



2020 ENERGY REPORT CARD

CARICOM



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CARIBBEAN CENTRE FOR RENEWABLE
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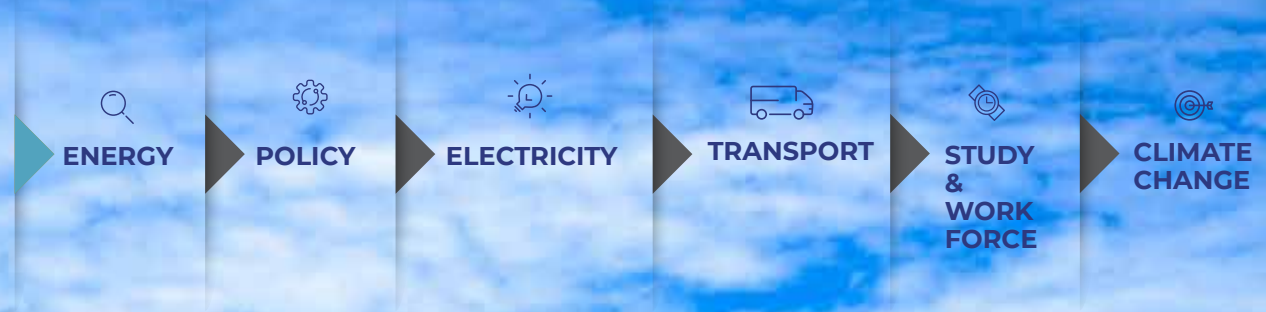
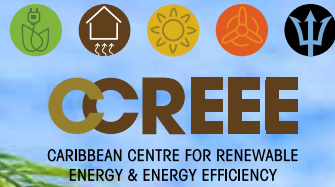


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2020 ENERGY REPORT CARD

INTRODUCTION

This document presents CARICOM's Energy Report Card (ERC) for 2020. The ERC provides an overview of the energy sector performance in CARICOM. 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.

