

## Country Assessment Report

### Country/Region name: Jamaica

Jamaica, situated in the Greater Antilles, is the third largest island in the Caribbean. It has a population of approximately three (3) million people. Real Gross Domestic Product (GDP) in Jamaica estimates to be \$14 Billion US dollars at the end of 2022 (worldeconomics.com).

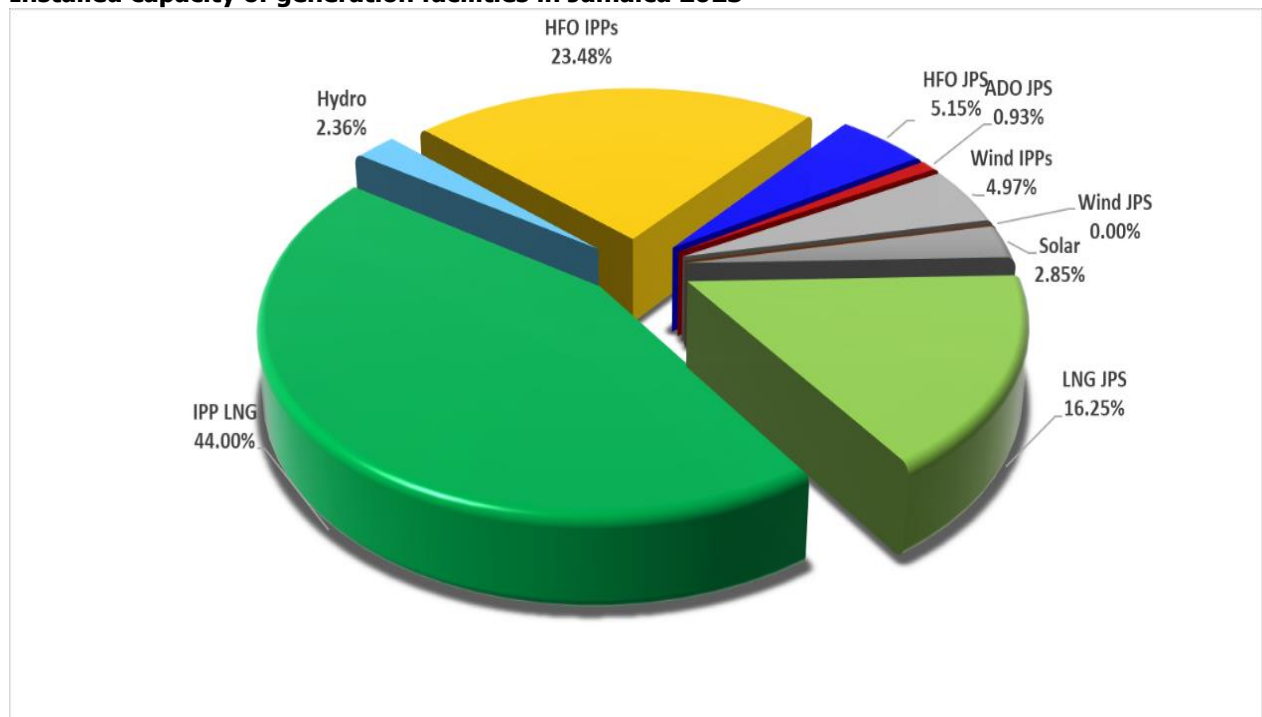
The economy of Jamaica is expected to grow rate of 1.8% in the mid-term, driven by the tourism and manufacturing sectors. It has a poverty rate of 12.6% and 99% electricity access (World Bank, 2023).

### Generation and demand:

Jamaica's energy supply relies in imported fossil fuels which represent 91% of total energy supply and 83% (natural gas and oil) of its 4.4 TWh of electricity generation in 2022 (IEA, 2023).

Jamaica's installed generation capacity in 2023 is 1042MW, 882MW of which is fossil fueled thermal capacity. Jamaica Public Service's Generation capacity is 344MW, the remaining balance are from Independent Power Providers (IPP's). The country's peak demand was 691MW in 2023.

