



2020 ENERGY REPORT CARD

ST KITTS & NEVIS



CCREEE

CARIBBEAN CENTRE FOR RENEWABLE ENERGY & ENERGY EFFICIENCY

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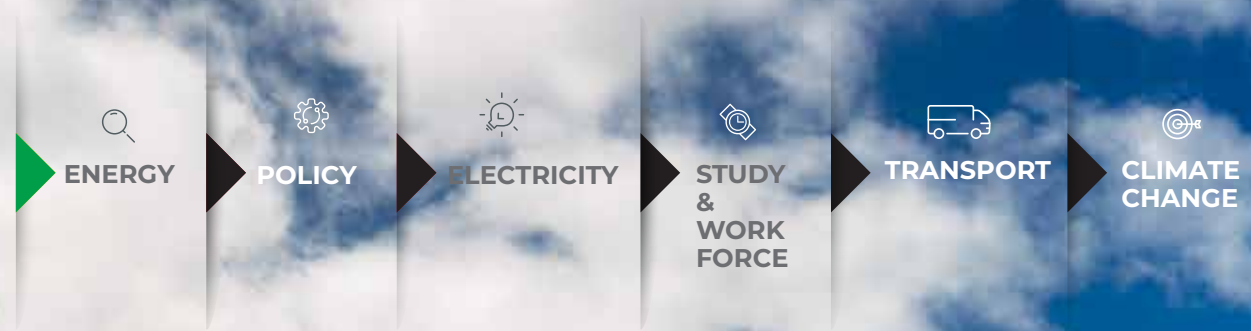
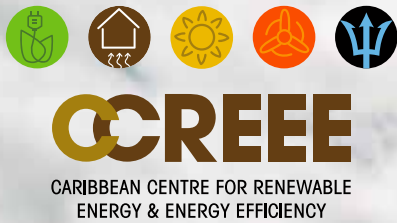


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2020 ENERGY REPORT CARD

INTRODUCTION

This document presents St. Kitts and Nevis' Energy Report Card (ERC) for 2020. The ERC provides an overview of the energy sector performance in St. Kitts and Nevis. The ERC also includes energy efficiency, 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, utilities, and statistical offices. The data collected was supplemented by internet research, author calculations and inferences. This data is a collection from a variety of public sources and, as such, is for general information only. It is not intended for decision-making purposes, and therefore reliance placed on the information herein is strictly at the user's risk.

ENERGY SECTOR SUMMARY

ENERGY

POLICY

ELECTRICITY

STUDY
&
WORK
FORCE

TRANSPORT

CLIMATE
CHANGE

National
Development
Plan
Medium-Term
Debt Management
Strategy
2013-2015
[5]

Population
(Estimation)
53,192
[1]

National
Energy Policy
The Power to Change:
Montserrat Energy
Policy 2016-
2030
[3]

RE Target
**100% by
2020**
[7]

Renewable
Energy (RE)
Policy
Renewable
Energy Infusion
Study (2014)
[7]

GDP (USD)
Per Capita
17,435.90
[2]

Human
Development
Index
0.779
[4]

Climate
Change Policy
St. Kitts and Nevis
National Climate
Change Policy
2017
[10]

Energy
Performance
Standards/
Appliance
Labelling
None

National
Repository for
Energy Data
None

Debt as
% of GDP
64.56%
[3]

No. of Persons
Employed in
Energy Sector
316

Total Oil
Import (BOE)
per day
**Not
Available**

National
Determined
Contributions
(NDC)
22% GHG reduction by 2025,
35% GHG reduction by 2030
as of 2015 both versus
modelled business
as usual
scenario
[11]

Total
Installed
Conventional
Capacity (MW)
65.90

Total
Installed
RE (MW)
2.7
[8] [9]

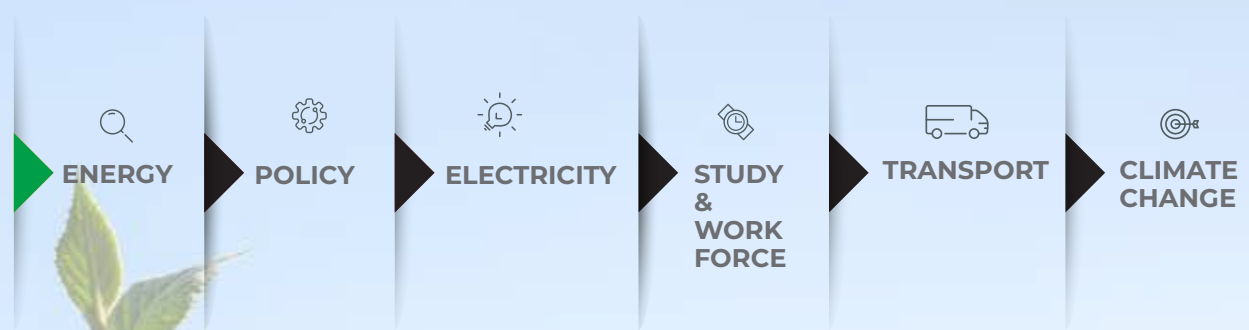
Electricity
System
Losses (%)
6.44%
[8] [9]

Energy Use
(kWh) Per
Capita
1,104.47
[8] [9]