November 2021

KEY SOCIOECONOMIC DATA

ENERGY

POLICY

ELECTRICITY

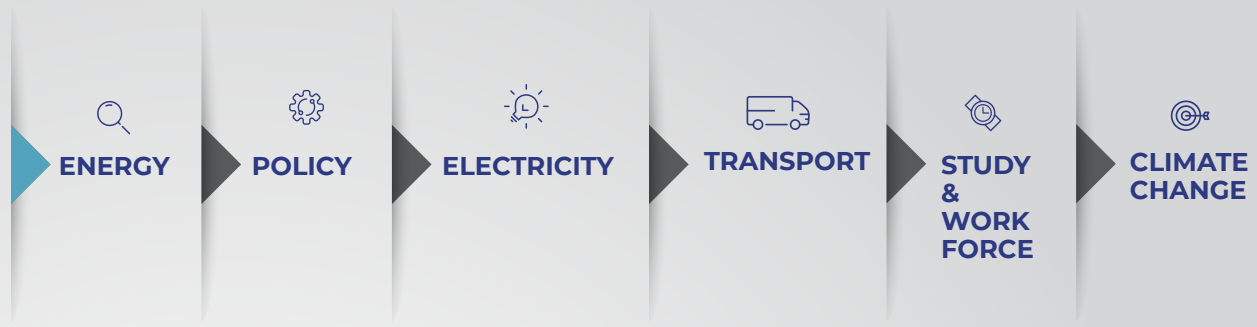
TRANSPORT

STUDY & WORK FORCE

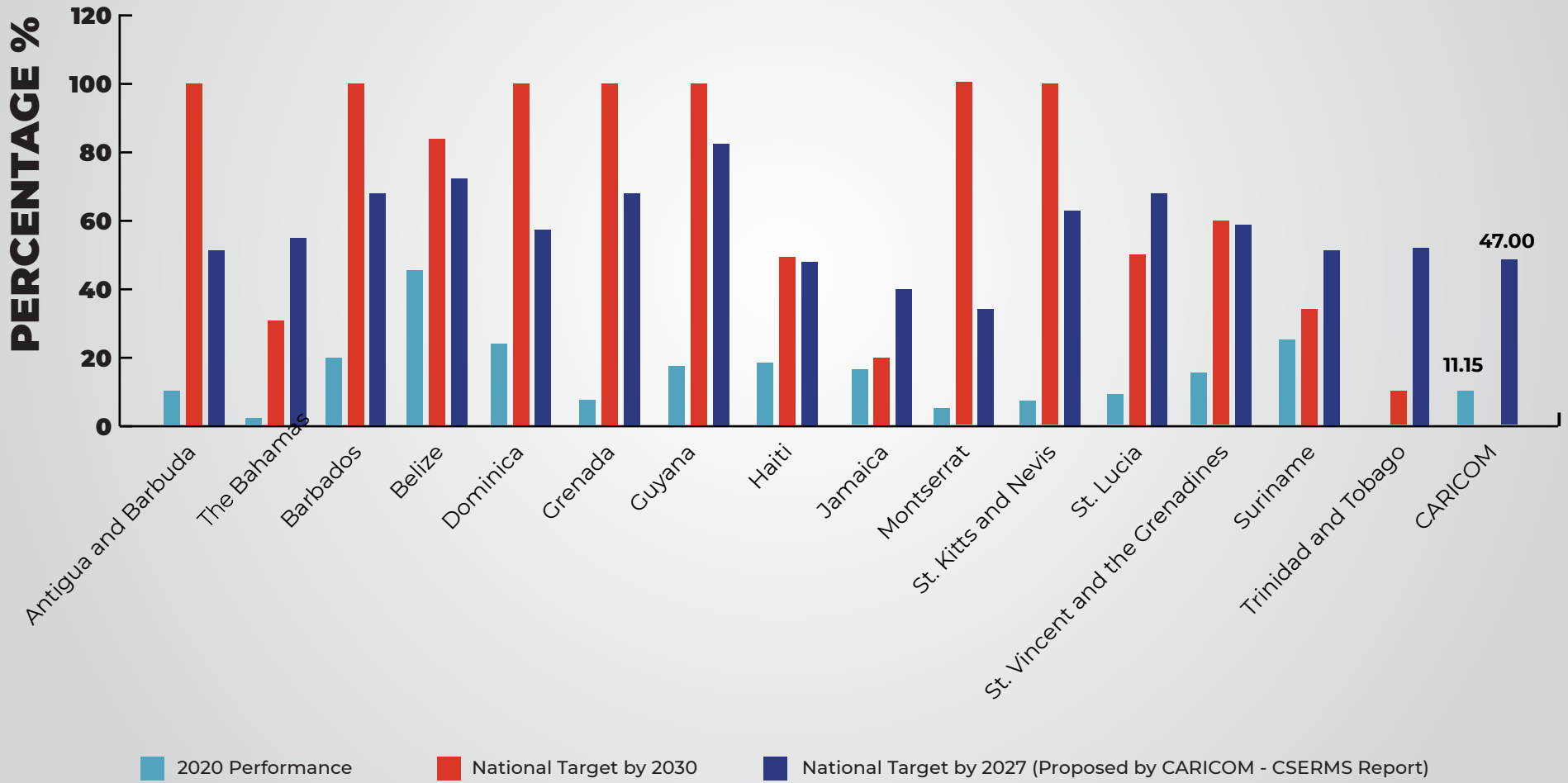
CLIMATE CHANGE

	POPULATION	GDP PER CAPITA (\$US)	DEBT AS % OF GDP	HUMAN DEVELOPMENT INDEX
ANTIGUA AND BARBUDA	97,928	\$14,450.00	103%	0.778
THE BAHAMAS	393,244	\$28,607.90	96%	0.814
BARBADOS	287,375	15,191.16	144%	0.814
BELIZE	419,199	\$4,023.93	85%	0.716
DOMINICA	71,991	\$6,526.79	97%	0.742
GRENADA	112,519	\$8,152.71	68%	0.779
GUYANA	787,000	\$6,955.90	47%	0.682
HAITI	11,402,533	\$1,176.76	54%	0.51