### Installed capacity of generation facilities in Jamaica 2023

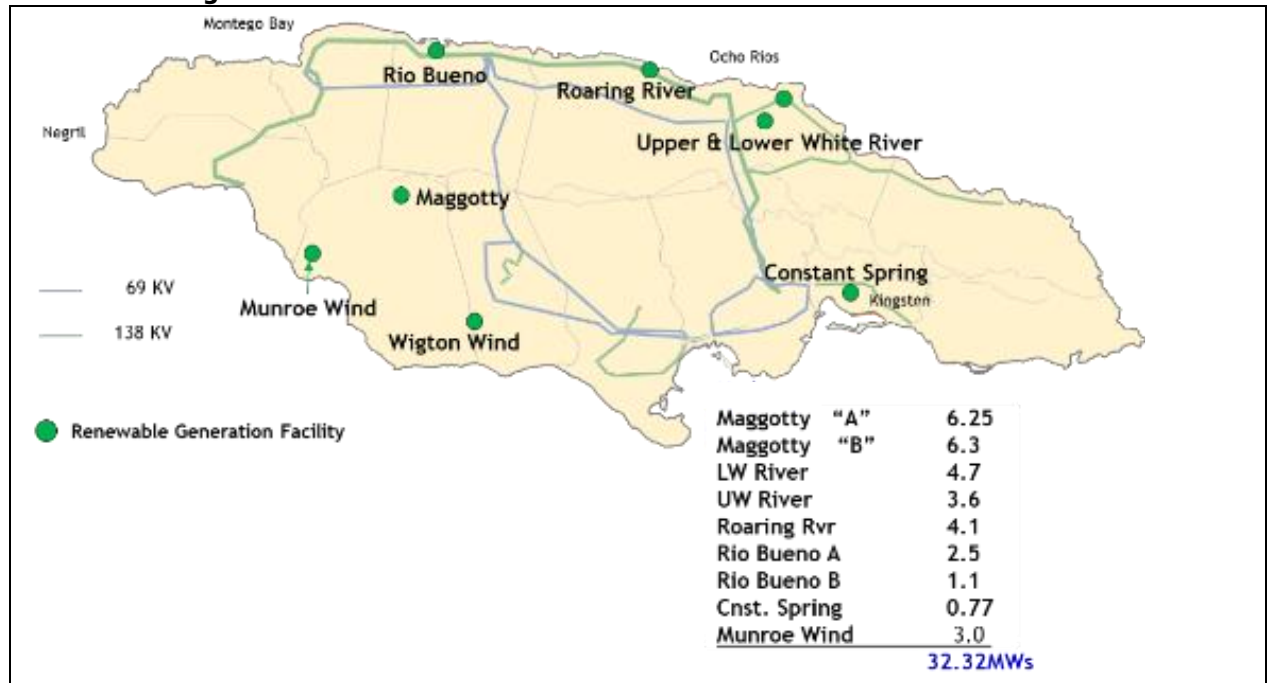


Source: JPS

JPS' generation portfolio is comprised of twenty-eight (28) owned and operated generating units. JPS procures electricity from nine other Independent Power Producers (IPPs), who have received generation license from the Minister of Energy. JPS's assets include a mix of power generation sources, such as conventional thermal plants, as well as renewable energy sources like Hydro and Wind to the grid. JPS has eight (8) hydroelectric plants and one (1) Wind Park.

JPS renewable plants in the generation mix accounts for 2.36% of the overall mix. JPS has nine (9) renewable plants located island wide and produces approximately 32 MW for the Grid. JPS' renewable plants (hydro and wind) are identified on the map below.

