during the period under review

****Constraint**:** Procurement of Material

Strategy: Assist the JCF and the JDF with the implementation of the Zone of Special Operations (ZOSO) in St James

- The company continued its communication with representatives from the Ministry of National Security in respect of the ZOSO operations in Mount Salem, St. James.

Objective: To have houses wired in keeping with electricity standards

- A total of 81 houses were wired and certified during the period January - March 2019 in several communities island wide

****Variance**:** Material procurement and potential beneficiaries making initial payment

Distribution System

Strategies: Conduct Survey and Determine Easements/Highlight Benefits of Extension to Customers/Secure Applications for House Wiring and Subsequent Deposits by Customers/to Follow through with Engineering/Department to Ensure that Required Services are Delivered

- To date, 3.10km of pole line construction have started. All poles have been planted at Grange- St. James.
- The stringing of conductors have been effected and awaiting JPS RAMI system for metering.
- Phase "A" of Barrett Hall completed and certified as a special project for NWA.

****Variance**:** Awaiting the RAMI system that JPS needs to procure. Awaiting survey results for boundaries at Barrett Hall

Marketing of Pole Line Extensions and House Wiring Services

Objective: To inform and educate community members about new electricity supply in their respective communities

Strategies: The marketing of house wiring services was conducted in ten (10) areas – namely Pleasant Valley, Hartford, Black Rock, Enfield, Benjamin Hill, Hector's River, Spring Hill, Paul Mountain, Albion and Egypt.

Objective: To ensure that residents effect application for access to electricity supply from newly installed pole line infrastructure

Strategies: Conduct survey and determine easements/Highlight benefits of extension to customers/Secure applications for house wiring and subsequent deposits by customers/to follow through with Engineering. Department to ensure that required services are delivered

- The marketing of house wiring services was conducted in 10 areas – namely Pleasant Valley, Hartford, Black Rock, Enfield, Benjamin Hill, Hector's River, Spring Hill, Paul Mountain, Albion and Egypt.
- This was across 5 parishes: Clarendon, Portland, St. Mary, St. Catherine and Westmoreland
- Easements were effected on 7 extensions in 4 parishes. The completion of the easements will pave the way for the construction of pole line extensions for the expansion of electricity supply.

Implement Renewable Energy Project at Key Government Entities

Objectives: To Assist in the Expansion in the use of Renewable Energy Technology in Jamaica/Ensure a more Diversified Mix of Energy Sources/Contribute to the Reduction in the Cost of Electricity Supply in Jamaica

Strategies: Provide Training to Current Staff Members/Recruit New Skill Sets/Develop Standards, Policy and Operational Framework for /implementation of Solar Energy Projects

- There was no activity in this area during the quarter.
- 28 CAP locations Audited

****Variance**:** The Programme continues to be under review during the quarter

Management of NESol's Financial and Administrative affairs

Objective: To continuously improve the financial accounting systems and procedures to ensure compliance with policies outlined in the Financial Administration and Audit Act/To provide the required financial management for the successful operation of NESol giving full consideration to future operational and financial requirements/To ensure timely preparation of audited financial statements, Annual Returns and other internal and external reports

Strategies: Ensure prompt recording of financial transactions/Timely preparation of financial statements/Preparation of monthly Project Financial reports for NESol's projects/Preparation of financial year end accounts for audit by month two/Finalize first draft of Annual Report (financial section) by month four (July)/To ensuring the tabling of Annual Report in Parliament by month six (September)/To prepare and table Annual Statutory Returns by month ten (January of each year)Explore alternative source of project financing/Effect monthly budget review

- Provided Monthly in-house financial statements for the Board of Directors
- The audited financial statements for the year ended March 31, 2015-2017 are being audited by Ernst & Young. The progress of the work continue to be delayed by the impact of negative developments at the company in 2018. All outstanding up to 2019 March are anticipated by May/June 2019.
- The narrative Annual Reports which have been updated to March 2018 are awaiting the finalization of the audited financial statements for

****Variance**:** Procurement of external resources to compliment internal resource within a limited timeline

1.4 PETROLEUM CORPORATION OF JAMAICA (PCJ)

The PCJ continued to take the lead in driving the implementation of the National Energy Policy 2009-2030 and in its operations, is guided by the priorities, objectives and targets in the Medium Term Socio-Economic Policy Framework 2015-2018.

PCJ's Energy Efficiency and Conservation in Public Sector

Objective: To introduce Renewable Energy and Energy Efficiency into the Public Sector as per National Energy Policy (NEP) 2030

Strategy: Implement Renewable Energy and Energy Efficient Technologies so as to Reduce Energy consumption in the Public Sector

- Final review & acceptance of Drawings & BOQ done in Jan 2019. Phase 1 completed, copy sent to Petrojam as well. Consultant made payment request claim – Feb 2019.
- Prepared cost-benefit analysis & shared with PCJ & Petrojam Mgmt. to see the viability of Phase 2.

****Constraint****: Management Decision to be finalized for Budget and also prepare ESCO contract and/or letter of commitment (LOC) b/w PCJ & Petrojam Mgmt.

Strategy: Save on imported oil for electricity generation

- Awaiting feedback from Petrojam’s GM Office on way forward for Phase 2.

CSR Initiative: Energy Efficiency and Conservation Programme in Public Sector – (Lighting & AC Projects)

Objective: To introduce Renewable Energy into the Public Sector as per National Energy Policy (NEP) 2030

Strategy: Implement Solar PV Technology and Energy Efficiency in the Public Sector Agencies so as to:

Save on imported oil for electricity generation.

- eGov Lighting Upgrades M&V has started
- Following a meeting between eGov and PCJ on March 19, 2019, it was established that the MoFP will fund this A/C project phase & project resources will be procured by eGov. PCJ will however provide technical support throughout the process.

****Constraints****: Changes in the office of the GGM resulted in extended delays in the Technical Specs being sent to Procurement

- The Grange Hill High School Lighting & A/C Upgrades M&V process has started.
- Energy saving calculations have started and will be continued for the next 2 years

Strategy: Implement Solar PV Technology and Energy Efficiency in the Public Sector Agencies so as to:

Reduce energy consumption in the Public

- To complete Level 1 Energy Audit (walk through) for the A/C and Lighting components at Supreme Court East - **60% completed.**
- Finalize Solar PV site visit assessment for Supreme Court North - **70% completed**
- Complete the data review & specifications and possible source of A/C units selected Supreme Court East Approx. - **70% completed**
- Preparation of TOR - **Approximately 60% completed**
- Completion of research on Building Management Systems (BMS) to determine feasibility and Specifications of the system. **No further activity.**

Strategy: Implement Renewable Energy and Energy Efficient Technologies so as to Reduce Energy Consumption in the Public Sector.

To reduce Energy by 730MWh per annum by FY 2019/2020.

Lighting Retrofit only at CASE:

- Contract signed on February 13, 2019

****Constraint****: Inordinate delays within the PCJ to sign contract agreement

**Strategy: Implement Renewable Energy and Energy Efficient Technologies so as to Reduce Energy Consumption in the Public Sector.
To reduce Energy by 730MWh per annum by FY 2019/2020 in Public Sector schools**

Lighting Retrofit only at G.C. Foster College:

- Contract signed on February 13, 2019.
- TOR and specifications been finalized and to submit to Procurement by April 19, 2019
- Lighting & AC Retrofit & at Clarendon Municipal Council (**CMC**)
- Contract signed on February 13, 2019.
- Project schedule to end March 20, 2019, but extended to March 27, 2019

****Constraint**:** Timely receipt of JPS Bills (monthly) and related energy consumption data from CMC

Urban Development Corporation (UDC)

Conduct Investment Grade Energy Audit to execute deep retrofit at the UDC Ocean Towers and Jamaica Conference Centre (UDC)

- Annulled and RFP to be issued by April 5, 2019.

Replacement of new Solar Thermal Water Heating System at Annotto Bay Hospital (ABH)

- To be completed in FY 2018/19 Q4 – Jan 2019. Completed – Feb 21, 2019

****Constraint**:** Low water pressure issue at the hospital has incurred a project variation to supply cold water the roof mounted SWH units.

Contract duly signed with consultant for the lighting audit review for the 50 facilities

- Shortlisting of consultants is currently in progress. Only one bidder showed interest

****Variance**:** Bidding process was delayed due to changes in the 50 selected facilities. Major challenge is garnering the interest of the market and receiving quality proposals

CSR Initiative: Initiative: Energy Efficiency and Conservation in Public Sector – Hospitals

Strategy: Execute major Renewable energy and Energy Efficiency projects at 6 hospitals through the UNDP GEF Projects/To reduce consumption by 217 MWh per annum

- RFPs for A/C upgrades issued to public tender for Chest, Sir John Golding & Bellevue. Bids evaluated and no bidder was successful. Process was annulled and a meeting was held with bidders on Mar 26th, 2019.
- Solar PV Intervention – National Chest and Sir John Golding:
- Technical specifications drafted by PCJ and submitted to UNDP Procurement Service Unit in Copenhagen on January 16, 2019
- Comments were received on January 22, 2019. Technical specification is still being finalized (90% complete)

Strategy: To sign at least 2 ESCO contracts so as to reduce consumption by 201 MWH per annum

- Installation of 72kW solar PV system was completed.

- GEI Certificate was issued and submitted to JPS.
- SOC between JPS and DBJ has been executed.
- Net Billing Meter has been installed

****Constraint**:** JPS Commissioning wasn't completed as during testing it was found that DBJ's electrical grounding for the transformer and generator needs to be serviced.

- SIA submitted the Structural Assessment January 21, 2018. Draft site Assessment report submitted to SIA March 1, 2019

****Constraint**:** Completion of report was delayed as man power was directed to priority projects.

Strategy: Reduce energy consumption in the Public Sector through Corporate Social Initiatives/To generate 66 (20 + 46) MWh per annum

- Technical specifications design, supply and installation of an off grid solar system PV for the JDF Coast Guard at Pedro Cays and is 80% complete
- JDF is currently in the process of installing the trellis.

