

Knowledge Co-Creation Program - Energy Policy Country Report

JAMAICA

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WELCOME TO JAMAICA

- ▶ **Capital:** Kingston
- ▶ **Official language:** English
- ▶ **Population size:** 2,734,000
- ▶ **Country size:** 10,990 Km²

Jamaica is the third largest English-speaking island of the Caribbean.

The island boasts ethnic diversity, beautiful landscapes and a very rich and vibrant culture.



CURRENT ENERGY POLICIES AND MEASURES

Jamaica is highly dependent on imported petroleum to meet its energy needs. The unstable oil prices, the high local demand for fuel and the paucity of financial resources to cover an ever increasing energy bill, have compelled Jamaica to explore alternative solutions in the energy sector.

The unprecedented Covid-19 pandemic, which officially reached Jamaica on March 10, 2020 has decreased the country's GDP by about 8%, based on reduced energy consumption, which is strongly correlated to economic activity.

All energy related policies and activities are housed within the Ministry of Science, Energy and Technology (MSET). Currently MSET is in the process of reviewing the 2009 National Energy Policy and its sub-policies, in an effort to strengthen Jamaica's response to growing energy demands.

The National Energy Policy (NEP) 2009

The NEP aims to develop a modern, efficient, diversified and environmentally sustainable energy sector providing affordable and accessible energy supplies with long-term energy security and supported by informed public behaviour on energy issues and an appropriate policy, regulatory and institutional framework' (NEP, 2009).

CURRENT ENERGY POLICIES AND MEASURES (CONT'D)

Additionally, the NEP (2009 – 2030) also seeks to address energy concerns through several related energy sub-policies*, listed as follows:

- ▶ The National Energy Conservation & Efficiency Policy
- ▶ The National Renewable Energy Policy
- ▶ The National Biofuels Policy
- ▶ The National Energy from Waste Policy
- ▶ The National Policy Strategy (National Electric Power Sector Policy)

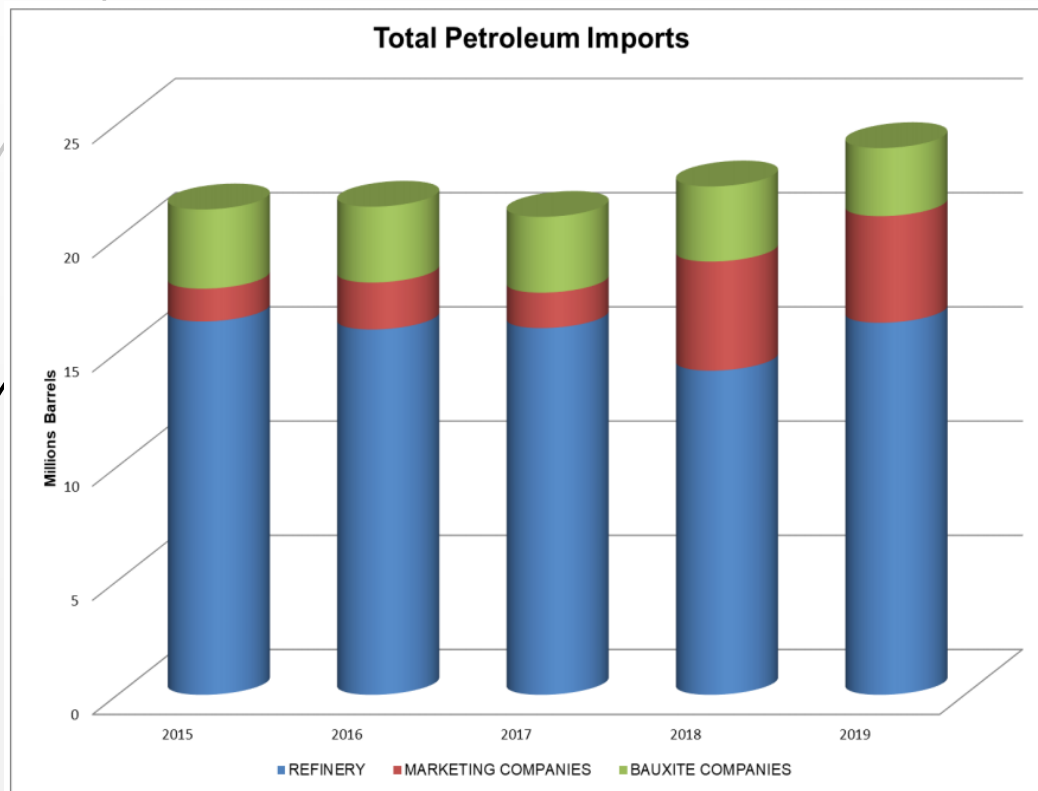
*Due to the fact that the MSET has only recently established their Policy Unit, these sub-policies are still in draft. MSET plans to conduct a mid-term review for the first decade (2009 – 2019) of the National Energy Policy in 2021.