JAMAICA	2,961,167	\$4,664.50	91%	0.734
MONTSERRAT	4,626	\$14,079.04	6%	NOT AVAILABLE
ST. KITTS AND NEVIS	53,192	\$17,435.90	65%	0.779
ST. LUCIA	181,192	\$8,923.00	87%	0.759
ST. VINCENT AND THE GRENADINES	110,940	\$7,457.51	87%	0.738
SURINAME	590,000	\$6,491.14	111%	0.738
TRINIDAD AND TOBAGO	1,366,725	\$105,248.32	81%	0.796

ENERGY SECTOR PERFORMANCE AGAINST TARGETS

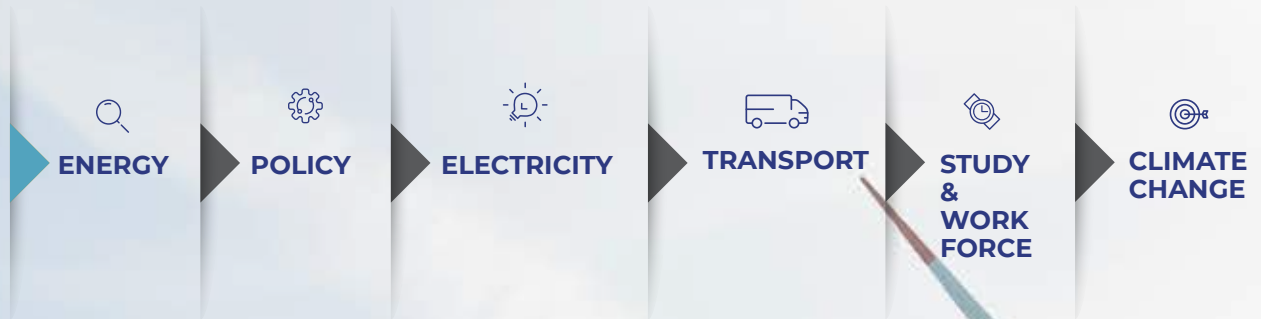


RENEWABLE ENERGY PERFORMANCE AGAINST TARGETS



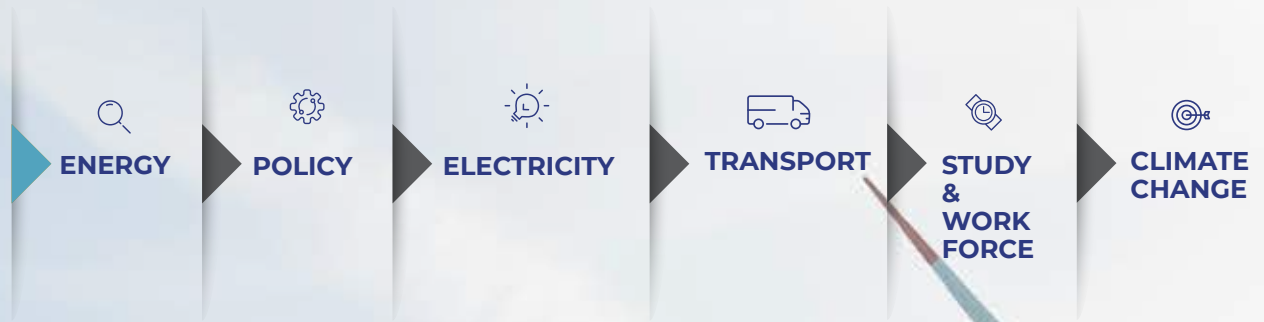
¹Trinidad and Tobago and St. Vincent and the Grenadines have national target dates of 2021