### JPS renewable generation facilities in Jamaica



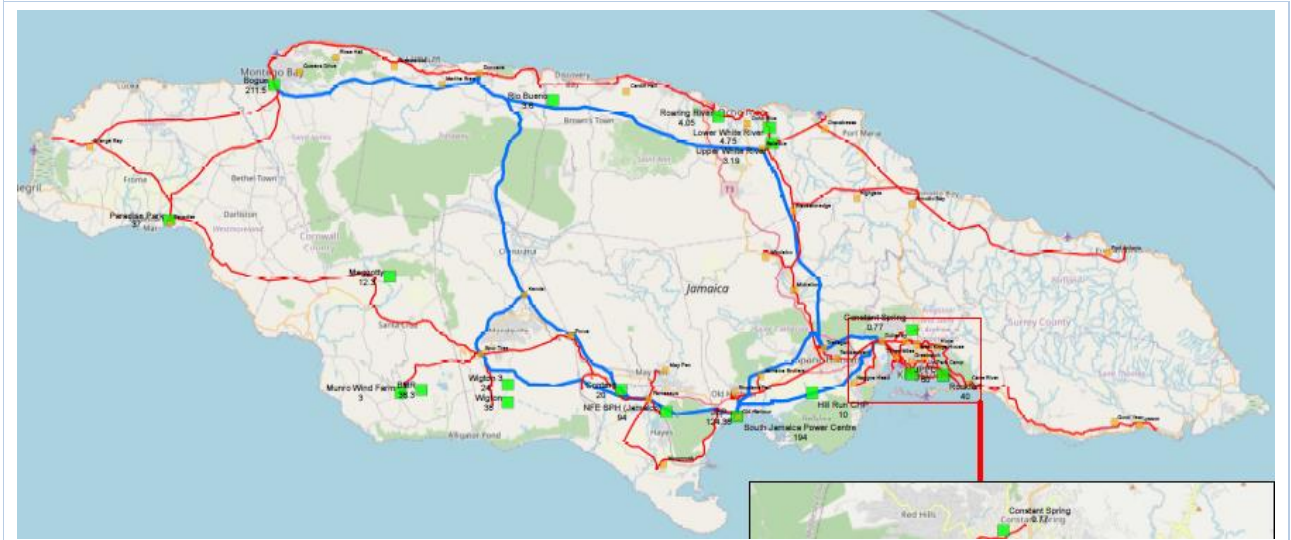
Source: JPS

The installed capacity of the current nine IPP's in Jamaica, which use various energy technologies are:

- Jamaica Energy Partners (Combined 250MW)
  - West Kingston Power Partners (65.5 MW)
  - Jamaica Private Power Company (61 MW)
  - Doctor Bird Power Station (124 MW)
- South Jamaica Power Limited (194MW)
- New Fortress Energy (94MW)
- Wigton Wind Farm (62.7MW)
- Eight Rivers Energy Company Limited Paradise Solar PV Park (37MW)
- BMR Energy (36.3 MW)
- Content Solar (20MW)

### Electrical Interconnection and import/export:

The following map highlights the major elements of Jamaica's power system. The Transmission Network is defined in blue, and the main Distribution Network in red. JPS currently manages fifty-two (52) substations and approximately 14,000 kilometers of distribution and transmission lines.



Source: JPS

### **Market Potential:**

The current renewable penetration is 12% in 2022 (wind 6%, hydro 3% and solar 3%).

Solar and wind together could triple the country's total installed capacity according to CCREEE (2021) with 1.9 GW and 1.3 GW potential capacity, respectively.

The National Energy Policy (NEP) 2009 – 2030 had set an overall renewable energy mix target of 20% for 2030, including a 30% renewable electricity share.

The Government has set a new national target which aims for 50% of renewables in the grid by 2030, and through its Energy Ministry and the Generation Procurement Entity (GPE) is conducting a 100MW renewable tender which is expected to be awarded in 2024.

**Electricity market structure:**

Jamaica's electricity sector is characterized by a mix of public and private entities involved in electricity generation, transmission, and distribution, with the Jamaica Public Service Company Limited (JPS) owning the transmission and distribution grid. JPS is the island's primary generator in the generation market which is open to competition. Additionally, the company procures electricity from nine independent power producers (IPPs). According to the Electricity Act, 2015, IPP's only have the right to generate energy for sale to JPS.

The Office of Utilities Regulation (OUR) was established by an Act of Parliament in 1995 to regulate the operations and tariffs of utility companies within the electricity, telecommunications, and water & sewage sectors.

The Ministry of Science, Energy, Telecommunications and Transport (MSETT) is the primary entity responsible for overseeing Jamaica's energy sector. It holds the responsibility of crafting and disseminating the implementation strategies for Jamaica's energy policy. The Generation of power in Jamaica is licensed by the Minister of Energy.

The Generation Procurement Entity (GPE) is responsible to oversee the procurement of new generation capacity for the electricity sector in Jamaica, as outlined in schedule six of the Electricity Act (2015). The function of the GPE includes conducting competitive bidding processes to select and contract with independent power producers and other entities to build and operate new electricity generation facilities.

Jamaica Public Service Company Limited (JPS) is a vertically integrated electric utility with an exclusive license to transmit, distribute and supply electricity throughout Jamaica. The company was partially privatized in 2001. Marubeni Corporation of Japan and Korea East-West Power (EWP) jointly own 80% shares, the Government of Jamaica and a small group of minority shareholders own the remaining shares.

**Existing/Planned energy legislation:** (is there a CPO)

Jamaica does not have a Renewable Portfolio Standard nor a consumer purchase obligation. There are two ways that a Renewable facility connects to the grid. The first is via renewable bids which are regulated by Government Procurement Entity (GPE). The winning bidder will be given a PPA with JPS. The second way is that residential and business owners can apply for a renewable net billing license for up to 100kW of solar generation. This is issued by the Ministry of Science Energy and Technology (MSET).

