



Government of Jamaica

## SECTORAL PRESENTATION 2020 • 2021

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# Science, Energy and Technology Creating a New Jamaica

The Hon. Fayval Williams, MP  
Minister of Science, Energy, and Technology

George William Gordon House  
Wednesday, June 17, 2020





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Mr. Speaker;

Until 1954, (only 8 years before Jamaica's independence) most people believed that a human being was incapable of running a mile in less than 4 minutes. But that very year, English miler Roger Bannister proved them wrong.

After he dashed the record, Bannister is reported to have said that "Doctors and scientists said that breaking the four-minute mile was impossible, that one would die in the attempt. Thus," Bannister said, "when I got up from the track after collapsing at the finish line, I figured I was dead."

The moral of this story is, Mr. Speaker, that the main obstacle to achieving 'the impossible' may well be a self-limiting mind-set.

*Source - On Mental Toughness, Harvard Business Review*

Mr. Speaker:

When history is written, it will recount our resilience as Jamaicans in confronting this unprecedented challenge to human development across the globe. I am honored to be part of a winning team that will lead an unprecedented come back to surpass pre-COVID-19 levels of employment, debt reduction and economic growth. This Parliament has a collective responsibility to chart the direction for a new Jamaica and to continue to inspire hope and optimism in our people from August Town to Zimbabwe and from Morant Point to Negril Point.

I am proud of our many front line workers who are standing at the fore front of the battle lines in the war against the novel coronavirus.

Mr. Speaker:

In this regard, we:

- Salute the astute leadership of Prime Minister the Most. Hon. Andrew Holness;
- Applaud the fierce determination of Dr. the Hon. Christopher Tufton and his team at the Ministry of Health and Wellness, and in particular the country's Chief Medical Officer, Dr. Jacquiline Bisasor-Mckenzie and

Permanent Secretary Mr. Dunstan Bryan and our health practitioners across Jamaica who stand tall in the eyes of the world;

- Recognize the commitment and dedication of our security forces, workers in sanitation, transportation services, foreign affairs, social security, workers in public utilities, public services and the private sector; the entertainment industry, who together formed an unbeatable battle line against COVID-19;
- Acknowledge the approach of the country as a whole and every Jamaican who has been following the guidelines of the Ministry of Health and Wellness to reduce transmission of the COVID-19.

**Mr. Speaker**, it is true, Jamaica has suffered a collective bruise, but we are not broken.

#### **Mr. Speaker**

I thank the people of the Constituency of St. Andrew Eastern for the confidence that they have reposed in me to represent their interest in the Parliament and to work shoulder to shoulder with them to improve their quality of life, interrupt the history of generational poverty and to secure peace and prosperity. I thank the members of my executive team, which includes Cllr Bellamy and Caretaker Planto, delegates and all the supervisors and workers for their contribution to the development of the constituency.

I must also thank the members of the security forces, the NGO and faith based community who continue to work to save lives, and help grieving communities to heal and recover. We continue to restore roads in communities, replace zinc fence with modern block and steel, extend water mains and regularize electricity usage. We have taken on crime and violence with technology and extended internet connectivity for our children with disability and in additional schools in communities.

#### **Mr. Speaker:**

I thank, again, the Prime Minister for his demonstrating of faith and trust in appointing me to the portfolio of Science, Energy and Technology.

Many thanks to my Permanent Secretary, Mrs. Carol Palmer, for her steady, firm and decisive management of the Ministry, the senior management team and

staff, heads of entities and staff, development partners and key stakeholders including regulators.

**Mr. Speaker:**

The Ministry of Science, Energy and Technology has a seminal role to play in the strategic repositioning of Jamaica if we are to **anchor our peace, prosperity and resilience** to achieve a decade of growth by 2030. We started the turn of this decade in which we are in with great hope and optimism and with the wind at our backs. We had:

- The lowest unemployment rate in our history at 7.2%;
- The longest period of economic growth – 20 consecutive quarters (5 years);
- Debt to GDP ratio at 90.2%;
- Bank of Jamaica's benchmark interest rate at 0.5%.

– in short, a stunning economic performance and fiscal achievement that caught the attention of the world.

We got there through a shared vision and a shared commitment across the political aisle to stay the course of Jamaica's economic recovery programme. COVID-19 has put a dent in those numbers but COVID-19 cannot dent the collective will, the shared vision, and the creativity of Jamaica and Jamaicans. We must recover and move forward **toward a decade of growth and to anchor our peace, prosperity and resilience.**

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**Debt to  
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**Bank of Jamaica's  
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# ACHIEVEMENTS FOR 2019/2020 FISCAL YEAR

## SCIENCE PORTFOLIO

- Support to Businesses
- Supporting Food Security
- Support to Health Sector
- Strengthening the Policy Framework
- Popularisation of Science

## ENERGY PORTFOLIO

- Integrated Resource Plan (2018-2037)
- Updating the National Energy Policy
- Broadened Ownership Base for Renewable Energy
- Solar Power
- Liquefied Natural Gas and Generation Plant Development
- Urban Traffic Management System
- Significantly Advanced Transformation Agenda
- Petroleum Pricing Regime
- Deepened Collaborations with Development Partners and Stakeholders
- Energy Efficiency and Energy Conservation
- Energy Management and Efficiency Programme (EMEP)
- Energy Efficiency and Conservation Programme (EECP)
- Continued Oil and Gas Exploration