Projects of Major National Significance: Hydropower development programme

Objective: Develop and promote Jamaica's energy resources Environmental Stewardship Implement Energy Sector Policy

Strategy: Negotiate Land Access Agreements for applicable crown lands/Identify and finalize hydro codes and standards for local construction/

Upgrade web portal with respect to hydropower investment potentials, risks and legislative framework

- NLA's Commissioner provided information on Crown and Private lands to PCJ. Following a meeting with NLA's Parish Managers further information was requested to support land valuations. Maps and updated land data was submitted to NLA by PCJ to support investigations on the 12 potential hydropower sites.
- Web-portal development was advanced with CAC Dept. The editing and uploading of one hydropower site is in progress.
- Consulting support deferred until results of IRP are published
- CAC Dept. The editing and uploading of one hydropower site is in progress.
- Consulting support deferred until results of IRP are published

Research & Development Programme: Biofuels Development Programme

Objective: Develop and promote Jamaica's energy resources Environmental Stewardship Implement Energy Sector Policy

Strategy: Implement Medium Scale Biodiesel castor-Based Biodiesel Processing & B5 Validation Project

- Biodiesel Strategy completed to support project development.
- Biodiesel Model completed by Blue Ember Concepts

Strategy: Develop Bio methane Projects in Schools and waste water treatment facilities

- UTech MOU stalled due to lack of response by UTech to PCJ's comments on Final Research Projects.
- No progress on SRC collaboration

Energy Management & Efficiency Programme funded by IDB, JICA & EU

Objective: To promote energy efficiency in government facilities and fuel conservation in road transportation by contributing to the avoidance of fuel imports

Strategies: To introduce Renewable Energy into the Public Sector as per National Energy Policy (NEP) 2030. Implement solar projects in Schools, Hospitals and Public Sector Agencies/Save on imported oil for electricity generation

- Contract duly signed for 3 hospitals and contractor to mobilize in the week April 15, 2019.
- MGTHS presented to NCC Sector Committee and now awaits NCC approval for contract award.
- EPHA being evaluated by Evaluation Committee

****Constraint**:** The 1st procurement process for MGTHS and EPHA had to be annulled & retendered as no bidder achieved the minimum requirements for contract award. One of the Hospital (Cornwall Hospital) was removed from the package.

PCJ's Energy Efficiency & Conservation Programme (EECP)

National Energy Policy/Goal 1 - Energy Conservation and Efficiency

Objective: To implement a National energy awareness campaign

Strategy: Develop and execute a comprehensive public education and communication programme to promote the National Energy Policy and sensitize Jamaicans about ECE.

Energy Champion Competition 2018:

- The Organizational competition received a total of 62 entrants but had 9 finalists from the following entities:
- eGov Jamaica Limited
- Ministry of Labour and Social Security
- National Library of Jamaica
- Ministry of Transport and Mining
- Maggoty High School
- Anchovy High School
- Mount Salem Primary and Jnr High School
- Priory Primary and Infant School
- Ministry of Education, Youth and Information, Region 5
- A three-member Panel of Judges was established to review submittals from entities and identify the winners in each category. This process began on January 23, 2019 and ended on February 13, 2019 with first and second place winners identified as follows:
- First Place Winners:
- Division 1- eGov Jamaica Limited
- Division 2- Ministry of Labour and Social Security Division 3- Ministry of Education, Youth and Information, Region 5

- Schools Division- Maggotty High School
- Second Place Winners:
- Division 2- Ministry of Transport and Mining
- Division 3- National Library of Jamaica
- Schools Division- Priory Primary and Infant School
- The EECF hosted the Energy Champion Award Ceremony at the Jamaica Pegasus on March 20, 2019, to reward and recognize the nine (9) entities. Over 120 persons from 40 public sector entities attended the function which was under the auspices of the Hon. Minister of Energy.
- Solar PV installations valued at J\$20,000,000.00 to be spent in 19/20 FY
- Runner up equipment and appliances valued at J\$1.5M. The RFP for solar installations was issued on March 26, 2019 and the bids are to be submitted by May 9, 2019.
- Of the J\$28.5M amount budgeted for this activity, J\$4.5M was spent with the balance to be disbursed upon completion of the solar installations.

Goal 6 - Government is a leader in Energy Conservation

Objective: To implement Public Sector Programme on Energy Conservation and Efficiency

Strategies: Implement Public Education and Promotions for ECE/Liaise with large energy consuming entities and sectors to sensitize them about the Energy Conservation and Efficiency initiatives and opportunities/Design and implement cost savings EE and EC measures in the public sector

May Pen Hospital and Ministry of Education:

- Draft Practical Completion Certificates have been prepared and are to be approved by Legal Department for issuance.
- The Handing over Ceremony planned for March 1, 2019 at the MOEYI was postponed as key personnel including the Hon Minister, PCJ Group General Manger, and Permanent Secretary from the MOEYI were no longer available. Efforts are underway to reschedule this exercise which is important for the beneficiary and procuring entities. The Handing over Ceremony for the May Pen Hospital is proposed for May 9th.
- All other works are practically complete and Training sessions are to be scheduled.

Jamaica Cultural Development Commission:

- The electrical upgrade has been completed by Synergy, the GEI has inspected and the Programme their report is being prepared internally.
- All 49 AC units have been installed completing the AC scope of work for Building 1 to 5. There are minor works remain.

Jamaica Constabulary Force:

- By way of letter dated March 25, 2019 Cabinet approved the award of contract to Geddes Refrigeration Limited.
- A notification of contract award has been issued to the selected bidder
- The contract is being prepared by the EECF prior to submission to PCJ Legal. Contract signature is expected by

Post and Telecommunications:

- The PCJ-EECF terminated this RFP, made revisions and subsequently re-issued a new RFP for retrofits at the Post and Telecommunications Department.

- A Pre bid Meeting was held on March 14, 2019 to assist prospective Bidders to prepare responsive Bids based on the more stringent requirements mandated by the updated RFP. It is expected that two of the previous Bidders will resubmit updated Proposals. The submission deadline of the RFP is April 11, 2019. There was a comprehensive Bidders seminar in order

Consultancies:

Hazardous Waste Management Guide:

- Awaiting finalization of contract from PCJ Legal Department. Notification of Award has been issued.

Assessment of the EECF and Data Monitoring:

- The consultancy service is to be retendered upon completion of the revised TOR.
- EEC Awareness Survey:
- Awaiting finalization of contract from PCJ Legal Department Notification of Award has been issued
- Monitoring & Verification Results

Data Consumption Report: January 2019:

- Total savings to January 2019: **8,354,564.25 kWh**
- Energy expenses reduction (US\$): **USD\$ 2,614,107.64**
- CO2 emissions of the public sector reduced: **5,171.48 tonnes**
- Number of Oil barrels reduced: **6,651.07 barrels**

Data Consumption Report: February 2019:

- Total savings to February 2019: **8,575,393.92 kWh**
- Energy expenses reduction (US\$/year: **USD\$2,685,363.14**
- CO2 emissions of the public sector reduced: **6,826.87 tonnes**
- Number of Oil barrels reduced: **5,308.17 barrels**

1.5 PETROJAM

Petrojam is jointly owned by the government of Jamaica through the Petroleum Corporation of Jamaica (51%) and PDV Caribe S.A, an affiliate company of Petroleos de Venezuela S.A. (49%). The entity supplies the country with a full range of domestic, transportation and industrial petroleum products. The core business function is the purchasing and refining of crude oil into finished petroleum products among other by-products including, gasoline, automotive diesel oil, jet fuel, liquefied petroleum gas, heavy fuel oil and asphalt.

Petrojam continues to implement strategic initiatives towards improving their productivity and profitability. Some of the achievements during the quarter are as follows:

Objective: Increase Profit

Strategy: Implement an inventory risk management program

- No Progress.

****Constraint**:** Human resource constraints affected the progress on this initiative

Strategy: Implement Refinery Upgrade Project

- No progress
- Refinery Upgrade Project on hold pending the recommendations of the Petrojam Review Committee (PRC)

Objective: Increase Gross Margin

Strategy: Vacuum Distillation Unit Project (VDU)

- No progress
- VDU project on hold until the PRC tables its report to the GOJ

Objective: Reduce Operating Expenses

Strategy: Upgrade Berth #2 at Montego Bay Freeport

- Facilities 98 % complete
- All works completed at Berths 2&3
- Product lines and supporting infrastructures installed and hydro-tested
- Civil works completed

****Constraint**:** Project behind schedule due to protracted negotiations with Port Authority of Jamaica as well as delays encountered due to docking of cruise ships

Objective: Increase Customer Satisfaction

Strategy: Upgrade LPG Rack/ Upgrade Asphalt Loading Rack

- No progress. Project placed on hold
- Project affected by resource constraints (resignation of Project Manager)

****Constraints**:** Awaiting decision on fate of VDU project

Objective: Increase Sales

Strategy: Install Facilities to export asphalt (Asphalt restoration)

- Revised schedule impacted by the need to retender both the marine civil works and the marine equipment

Objective: Improve Plant Reliability

Strategy: Rehabilitate Cathodic protection system

- Zone 2 & 3 – Material supply contract executed
- Zones 4-8, procurement process commenced. (2 procurements)

****Constraint**:** Issues with respect to steel tariffs for material resulted in protracted negotiation

Strategy: Replace obsolete equipment and vessels

- New Boiler installed on foundation
- Electrical and mechanical works in progress

****Constraint**:** Slippage in schedule due to further delay in delivery of electrical material

- Project resources were also diverted to assist with 2019 shutdown.

Strategy: Continue Tank Repair Program

Repair tanks:

- T TK 118 – on schedule
- TK 12 – on schedule, however final survey result indicate part of the tank shell is in not compliant with API code.