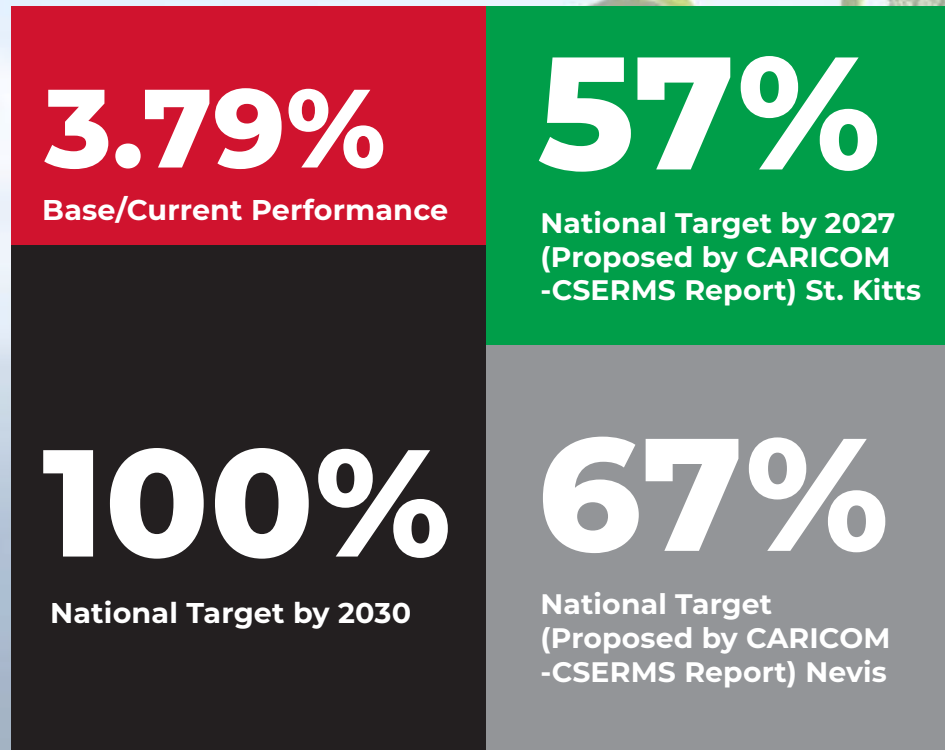
Total Oil
Export (BOE)
per day
**Not
Available**

Energy
Intensity
(BTU/\$)
**Not
Available**

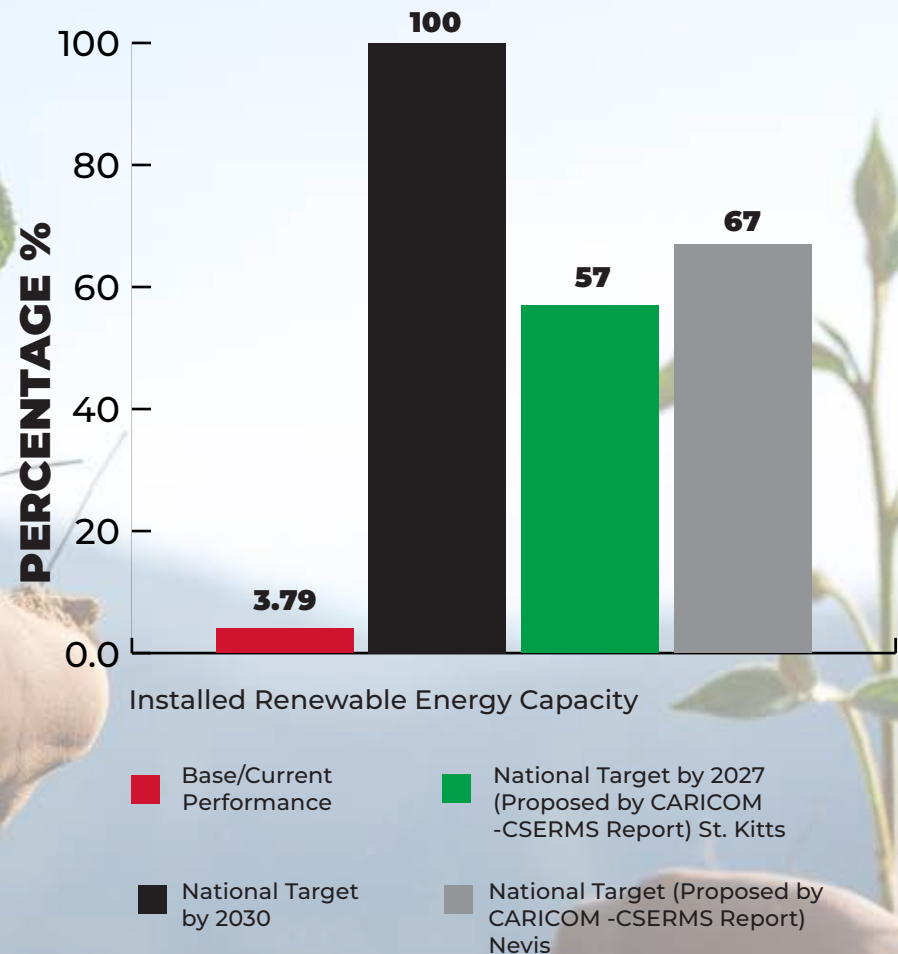
Electric
Vehicle Stock
**Not
Available**