Jamaica published its National Energy Policy in 2009, its first comprehensive long-term energy plan (2009 – 2030). The policy set several targets in relation to renewable electricity generation, energy efficiency, and greenhouse gas emissions to be met by 2030.

In July 2015, Jamaica passed a new Electricity Act simultaneously updating regulation from 1800's. The Electricity Act clarifies and codifies the roles and responsibilities of the main actors in the sector, including the Government, the Regulator, the Electric Utility, and the independent power producers (IPP's).

The Act introduces the "Single Buyer" as the licensee responsible of purchasing the electricity generated by Independent Power Producers at the transmission level and through Net Billing arrangements at the distribution level. Currently, JPS's Net Billing program provides bill credits at the utility's avoided cost rate for any excess energy exported to the grid by customer-sited generation. (MST – 20-year Integrated Resource Plan Draft, 2018)

The Jamaican government adopted the Paris Agreement on Dec 12, 2015, to chart the way forward to carbon trading on the official markets including the mechanism of carbon trading internationally. This system spans

all areas, from mangroves protection to deforestation to transportation, to electricity generation where carbon trading can be done.

As part of its updated Nationally Determined Contribution submitted in June of 2020, the Government of Jamaica aims to reduce emissions by 2030 in both the energy and the forest/land use sectors. The expected reduction will be between 25.4 percent (unconditional) and 28.5 percent (conditional on receiving international aid) relative to a business-as-usual scenario based on a 2005 baseline. Most of the emissions reductions will come from increased use of renewable energy, including wind and solar, in the power generation sector, however the country also envisions emissions reductions from improved waste management procedures and integrated landscape and watershed management in the agricultural sector. (USAID, 2023)

#### **Existing/Planned energy certificate systems:** (purpose, extent)

Currently there is no carbon certificate system operating in Jamaica. The government, however, is not opposed to a third-party carbon certification system.

International private organizations operating in Jamaica have announced carbon neutral target for themselves for 2030, whether 50% or 100% of their manufacturing facility. These organizations are interested in energy attribute certification (EACs) for their operations to achieve the carbon neutral target. JPS is seeking to certify its current renewable energy assets to provide renewable energy certification through the I-REC System.

#### **Analysis of regulatory risks including linkages with carbon markets and support systems:**

As mentioned above, the Electricity Act, 2015 allows IPP's to sell their electricity production only to JPS. The IPP are not under any obligation to report their carbon credit registration. However, the authors of this report are not aware of any registered facility with CDM or equivalent mechanisms.

IPP's have ownership of energy attributes (rights to request and trade the I-REC certificates for their own generation) which have not been passed on to single buyer (JPS) and may be interested in registering their devices an issue I-REC(E).

The Government is continuing collaborating with the team Operationalizing the Paris Agreement Section 6 to develop a mechanism for carbon trading as a country. However, they have said that it is about 3 years away for the government. The government of Jamaica introduced a carbon trading sub-policy for 2024 – 2050 as one of several sub-policies under the revision of the National Energy Policy (NEP) for 2024 – 2050. The carbon trading sub-policy intends to contribute to the Jamaica National Energy Policy. Notwithstanding, JPS as a Private Sector Organization is continuing to develop its effort to create EACs for trading.

#### **Extent of engagement with government:**

The idea of implementing an I-REC Standard Agency in Jamaica has been discussed by JPS with the two primary Ministry departments that would have jurisdictional authority in the matter. They are supportive of efforts to operationalize available trading mechanism that can be utilize for carbon trading and Energy Attribute Certification (EAC) in Jamaica, through Private Sector Organizations such as JPS.

#### **Mechanisms in place to the support the reliable verification and issuance of I-RECs:**

There is no public information of generators settlement data. The monthly settlement is compiled by JPS and submitted to the Regulator (OUR) each month. JPS has mentioned that can create a portal for the issuer to see the monthly settlement for JPS Renewable energy plants if required.

IPP's would need to provide evidence of the produced generation accepted by JPS to certify their production.

**Local organizations of importance and their opinion on local I-REC market development:**

The I-TRACK Standard Foundation has received several requests from JPS, and relevant end-users, about the country's incorporation to the standard.

**Any other Relevant Information:**

The I-TRACK Secretariat's recommendation is to begin operating in Jamaica with GCC as the default issuer until a suitable local entity is appointed.

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