****Constraint**:** TK 113 rescheduled to FY 2019/20

- Engineering assessment of tank 12 currently being completed (contractor cost)

Objective: Increase Operational Efficiency

Strategy: Refinery Instrumentation Upgrade (Autonomous Control Program)

- Resource was diverted to assist with the catalyst regeneration exercise in February 2019

Objective: Strengthen Product Quality Management

Strategy: Obtain ISO 17025 accreditation

- ISO 17025 Training Organized
- Laboratory partially commissioned.
- New Metrohm instruments installed and commissioned
- 2 new CFR Knock Engines installed and commissioned

Objective: Strengthen Safety Culture

Strategy: PSM Implementation

- The Pre-start-up Safety review policy was revised instead of the Emergency policy
- Database for the incident management system was developed and populated

Strategy: Installation of Fire-Fighting equipment at Kingston Industrial Loading Rack (KILR) and Montego-Bay Industrial Loading Rack (MILR)

- Replacement Bladder Tank on site – Work in progress to install

****Constraint**:** Equipment procured and installed, however, during commissioning the bladder tank was found defective

Strategy: Complete installation of CCTV system at KILR and commence installation at refinery

- Detailed design completed
- Installation of conduits for cables commenced
- Tenders for cameras for Jamaica Customs and completion of installation KILR received.

Strategy: Compete electrical works for Wastewater treatment plant and commission

- Bid evaluation completed for materials
- Expected completion Q1 2019.

****Constraint**:** Project behind schedule due to misappropriation of electrical equipment.

2.0 SCIENCE PORTFOLIO:

MAIN DRIVERS: Scientific Research Council (SRC), International Centre for Environmental and Nuclear Sciences (ICENS) and National Commission on Science and Technology (NCST)

2.1 INTRODUCTION

The science and technology interventions and projects pursued by the main drivers in this sector reflect the desired outcomes of the Government of Jamaica (GOJ) and also aligned with Vision 2030 under outcome #11: A technology enabled society through the integration of Science and Technology (S&T) into all areas of development. The entities sought in carrying out their mandates to build awareness of the relevance and importance of science and technology in influencing Jamaica's growth and development

2.2 NATIONAL COMMISSION ON SCIENCE AND TECHNOLOGY (NCST)

The agency has responsibility to promote the sustainable development and the utilization of local science and technology capabilities for competitive and profitable production through education of the populace, partnership of the government, private sector, academic institutions and such other bodies. These are to be promulgated through established priority programmes and key initiatives alike.

Objective: Development of new Science, Technology and Innovation Policy aligned to Vision 2030 National Development Plan

Target: Complete the revision of the document and submission of request from Cabinet for input and public consultations

- Supported the amendment of the Draft Policy post the Cabinet Subcommittee's review and consultation/discussion. ST&I policy document is now with MSET's Policy Unit

****Variance**:** Discussion with Cabinet subcommittee was noted.

The Policy is being reviewed to take into account the concerns and recommendation ahead of resubmission for Green Paper Status

Strategy: Promotion of a National Research Fund

- The National Health Fund (NHF) impact study work plan submitted by consultant researchers to NHF. Awaiting next steps from NHF.

Partnering with key sectors for development of a national research agenda and resourcing R&D and innovation

- Contact made with UWI Mona Office of Research and Innovation regarding request report on expenditure on R&D

Promote the development of S&T

International Scientific and Technological Bilateral Cooperation between Jamaica & South Africa (SA)

Target: Monitoring of Research activities under the Joint Call for researchers in Jamaica and South Africa

- Collected research report from local researchers on the progress of their activities
- MSET secured year 2 payments in support of local research activities
- Each project has been producing scientific papers and affording postgraduate training.
- One Jamaican student is now in Pietermaritzburg campus of Kwazulu Natal University learning techniques which will be brought back to train local students.

Execution of the MOU with BioJam Industrial Research and Development-BIRD Planning and Execution to undertake Feasibility Study for the Establishment of Science and Technology Park

Target: Undertake the feasibility study... execute the Technology Readiness Assessment (TRA)

- BIRD technical team visited Jamaica in February; NCST assisted with connecting the team with key stakeholders.
- BIRD team met with stakeholders to discuss BIRD's progress regarding the revision of Jamaica National Development Plan including:
 1. Rail System
 2. Hydroelectric Power Plants (2) ea.
 3. Research Parks
 4. First Responder Training Facilities
 5. Agri Business Parks

The team consisted of individual from engineering firms who have the requisite technical and management expertise to undertake projects of the magnitude required for S&T parks to thrive. The Team also discussed proposed financial model for executing and how supply chains will affect Jamaica and the US.

Objective: Establish the Framework for a Functional and Sustainable National Nutraceutical Industry (NNI)

Target: Provide the Technical Support through the NNI Steering Committee (SC) for the amendment of the Ministry of Health, Food and Drug Act/Regulations to incorporate Natural Health Products inclusive of Nutraceuticals

- The subcommittee of the NNI Steering Committee prepared drafting instructions to the Chief Parliamentary Council (CPC) who requested additional details on the submission.

****Constraint**:** Scheduling conflicts often impacts the number and length of meetings/workshops to prepare instructions for amending the FDA and the development of new legislation for regulating the industry.

Objective: Implement key recommendation emerging from Audit of GOJ Labs: Promote improvement and infrastructure development

Target: Execute recommendations of the Hazardous Lab Waste Clean-up Ad-Hoc Committee (HALWAC) for disposal of stored chemicals and obsolete equipment waste

- An approximate of an additional 4000 Litres (L) of organic solvents from UWI Mona and UWI Hospital were disposed of under the pilot with the Caribbean Cement Co. Ltd. Making the total of ~8000 L incinerated on the recommendation of the Hazardous Waste Clean-Up Ad Hoc Committee
- No action taken following the drafting of Cabinet Submission requesting approval for MOU with Caribbean Cement Co Ltd and the roll-out of a management framework for chemical resources in Gov't Labs.

****Constraint**:** The completion of the pilot incineration was hindered by a broken/faulty pump at the Cement Co.'s Bunker C which happened during the first disposal attempt. The Company has had several challenges procuring and installing a new pump. In addition to other activities at Cement Co that negatively impacted the pilot.

Popularization of Science, Technology, and Innovation

Objective: To enhance public awareness of the importance of ST& I to everyday life and their application to national development

Strategy: Publicly recognize the efforts of scientists and innovators

Target: Facilitate wide Dissemination of Scientific and Technical Information through various Media and Public Engagement activities

- Following the 2018 National Medal and Innovation Awards NCST collaborated with the Scientific Research Council in the staging of the "Translating Innovation Workshop" on January 24, 2019
- Twelve (12) institutions were invited to be a part of the Innovation Management Post Awards Committee (IMPAC). The aim of IMPAC is to provide strategic guidance and technical support for innovators to drive the development of their innovations and expanding existing initiatives
- Sponsored five (5) Innovators and their team, with ICT linked innovations for exhibition at the USF Public WiFi launch in the Emancipation Park on March 22, 2019

2.3 SCIENTIFIC RESEARCH COUNCIL (SRC)

The SRC was established by an Act of Parliament in 1960 and the Government through the then Minister of Science, Energy and Technology (MSET), has mandated the SRC to contribute to economic growth through the application of Science, Technology and Innovation (STI). The SRC is guided by the Ministry's priorities which are aligned to the National Development Plan (Vision 2030).

The SRC's role in the Building, Commissioning and Monitoring of Wastewater Treatment Systems (WWTS), is primarily to provide technical resource and supervision for individual and private entities who invest in the construction of WWTS. The agency ensures that these systems are done to required building specifications and are compliant according to the National Environment and Planning Agency (NEPA). The Commissioning of all systems is an on-going management to ensure proper maintenance and efficiency of their installation.

A Technology enabled Society; integration of S&T into all areas of development and fulfilment of the mandate of SRC as under the SRC Act of 1960

Objective: Customer productivity is increased and the quality of goods and services is improved through the provision of S & T solution

Strategy: Build, Commission and Monitor Wastewater Treatment Systems in the Region

Noel Homes/Lucea Hospital -

Corrections completed and the system is now 100% completed

****Variance**:** Letter forwarded to the contractor for SRC to deduct the cost of the corrections from the outstanding payments

Ulster Spring -

98% complete; minor repairs are completed. Still awaiting report from subcontractor 8% complete; Minor repairs are completed. Awaiting report from subcontractor.

****Variance**:** Sampling and commissioning to be completed

Savanna la mar Hospital -

98% complete; Subcontractor is yet to complete the works on the pipes. A meeting was held to discuss the way forward.

Golden Grove, St. Thomas -

99% complete; the site remains inactive and areas around the Bio-digester Septic Tank (BST) remains flooded. Still awaiting payment from Ministry of Industry, Commerce, Agriculture and Fisheries (MICAFA). Matter has escalated to the Permanent Secretary.