KEY ENERGY STAKEHOLDERS



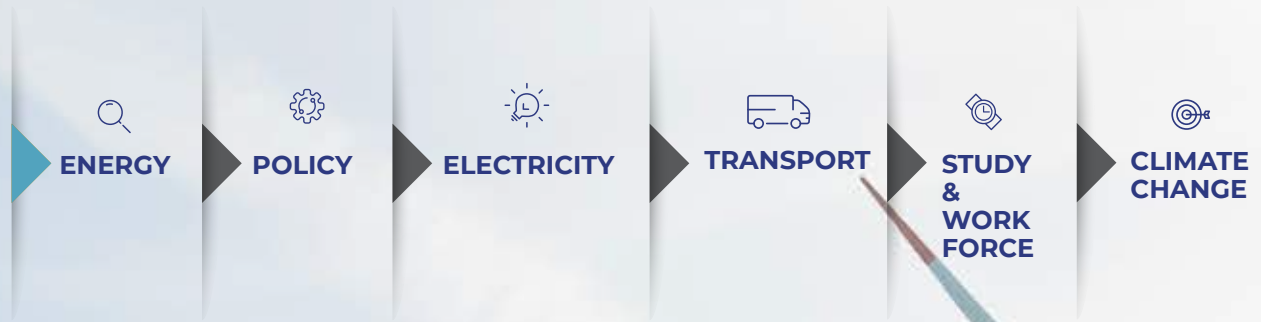
	ENERGY MINISTRY	CLIMATE CHANGE MINISTRY	ELECTRIC UTILITY	ELECTRICITY REGULATOR
ANTIGUA AND BARBUDA	Ministry of Public Utilities, Civil Aviation, Transport and Energy	Ministry of Health, Wellness and the Environment - Department of Environment	Antigua Public Utilities Authority (APUA)	Antigua Public Utilities Authority (APUA)
THE BAHAMAS	Ministry of Environment and Housing	Ministry of Environment and Housing: Department of Environmental Protection and Planning	Grand Bahama Power Company Bahamas Power and Light	Utility Regulation Competition Authority (URCA) Bahamas
BARBADOS	Ministry of Energy, Small Business and Entrepreneurship	Ministry of Environment and National Beautification: Environmental Protection Department	Barbados Light and Power Company Limited	Fair Trading Commission
BELIZE	Ministry of Public Utilities, Energy and Logistics	Ministry of Sustainable Development Climate Change & Disaster Risk Management	Belize Electricity Limited (BEL)	Public Utilities Commission (PUC)
DOMINICA	Ministry of Blue and Green Economy, Agriculture and National Food Security - Energy Unit/ Renewable Energy Programme	Ministry of Economic Affairs, Planning, Resilience and Sustainable Development Telecoms and Broadcasting	Dominica Electricity Services Limited (DOMLEC) Dominica Geothermal Development Company	Independent Regulatory Commission
GRENADA	Ministry of Infrastructure Development, Public Utilities, Transport & Implementation	Ministry of Climate Resilience, The Environment, Forestry, Fisheries & Disaster Management	Grenada Electricity Services Limited	Public Utilities Regulatory Commission