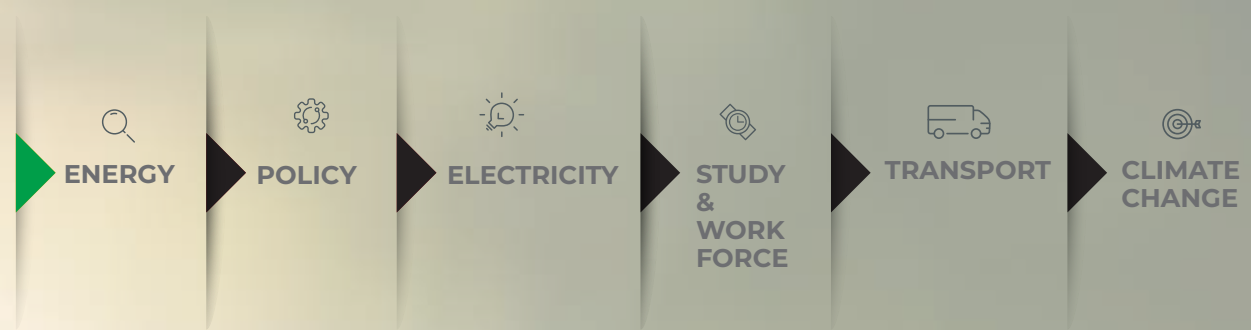
RENEWABLE ENERGY PERFORMANCE AGAINST TARGETS



RENEWABLE ENERGY PERFORMANCE AGAINST TARGETS



KEY ENERGY STAKEHOLDERS



Government Ministries, Departments and Agencies	<p>Ministry of Public Infrastructure, Utilities, Posts, and Urban Development</p> <p>Department of Environment, Ministry of Agriculture, Marine Resources, Cooperatives, Environment and Human Settlements</p>	Independent Power Producer	<p>None</p>
Fuel Suppliers	<p>SOL EC Limited</p> <p>Delta Petroleum</p>	Electricity Regulator	<p>None</p>
Electric Utility	<p>St. Kitts Electricity Company Ltd. (SKELEC)</p> <p>Nevis Electricity Company Ltd. (NEVLEC)</p>	Transportation	<p>Ministry of Tourism, Transport and Ports</p>
		Other	<p>Ministry of Sustainable Development</p> <p>Ministry of Environment and Cooperatives</p>

POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK

ENERGY

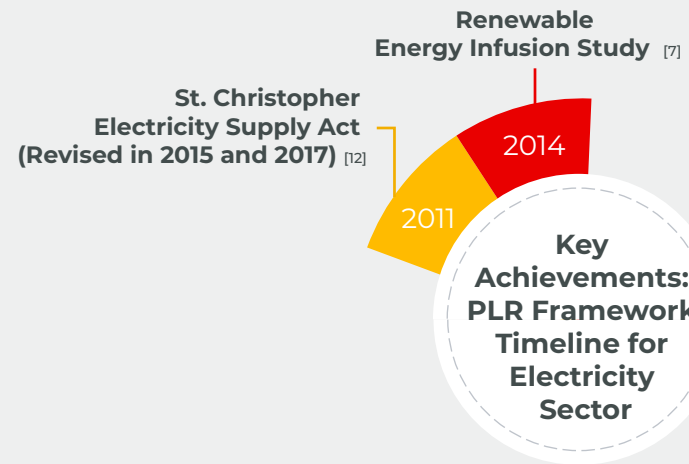
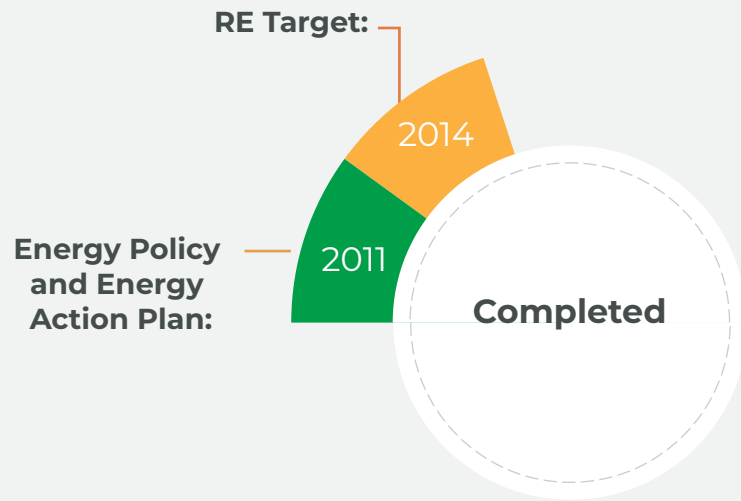
POLICY

ELECTRICITY

STUDY & WORK FORCE

TRANSPORT

CLIMATE CHANGE



POLICIES AND LEGISLATION RELEVANT TO THE ENERGY SECTOR

Nevis Geothermal Resources Development Ordinance, 2009 [14]

St. Kitts and Nevis National Energy Policy 2011 [13]