## TECHNOLOGY PORTFOLIO

- Connecting Jamaicans and Communities
- Connect Jamaica Programme
- Technology Advancement Programme
- Integrating and Infusing Technology in the Education System
- Review of the TIS Roll-out Programme
- Tablet for Teachers Programme (TTP)
- Taking Public Services Online
- TAJ Mobile App
- Trade Facilitation Paperless Project
- ICT Authority
- Cybersecurity
- Spectrum Management Activities
- RMDFS Expansion Project
- Strengthening Capacities
- Improving Service Delivery
- e-Payment Services
- Postal Services

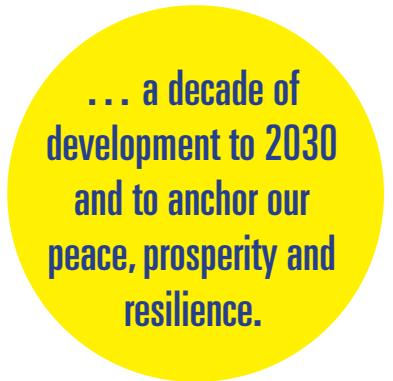


## A Year of Achievement and Change

Mr. Speaker:

The fiscal year 2019/2020 was a year of achievement and change for the Ministry of Science, Energy and Technology. We made significant progress in several areas across the three portfolios in keeping with the commitments that I made in this Honourable House in my Sectoral Presentation last year. These achievements have positioned us to support the country's pursuit of **a decade of development to 2030 and to anchor our peace, prosperity and resilience.** For this to be a reality we must begin to imagine a new Jamaica, one in which:

- All citizens have a bank account
- All citizens have affordable access to the internet
- All citizens have a payment method other than cash
- And all citizens have a strong national ID



... a decade of  
development to 2030  
and to anchor our  
peace, prosperity and  
resilience.

On the part of businesses, we must begin to imagine a new Jamaica in which:

- All businesses are e-commerce enabled and have access to easy to use payment and fulfilment platforms
- We have a successful and respected app development industry
- As Jamaicans, we have a mindset, a culture, of digitisation to enable us to move with light speed towards that New Jamaica and Government + business + civil society are of one mind on this. Our 'go digital' strategy was conceived to enable the development of the digital mindset.

**Mr. Speaker, with an aggressive ICT strategy coupled with the right execution, Jamaica can achieve relatively the same success as our global peers. I firmly believe this and I am doing my part to create this New Jamaica.**

## SCIENCE PORTFOLIO

Mr. Speaker:

Science plays a critical role in the growth and development of a country. During the 2019/2020 fiscal year emphasis was placed on continuing support to businesses and the agricultural and health sectors.

### Support to Businesses

The Scientific Research Council supported micro, small and medium sized businesses through the development of more than Seventy (70) new food and personal care products, provision of food incubation services to facilitate production and technical services and marketing support to more than **one hundred** entrepreneurs. The SRC also provided accredited testing services to local and regional partners.

In addition, three community based programmes were implemented to support the development of products and taking these products to commercialization.

### Supporting Food Security

During the year, a robust mutation breeding programme was started jointly with the International Atomic Energy Agency for ginger and sweet yam to bolster the productivity and disease resistance profile of local crops in a bid to boost agro-production and trade. During the 2019/2020 fiscal year, the SRC produced twenty-five thousand (25,000) cultured tissue plantlets and one thousand two hundred and eight-five (1,285) potato micro-tubers to support the sustainability of the local agricultural sector. In addition, a clean seed production programme was started to address the shortage of coconut plants in Jamaica and the region.



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Mr. Speaker:

The work of the SRC and ICENS must be placed within the context of protecting, bolstering and sustaining domestic crop production and an important foundation for the achievement of food security. It is worth mentioning that food security is

linked to all of the UN Sustainable Development Goals (SDGs) and is crucial to the ability of the country to anchor its peace, prosperity and resilience.

## **Support to Health Sector**

Mr. Speaker

There was much anticipation for the multi-purpose gamma irradiator to investigate the Sterile Insect Technique to suppress the mosquito population. During the year, ICENS received grant support in excess of **750 thousand euros** from the International Atomic Energy Agency and will complete the installation of the irradiation facility and all the requisite auxiliary systems. We hope that the days of the Aedes Aegypti mosquito are numbered and Jamaicans will, at last, get relief from the many vector borne diseases such as dengue fever, Zika and Chikungunya.

## **Strengthening the Policy Framework**

Mr. Speaker:

A draft Science Technology and Innovation (ST&I) Policy was approved as Green Paper by Cabinet and tabled in the Parliament on November 12, 2019.

The ST&I Policy seeks to facilitate the development of ST&I as major aspects of our culture and our economy. It will also seek to promote the increased production of value-added products, the number of local patents being registered, and the development of a local innovation and science-driven sector that can be expected to employ a significant number of persons.

This Policy will result in creation of wealth and increasing foreign exchange earnings.

## **Popularisation of Science**

Mr. Speaker:

Over the years several initiatives have been implemented to build sustained interest in and an embrace of the field of science by farmers, housewives, beauticians, the tradesmen, students, businesses. We must demystify science because Mr. Speaker science is in everything that we do- from the food we eat to the clothes we wear, the electricity that we consume, the transportation that we use and the smart phone we can't do without – all of this is a benefit of science.