HISTORICAL ENERGY SUPPLY STATISTICS

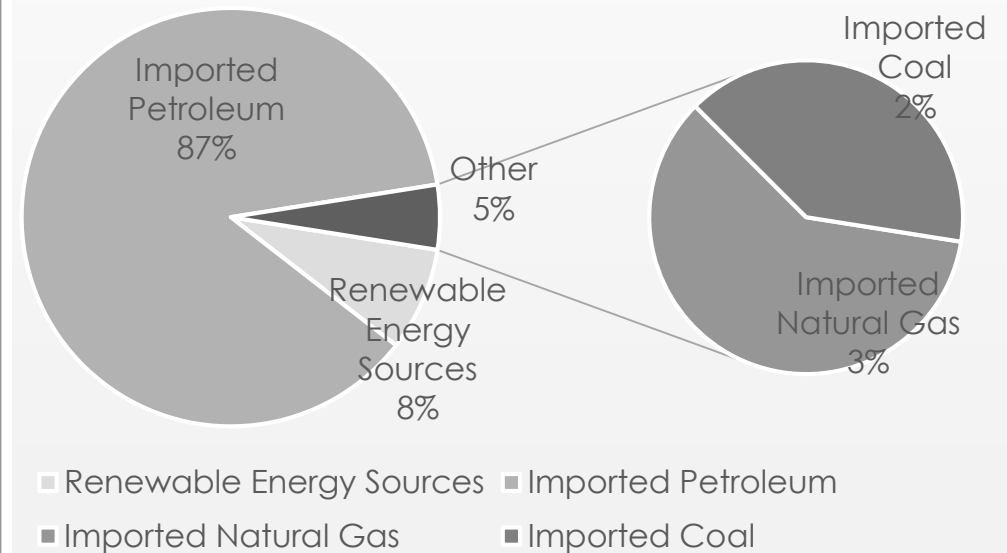
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Energy Supply: Jamaica's energy sector is dominated by imported petroleum, which meets approximately 87% of the nation's energy needs. Other imports include Natural gas, which was introduced into the energy sector in 2016, now contributes 3% and coal that accounts for 2%.

Renewable energy sources (wind, hydro, solar, biomass and biofuels) accounts for 8%.



Characterization of Jamaica's Energy Supply Mix (2019)