LEGISLATION

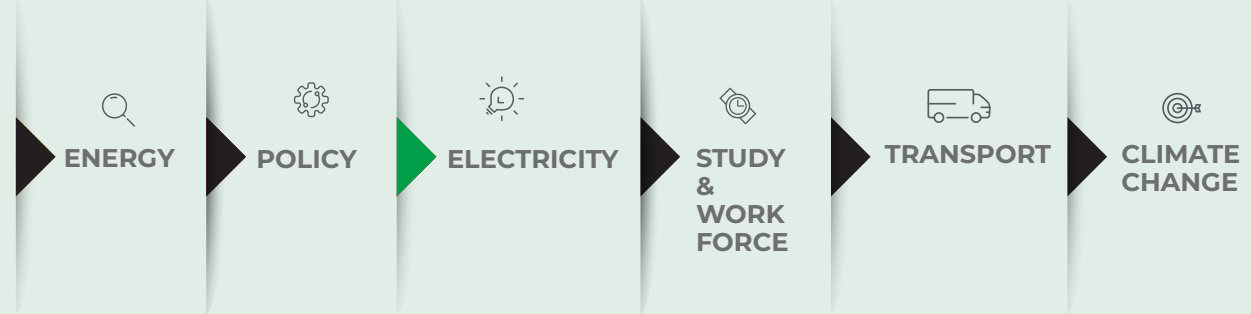
POLICY

2009

2011

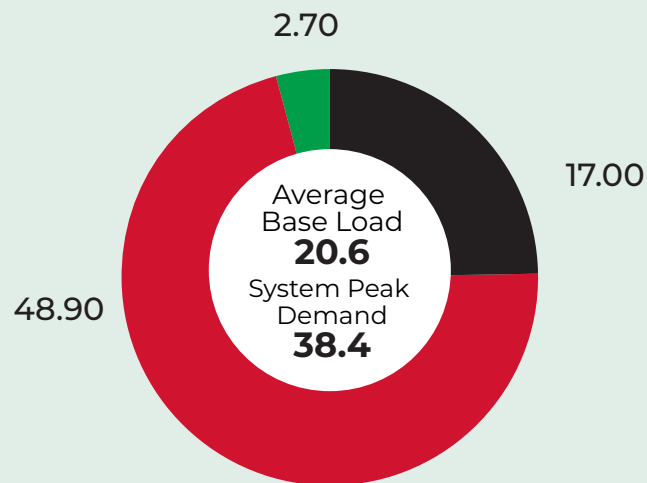
Policies and Legislation Relevant to the Transportation Sector
No data was provided for transportation sector for 2020.

ELECTRICITY & ENERGY EFFICIENCY

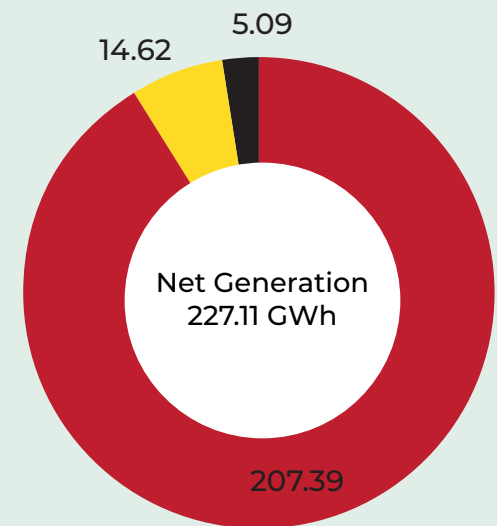


INSTALLED CAPACITY (MW)

ENERGY CONSUMPTION (GWh)



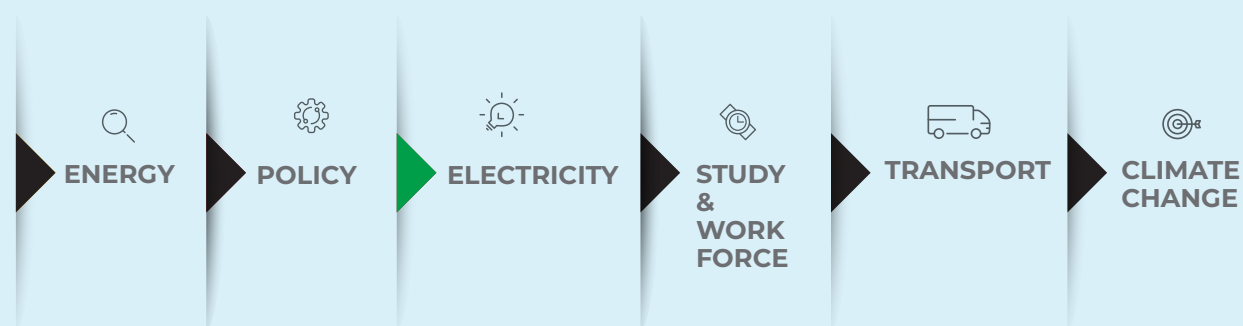
- Installed Conventional Capacity - Electric Utility (MW) HFO
- Installed Conventional Capacity - Electric Utility (MW) DIESEL
- Total Installed RE Capacity (MW)



- Total Sales
- Loses
- Parasitic Load

**THERE IS ALSO 188.12MW OF
DISTRIBUTED RE ACCOUNTING FOR 17%**

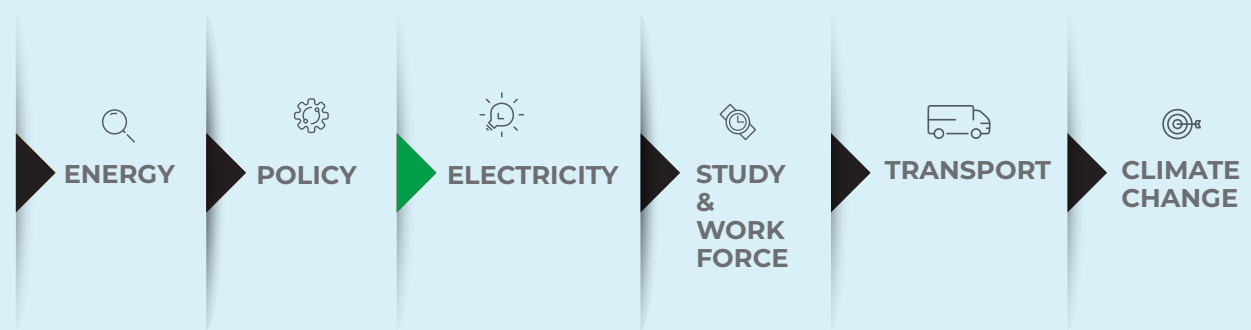
ELECTRICITY & ENERGY EFFICIENCY



ELECTRICITY TARIFFS (SKELEC)