In addition, a number of science, technology and innovation days, ideation sessions and camps were executed across primary, secondary and tertiary schools.

When we face adversity, it is to science that we often turn for a solution. That is why we must applaud the work of young entrepreneurs like Rayvon Stewart a final-year student in the School of Computing and Information Technology at the University of Technology, Jamaica and Yekini Wallen-Bryan, CEO of technology company PreeLabs for their application of science and technology to address public health problems. Rayvon has developed an invention called 'Xermosol'. It is a simple-to-install device that automatically disinfects door knobs and handles after each use. Field and laboratory testing has validated Xermosol's efficiency in killing more than 99.9% of deadly pathogens; organisms such as MRSA and E-coli and viral cells such as the influenza virus, H1N1.

In addition to health facilities, the invention could be used to help reduce transmission of germs in other public spaces such as schools and businesses. While it was first developed to fight the bacteria Klebsiella, it is believed that same could be utilised in the fight to combat COVID.

Yekini Wallen-Bryan has been developing two essential healthcare products; ventilators and face shield. The face shields,



Rayvon Stewart



Yekini Wallen-Bryan

are produced with a 3D printer and are said to provide greater coverage than masks, are reusable, and can be sterilised before and after use.

**Mr. Speaker**, although a small island developing state, Jamaica can make an impactful contribution in preventing the transmission of deadly diseases and save thousands of lives- thanks to science, technology and innovation.

## **ENERGY PORTFOLIO**

**Mr. Speaker:**

The 2019/2020 fiscal year was a year of change for the energy sector in Jamaica. We have:

1. Significantly completed the Integrated Resource Plan (IRP) for our electricity sector and re-established the Jamaica Energy Council
2. Created opportunity for a broad cross section of Jamaicans to have ownership in renewable energy
3. Improved the country's mix of fuel sources for the electricity generation sector
4. Completed the Strategic Framework for e-mobility
5. Hosted, for the first time, the Energy and Climate Partnership of the Americas (ECPA) which deepened collaborations with regional member states, development partners and other stakeholders
6. Since the end of the fiscal year, we have established the board of the Generation Procurement Entity and sought resources for technical assistance to facilitate the procurement of new generation capacity

### ***Integrated Resource Plan (2018-2037)***

**Mr. Speaker**, the Integrated Resource Plan is a 20-year roadmap for Jamaica's electricity investment landscape. The Plan has been keenly anticipated by the country and indeed the regional energy sector. It provides information about the process followed in developing and analyzing the preferred electricity resource mix and how this mix meets reliability of service, reduced cost of operation, fuel supply diversity, electric grid flexibility and lowering of environmental (carbon) footprint. Cabinet approved the Plan which was developed with significant input

and consultations with the Office of Utilities Regulations, Jamaica Public Service and other key stakeholders.

The IRP envisions 32% of electricity generation by 2030 to be met with renewables and 50% of electricity generation by 2037. This include solar, wind, hydroelectric, waste to energy and biomass. A total of US\$2.8 Billion of investment is anticipated over the life of the Plan which will serve to continue to modernize the electricity infrastructure, diversify the fuel source and institutionalize energy conservation and efficiency.

The Plan projects 59% reduction in CO<sub>2</sub> emissions over time.

With the IRP, the country can now proceed with certainty in its indications to the private sector of the investments that will be required for new generation.

### ***Updating the National Energy Policy***

Mr. Speaker:

The Jamaica Energy Council was re-established and had its first meeting on September 13, 2019.

### ***Composition of Council***

The composition of the Council allows for the bringing together of the best available expertise and intellectual capital to re-shape the energy landscape of the country. Several Ministries and Agencies are represented on the Council as well as the Opposition Spokesperson on Energy, Private Sector Organisation of Jamaica, Jamaica Institute of Engineers, Jamaica Gasoline Retailers Association, Jamaica Association of Petroleum Marketers, Jamaica Renewable Energy Association and The Jamaican Institute of Architects, to name a few.

### ***Broadened Ownership Base for Renewable Energy***

Mr. Speaker:

Last fiscal year was a watershed year for Jamaicans. **Thirty One Thousand (31,000)** Jamaicans became owners of renewable energy asset when they participated in the Initial Public Offer (IPO) for Wigton Wind Farm, the largest wind energy facility in the English Speaking Caribbean. The Ministry completed the successful initial public offering of Wigton, raising \$5.5 billion surpassing its

goal of having 10,000 shareholders. In fact, some 31,200 shareholders took up the offer. Of that number, 11,772 Jamaicans or 38 per cent are new investors on the stock market. The offer was more than 3 times over-subscribed. Twenty percent (20%) of the shares was reserved for public sector employees.

The IPO has provided an opportunity for many ordinary Jamaicans, especially public-sector workers, "to kick-start their investment in stocks." As a Government and as a Ministry, we are pleased to have been able to provide the opportunity for our people to own a national asset.

Investors would have been well rewarded with the stock more than doubling since listing and despite the contraction of the stock market since the coronavirus virus has bounced back sharply to trade at 0.76. Wigton Windfarm continues to be one of the most actively traded stocks, yesterday trading more than 11.28 million shares. [Mr. Speaker](#), it declared its first dividend of \$0.0025 per share for stockholders on record as at June 16, 2020.