KEY ENERGY STAKEHOLDERS



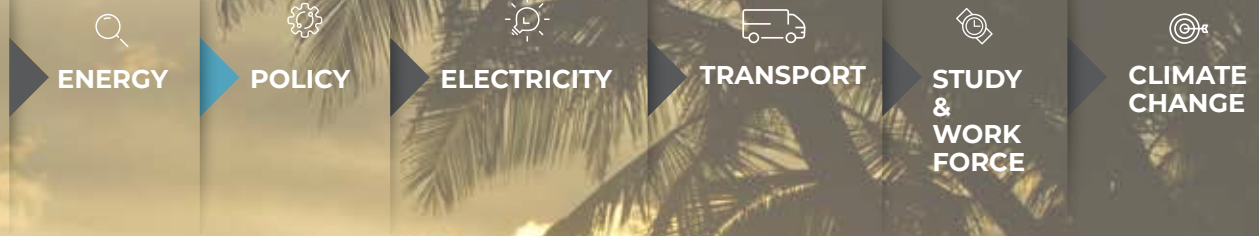
	ENERGY MINISTRY	CLIMATE CHANGE MINISTRY	ELECTRIC UTILITY	ELECTRICITY REGULATOR
GUYANA	Guyana Energy Agency	Office of the President: Department of Environment	Hinterland Electrification Company Inc. (HECI)	Public Utilities Commission
HAITI	Bureau des mines et de l'energie (BME) (Bureau of Mines and Energy)	Ministry of Environment	Electricité d'Haiti (EDH) (Electricity of Haiti)	Autorité Nationale de Régulation du Secteur de l'Energie (ANARSE) (National Regulatory Authority for the Energy Sector)
JAMAICA	Ministry of Science Energy and Technology	Ministry of Housing, Urban Renewal, Environment and Climate Change	Jamaica Public Service Company (JPSCo.)	Office of Utilities Regulation
MONTSERRAT	Ministry of Communications, Work, Energy and Labour (MCWEL)	Ministry of Agriculture, Lands, Housing and the Environment (MALHE)	Montserrat Utilities Limited (MUL)	N/A
ST. KITTS AND NEVIS	Ministry of Public Infrastructure, Utilities, Posts, and Urban Development	Department of Environment	St. Kitts Electricity Company Ltd. (SKELEC) Nevis Electricity Company Ltd. (NEVLEC)	N/A

KEY ENERGY STAKEHOLDERS



	ENERGY MINISTRY	CLIMATE CHANGE MINISTRY	ELECTRIC UTILITY	ELECTRICITY REGULATOR
ST. LUCIA	Ministry of Infrastructure, Ports, Energy and Labour	Ministry of Education, Innovation, Gender Relations and Sustainable Development - Department of Sustainable Development and Environment	Saint Lucia Electricity Services Limited (LUCELEC)	National Utilities Regulatory Commission (NURC)
ST. VINCENT AND THE GRENADINES	Ministry of Urban development, Energy, Airport, and Sea Port, Grenadines Affairs, and Local Government	Ministry of Health Wellness and the Environment: Conservation and Sustainable Development Unit	St. Vincent and the Grenadines Electricity Services Ltd. (VINLEC)	Cabinet of the Government of St. Vincent and the Grenadines and VINLEC self regulates
SURINAME	Ministry of Natural Resources	Ministry of Spatial Planning and Environment	N.V. Energiebedrijven Suriname (State Enterprise)	Suriname Energy Authority (Energie Autoriteit Suriname - EAS)
TRINIDAD AND TOBAGO	Ministry of Energy and Energy Industries	Ministry of Planning and Development	Trinidad and Tobago Electricity Commission	Regulated Industries Commission

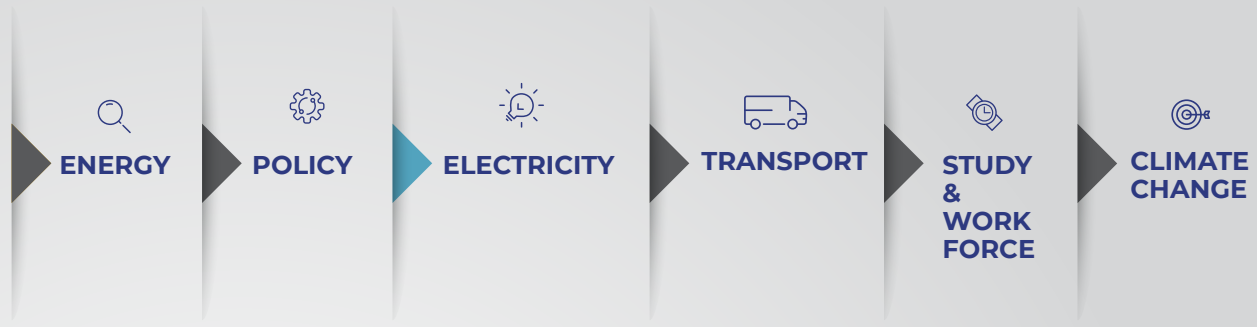
POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK



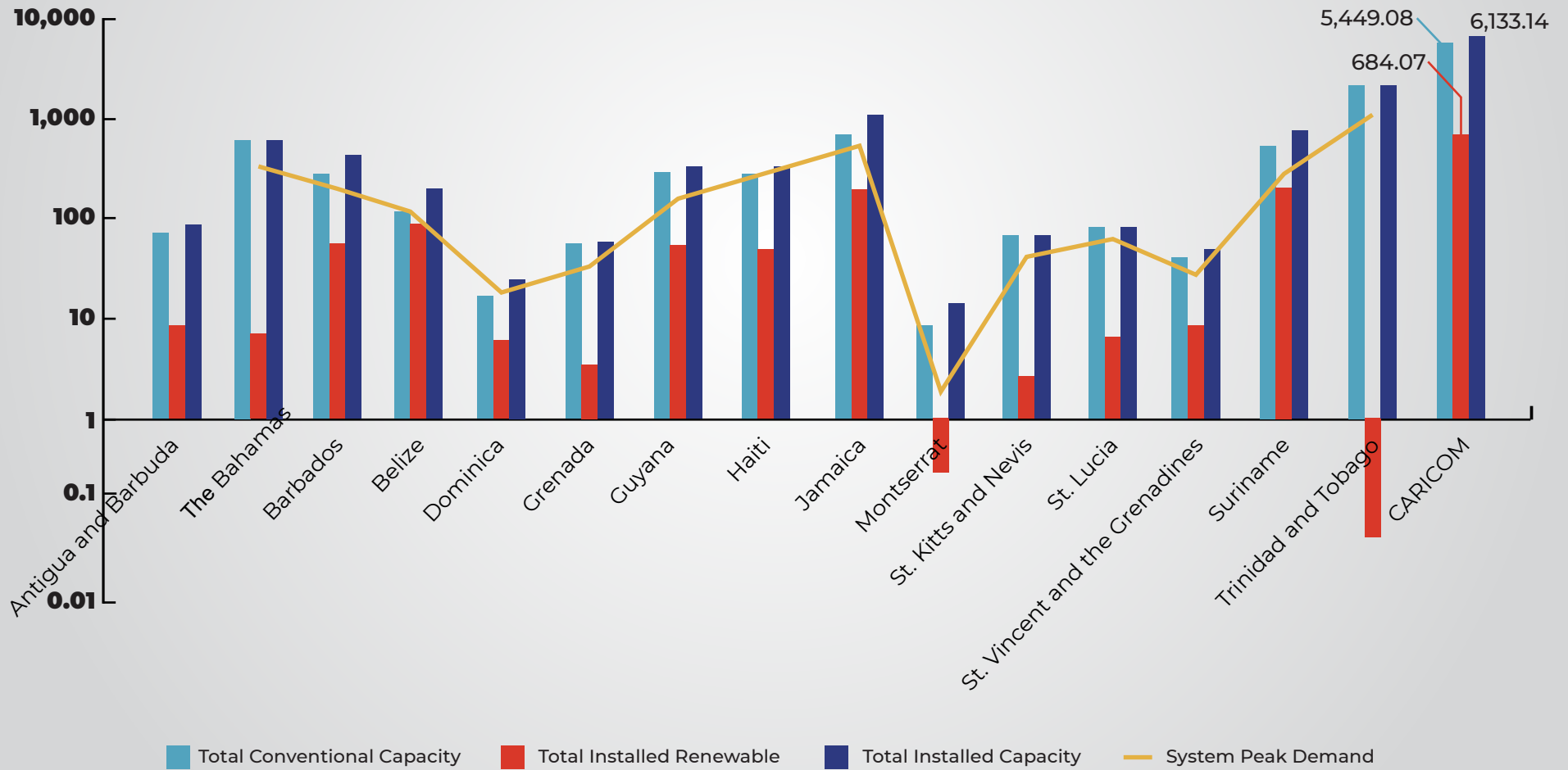
COUNTRY	INTER-CONNECTION	NET BILLING/ NET METERING	FEED IN TARIFF	NATIONAL ENERGY POLICY	RE/EE ACT	REGULATOR
ANTIGUA AND BARBUDA	2011	2017		2011	2015	2009
THE BAHAMAS	2017	2017	2017	2013		2002
BARBADOS	2017	2010	2019	2019		2011
BELIZE				2012		2006
DOMINICA	2016	2016	2019	2019	2016 (Geothermal)	2016
GRENADA				2011		1999
GUYANA	2017	2019		2017	2013 (Hydroelectric)	
HAITI				2012		
JAMAICA	2016	2016		2009	2010	1997
MONTserrat				2016		
ST. KITTS AND NEVIS	2018			2011		
ST. LUCIA	2018		2018	2010	2011 (Geothermal)	2016
ST. VINCENT AND THE GRENADINES	2019	2019	2019	2009	2013 (Geothermal)	2016
SURINAME				2013		2016
TRINIDAD AND TOBAGO	2011					2013