RATE CLASS	MONTHLY CONSUMPTION / DEMAND (kWh)	TARIFF / (US\$/kWh)	US\$/kVA
GENERAL SERVICES	Application for all services and temporary supplies	0.34 (PER UNIT) 4.07 (MINIMUM TOTAL)	
RESIDENTIAL	First 50 Units	0.22	
	Next 100 units	0.24	
	All units exceeding 150 units	0.25	
	Demand Charge: For 15 Amps of fuse rating or part thereof of fuse protecting service		4.8
INDUSTRIAL AND COMMERCIAL	First 50 Units	0.30	
	For next 75 units	0.28	
	For next 125 Units	0.27	
	All units exceeding 250	0.24	
	Demand Charge: Every kVA of demand or part thereof		5.56

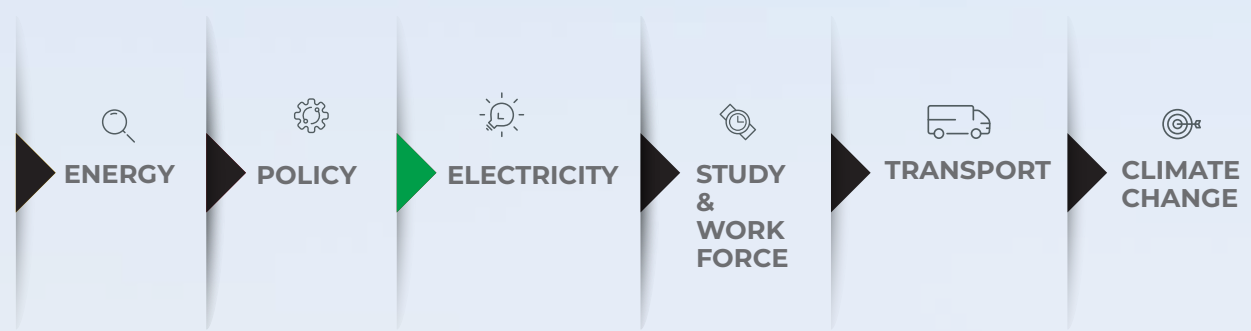
ELECTRICITY & ENERGY EFFICIENCY



ELECTRICITY TARIFFS (NEVLEC)

RATE CLASS	MONTHLY CONSUMPTION / DEMAND (kWh)	TARIFF / (US\$/kWh)
RESIDENTIAL	For first 50 units \$0.188/unit	0.07
	For the next 75 units \$0.181/unit (for those units only)	0.07
	For above 125 units \$0.173/unit (for those units only)	0.06
COMMERCIAL	For the first 50 units \$0.191/unit	0.07
	For the next 75 units \$0.184/unit	0.07
	For the next 125 units \$0.177/unit	0.07
	For the remaining units \$0.162/unit	0.06

PROJECTS IN THE PIPELINE



TECHNICAL ASSISTANCE PROJECTS

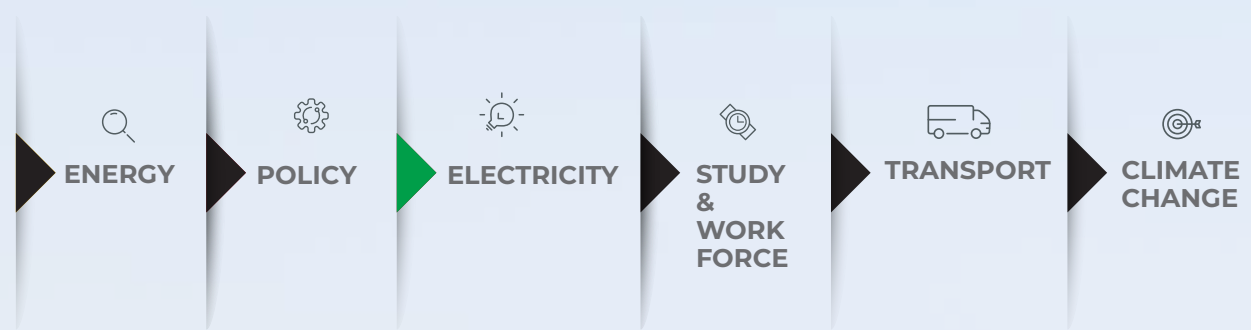
ENERGY EFFICIENCY PROJECTS

DONOR FUNDING AND TECHNICAL ASSISTANCE LANDSCAPE	DONOR ORGANIZATION & BANKS
GRANTS AND LOANS	CARIBBEAN DEVELOPMENT BANK
GRANTS	UNITED ARAB EMIRATES

ENERGY EFFICIENCY INITIATIVE	CONSUMPTION (kWh) ASK IF ESTIMATED OR MEASURED	ENERGY EFFICIENCY LEGISLATION OR REGULATIONS	ENERGY SERVICE COMPANIES (YES/NO)	CHANGE IN OLD/EXISTING INFRASTRUCTURE EXPECTED IN UPCOMING CALENDAR YEAR (NUMBER/SIZE)
STREET LIGHTING		9867476		8900
PUBLIC BUILDINGS	CREEBC	YES		NOT AVAILABLE

The CARICOM Regional Energy Efficiency Building Code (CREEBC) is recommended but not mandatory in St. Kitts and Nevis.