### **Solar Power**

[Mr. Speaker](#), we are ahead of the game to achieve the original energy mix target by 2030. We are pushing to achieve the more ambitious target mandated by the Prime Minister. As he said, Jamaica must be a leader in this area. Looking back, and considering the impact of COVID-19, his re-positioning of the country in the renewable energy space will be of fundamental importance as we push for a **decade of growth and seek to anchor our peace, prosperity and resilience.**

### ***Liquefied Natural Gas and Generation Plant Development***

#### ***JPS/SJPC 190MW Old Harbour Project***

The Jamaica Public Service Company (JPS)/South Jamaica Power Company Limited (SJPC) 190MW Old Harbour power plant was commissioned into service



in December 2019 and since then has been providing clean, efficient power to the national grid.

This plant is now Jamaica's second natural gas power plant, following the conversion of JPS' Bogue Power Station in Montego Bay. The plant was built at a cost of US\$330 million and ground was broken in March 2017.

### ***Strategic Planning Frameworks***

**Mr. Speaker:**

In my sectoral presentation last year, I spoke about Jamaica taking brisk, bold steps with the aim of completing an Electric Motor Vehicle Policy. **Mr. Speaker**, we now have a Strategic Framework for e-mobility in Jamaica. This document sets out the road map for the implementation of e-mobility and considers the policies, regulations, financial requirements that must be part of a more holistic approach. I wish to thank the Inter-American Development Bank (IDB), for the technical assistance in developing the Framework.



**Mr. Speaker**, the Ministry hosted a high level stakeholder consultation on the e-mobility in Montego Bay in January 2020. In February 2020, the IDB hosted a side event on e-mobility on the margins of the Fourth Ministerial Meeting of the Energy and Climate Partnership of the Americas (ECPA). This event brought experts and thought leaders from around the region and internal and external stakeholders to advance the public consultation on e-mobility. The framework provides for a whole of country approach to achieve a cleaner, energy efficient transportation sector, build resilience, improve air quality and help the country curtail its exposure to the volatility of oil prices.

**Mr. Speaker**, our development partners are willing and able. Our stakeholders are on board. The Government is ready. The country is now in pole position for a deliberate and measured implementation of e-mobility which is a significant national priority.

**Mr. Speaker, I promised a policy framework for e-mobility. The Strategic Framework has given us the foundation for the policy and allowed us to kick start the consultation to inform policy.**

### ***Urban Traffic Management System***

Work continues to get the implementation of the UTMS under way. The centrally controlled intelligent transportation system with its integrated platform for traffic monitoring, operation planning and modelling as well as traffic controllers, detectors and other equipment will provide real time traffic counts and patterns and will be able to provide real time information to motorists in an effort to make our travels on the road more efficient and with less hassle.

### ***Significantly Advanced Transformation Agenda***

Mr. Speaker:

Cabinet gave approval for institutional changes to eight entities under the Ministry of Science, Energy and Technology. The Cabinet Decisions include:

1. The winding up of the National Energy Solutions Limited (NESoL) and the integration of its core functions in a new division to be created under the Ministry. This is to allow for a strategic approach to improving access to energy solutions in marginalized communities. NESoL was shut down October 30, 2019 and the Ministry has started recruitment of the staff to carry out the residual functions.
2. The Ministry is also completing the implementation of 20 legacy projects and has completed thirteen of those projects.
3. The winding up of the Board of Examiners (BOE) and the Government Electrical Inspectorate (GEI) to allow for the creation of a Government Electrical Regulator (GER) in keeping with the Electricity Act, 2015. This is to provide for a wider pool of electrical inspectors to accelerate the pace at which Jamaicans (individuals and businesses) have access to electricity when they apply for it. The software that is at the heart of the modernized entity is expected to be ready this financial year. The structure has already been completed.

4. The winding up of the Petroleum Corporation of Jamaica (PCJ) to allow its core functions to be brought into a new division under MSET; the Ministry of Finance and Public Service is finalizing the structure for a energy division. So far, the wind up has released \$5.7 billion dollars of cash to the Consolidated Fund and there is possibly more to come. The wind up has also released underutilized and much needed talent into the Ministry to accelerate the work of the Ministry. In addition, billions of dollars worth of property are being examined for sale or transfer to the highest bidder and best use.
5. The integration of Petrojam Ethanol Limited (PEL) into Petrojam to eliminate the mark up on ethanol. The implementation of this Decision is in progress with a focus on bringing the financials of this entity current.
6. The pursuit of a new arrangement for the ownership of Jamaica Aircraft Refueling Services (JARS).

All of these are expected to streamline the energy sector and allow greater focus on what matters to the Jamaican people: affordable electricity price and availability of uninterrupted electric power, getting electrical inspections of new developments done in a much shorter period than what happens now, having affordable energy cost for transportation, having street lights repaired in a timely manner and new ones installed in the many communities that are crying out for them, helping marginalised communities transition into having safer and affordable connections to the electric grid.

### **Petroleum Pricing Regime**

We have begun the transition of weekly petroleum pricing regime to the OUR in keeping with the recommendation of the Petrojam Review Committee.

**Mr. Speaker:**

At Petrojam, three (3) major achievements are worth highlighting :

- 1. International Maritime Organization (IMO) Compliant Fuel** – From refining activities, Petrojam has been able to meet the January 1, 2020 deadline set by IMO for the ships to start burning Very Low Sulphur Fuel Oil (VLSFO) in their engines. The regulation for a 0.50% Sulphur limit in

fuel was adopted in 2008. As at MArch 31, 2020, Petrojam has sold 914, 392 barrels of VLSFO to bunker fuel customers.