Spring Field Clarendon -

98% complete; there is still no activity at the site. The bed is flooded and the chlorination chamber remains blocked with soil

****Variances**:** System cannot be commissioned until the issues have been addressed.

Barham Phase II -	60% complete. Construction of system continues at a slow pace.
May Pen Tax Administration-	95% complete; exploratory works have commenced. There is a lack of flow from the vegetative filter bed. Awaiting response from the contractor regarding remedial work to be done and a solution to the lack of flow from the vegetative bed.
Carron Hall High School-	Official handing over ceremony was held on February 5, 2019. Ceremony was well attended by the funders of the project, ministry officials and representatives from the community
21 Edinburgh Avenue, Kingston	95% complete. The following need to be completed: <ul style="list-style-type: none"> ▪ Adjustments to the Baffle walls in the chlorination chamber ▪ Chlorination chamber basket ▪ Installation of valve for BST gas pipe
Massemure Phase 2 Westmoreland -	Construction of systems underway 81% complete
Salvation Army -	100% complete: Site visit to be conducted to ensure that flow is adequate
Wolmers' Boys -	98% complete; flow from the reed bed is not visible; this is required to conduct sampling and analysis of the effluent in order for commissioning. Meeting held with subcontractor to resolve issues for the necessary repairs to be effected
Berger, 256 Spanish Town Road-	98% complete; large scale experiment was set up to determine if Total Nitrogen can be reduced using aeration and coal successfully.
Caribbean Products Company Limited -	100% complete. Awaiting payment YTD Achievement: The quarterly assessment reports for November 2018 – January 2019 were completed for Ironshore and Stanmore as per contractual agreement

Strategy: Monitoring of wastewater treatment systems for NEPA against the national environmental regulations and stipulations

1. Sampling and analysis of effluent in fulfilment of NEPA's standards at the following locations
 - Ironshore
 - Logistics Distribution

- Stanmore, St. Ann
 - Samples were collected for Edgechem Ltd. And Mavis Bank Coffee Factory
2. Approval for permit and licence received from NEPA for one client.

Provide Food Technology Services to MSMEs to support Market Access and Competitiveness

- HACCP meeting held to discuss update of corrective action plan and preparation for upcoming certification audit.

The following was done:

- Pest control visit conducted and the installation of additional bait station
- Weekly verification of thermometers and refractometers
- Visit conducted by Ministry of Health regulators; non-conformances identified and corrective action plan completed
- Conducted mock recall exercise
- Removal of unrelated items and implemented monthly cleaning schedule of Pilot Plant
- Contact made with the regulatory bodies for the certification of the pilot plant
- Average Twelve (12) clients utilize facility on a monthly basis for production of products (juices, water, sauce, seasoning, liqueurs, jams, jellies syrup, Solomon Grundy, patties, plantain tarts, drinks, chutney, fruit mix and purees etc.
- 2138.68 kg of raw materials received for milling and drying from 14 clients
- 2,138.86 Kg of raw materials dried and milled for clients
- Eighteen (18) packs of Jerk chicken sausage were processed for sale at SRC.
- 375.4 Kg of meats processed
- 396.4 Kg of product retorted for client
- One (1) process schedule conducted
- Schedule process report completed and delivered to one (1) client
- Four (4) retort inspections conducted;
- Packaging of product done for four (4) clients
- Production scale up of Moringa drink for one client – 58 – 500ml bottles
- Production scale up of 55.0 kg of guava pepper sauce for one (1) client

Support the growth and development of MSMEs through the provision of Analytical and Consultancy Services

Strategy: Reduce outsourcing of tests to increase turn-around time and increase revenue stream

- AA repaired and is now functional. Ion Chromatograph was installed. Commissioning being done by the technician from suppliers
- For the period 540 samples received; 407 of which involved microbial analyses; an average of 294 analysis/month done for the period

****Constraints**** Outsourced tests continue to affect overall turnaround time

Analytical Services

Objective: Support the growth and development of MSMEs in meeting regulatory standards – environmental and food safety

Strategy: Provision of analytical and consultancy services

- Four (4) Staff trained in the use of the Graphite Tube Atomization (GTA); one remaining

YTD Achievement:

- Ion Chromatograph installed
- For the period 754 samples received; 653 of which involved microbial analyses

YTD Achievement:

- 3,396 samples analyzed at an average 283/month
- Regular Absorption Spectrophotometer analyses are being done in-house effective October 2018

- Average in-house turnaround time for the period was 79%; overall 65%

****Variances**:** Challenges keeping up with the report requests and preparation of reports

Outsourced tests continue to affect overall turnaround time

YTD Achievement:

- Average turnaround time: Overall – 65%; In-house 81%

Food and Natural Products (R&D)

Objective: To contribute to increased opportunities for the development of novel/innovative products and business creation

Strategy: Undertake client based product development to meet market needs

- No projects completed for the period
- Prototype development, development of formulation documents and sensory evaluations are on-going
- Eleven (11) projects are on hold, pending receipt of raw materials and feedback from client
- Seventeen (17) clarification meetings held
- Seven (7) Letters of Intent generated
- Two (2) Certificates of Analysis completed
- Technical Assistance provided to three (3) clients
- Body wash workshop held on February 28 with seventeen (17) participants
- Standards obtained for protocol development of COAs
- Continuation of method development for GC profile of castor oil

****Variance**:** Delays in supply of ingredients by clients/ delayed feedback from clients

YTD Achievement:

- Technical assistance provided to 46 clients; 32 clarification meetings held; Issued 12 Letters of Intent; 13 Proforma Invoices issued; 11 chemical analyses completed
- Completion of two (2) internal workshops, one (1) external and two (2) demonstrations for summer camps

Objective: To drive innovation and economic growth and development through R&D using indigenous materials

Strategy: Implement impactful research and development projects of national significance

- Methodology completed
- Submit revised budget and schedule for the project to the funding agency

****Comment**:** Still awaiting feedback from funding agency on the proposal previously submitted

- Revised budget and schedule of activities submitted to funding agency

****Comment**:** Awaiting a response from the funding agency

- Four (4) experiments were conducted however anticipated results were not forthcoming. Experiments are being repeated.
- Callaloo seedlings were obtained and potted and are being monitored and maintained to serve as host plants for Spodoptera sp. Needed to conduct the antifeedant lab assays
- Literature Reviews are being done
- HPLC training and preparation for phytochemical identification and quantification in turmeric is currently underway
- Permits for importation of the cannabis standards have been secured. Project will commence upon receipt of standards

Support the growth and development of Agriculture through provision of techniques leading to disease free plants and disease resistant ginger and sweet yam.

- Seven hundred and eighty three (783) jars (3 plants per jar) of ginger obtained after sub culturing during the period
- Four thousand five hundred and fifteen (4,515) plantlets were hardened
- Two hundred and thirty two (232) jars (3 plants per jar) were obtained after subculture during the period
- Three hundred and thirty nine (339) plantlets were hardened
- One hundred and forty five (145) jars obtained after subculture
- Eighty-five (85) plantlets hardened during the period
- Three hundred and nine (309) jars obtained after subculture during the period
- Two hundred and fifty five (255) jars of sweet potato obtained after subculture during the period
- Three (3) endemic varieties of Orchids fertilized and maintained in shade house for generation of explants
- 600g of D2O labelled beans handed over to UWI in January 2019
- Seven Hundred and sixty six (766) irradiated ginger plantlets sub cultured

- Two hundred and ninety seven (297) sweet yam plantlets and five hundred and forty four (544) ginger plantlets received from Austria and transferred to growth room
- Gene bank maintained
- Monthly reports completed for January - March
- Eight (8) contracts signed
- Fifteen (15) sensory evaluations completed
- Six (6) prototypes accepted
- Thirteen (13) formulation documents completed
- Ten (10) Letters of Intent issued
- Nutritional Facts Panel
- Database 48; Analyses 3

YTD Achievement:

- 1,691 jars of ginger sub cultured (3 plants per jar)
- 6,463 jars obtained after subculture
- Eighteen thousand one hundred and thirty two (18,132) plantlets hardened
- 2,846 jars obtained after subculture
- 1291 jars obtained after subculture; 485 plantlets hardened
- 876 jars of Irish potato obtained after subculture
- 2,301 tubes of potato obtained after subculture (1 plant per tube)

Strategy: Support the growth and development of MSMEs through R & D products and Food Processing

- 104 requests received
- Twenty-nine (29) contracts signed
- Eighteen (18) formulation documents completed
- Nutritional Facts panel: Database 185, Analyses 11
- 85 Letters of Intent issued

2.4 THE INTERNATIONAL CENTRE FOR ENVIRONMENTAL AND NUCLEAR SCIENCES (ICENS)

Security and Safety

Objective: Strengthen the anti-crime capability of law enforcement agencies

Strategy: Strengthen existing partnerships and seek new collaborators through joint undertakings

- As planned. Several coffee samples were imported from Mexico, Colombia, Indonesia, Brazil and Nicaragua and analysis is continuing

Strategy: Undertake programmes and initiatives that contribute to the continuing professional development (CPD) of scientific and technological personnel

- Progress report written and submitted to the IAEA in preparation for the 2nd Research Coordination Meeting in Vienna, April 8-12, 2019.
- M.Sc. student signed on for Medical Marijuana research

****Variance**:** Initially analysis was delayed due to unplanned maintenance of the reactor. This maintenance was completed and analysis of samples has resumed and is on schedule.

YTD Achievement: The CRP F11021 project is in the second of four years. Progress is at 95% of schedule and will be independently assessed during the 2nd research coordination meeting to be held early in the next quarter.

A Healthy and Stable Population / World-Class Education and Training

Objective: Strengthen the linkages between health and the environment/Ensure that adequate and high quality tertiary education is provided/ Integrate science and technology into all areas of development

- Samplers received but siting of samplers and the commencement of sampling delayed until April 2019.

****Variance**:** This is a regional project and several member states from Latin America had not received samplers to commence work. Due to the stated, sampling was delayed until April.

YTD Achievement: Effectively the substantive aspect of the project RLA7023 has not begun yet. Sampling was initially to have commenced in October 2018. At that point several member states including Jamaica had not received sampling equipment. This is effectively the opening phase of the project. (5%)

Strategy: Minamata Initial Assessment in Jamaica

- Nomination to the Group of Technical Experts on Waste Thresholds to be Established Pursuant to Paragraph 2 of Article 11 of the Minamata Convention; online meetings on February 8, March 12

YTD Achievement. New Project is at 5% progression

Objective: Strengthen disease surveillance mitigation, risk reduction and the responsiveness of the health system

Strategy: Design ICENS' strategic research programmes and activities to target the most critical areas of the Jamaican economy - Elements for priority attention will include arsenic, cadmium, lead and mercury which are potentially toxic and can pose health problems for the population.