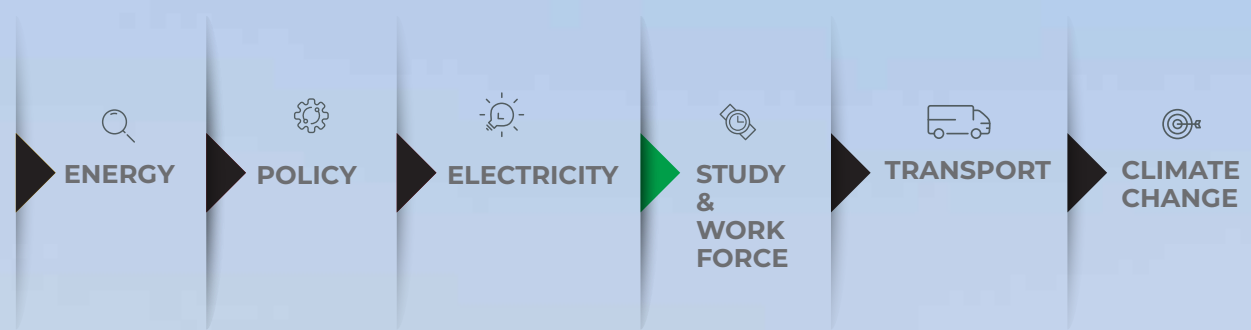
PROJECTS IN THE PIPELINE



RENEWABLE ENERGY PROJECTS

RENEWABLE ENERGY SOURCE	RESOURCE AND PROJECTS CAPACITY	DEVELOPMENT PARTNER	TOTAL ESTIMATED COST	FUNDING SOURCE
SOLAR PHOTO-VOLTAIC	35 MWh WITH 44 MWh STORAGE	LECLANCHÉ SA	US\$70 MILLION	IPP
WIND ENERGY	6.6MW	LECLANCHÉ SA	UNAVAILABLE	IPP
GEOHERMAL ENERGY	30 MW (NEVIS) 15 - 20 MW (ST. KITTS)	NEVIS RENEWABLE ENERGY INTERNATIONAL (NEVIS) TERANOV (ST. KITTS)	UNAVAILABLE	IPP (NEVIS) COMBINATION OF GRANTS, LOANS AND EQUITY (ST. KITTS)
OTHER (DESALINATION PLANT - SOLAR)	75 KW	MASDAR	UNAVAILABLE	GRANT

TERTIARY PROGRAMMES OFFERED



CLARENCE FITZROY BRYANT COLLEGE

ASSOCIATE DEGREE

ELECTRICAL &
ELECTRONIC
ENGINEERING
TECHNOLOGY

**PERSONS
ENROLLED**

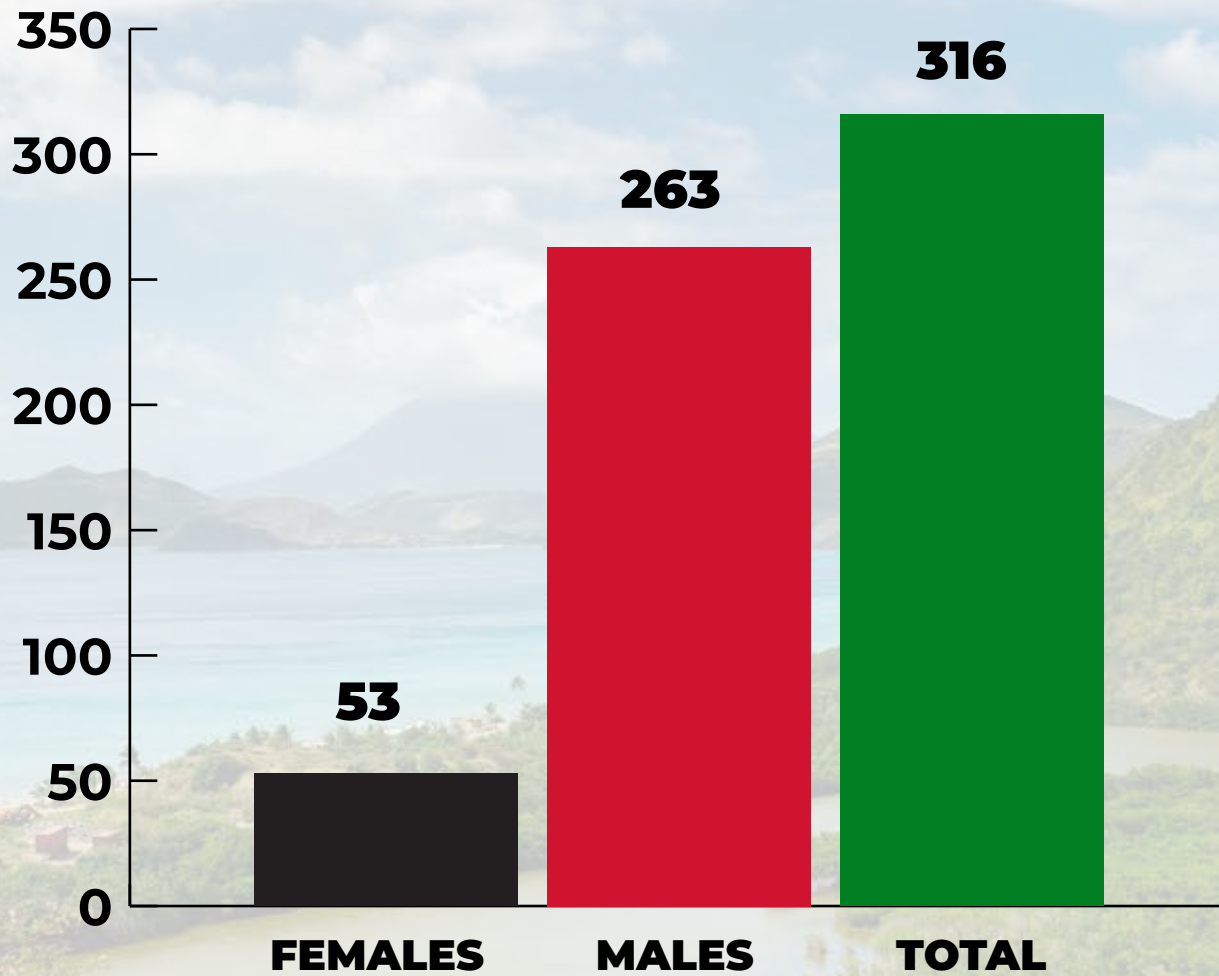
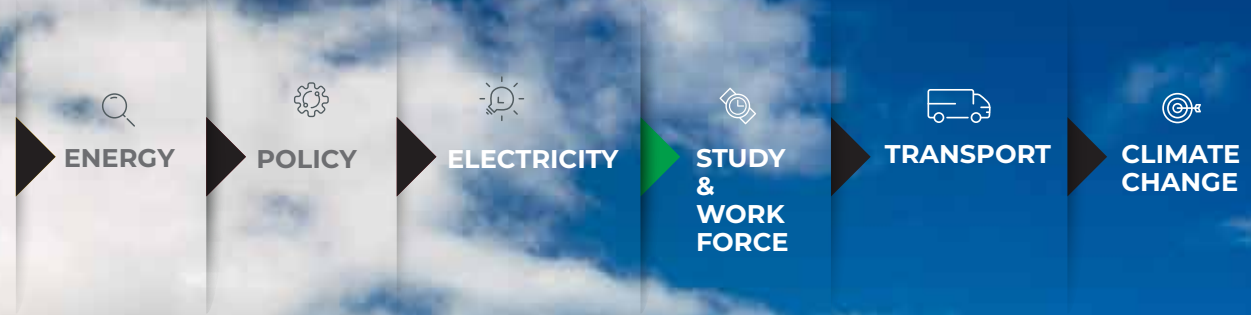
92