2. **Increase Export of Asphalt** – For the 2019/2020 fiscal year, the company exported 36,141 barrels of performance grade asphalt.
3. **Zero Disruption to supply to the nation** – Petrojam has a record of uninterrupted supply as the company has always had enough products to supply the Jamaican market.

## Deepened Collaborations with Development Partners and Stakeholders

### Mr. Speaker:

Jamaica hosted the Fourth Ministerial Meeting of the Energy and Climate Partnership of the Americas (ECPA) in February of this year at the Montego Bay Convention Centre. The theme of the Conference was **Energy Resilience and Investment Opportunities**.

Approximately 200 high level delegates from 29 ECPA countries attended the Conference



The sponsorship from Development Partners – The Organisation of American States (OAS), under whose aegis the conference was held, the Inter-American Development Bank (IDB), World Bank and Latin America Energy Organization (OLADE) contributed significantly to the staging of this Ministerial Meeting and especially in bringing delegations from several countries to the Ministerial and the themed side events.

The support of the Private Sector is also noted. I wish to thank New Fortress Energy, Eagle LNG Partners and the Jamaica Public Service Company Limited for their contribution to the success of the event.

The Ministerial Meeting afforded Jamaica the opportunity to strengthen collaborations with regional member states, development partners and public and private sector stakeholders operating in the energy space. We will continue to call on the vast expertise of the development partners to assist us in achieving **a decade of economic growth and to anchor our peace, our prosperity and our resilience.**

**Mr. Speaker:**

The immediate priorities for continued support are:

1. E-Mobility;
2. Solarisation
3. Sustainable financing for demand side energy efficiency implementation
4. Scaling up efforts to reduce power system losses
5. Feasibility assessment for joint solutions in renewable energy and water infrastructure

## **Energy Efficiency and Energy Conservation**

**Mr. Speaker:**

The PCJ had management of two important projects in Energy Efficiency and Energy Conservation. The Ministry has taken charge of the implementation of the projects since April 1, 2020.

## **Energy Management and Efficiency Programme (EMEP)**

**Mr. Speaker:**

The EMEP is being funded by the Inter-American Development Bank (IDB), the Japan International Cooperation Agency (JICA) and the European Union Caribbean Investment Facility, (EU-CIF) with financial support totaling US\$40 million.

An assessment carried out by the IDB in anticipation for the handover of the Project to MSET shows significant under spending (about 4% of spend which is mainly attributable to salary for a two-year period) and under performance of the project. The Ministry is working to recover the project as the country stands to benefit.

## **Energy Efficiency and Conservation Programme (EECP)**

Mr. Speaker:

The Energy Efficiency and Conservation Programme monitors the energy consumption of forty-six (46) government facilities which received energy efficient retrofits and interventions under the programme. The monthly average reduction in energy consumption observed for facilities ranged from 201.4 kWh to 29490.8 kWh.

Twenty-eight (28) facilities are showing a return on investment. This resulted in total reduction of 10,238,281.66 kWh and saving of approximately J \$ 376,355,737.57.

The remaining eighteen (18) facilities have shown increases in electricity consumption of -6,876,510.76 kWh costing approximately -J\$ 246,481,143.79.

So far under the EECP facilities from the health, finance, education and security sectors have been retrofitted with Solar Control Film, Cool Roof Solutions and/or energy efficient air conditioning systems.

This translates to over US\$3.2M saved since the inception of the programme with an investment of approximately US\$12M, which is inclusive of both Inter-American Development Bank and Government of Jamaica's funds.

## **Oil & Gas**

Cabinet recently gave approval for United Oil and Gas Jamaica Ltd to continue the exploration for a period of eighteen (18) months. Over 6 years ago, Tullow Jamaica Ltd signed a Production Sharing Agreement to explore for oil offshore in the south coast waters of Jamaica. The exploration activities and new technologies allowed much greater level of data gathering and 3D mapping of Jamaica's offshore drillable prospects. While Tullow has indicated its curtailment of exploration activities in Jamaica and other parts of the world, UOG Jamaica Ltd has indicated its interest in continuing and will be seeking to find a financial partner to take on some of the risk of drilling an exploration well.

## TECHNOLOGY PORTFOLIO

Mr. Speaker:

Mr. Speaker, the Ministry of Science, Energy and Technology must lead in ushering in a new economy, one in which:

- all Jamaicans have internet at speed, quality of service and affordability that rival those countries we want to emulate
- all businesses, micro, small, medium or large are ICT enabled and can easily plug into payment and fulfilment platforms

For this to happen Government must take the lead.

A World Bank study shows that the development of broadband markets is evolving into a transition towards a “new generation of access infrastructure that requires major investments. The need for these investments may run counter to the (short-run) business imperatives of private firms operating in competitive markets. At the same time it appears that this competition hinders the transition towards fibre-based next-generation access networks, as the incumbent operators continue to exploit their installed bases through evolutionary upgrades of their legacy networks.” A country, such as Jamaica, with a need to fundamentally shift the country’s global competitiveness, has to take a lead and bring all the stakeholders together in order to achieve the full implementation of a uniform national broadband infrastructure.