Not yet established	Proposed	Draft in progress (Draft document being prepared)	Draft (Draft document prepared and published)	Completed	Completed, updated draft in progress
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ELECTRICITY AND ENERGY EFFICIENCY

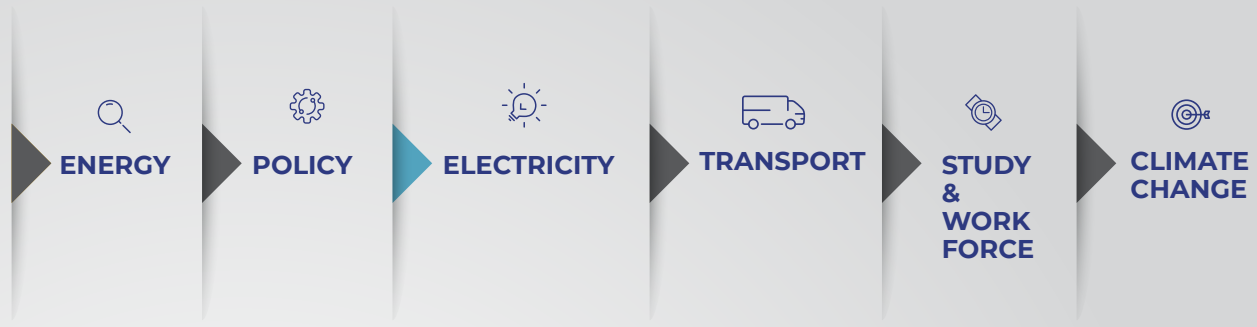


ELECTRICITY DATA (MW)