**PERSONS
GRADUATED**

67

<https://cfbc.edu.kn/electrical-electronics-engineering-technology/>

WORKFORCE ²

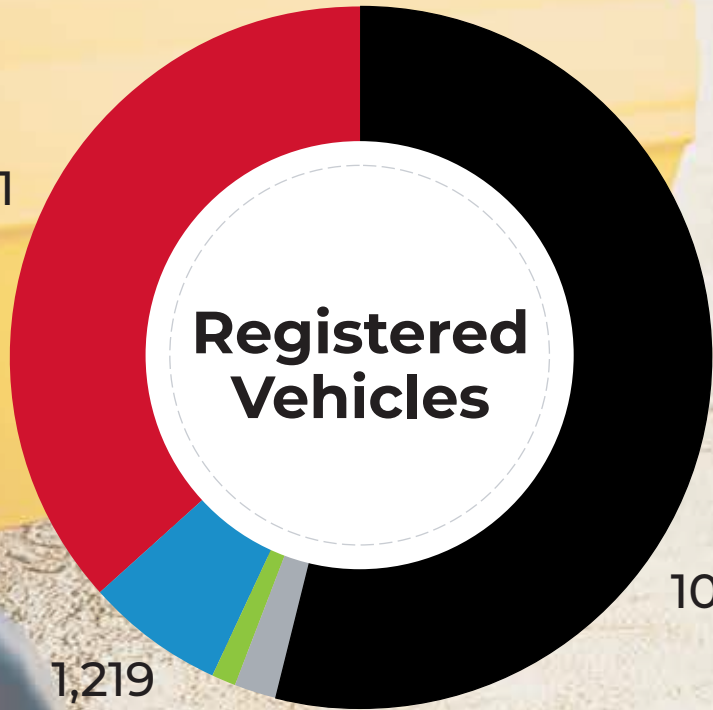


² THIS NUMBER REFLECTS THE TWO ELECTRIC UTILITIES.

TRANSPORTATION SECTOR

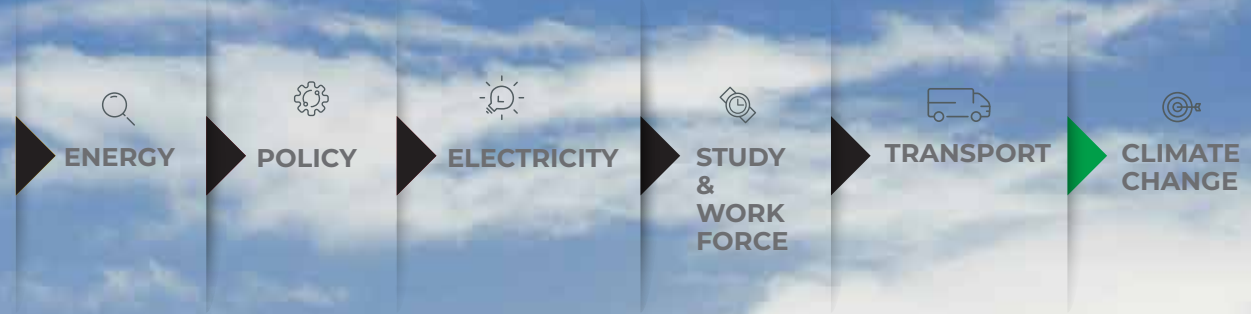


REGISTERED VEHICLES



- Buses
- Motorcycles
- SUV's
- Cars
- Trucks

CLIMATE CHANGE FRAMEWORK



ST. KITTS AND NEVIS NATIONAL CLIMATE CHANGE POLICY 2017 ^[10]

NATIONAL DETERMINED CONTRIBUTIONS:

22% GHG reduction by 2025, 35% GHG reduction by 2030 as of 2015 [11]

EMISSIONS REDUCTION TARGET:

22% GHG reduction by 2025, 35% GHG reduction by 2030 as of 2015 [11]