The entities under the technology portfolio include, the Universal Service Fund, Spectrum Management Authority, e-Learning Jamaica, eGov Jamaica and Post and Telecommunications Department and Postal Corporation of Jamaica which includes Jamaica Post.

The Ministry provides the policy and strategic direction for the development of the information and communication technology architecture of the country. The advent of COVID-19 requires sustained and strategic investments that will result in a digital society, where internet access is a right for all Jamaicans

During the year under review, progress was made to connect more Jamaicans in more communities across the country. We advanced the legislative framework for data protection and continued the scaling up of awareness raising initiatives in cybersecurity.

## **Connecting Jamaicans and Communities**

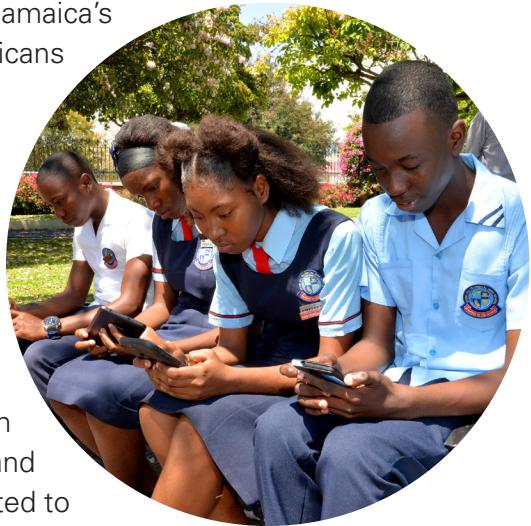
Mr. Speaker:

Several initiatives are ongoing to increase Jamaica's Internet penetration and connect Jamaicans anywhere and everywhere.

### **Connect Jamaica Programme**

Mr. Speaker

One public Wi-Fi Hot Spot was established in the 2019/2020 fiscal year at Sam Sharpe Square in Montego Bay, St. James. This is in addition to seven (7) other public Wi-Fi hotspots which were established. St. Ann (Ocho Rios), Clarendon (May Pen) and Portland (Port Antonio) are in progress and are expected to be completed within the 2020/21 fiscal year.



### **Technology Advancement Programme**

This Programme has resulted in the engagement of approximately 1600 unattached youths to date and offers training in ICT skills such as digitization, computer administration, computer repairs, core skills including readiness for the workplace. We established partnerships with HEART/HOPE Programme to expand the reach and certification levels of TAP participants. The inclusion of Heart with the NCTVET Certification, will provide global certification and expand the ability of graduates beyond Jamaica's borders.

Mr. Speaker while we connect Jamaicans and communities, we also continued to invest in the provision of tablets and other hardware to teachers, students, physiotherapists and the disabled community.

### **Integrating and Infusing Technology in the Education System**

During the year under review, E Learning Jamaica continued its critical review of the Tablets in Schools (TIS) roll-out programme which was approved by Cabinet in July 2017. Previously, Parliament was updated that the project was under review.

These deliberations were concluded in the first quarter of the last fiscal year and the following changes were recommended and subsequently endorsed by the Ministry of Education, Youth, and Information and accepted by the Ministry. The proposed changes included:

- Reducing the project timelines from 11 years to 6 years commencing FY 20/21
- Lowering the unit cost of ICT equipment to be procured under the programme, namely:
  - » An average cost per tablet from US\$280 to US\$160 on average
  - » Projectors from US\$1,783 to US\$650
  - » Laptops from US\$789 to US\$624
- Improving tablet sharing ratio for students from 1:5 to 1:3

## **Review of the TIS Roll-out Programme**

The TIS rollout project has been segmented into four separate programmes to focus on infant and primary schools, teachers' colleges, special education schools and state care facilities.

With respect to the selection of new vendors to provide tablets, a Request for Proposals (RFP) was advertised in October 2019. In March 2020, Cabinet approved the award of two contracts for the procurement of 40, 000 tablets at a cost of US\$6.915 million.

The full deployment of these tablets will be completed during the first half of fiscal year 2020/2021.

## ***Tablet for Teachers Programme (TTP)***

Mr. Speaker:

Full distribution of tablets to the JTA's membership has commenced.

In addition, e-Learning Jamaica procured and distributed 46 tablets, SD cards, HDMI adapters and HDMI cables to the Physiotherapy Departments on behalf of the Ministry of Finance and the Public Service. This is to support the implementation of an agreement signed between the Government and the Council of Paramedics in February 2016. The value of the contract was J\$1.14M.

## **Taking Public Services Online**

Mr. Speaker

Steady progress was made to transform the way we do business in the public sector in particular with the development of a mobile app for Tax Administration Jamaica (TAJ), Trade Facilitation paperless Project and the GovTech Talk Series.

### ***TAJ Mobile App***

Mr. Speaker:

The Innovation Hub at eGovJa developed a working prototype of a mobile app for Tax Administration Jamaica (TAJ), targeting specific services offered by the TAJ to improve the service delivery time. The first release was made to a closed group for the payment of property taxes. Plans are now in place to release it to the public in the current fiscal year.

### ***Trade Facilitation Paperless Project***

The Trade Facilitation applications, developed and maintained by eGov Jamaica, were upgraded to allow the Ministry of Industry Commerce Agriculture and Fisheries, Ministry of Health and Wellness, and the Pesticides Control Authority to operate paperless, in terms of their permit processing.