****Variance**:** The analysis has been delayed following the discovery of extensive termite infestation in the section of the Atomic Spectroscopy and Wet Chemistry laboratory where leaching tests were to be conducted

YTD Achievement: The work was to be conducted under the Toxic Sites Identification Program (TSIP) which was overseen through the UN Environment office and Ministry of Economic Growth and Job Creation. The project has been moved to NEPA; this phase is 75% complete.

Objective: Integrate environmental issues in economic and social decision-making policies and processes

Strategy: Design ICENS' strategic research programmes and activities to target the most critical areas of the Jamaican economy

- Sample collection done , analysis interpretation is delayed

****Variance**:** Analysis incomplete due to the sub-optimal functioning of the Direct Mercury Analyser (DMA) and techniques from the Atomic and Wet chemistry laboratory necessary for work have also been down.

YTD Achievement: The analysis phase of this project is 65% complete.

- NAL lab: Commercial analysis of eight (8) soil samples for arsenic, cadmium, copper, iron, lead, manganese and zinc by instrumental neutron activation analysis (INAA) and energy-dispersive X-ray fluorescence 100% completed

A Healthy and Stable Population/# 12 Internationally Competitive Industry

Objective: Support national food security/Strengthen the linkages between health and the environment/Increase exposure of manufacturers to relevant and innovative production technologies

Strategy: National Food Standards Committee (BSJ)

- Email correspondence for revision/comment on three (3) standards to be adopted regionally

YTD Achievement: Work plan on track 100% of annual expectation

Strategy: Support national food/Strengthen the linkages between health and the environment

Sustainable Management and use of Environmental and Natural Resources

Objective: Integrate environmental issues in economic and social decision-making policies and processes

Strategy: Design ICENS' strategic research programmes and activities to target the most critical areas of the Jamaican economy

- Entire complement of samples analysed by NAA and by DMA.

****Variance**:** Sample analysis not complete by ED-XRF as sample preparation was delayed. The complete dataset will be analysed and completed early in the next quarter.

YTD Achievement: These samples were analysed as part of a collaborative effort with ICENS and the World Bank's Program on Forests (PROFOR – P146965), 2017 — Assessment and economic valuation of coastal protection services provided by mangroves in Jamaica.

- This effort commenced in the 2nd quarter of 2018/2019 and the analysis phase is 85% completed.

- Manuscript was submitted to the journal Environmental Geochemistry and Health. Manuscript is in review

Objective: Develop efficient and effective governance structures for environmental management

- Samples submitted by the Department of Chemistry, UWI Mona for analysis for various elements.

YTD Achievement: Collaboration discussed and initiated at the end of the quarter. Analysis phase to commence at the beginning of the next quarter. (5%)

Hazard Risk Reduction

Objective: Develop measures to adapt to climate change/Contribute to the effort to reduce the global rate of climate change

Strategy: Conduct research on climate change

- Data collection, data analysis completed, manuscript 60% complete.
- Field work completed, data analysis completed, manuscript in prep.

YTD Achievement: Approximately 400 CO2 emissions data points collected across managed and unmanaged land-use types in Portland, St. James, St. Ann, Clarendon, St. Catherine, St. Elizabeth and Trelawny. Data analysis complete and manuscript preparation advanced. Data collection and analysis 100% complete. Manuscript 60%. Collected approximately 50 peat soil samples from the Black River morass. Samples analysed for carbon content, molecular structure, elemental

- Soil sample collection 33% complete, field data collection 50% complete, socio-economic data collection 70% complete, sample and data analysis under way.

YTD Achievement: 62 (33% of total) soil samples collected and prepared 95% of annual expected collection. Samples analyzed for bulk density, pH, and carbon content and have been prepared for elemental analysis 110% of annual expectation (50% of total).

50 socio-economic data surveys done on farmers in the area and data analysis underway. 120% of annual expectation (70% of project total)

A Technology-Enabled Society

Objective: Integrate science and technology into all areas of development

Strategy: Strengthen existing partnerships and seek new collaborators through joint undertakings

- ICENS in collaboration with the Ministry of Transport and Mining and The University of the West Indies hosted a seminar entitled, “Energy Challenges, Nuclear Technology, Safety and Regulation in the Caribbean”, on Wednesday 27 March 2019, at The UWI Regional Headquarters, Mona Campus
- The seminar was attended by senior government officials, Academia, Caribbean regional organizations including CARICOM (Caribbean Community) and CDEMA (Caribbean Disaster Emergency Management Agency) and international organizations including the Panama Canal Authority, ORANO (France) and International Nuclear Services (UK)

3.0 ICT PORTFOLIO:

Main Drivers: MST, Spectrum Management Authority, Universal Service Fund, e-Learning Jamaica, Post and Telecommunications

3.1 INTRODUCTION

One of the main issues related to the development of the Information and Communications Technology (ICT) Sector includes making the sector attractive by implementing the requisite regulations and legislations were absent. Some of the key priorities for this sector in this financial year are:

- Government of Jamaica ICT Transformation Programme;
- Improving the policy, legal and regulatory environment;
- Strengthening of the cyber security systems and framework;
- Improving the ICT Infrastructure and Governance Framework
- Promulgation of the e-Learning projects to impact educational development.

3.2 ICT DIVISION

As the Ministry with responsibility for technology, the Division seeks to facilitate the access and use of ICT towards the improvement of services to internal and external stakeholders.

Objective: Improve Legal and Regulatory Framework for the ICT Sector

Strategy: Revise Information and Communications Technology (ICT) Policy

- Quarterly targets not met

****Variance**:** Draft concept note for revised Policy prepared by the Policy Division. Still under review by the Division.

Strategy: Develop a Spectrum Management Policy

- Quarterly target not met

****Note**:** Draft Concept Paper and related Cabinet Submission to be submitted to the Spectrum Management Authority for review by the end of the first quarter of FY 2019/2020.

Strategy: Develop a Postal Sector Policy

- Quarterly target not met

Objective: Improve Legal and Regulatory Framework for the ICT Sector

Strategy: Promulgate a new ICT Act

- Quarterly target not met

Strategy: Promulgate Data Protection Act

- A matrix of stakeholder comments and the Ministry's recommendations is currently being prepared.

- Comments received from stakeholders still being reviewed by the Attorney General's Chambers and the Legal Reform Division of the Ministry of Justice.

Strategy: Develop an Open Data Policy

- Target not met
- ****Remarks****: Final draft of policy received from the Policy Division for review by the Division.
 - Policy to be circulated to wider stakeholder group and the Attorney General's Chambers for comment. Artwork and graphics to be completed by the interim.
 - Policy to be approved by the end of first quarter of FY 2019/2020.

Objective: Reduce reliance on proprietary software and foster software innovation

Strategy: Develop an Open Software and Open Standards Policy

****Variance****: Policy document with recommendations received and incorporated, still not received from the Consultant.

- Ministry therefore reviewed termination and dispute resolution clauses in the agreement.

Objective: Improve legal and regulatory framework for the ICT Sector

Strategy: Establish a Single ICT Regulator

- Quarterly target not met

Strategy: Establish Office of the Information Commissioner (OIC)

- Quarterly target partially met
- Structure of the OIC developed by Consultant. However, not yet approved by the Ministry of Finance and the Public Service.

Objective: Establishment of the ICT Authority

Strategy: Engage Consultants; Define, review and establish the framework of the new ICT Authority/Design a detailed organization structure and provide a plan to transition to the new GoJ ICT service

- Monthly Transition Progress Reports submitted
- Quarterly presentations made

****Remarks****: A Special Purpose Unit to be established where individuals will either be directly engaged to act as members of the team or seconded from their full time posts on a full time basis to assist with the transition of eGov to the ICT Authority.

- The team will report to a Transition Advisory Group headed by the Project Sponsor and including representation from Ministry of Science & Technology, Ministry of Finance & the Public Service, the Public Sector Transformation Implementation Unit and Cabinet Office.

Objective: Ensure proper administration of the ICT sector (both inter and intra government

Strategy: Prepare and issue all licenses for which recommendations have been received from the Regulators

The following new Licences were reviewed/prepared for the consideration of the Minister:

1. Service Provider Licence

- Logic One
- PIXCOM Communications Limited

2. Carrier Licence

- Digicel Jamaica Ltd

The following licences/applications were reviewed and or actioned:

- Verge Communications Limited
- (Request for transfer of control approved by Minister)

Strategy: Prepare requisitions for members of the Telecommunications Appeal Tribunal and ICT Advisory Council and submit same to the Accounts Department for payment.

- Requisition for the January to March 2019 quarter for the remuneration of the Telecommunications Appeal Tribunal submitted for payment.

****Remarks**:** No payments are made to the ICT Advisory Council.

Strategy: Monitor compliance by Regulators and Agencies with the Public Bodies Management and Accountability Act and other relevant legislation

- Board Meetings
- Attended meetings of the Boards of Management (and their respective Committees) for the:
- Universal Service Fund (USF)
- Postal Corporation of Jamaica (PostCorp)
- Spectrum Management Authority (SMA)
- e-Learning Jamaica Company Limited (eLJam); and provided Corporate Secretary support
- e-Gov Jamaica Limited (eGovJa)

Objective: Ensure technical and policy input provided to MDAs regarding government ICT initiatives and the interest of Jamaica as appropriate advanced in ICT related regional and international fora.

Strategy: Review and prepare technical submissions, reports and briefs for the ICT Division and in support of the Office of the Chief Information Officer and the Jamaica Cyber Incident Response Team

Telecommunications

- Prepared detailed brief on the ICT portfolio for the Permanent Secretary and Hon. Minister on their assumption to office.
- Provided further drafting instructions and attended sitting of the Legislation Committee of Cabinet in relation to the ICT Authority Bill. **Bill tabled in Parliament in March, 2019 in keeping with commitment to International Development Partners.**
- Reviewed stakeholder comments on the Data Protection Bill and updated matrix with Ministry's proposed response to comments and recommendations made

Prepared adhoc briefs relating to:

- Enhanced Access to Emergency Services. A presentation was also made to the Minister/Prime Minister by the Consultants that prepared the report.
- Microsoft Enterprise Agreement
- Court challenge instituted by Symbiote against the Minister of Technology
- Imposition of mandatory ten-digit dialing.