PRIORITY SECTORS FOR NDCs

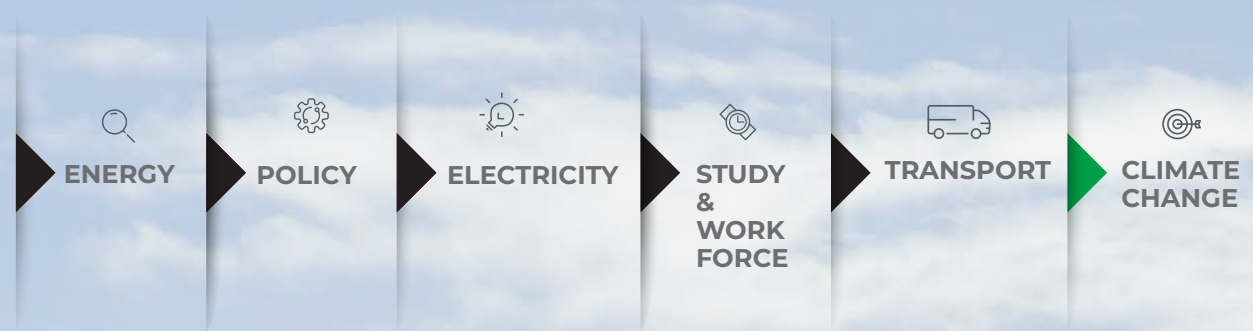
Transport and Electricity [11]

NATIONAL COMMUNICATIONS (NC) TO THE UNFCCC:

First National Communication (2011) [15]

Second National Communication (2016) [16]

CLIMATE CHANGE FRAMEWORK [16]

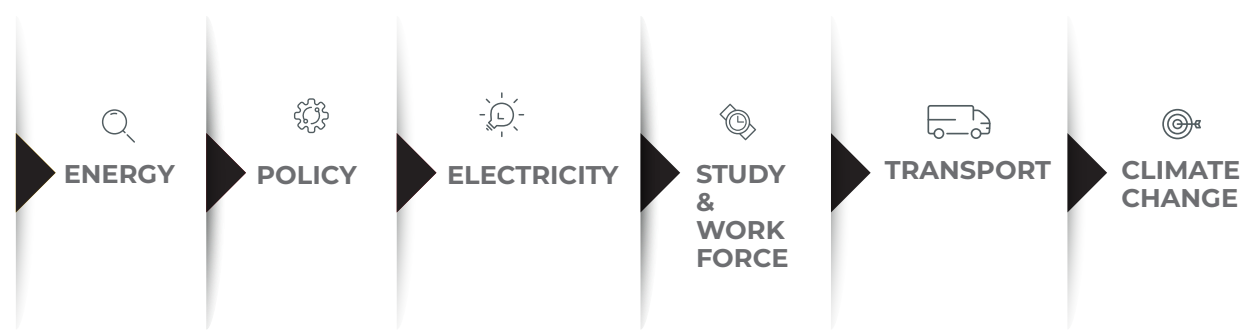


SUMMARY OF ST.KITTS AND NEVIS GHG EMISSIONS [12]

EMISSIONS (Gg* CO ₂ EQUIVALENT)						
CATEGORIES	NET CO ₂	CH ₄	N ₂ O	NO _x	CO	NMVOCS
ENERGY	~250					
AGRICULTURE / FORESTRY / FISHING		>500	>500	>500	~1250	

Gg represents giga grams*

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[1] "Population, total- St. Kitts and Nevis," The World Bank Group, 2021. [Online]. Available: https://data.worldbank.org/indicator/SP.POP.TOTL?end=2020&locations=KN&name_desc=false&start=1960. [Accessed 1 July 2021].

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[3] "St.Kitts and Nevis: national debt in relation to gross domestic product (GDP) from 2016 to 2026," 2021. [Online]. Available: <https://www.statista.com/statistics/731507/national-debt-of-st-kitts-and-nevis-in-relation-to-gross-domestic-product-gdp/>. [Accessed 1 July 2021].

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[5] "Medium-Term Debt Management Strategy 2013-2015," December 2012. [Online]. Available: http://www.caribbeanelections.com/eDocs/strategy/kn_strategy/kn_Debt_Management_Strategy_2013_2015.pdf. [Accessed 10 November 2021].

[6] D. Frank, Interviewee, Energy Officer, Ministry of Public Infrastructure, Utilities, Posts, and Urban Development. [Interview]. 2021.

[7] B. Browne, Interviewee, Energy Unit, Ministry of Infrastructure, Post, Urban Development and Transport, St Kitts and Nevis. [Interview]. 10 6 2021.

[8] K. Bennett, Interviewee, Power Generation Manager, SKELEC. [Interview]. 2021.

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[13] Ministry of Public Works, Utilities, Energy and Housing of the Federal Government of St Kitts and Nevis, "National Energy Policy St Kitts and Nevis," 2011. [Online]. Available: <http://www.oas.org/en/sedi/dsd/Energy/Doc/NationalEnergyPolicyStKittsandNevis.pdf>. [Accessed 9 6 2021].

[14] The Government of ST Kitts and Nevis, "Chapter 5.03 Nevis Geothermal Resources Development Ordinance Last Revised 20019," 2009. [Online]. Available: https://aglcskn.info/wp-content/documents/Ord02and09TOC/Ch-05_03N-Nevis-Geothermal-Resources-Development-Ord.pdf. [Accessed 18 6 2021].

[15] "St Kitts-Nevis Initial National Communication," The Government of St Kitts and Nevis, [Online]. Available: <https://unfccc.int/resource/docs/natc/kitnc1.pdf>. [Accessed 13 July 2021].

[16] Droiterre Inc. and Associates, "The Second National Communication Report of St. Christopher & Nevis," October 2015. [Online]. Available: <https://unfccc.int/sites/default/files/resource/Knanc2.pdf>. [Accessed 13 July 2021].