## **ICT Authority**

Mr. Speaker

The Information and Communications Technology Authority Act, 2019 was passed to facilitate the transfer of eGov and the Office of Chief Information Officer to form a new Information and Communication Technology (ICT) Authority. This will accelerate the pace of implementation of the Government's ICT infrastructure, making the State and public services more efficient and accessible.

We are on the cusp of the implementation of the project with PricewaterhouseCoopers (PwC) having submitted its final deliverables – a Business Plan and Transition Plan- under the design phase of the Project.

## **Cybersecurity**

Mr. Speaker:

As we work to connect more people and more communities, we must also raise the cyber security IQ of the population. During the 2019/2020 fiscal year Jamaica Cyber Incident Response Team (JACIRT) reached more than 30,000 persons through targeted partnerships, education and awareness activities, more than the 20,000 target.

## **Spectrum Management Activities**

Mr. Speaker the 2019/2020 fiscal year saw the Spectrum Management Authority (SMA) engaging in development projects, strengthening the enabling environment and improving service delivery with the introduction of e-payment services.

## **RMDFS Expansion Project**

Mr. Speaker:

During the fiscal year, The SMA again successfully commissioned another Radio Monitoring Direction Finding System (RMDFS) to increase the remote monitoring capacity of the SMA. This system enables detection of illegal use and ensure assignment of interference free (clean) spectrum, which enhances the SMA's effectiveness in managing the radio frequency spectrum. Most importantly, this benefit redounds to end-users, particularly in the rural areas, who are able to stay connected to the information highway, whether for social purposes or to conduct commerce. These efforts further facilitate universal access, enabling access to the underserved and the unserved.

A number of other development efforts were in process and will continue in the current fiscal year, to include: the implementation of an Online Learning Management System Platform; E-licensing Project; as well as further expansion of the Remote Monitoring Project.

## **Strengthening Capacities**

During the FY, the SMA executed its mandate with respect to legal, policy and regulatory issues through, inter alia, the following activities:

## **Amateur Radio Services**

- On April 30, a MOU, Examination Handbook and Pool of Questions were finalized between the SMA, Jamaica Amateur Radio Association (JARA) and the Postmaster General (PMG), to give effect to the amendments of the Radio and Telegraph Control (Amateur Radio Service) Regulations and the Radio and Telegraph Control (Radio Operators and Technicians) Regulations of 1974.
- A licensing framework for amateur radio operations in Jamaica was developed during the second quarter of the fiscal year. The Framework document is to regularize the licensing activities for amateur radio operations in Jamaica in-line with international best practice.
- On November 29, 2019 the SMA conducted the examination for the Jamaica Amateur Radio Class “B” Radio Station Licence, the first in over a decade

## ***Improving Service Delivery***

### **e-Payment Services**

The SMA, during the first half of the fiscal year has implemented an e-payment system, via the SMA website, whereby applicants can pay for certain licences and fees relating to Amateur Services, Citizen Band Radio Services, Type Approval Certification and request duplicate copies of spectrum licences held.



**The SMA, during the first half of the fiscal year has implemented an e-payment system...**

### **Postal Services**

The Post and Telecommunication Department (PTD) continues to work strategically in an effort to modernize its operations. To this end, the top achievements for the period include, but is not limited to: the upgrading of the PTD's systems to IPS Post, which is a significant accomplishment to improve the capabilities of the Track and Trace of mail items and the renovation of three major Post Offices namely, Ocho Rios, Spanish Town and Montego Bay.

The Klick 'N' Ship Express is a freight forwarding solution for on-line shoppers which was launched in 2018. Based on the positive feedback and demand from customers has led to an increase in the number of locations island wide with the offerings now available at twenty-two (22) Post Offices.



# OUTLOOK FOR 2020/2021 FISCAL YEAR

## SCIENCE PORTFOLIO

- Support to Climate Change Initiatives

## ENERGY PORTFOLIO

- Petrojam to establish a Unit for Energy Conservation
- Ministry to advance work to develop a National Solarisation Programme
- Implementation of e-mobility.
- Implementation of the \$220M House Wiring Project in constituencies
- Transformation of Jamaica's Energy Investment Ecosystem
- Updating the National Energy Policy

## TECHNOLOGY PORTFOLIO

- Transitioning to ICT Authority
- Implementation of a Government Wide Area Network
- eParticipation (MyGovJm)
- The Data Protection Act

# Outlook for 2020/2021

## SCIENCE PORTFOLIO

Mr. Speaker:

For the 2020/21 fiscal year, the Scientific Research Council will continue to strengthen and expand its Agriculture and Plant Breeding pursuits which will see the institution expanding its programme to include coffee as well as undertake efforts jointly with the ICENS and MICAF to engage in a fruit fly control programme using radiation techniques.

### Support to Climate Change Initiatives

Mr. Speaker:

The ICENS will represent Jamaica in the regional project, "Assessing Atmospheric Aerosol Components in Urban Areas to Improve Air Pollution and Climate Change". Using advanced source apportionment techniques, the major sources of pollution can be identified and in the case of health impacts, mitigation measures may be put into place. This would have a direct impact on the health costs incurred due to acute and chronic respiratory illness caused by air pollution. The data gleaned from this research can help to set the policies needed to adapt to global climate change.