Convened or participated in meetings with:

- Jamaica Constabulary Force regarding role in new Emergency Communications strategy
- Telecommunications Companies FLOW; Digicel; Huawei; readytv on their courtesy call to the new Minister
- The Charge D' Affairs, United States Embassy
- World Bank Mission Team – Advancing Social Protection Delivery Systems and Economic Inclusion
- Held Stakeholder Consultations, in concert with the SMA on Spectrum Fee Pricing
- Prepared Affidavit and provided instructions to the Attorney General's Chambers in response to court challenge instituted by licensee against the Minister

Microsoft

Completed the Software Asset Management (SAM) exercise. Awaiting the final analysis report from SoftwareOne; report should be ready by April, 2019.

Accessible Americas V

- Organized Post Conference Meetings; facilitated payment of suppliers.

Establishment of the ICT Authority (ENICTA)

- ICT Authority Bill tabled in Parliament in March, 2019.
- Recruitment commenced for the transition team. Candidates shortlisted for the IT; Legal; and Business Impact lead.

Jamaica Cyber Incident Response Team

- Reviewed Terms of Reference for the engagement of Communications Specialist to review communications strategy of JaCIRT

Technology

- Organized forum for MIS Officers across the GOJ in February, 2019. At this meeting an extensive update was given on the ENICTA process and also the work of the Office of the CIO. Areas of focus were Govnet and the MyHR+ projects.

Strategy: Participate in consultation; provide comments on legislative, policy and other government initiatives

Office of the Prime Minister

Participated in User Acceptance Testing (UAT) for the Amanda System. During the quarter a team of subject matter experts were identified for the UAT to assist in identifying the modules to be used. Technical expertise relating to technical/system administration and business analysis has also been requested from Government Electrical Inspectorate and Board of Examiners.

Ministry of Education, Youth and Information

- Attended ICT in Education Steering Committee Meetings where a Bring Your Own Device Policy for schools was the main discussion point.
- Continued review of the National ICT in Education Strategic Plan

eLJam

- Participated in Technical Committee Meetings where Internet Supply to schools was the main focus of discussion.

Ministry of Economic Growth and Job Creation

- Participated in stakeholder consultations on the National Policy for the Environmentally Sound Management of Hazardous Waste.

Ministry of Foreign Affairs and Foreign Trade

- Reviewed Cabinet Submission on the CARICOM-UK Economic Partnership Agreement (EPA) post Brexit

Ministry of Labour and Social Security

- Participated in Work Permit Committee Meetings

Strategy: Review submissions, reports and briefs prepared by internal divisions and provide technical support and advice as required

Communications

- Data Privacy and Safer Internet Day Communication Plans reviewed and feedback provided
- Press Release on the status of the ICT Bill reviewed

Strategy: Review and prepare technical submissions for participation in ICT regional and international for a

- Participation in Meetings and Conferences:
- The 14th Annual Quality Assurance in Higher Education Week from March 11 - 15, 2019 in Montego Bay.

3.3 JAMAICA CYBER INCIDENT RESPONSE TEAM (CIRT)

The Cyber Incident Response Team (CIRT), aimed at safeguarding Government information technology (IT) systems against cyber threats was set up through technical assistance from the International Telecoms Union (ITU) and the Inter-American Committee against Terrorism (CICTE), an arm of the Organization of American States (OAS), which provided funding for the purchase of equipment and training of personnel. The team is mandated to deal with critical technical issues as they relate to cybersecurity and is charged with creating a framework to build and enhance confidence in the use of cyberspace.

CIRT is responsible for coordinating cyber-related incident response, timely recovery from incidents, rapid distribution of advisories and alerts within the Government; and continuous monitoring of threats to the Government's IT resources.

Objective: Increased Security of ICT Infrastructure and Electronic Communication

Strategy: Implementing Government wide Information Technology and Information Security standards, policies and guidelines and monitor and enforce their implementation.

- Standards currently being reviewed

****Variance**:** Discussions began late

Strategy: Leveraging regional and international partnerships

- Initial discussions took place with (OAS/CICTE)

Strategy: Raising and promoting awareness in the key areas of cyber security

- Potential Partners Identified and initial discussions taking place

Strategy: Identifying and accessing available resources (national, regional and international) that provide capacity building for cyber security

- In discussions with Stay Safe Online. Sample website created

Establishing a proper governance framework for cyber security

Strategy: Legislative framework that supports assessment of cyber security issues with a view of identifying gaps and recommending measures to fill these gaps

- Legislation identified include the update of the Cyber Crime Acts 2015 and review to begin

Strategy: Governance framework for cyber security, including roles and responsibilities of different entities, reporting structure and coordination mechanisms defined

- Target not met

****Variance**:** Awaiting the establishment of the ICT Authority

3.4 E-GOV JAMAICA LIMITED

The former Fiscal Services Limited's (now e-Gov Jamaica Limited) mandate was expanded from its current provision of fiscal services through ICT to include the implementation of Information and Communications Technology (ICT) projects into the operations of the GOJ. The roles and functions also include being the provider of IT as a shared service to the GOJ, as well as providing management oversight and master planning for GOJ/ ICT investments and assets.

Objective: GOJ ICT Transformation (GIT1) To provide ICT expertise leading to the efficiency and effectiveness of the GOJ ICT Governance Framework
Strategy: Strengthening of the Enterprise Portfolio Management capacity to support the Programme Portfolio Management Committee (PPMC) of the GOJ ICT Council

- 50% of Guidelines available to MDAs by end of 2019 is not yet realized.

****Variance**:** The guidelines are to be promulgated by PIMSEC to MDAs through their inclusion in PIMSEC's Handbook.

Objective: GIT 2 To upgrade the GOJ ICT infrastructure to increase the use of shared services across government over the next four (4) years

Strategy: GIT 2.1 Upgrading of facilities to create/ support a GOJ Shared Service Data Centre at Tier 3 Standard

- TOR and project profile completed and submitted to MSET
- Procurement of Power Infrastructure upgrade in progress

****Variance**:** Approval required from the IDB for the documentation, relating to the tender process, is delayed

Objective: GOJ ICT Transformation (GIT 2): To Modernize the GOJ ICT Infrastructure to Allow for High Speed, High Quality and Low Cost Communication, with Widespread Use Across all MDAs over the Next Three (3) Years.

Strategy: GIT 2.2 Design and Implementation of the Government Wide Area Network (GovNet)

- The GovNet TOR was resubmitted to the IDB through the Permanent Secretary (MSET). The document has been updated and resubmitted based on IDB comments.
- All downstream activities are dependent the engagement of the Consultant

GIT 3 To Provide Core and Common GOJ ICT Solutions and Services

Strategy: GIT 3.1 Development and implementation of a managed ICT Infrastructure operating model

- Conceptual Model is developed, pending agreement

*****Variance**:** Cannot implement "shared infrastructure" until major client is in agreement.

Strategy: GIT 3.2 Provide project management, application integration and infrastructure support services

"Procurements:

- Eight (8) procurements completed.
- Nine (9) procurements in train at various stages.
- Two (2) procurements from the nine (9) were terminated and is now being retendered.
- 43% progress in development of the Jamaica Data Exchange Platform (JDXP) to facilitate NIDS"

****Variance**:** Procurements mostly off target; Pending IDB "No Objection

- Hosting contract executed by eGovJa and MoFPS.
- Manual backup being done for production environment; development for automated backup nearing completion.
- Preparations proceeding for eGovJa to assume responsibility for maintenance & support:
 - - knowledge transfer
 - - creation of a development environment
- "3 BA's are now assigned to the project. The BAs have completed the documenting the 'As Is' processes, requirements and demo scripts for the Dept. of Correctional Services (DCS) and the Jamaica Constabulary Force (JCF).
- The team is awaiting the completion of the demos to proceed.
- Provided minimum hardware, security and requirements for Jail Management system.
- Assisted with drafting of ToR for engagement of consultant to develop governance for connectivity under the SSP project.

GOJ Transformation Programme

Strategy: GIT 3.3 Provide project management support to the establishment of the new ICT Authority (ENICTA)

- Process Framework/Standard Operating Manuals for Revised Processes and Communication and Change
- Plan for the implementation phase completed. Approval from the Steering Committee pending.
- Counterpart team members conducted extensive review and update of job descriptions (approx. 85% completed). Job Analysis, Design and Competency framework, Implementation/ Transition Plan, and Business Plan not completed.
- Legislation tabled in Parliament.
- Recruitment of the transition team for the implementation phase commenced.

****Variance**:** Business Plan was delayed as a result of data requirements not being met from survey results.

- Job Analysis, Design and Competency framework-The last batch of Job Descriptions provided are currently being reviewed, due date first month in Q1 of 2019-2020.
- Preparation of Transition and Implementation plan commenced in last month of Q4.
- All re-rescheduled for completion in first quarter of 2019-2020

Strategy: GIT 3.4 Development of an Enterprise Architecture (EA) capability within eGovJa

- Training completed (certification exam to be scheduled)

- Research & documentation for selected standards - 55% completed.

****Variance**:** Enterprise Architecture (EA) mentoring & training required to develop the EA capability, thus allowing the team to perform at a higher level.

Strategy: GIT 3.5 Fostering strategic partnerships to aid in the research and innovation process

- A total of nine (9) Research Papers were developed for the year exceeding the set target of five (5).

Strategy: GIT 3.6 Development of solutions/prototypes to address problems identified

- Solutions/ prototypes are at 50% of ideas in the year.
- Development of working alpha prototype/solution of the MyGovJM (GOJ E-Participation Platform) is in progress.