HISTORICAL ENERGY DEMAND STATISTICS

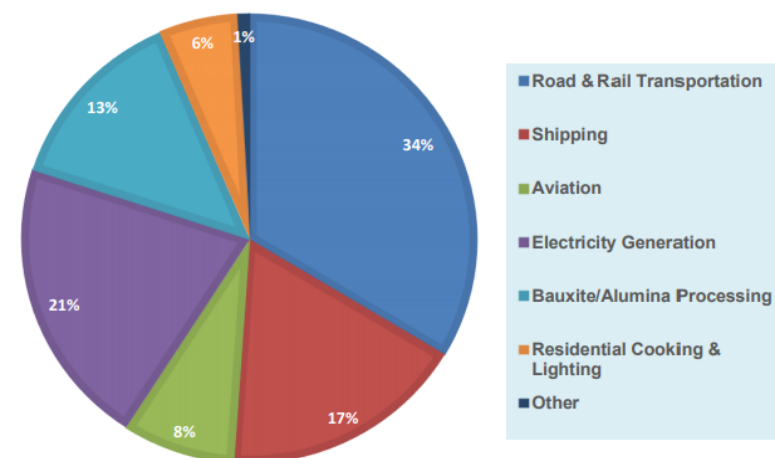
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Product	2015	2016	2017	2018	2019p
Road & Rail Transportation	5,975,830	6,356,077	6,186,068	6,782,276	7,224,833
Shipping	1,862,027	1,839,136	2,112,930	3,026,620	3,761,501
Aviation	2,386,345	2,680,350	2,590,095	1,757,129	1,724,051
Cement Manufacture	12,498	22,335	44,199	34,874	13,420
Electricity Generation	5,667,514	5,634,458	5,028,151	4,728,691	4,487,954
Bauxite/Alumina Processing	2,830,608	2,825,028	2,868,898	3,034,335	2,916,563
Sugar Manufacturing	16,035	15,815	16,576	27,734	20,040
Cooking & Lighting	828,363	1,085,692	1,160,859	1,158,915	1,202,176
Other Manufacturing	19,034	17,162	20,829	22,589	52,262
Other	142,838	128,834	124,629	136,132	94,299
TOTAL	19,741,091	20,604,886	20,153,235	20,709,296	21,497,101
Petroleum Refinery	364,385	333,916	364,419	333,307	346,477
GRAND TOTAL	20,105,476	20,938,802	20,517,654	21,042,603	21,843,578

Table 1: Petroleum Consumption Activity (Barrels)

Energy Demand: in 2019 the largest consumer of petroleum was the transportation sector, accounting for 34%, followed by electricity generation which accounted for 21% and Shipping which accounted for 17%.

Petroleum Consumption by Activity (2019)



OUTLOOK FOR JAMAICAS ENERGY DEMAND AND SUPPLY

Plans are being put in place to procure up to 268 megawatts of electricity generation from renewable sources by 2025, including energy from solar and wind technologies, with 70 megawatts from hydro, biomass and waste technologies.

- ▶ The renewable energy target is in keeping with the 2018 Integrated Resource Plan (IRP), the 20-year road map for Jamaica's electricity investment landscape.
- ▶ The IRP envisions that 33 per cent of electricity generation by 2030, will be met from renewables and 50 per cent by 2037.

Currently, there are 17 utility scale renewable energy projects in Jamaica. In 2019, a total of 473,601 megawatt hours of electricity was generated from utility scale renewable projects.

The Honorable Daryl Vaz, MP
Minister of Science, Energy, and Technology
Science, Energy and Technology
12th Caribbean Renewable Energy Forum.

MAJOR CHALLENGES IN FORMULATING ENERGY POLICIES

Policy formulation in Jamaica, can be a slow process that may be hindered by various challenges including:

- 1) **Changes in Government Administration** – Policies are developed within Ministries, following the direction of the assigned Minister, any change in the administration can change/defer the ministry's policy direction.
- 2) **Organizational Structure of Ministry** - It is only within the last few years that MSET made a concerted effort towards ensuring the Ministry was outfitted with Policy Analysts essential to the policy formulation process; MSET's Policy Unit was established in 2017.
- 3) **Competing Priorities Across Ministries**- for example, the Ministry of Local Government and Rural Development is devising a policy to address waste minimization, without extensive consultations between Ministries, these efforts could compete with MSET's desire to incorporate energy from waste technologies/initiatives into the energy mix.

DESIRED FUTURE STUDIES IN ENERGY POLICY

RENEWABLE ENERGY

- Renewable energy is a subject matter of particular interest, as it balances the need for energy with environmental considerations and waste management. As disposal sites continue to be burdened by excess waste that is left out in the open, these sources of laden energy could better serve the nation as a source of energy output that could feed Jamaica's growing demand. Additionally, the benefit to the environment is another key issue, related to national development, addressed through Renewable Energy.

CLIMATE CHANGE AND GLOBAL ENERGY SECURITY

- As the global crisis of Climate Change continues to affect countries worldwide, an exploration of the technology options that will provide maximum energy security, for years to come, while simultaneously providing the necessary environmental relief would be crucial. In many cases countries are grappling with the need for immediate energy security vs. the long term need for environmental protection.

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