## ENERGY PORTFOLIO

Mr. Speaker:

We will advance the feasibility study for an integrated pump hydro storage system with reverse osmosis desalination plant that could economically turn our sea water into fresh water and provide some 25 million gallons of water for Kingston and St. Andrew while facilitating much needed renewable energy storage.

We thank our international partner, the US Embassy and its Government's approach under the framework Agreement and American Crece for their significant interest



in and understanding of the scale of the water and renewable energy storage system needed for our major city to enable its continued development.

Petrojam will establish a Unit with a mandate for energy conservation with accreditation to ISO 50001 the ultimate objective.

The Ministry will advance work to develop a national solarisation programme for Jamaica with assistance from development partners. We intend to bridge to the last mile to reach every Jamaican on the grid or off the grid. The US\$2.8 billion investment projections in the electricity generation sector to 2037 aims to achieve 50% renewable energy mix based on the Integrated Resource Plan. For the 5-year target (to 2025), Jamaica is targeting 320 MW of solar and/or wind; 120 MW of LNG and 74 MW of hydro, waste to energy and/or biomass.

Decisions will be taken on the e-mobility scenario that Jamaica will adopt for the implementation of e-mobility. Under the most aggressive scenario, 'Jamaica goes electric,' it is anticipated that EVs will account for 12% of private fleets and 16% of public fleets.

Implementation of the \$220 million House Wiring Project in constituencies will commence in July for projects that have been submitted to the Ministry by Members of Parliament. The Project is being managed by the JSIF under an MOU with the Ministry.

The Ministry will continue to lead the transformation of Jamaica's energy investment ecosystem through the encouragement of private investment and innovative financing options.

We will strengthen the policy, regulatory and legislative frameworks by updating the National Energy Policy, complete the Petroleum Downstream Act and amend the Electricity Act, 2015.

## **TECHNOLOGY PORTFOLIO**

**Mr. Speaker:**

The 2020/21 fiscal year is already shaping up to be a big year for technology.

ELearning will complete the distribution of 25,000 tablets under the Tablets for Teachers Programme and 40,000 tablets under the TIIPS Programme.

The USF will complete three additional Wi-Fi hot spots in Clarendon (May Pen), St. Ann (Ocho Rios) and Portland (Port Antonio) during the 2020/21 fiscal year.

Four major priorities will define the technology space for 2020/21.

## **1. Transitioning to ICT Authority**

The recruitment of the transition team is in progress with the Executive Team Lead now onboard. This will pave the way to operationalize the new entity.

## **2. Implementation of a Government Wide Area Network and upgrading of facilities to create and support a Shared Service Data Centre at Tier 3 Standard**

As part of the Public Sector Transformation, a government wide area network is being established to facilitate the transfer of information among Ministries Departments and Agencies and consolidating data centres across government agencies. A high-level design of this is already completed and full implementation of this will start in 2020/21

## **3. eParticipation (MyGovJm)**

The e-participation programme initiative aims to foster civic engagement and open, participatory governance utilizing Information and Communications Technologies (ICT). It is a mechanism where the GOJ will empower its citizens to share information that will drive efficient, effective and faster-paced solutions, and actively contribute to policy and decision making around public matters.

A pilot of the technology framework named MyGovJM will be launched in the second quarter of this fiscal year and will focus initially on issues relating to street light maintenance. The Ministry of Local Government and Community Development is partnering with the Ministry on this initiative.

## **4. The Data Protection Act**

*Mr. Speaker:*

With the recent passage of the Data Protection Act, 2020, the Ministry will turn its focus to implementing a broad public awareness program to educate Jamaicans on their rights to their personal data and to ensure institutions that collect personal data know their responsibilities and obligations. We will begin

the process of establishing the Office of the Information Commissioner, an entity that will be charged with the responsibility of overseeing the manner in which personal data in the possession of businesses and government is handled.

We will also begin the process of establishing the Data Protection Oversight Committee that will be charged with holding the Information Commissioner accountable to the public in the performance of the Commissioner's function.

Jamaica's impetus for promulgating the data protection legislation are many and varied. While informed by the Jamaican Constitution, other factors have played a part. These include:

- the advancement in technology and the increasing ability to process, store and distribute data;
- the increase in electronic commerce; and
- obligations imposed by bi-lateral and multilateral agreements, specifically, trade agreements.



## Imagine a New Jamaica

Mr. Speaker,

For Jamaica to achieve a decade of growth to 2030 and to anchor our peace, prosperity and resilience, we must help our people imagine a new Jamaica:

- where science is embraced by all and science is solving our big problems in health, national security and agriculture
- imagine a new Jamaica where government and businesses are fully digital
- where access to the internet is a right and no one is left behind

Mr. Speaker, the Ministry is leading and I have challenged all at the Ministry of Science, Energy and Technology and across the portfolio, heads of agencies, boards, as we look forward to the decade ahead, to make a distinction between Good Work and GREAT WORK.

Good Work, Mr. Speaker is everyday work, get-it-done, this-is-my-job-description-type-of-work.

GREAT WORK, Mr. Speaker, is work with both more meaning and more impact. Our focus is on doing GREAT WORK to achieve a new Jamaica, one in which we experience at least **a decade of above average economic growth, thus allowing us to anchor our peace, prosperity and resilience.**

We must imagine and achieve a new Jamaica.

Thank you, Mr. Speaker.