Customer Experience Programme

Objective: To increase customer satisfaction rating to 80% by 2021

Strategy: Improving our Service Delivery Culture

- The Annual Customer Satisfaction Survey (2018-2019) has been administered and we are awaiting client feedback.

****Variance**:** Due to low completion rate the survey was extended and is now scheduled to close on April 19, 2019.

Operations Management

Objective: Increase software delivery efficiency from 34% to 62% over the next three (3) years

Strategy: Implement BizDevOps

- Beginner Level target established for FYI 18/19 set at 100%, to date actual achievement stands at 45%
- Measurement exercise conducted Feb. - Mar. 2019 and the process cycle efficiency for the Develop Software Component was calculated and the result was 55%

****Variance**:** Other high priority activities are being undertaken simultaneously, as such, Beginner Level will be completed early 2019/2020

3.5 E-LEARNING JAMAICA COMPANY

The e-Learning Jamaica Company continued its implementation of e-learning projects in collaboration with the Ministry of Education as well as promoting technology in the education system. The main programmes were the e-Learning High School and Tablets in Schools Pilot Project. Approximately \$485M was allocated for the completion of the High School Project, with a view to handing it over to the Ministry of Education. The project's main components are ICT materials for teachers and students, as well as technology infrastructure for storage/ dissemination. This requires ICT equipment; software and a central repository for the educational materials to store reproduce and continuously update and distribute material, teacher training, remedial support and continuous assessment through standard examinations across all grades at high schools.

School Technology Infrastructure Management and Support

Objective: Computer and Audio-visual equipment and networks previously provided to high schools maintained and upgraded

- New e-LJam leadership reviewed RFPs and withdrew them.
- No System Administrator training conducted.

****Constraint**:** Average cost of devices was high, due to very high specifications.

- e-LJam has handed over responsibility for all project training to MoEYI.

Objective: Content on Central Repository for Educational Materials (CREM) and social media sites available at all times to education system and updated with new content related to e-Learning projects implemented Diagnostic Tests Administered

CREM hosting services provided by EGOV through contract with MOEYI (Ministry of Education Youth and Information)

- Discussions with eGovJa around hosting the CREM on eGovJa's infrastructure
- CREM platform being considered to support initiatives from MOEY&I such as Flipped Classroom and e-Testing

Interface simplification and content organization carried out

- On-going

Provision of Content to Phase 1&2 institutions

MOEYI provided list of free content to be pre-loaded on tablets. Content/ Cache Server with additional content and functionality being investigated

- Tablet delivery delayed to Q119/20 due to delays in vendors posting performance bond.
- ICS subsequently withdrew bid while GeoTech posted bond in Feb. 2019 and initial PO confirmed for 18,000 tablets
- Applications selected and submitted to MOEYI and approval received.
- Initial list sent to tablet vender
- Creation of e-Portal
- Development of a flipped classroom work plan is underway.

Client Support and Teacher Training of Phase 1 & 2 institutions

Objective: Teachers and lecturers in the project institutions trained and certified in the skills, methodologies and techniques required in integrating the tablets and other technologies in instructional delivery

Strategy: Regular visits to schools by field officers and cluster meetings held with principals bursars to ensure adherence to MOU and solving issues

- New e-LJam leadership reviewed RFPs and withdrew them.

****Constraint**:** Average cost of devices was high, due to very high specifications

- No training as the responsibility for training has been transferred to MoEYI

Objective: Internet and Wi-Fi Infrastructure

Strategy: Confirmation with USF and Service Providers that individual sites are active

- Activity delayed, awaiting execution of contract between USF and Service Providers

Objective: Public Education

Strategy: Implementation of comprehensive communication programmes to engage various stakeholders and promote the TIS project and associated initiatives

- Public Education suspended until Q110/20 in tandem with new program timelines

Governance and Administration

Objective: Provision of policy direction and guidance by Board of Directors with respect to mandate of organization

Strategy: Board trained in Corporate Governance

- All board and sub-committee meetings for the period were kept as scheduled with the exception of March BOD and Audit Committee meetings that were postponed due to a lack of quorum

3.6 UNIVERSAL SERVICE FUND (USF)

The USF is a statutory entity geared at facilitating the provision of universal access to the information superhighway by accelerating the deployment of broadband services island-wide. The USF also covers the collection of universal service obligation (USO) levy and funding for e-Learning Projects. The Mission of the USF is to facilitate the provision of universal access to Internet services by stimulating and accelerating the deployment of broadband and related services island-wide. This will be achieved through the effective collection and astute management of the universal service levy and disbursing such funds in a transparent and non-discriminatory manner to finance appropriate projects.

****The Agency only submitted a financial report****

3.7 SPECTRUM MANAGEMENT AUTHORITY (SMA)

The SMA in its 2018 – 2022 Corporate Strategic Plan document indicated that its ultimate goal is to manage the spectrum effectively; through the use of modern technology, and employing international best practice to regulate efficiently. In light of this, and in keeping with the mandate and the stated objectives of the SMA, principal performance targets (Appendix 1) were established, to guide our efforts, in support of the Government of Jamaica's Information and Communications Technology (ICT) objectives. In addition to the principal performance targets, the SMA as is customary has in place quality performance standards, which compares with or are better than our counterparts globally.

HIGHLIGHTS OF PERFORMANCE/ACHIEVEMENTS AGAINST TARGETS

The Spectrum Management Authority's (SMA's) Corporate Strategic & Operational Plan forms the basis for evaluating the performance of the company for the 2018/19 fiscal year (FY). The plan identifies quantitative and qualitative KPIs that are measured against the SMA's performance in order to determine the level of success throughout the year. For the year in review, the SMA performed laudably in relation to its core operational activities, of licensing (new and renewal), interference management and financial management. In each of these activities the SMA exceeded or stayed within the Key Performance Indicators (KPI) as was necessary. The dashboard below gives a pictorial view of the SMA's performance for the 2018/19 FY, ending 2019 March 31.

Capital Development Projects

RMDFS Project - During the 2017/18 FY, the SMA embarked on a project to enhance its monitoring capacity. The project comprised 2 phases: phase 1 related to the upgrade of both the St. Ann and St. James's Radio Monitoring and Direction Finding System (RMDFS) with additional features. Phase 2 of the project featured the installation of new sites in Portland and Manchester. Phase 1 was completed during 2017/18 FY, and phase 2 is being implemented in this 2018/19 FY. The status/achievements of the RMDFS sites as at the end of the fiscal year are as follows:

- The commissioning of the Manchester RMDFS site was completed on 2018 November 11, and the site is operational.
- The Lease arrangement for the Portland site was finalized, with an effective start date of 2019 April 1. The development of the alternative site in Savanna-La-Mar was completed and the TCI Engineer slated to install the RMDFS equipment.

Refurbishing of Corporate Office – Delays resulted when the new Board was to be named and the subsequent deliberations on the project, led to the expiration of the validity period extended to the SMA, requiring a restart of the tender process.

Licensing

Processing time for new applications

Summary of Performance

Particulars	4 th Quarter			YEAR-TO-DATE		
	Actual Jan – Mar	KPI Jan – Mar	Variance	Actual Apr – Mar	KPI Apr – Mar	Variance
% of new applications processed within service standards	98%	80%	18%	99%	80%	19%

QTR: For the 4th quarter, 36 applications were brought forward from the previous quarter, and 44 applications were received. Processing during the quarter resulted in 46 applications granted, 45 of which were within the standard processing times, a performance of approximately 98%.

Y-T-D: The SMA brought forward 31 applications from the previous FY (2017/18), and as at 2019 March 31, received an additional 216 applications, of which 203 was granted. Of the 203 licences granted, 200 or approximately 99% were processed within their respective standard processing time.

**Renewal Licences
Summary of Performance**

Particulars	4 th Quarter			YEAR-TO-DATE		
	Actual Jan – Mar	KPI Jan – Mar	Variance	Actual April – Mar	KPI April – Mar	Variance
Number of Licences Renewed	87	73	14	442	406	36
No. of licences renewed within the service standards.	87	78	9	442	398	44

QTR: A total of 31 licences were brought forward from the previous quarter for renewal, in addition to 85 that were targeted for the 4th quarter. During the quarter, 9 clients requested reinstatement of their licence, while 8 cancelled, resulting in a plus 1 net effect on the targeted amount bringing it to 86. A total of 87 licences were granted, which was above the KPI of 73 (85% of target), all of which were granted in the standard processing time.

Y-T-D: A total of 442 licences were renewed for the 2018/19 FY ending 2019 March 31, representing a performance rate of approximately 92%. The target was 443 existing licences, however there were 15 cancellations, and 50 clients requested to be reinstated; which results in a plus 35 net effect on the target of 443 bringing it to 478. The performance rate was above the SMA's **KPI of 85% or 406 (85% of 478) licences for renewals.** *Note that licences are only renewed after receipt of payment.* All 442 or 100% of the licences renewed, were processed within the established processing standard.

The KPI for this activity is 90% or 398 (90% of 442).

Summary of Renewal Licensing Activities as at 2019 Mar. 31

Particulars	April – Jun 2018	July – Sept. 2018	Oct – Dec 2018	Jan – Mar 2019	April – Mar. 2019 (YTD)
Renewal Target	208	84	66	85	443
Additions	7	10	17	16	50
Cancelled	2	1	3	9	15
Renewable Amount	213	93	80	92	478
Granted/Approved	166	114	75	87	442

Interference Management

QTR No. of Interference Cases: During the 4th quarter, the SMA received 2 cases of interferences, with 1 pending case brought forward from the 3rd quarter. Of the 3 cases being investigated, 1 was resolved during the quarter, with 2 pending. The case resolved was within the standard resolution time.

