CCREEE
CARIBBEAN CENTRE FOR RENEWABLE ENERGY & ENERGY EFFICIENCY

CARICOM

2018 ENERGY REPORT CARD
BAHAMAS

This document presents the Energy Report Card (ERC) for the Bahamas for 2018. The ERC provides an overview of energy sector performance in the Bahamas. The ERC also includes energy efficiency, projects, technical assistance, workforce, training and capacity building information, subject to the availability of data.

This ERC includes data and information that was provided by government ministries, agencies or departments with responsibility for energy and was supplemented by internet research, author calculations and inferences.

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"AT-A-GLANCE"

Summary of the Energy Sector

KEY DATA & INFORMATION – ENERGY SECTOR	
Population	381,300[1]
GDP (USD) Per Capita	$33,494 (2017) [2]
Human Development Index	0.807 (2017) [3]
National Energy Policy	Yes (2013) [4]
Renewable Energy (RE) Policy	Yes [4]
RE Target	30 % by 2030.[4]
Energy Performance Standards/Appliance Labelling	
Total Oil Imports (BOE) per day	
Total Oil Export (BOE) per day	
Total Installed Capacity (MW)	536[4]
Total Installed RE (MW)	
Fuel & Oil Imports as % of GDP	11.35% (2015)[4]
Electric vehicle stock	
National Repository for Energy Data	No

ENERGY SECTOR PERFORMANCE AGAINST TARGETS

Indicator	Base /Current Performance (Year)	National Target	National Target (Proposed by CARICOM – CSERMS Report)[5]
RE as % of Installed Capacity	<0.1 % [4]	30 % by 2030[4]	55% by 2027
*Energy Intensity (BTU/US$1 Unit of output)			

Indicative RE Oil Displacement[6] Potential Annually**

- *1 MW wind displaces 1,760 barrels of oil equivalent (BOE)*
- *1 MW hydro displaces 3,300 BOE*
- *1 MW solar displaces 1,210 BOE*

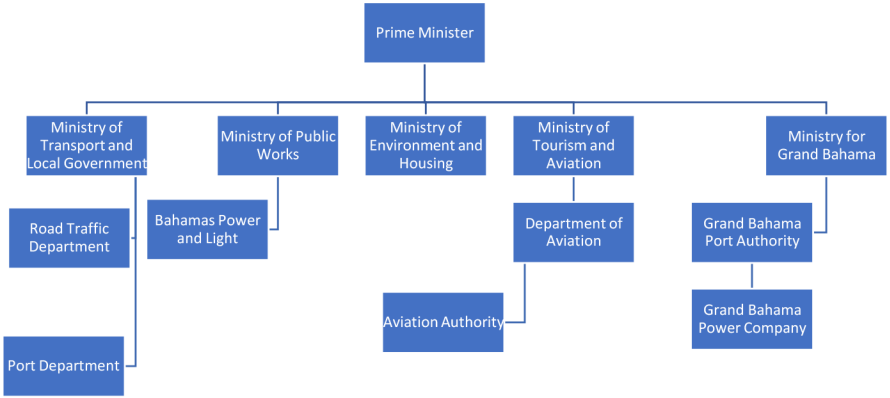
Energy Intensity (EI)[7]:

- *EI measures how energy benefits the economy and is calculated by taking the ratio of total primary energy use (all of the fuels and flows that a country uses to get energy) to GDP (the total money made in a country). EI indicates how effectively an economy uses their fuels and flows.*

*The energy efficiency target for CARICOM is 33% reduction in energy intensity by 2027, compared to a reference of Average Annual Energy Intensity of ~13,000 BTU per USD of GDP in 2015.

**Based on capacity factors of 0.32 for wind. 0.6 for hydro and 0.22 for solar.-[6]

KEY ENERGY SECTOR STAKEHOLDERS



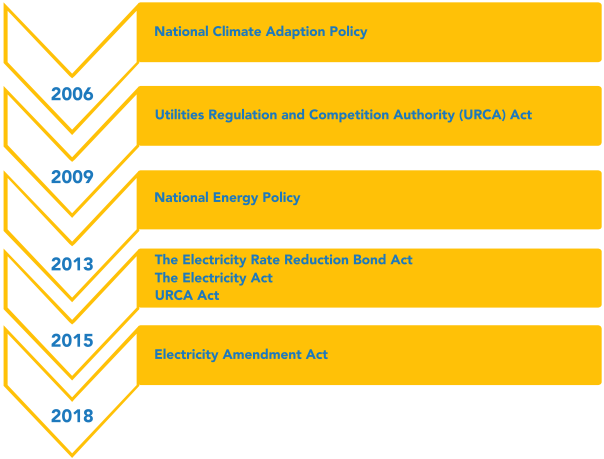
POLICY, LEGAL AND REGULATORY FRAMEWORK

Electricity Sector : Policy, Legal and Regulatory (PLR) Framework

✓ Energy Policy and Energy Action Plan	●
✓ RE Target	●
✓ EE Target	
✓ Electricity Regulator	●
× Net billing/Net metering	
× Interconnection Policy/Standards	
× Feed-in-tariff	
× RE/EE Act	