Y-T-D No. of Interference Cases: For the 2018/19 FY, the SMA investigated 12 cases of interference reports. Of the 12 cases investigated, 10 were resolved at 2019 March 31. All or 100% of the 10 cases resolved, were completed within the slated resolution time. The **KPI for resolution within slated time is 90%**.

Financial Management Income and Collections

QTR: During the quarter the SMA realized total income of \$101.06M, which was below the KPI of \$118.78M. Notwithstanding the unfavorable performance for the quarter, the SMA was able to complete the year above the KPI, has illustrated in the table below.

Y-T-D: For the 12 months ending 2019 March 31, the SMA targeted total income of approximately \$410.96M to be booked, and a KPI of \$369.86M (90% of target). For the period under consideration, the SMA booked \$399.63M, which while below budget is \$29.77M above the KPI for the related period. See below, *comparative distribution of income for the quarter and the fiscal year.*

Revenue	Actual Jan - Mar	KPI Jan - Mar	4th Quarter Variance	Actual April - Mar	KPI April-Mar	Y-T-D Variance
	\$'M	\$'M	\$'M	\$'M	\$'M	\$'M
Processing Fees	2.39	2.31	0.09	13.70	9.14	4.56
Regulatory Fees	96.09	79.03	17.06	376.02	315.63	60.39
Interest Income	3.19	1.97	1.22	9.79	9.60	0.19
Other Income	0.03	35.47	- 35.43	0.12	35.49	- 35.38
	101.71	118.78	- 17.07	399.63	369.86	29.77

Regulatory Fees – Actual regulatory fees totaling approx. \$376.02M was above the budgeted and KPI amounts of \$350.70M and \$315.63M respectively. This positive variance is due to additional applications received, above that which was anticipated. This was particularly so for microwave and broadband license applications.

Processing Fees - Processing fees are primarily charged for new applications, in addition to type approval certification, and so an estimate is made each year of the possible revenue to be earned from this line item. For the 2018/19 FY, the SMA targeted \$10.15M and a KPI of \$9.14M. Actual performance of \$13.70M is above both the anticipated budgeted target and the KPI.

Interest Income – Interest income realized for the 2018/19 FY amounted to approximately \$9.79M; while the budgeted amount for the same period was \$10.66M and the KPI was \$9.60M. While exceeding the KPI, budget target was not met, which may be attributed to the lower than expected interest rates, and the levels of investments.

Other Income - A total of \$115,258 was realized for the period.

Spectrum Licence Fees

Spectrum Licence Fees are collected on behalf of the GoJ and are remitted to the Tax Administration Jamaica.

QTR: For the three months ending 2019 March 31, the SMA collected \$1,054.16M versus the KPI of \$741.98M (80% of budget - \$927.47M), while remitting \$973.88M versus the KPI of \$973.88M, which is in accordance with remittance protocol in bold below. The positive performance is as a result of additional application for spectrum, above amount anticipated.

Y-T-D: For the 12 months ending 2019 March 31, the SMA collected a total of \$1,141.42M in spectrum licence fees, versus the KPI of \$1,014.06M (80% of budget - \$1,267.58), while remitting \$1,146.31M (*including amount brought forward from the previous FY*), which is above the total collected for the fiscal year and the KPI, guided as follows:

Please note that spectrum licence fees are remitted in the month after they are collected, with the exception of fees collected on mobile access spectrum that are remitted in the month collected.

Expenditure

QTR

Recurrent Expenses – For the 3 months ending 2019 March 31, the SMA incurred total expenditure (including depreciation) of \$86.59M, versus the budget of \$115.85M. This variance was due primarily to Salary & Other Related Costs as well as Depreciation. See explanation under the Y-T-D category, detailing the reason for the positive performance.

Capital Expenditure – During the quarter, approx. \$19.83M was incurred for capital expenditures, whilst the budget was at \$14.43M. Variance resulted as items targeted for earlier in the fiscal year were not procured as planned.

Y-T-D

Recurrent Expenses – For the period under review, the SMA’s incurred total expenditure (including depreciation) of approx. \$340.64M, in comparison to the budget target and KPI figure of \$410.73M. This variance is due primarily to Salary & Related Costs, (whereby 4 vacant positions as well as 4 new positions and additional 3% for salary increase did not materialized), and for Depreciation.

Capital Expenditure – As at 2019 March 31, the SMA added approx. \$60.71M to fixed assets, compared with budgeted amount of \$226.08M. Some expenditures were deferred during the quarter.

Legal, Policy and Regulatory

The SMA was involved in the following, during the fourth quarter ending 2019 March 31.

Symbiote Investment Limited

During 2019 January, the SMA with the assistance of Carleen McFarlane, Attorney-at-Law (External Counsel), provided the Principal Director (Assigned), MST for review, the draft amended Affidavit along with exhibits, as requested by the Ministry (MST). The Principal Director (Assigned), MST reviewed and incorporated some changes made by the Attorney General’s Chambers.

Additionally, a letter enclosing court documents filed against the SMA by George Neil was submitted to the attention of the Ministry and the Attorney General’s Chamber (AGC) on 2019 January 7, and 9 respectively. The letter to the AGC also sought legal representation in relation to the matter.

Ministry of Science, Energy and Technology (MSET/the Ministry)

- Upon the request of the Ministry, the SMA submitted a summary of its budget on 2019 January 30, to facilitate a meeting with the Honourable Prime Minister, Andrew Holness re Budget for the 2019/20 FY;
- The SMA, on 2019 January 28, as requested, submitted to the MSET, its contribution to the Throne Speech as required;
- Stemming from Inter-American Telecommunication Commission’s (CITEL’s) 32nd Permanent Consultative Committee II (PCC II) meetings held in Brasilia, Brasil during 2018 December, the SMA submitted a report, providing recommendations in relation to various WRC-19 proposals, to the Ministry’s attention. The SMA awaits the Ministry’s response, to facilitate Jamaica’s response at the 33rd meeting in Mexico, during 2019 April;
- The SMA on 2019 January 11, submitted its third quarter performance report to the MSET, as was requested. Further information in relation to same was submitted on 2019 January 23, upon the request of the MSET.
- The SMA’s revised Corporate Strategic & Operational Plan was submitted to the MSET and the MOFP, on 2019 February 4, as requested.

- On 2019 February 6, the Board Chairman, the Managing Director and the Director Finance & Administration attended a meeting with the Most Honourable Andrew Holness, Prime Minister and former Minister of with responsibility for Technology, wherein the Managing Director presented the SMA's budget and highlighted related issues to the Prime Minister.
- SMA's senior managers and other key management personnel, participated in an Internal Audit sensitization meeting presented by the MSET, at the offices of the SMA on 2019 February 27.
- Based upon the request of the Ministry, the SMA submitted a brief overview of its operations, on 2019 February 14, to inform and update the new Minister, the Hon. Fayval Williams, and the incoming Permanent Secretary to the MSET, Mrs. Carol Palmer, of the functions and efforts of the SMA in fulfilling its mandate.
- As requested, the SMA submitted the Ministry Paper to the MSET on 2019 February 28.
- The SMA, during the month of 2019 March, provided support to the MSET in its effort to manage and facilitate the implementation of a project to determine the fees to be charged by the Regulator (the SMA) for licenses to access the radio frequency spectrum

CORE OPERATIONAL TARGETS

The following represents corporate core operational and quality of service targets established for the 18/19 FY

No.	Particulars	Targets	Key Performance Indicator (KPI)
1.0	Regulatory Fees Interest Income Processing Fees Other Income TOTAL INCOME	350.70M 10.66M 10.16M 39.44M <u>\$410.96M</u>	90% of Target
2.0	Expenditure	\$410.73M	Within Target
3.0	SPECTRUM LICENCE FEES COLLECTED	\$1,267.58M	80% of target
	SPECTRUM LICENCE FEES REMITTED	\$1,267.58M	Remit fees collected up to Feb. 2019 and mobile fees collected in Mar. 2019
4.0	RENEWAL LICENCES	442 Licenses	85% of target
5.0	INTERFERENCE MANAGEMENT		
5.1	<i>All interference resolved as per, performance standards set out below.</i>		

	External influence, readily identifiable External influences, not readily identifiable	15 business days 60 business days	Resolve all reported cases	90% of target
5.2	To respond to major cases requiring substantial modifications to networks & systems - as per agreed schedule with client(s) involved			
5.3	Interference report acknowledged within 24 hours and resolution framework established with client.		100% of cases	100% of cases

QUALITY OF SERVICE TARGETS

No.	Particulars	Standard Per Business Days	Key Performance Indicator (KPI)
1.0	<u>LICENSING</u>		
	New - % of applications processed within service standards.		
	Aeronautical	15	
	Amateur and Alien Amateur	8	
	Citizens Band	8	
	Type Approval (Regular and Amended)	10	
	Other Non-spectrum certification	8	
	Private Radio – Major Network	25	80%
	Private Radio – Other Network	16	
	Temporary License for Maritime	1	
	Permanent License for Maritime	3	
	Maritime (None MAJ)	12	
Custom Detention Notices	1		
VSAT	15		
Renewal			
Regular and Amended licences.	5	90%	
2.0	<u>INTERFERENCE</u>		
	% of interference cases resolve as per standard above.	100%	90%

Prepared by: Policy and Strategic Planning Division

3.8 POST AND TELECOMS & POSTAL CORPORATION OF JAMAICA

The Post and Telecoms Department (PTD) constitutes a network of post offices and postal agencies across the country and is responsible for all mails in Jamaica and has been mandated to ensure access for all Jamaicans to affordable postal services. The Postal Corporation of Jamaica (Post Corp) is a limited liability company operating parallel to Post and Telecom, whose priorities include the enactment of the Postal Service Bill. This is to fully commercialize and modernize the PTD, adding value to the products and services being offered, identifying and introducing new revenue streams, increased application of ICT across all functional areas and increased competitiveness.

****The entity did not provide a report within the stipulated submission period and as such the report was compiled without their submission****