● Completed/ In place ● In progress/ Draft ● Not yet started/ Not established

Key Achievements: PLR Framework Timeline for the Electricity Sector



POLICY, LEGAL AND REGULATORY FRAMEWORK

Policies and Legislation Relevant to the Transportation Sector	
Policies	• National Energy Policy, 2013-2033
Legislation & Regulation	• Petroleum Regulations • Liquefied Petroleum Gas Regulations • Civil Aviation (Air Navigation) Regulations

ELECTRICITY AND ENERGY EFFICIENCY

KEY DATA & INFORMATION	
1. Fuel Consumption – Electricity Subsector (BOE)	390 382 657[11]
2. Installed Conventional Capacity – Electric Utility (MW)	536[4]
3. Installed Conventional Capacity – IPPs (MW)	0
4. Base Load (MW)	98 (Grand Bahama); 100 (New Providence) [12]
5. System Peak Demand (MW)	248 MW (Bahamas Power and Light); 68.3 MW (Grand Bahama Power Company) [12]
6. Total Generation (MWh)	1,641 GWh (BPL); 289 GWh (GBPC) (2015)[4]
7. Total Sales (MWh)	1 567 227[12]
8. Total Number of Customers	100 000 (New Providence and Family Islands); 19,5 00 (Grand Bahama)[12]
TARIFFS	
9. Residential Tariff (US$/kWh)	0.316 [4]
10. Commercial (US$/kWh)	0.374 [4]
11. Industrial/Large Power (US$/kWh)	
12. Street Lights (US$/kWh)	N/A
EFFICIENCY	
13. EE Target	
14. Electricity System Losses (%)	13 % [12]
15. Energy Use (kWh) Per Capita	5 849 [12]
16. EE Initiative and Impact	**Street Light Retrofitting**: Projected savings: US$ 3 million/year[13]

RE Resource	Installed Capacity (MW)
Wind	0
Solar	1.2 [12]
Hydro	0
Geothermal	0
Biomass/ WTE	0
Total	1.2

RE as % of installed Power Capacity = < 0.1

RE Resource Potentials	Potential Capacity (MW)[4]
Wind	200
Solar PV	60
Hydro	
Geothermal	
Biomass/ WTE	1
Total	261

PROJECTS IN THE PIPELINE

Renewable Energy Source	Resource & Project Capacity	Development Partner	Funding Source	Total Estimated Cost	Financing Options
Solar Photo-Voltaic	925kW	United Arab Emirates Government	United Arab Emirates (UAE)-Caribbean Renewable Energy Fund (CREF)		

Source:

The Tribune (Bahamas – 2019)

http://www.tribune242.com/news/2019/mar/19/4m-solar-car-park-opens-stadium/

Donor Organisation & Banks	Technical Assistance providers	Funding awards	Year
Caribbean Development Bank and European Investment Bank	Climate Action Line of Credit	US$14.5 million	2018
Inter-American Development Bank	Infrastructure and Energy Sector	US$450,000	2018
Inter-American Development Bank	Infrastructure and Energy Sector	US$15,056	2017

Source:

The Caribbean Development Bank (2018)

The Inter-American Development Bank (2018)

NUMBER OF PERSONS EMPLOYED IN THE ENERGY SECTOR

NAME OF ENTITY	PRIVATE OR PUBLIC?	NUMBER OF PERSONS EMPLOYED	BREAKDOWN BY GENDER	
Grand Bahama Power Company	Private	200	Females: 70	Males: 130
Utilities Regulation & Competition Authority	Public	3	Females: 0	Males: 3
Organization of Caribbean Utility Regulators	Regional Non-Profit	1	Females: 1	Males: 0

*This may not be an exhaustive list

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[9]Ministry of Finance, Department of Statistics, Quantity and Value of Imports into the Bahamas (2018)

[10]Grand Bahama Power Company; Bahamas Power and Light (2018)

[11]Caribbean Development Bank (2018)
https://www.caribank.org/newsroom/news-and-events/cdb-approves-financing-street-light-retrofitting-project-bahamas

[12]Scan Assessment of the Capacity Requirements for Sustainable Energy Development for CARICOM Countries (Professor Dr. Olav Hohmeyer, International Energy Consulting) (2019)