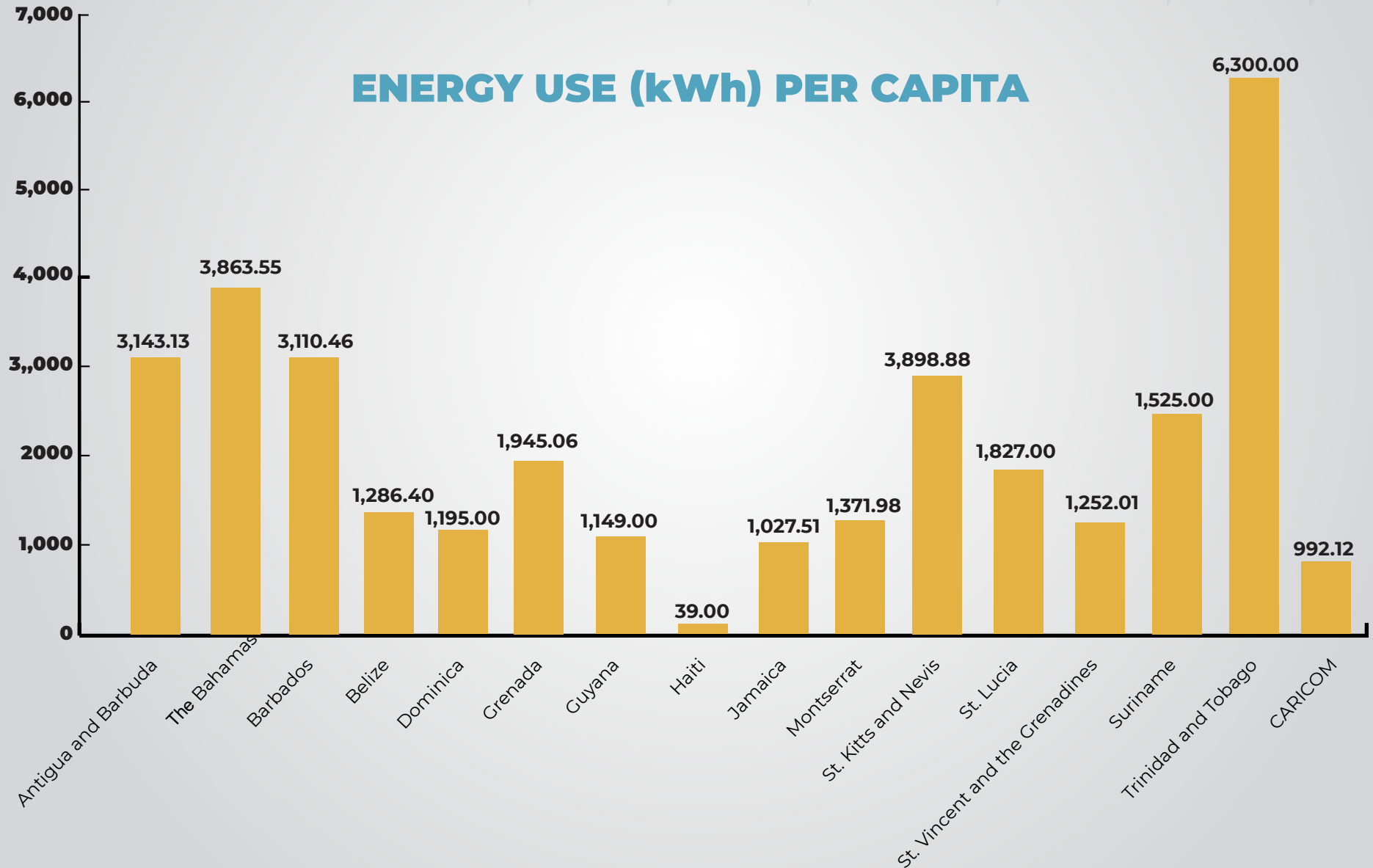


Peak Demand was unavailable for Antigua and Barbuda. The total installed renewable for Trinidad and Tobago is 0.0065 MW. The Total Installed Renewable for Montserrat is 0.25 MW.

ELECTRICITY AND ENERGY EFFICIENCY

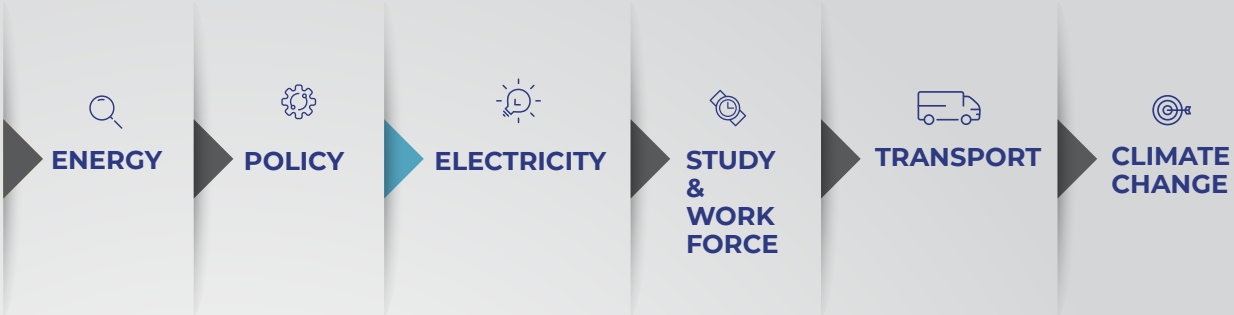


ENERGY USE (kWh) PER CAPITA

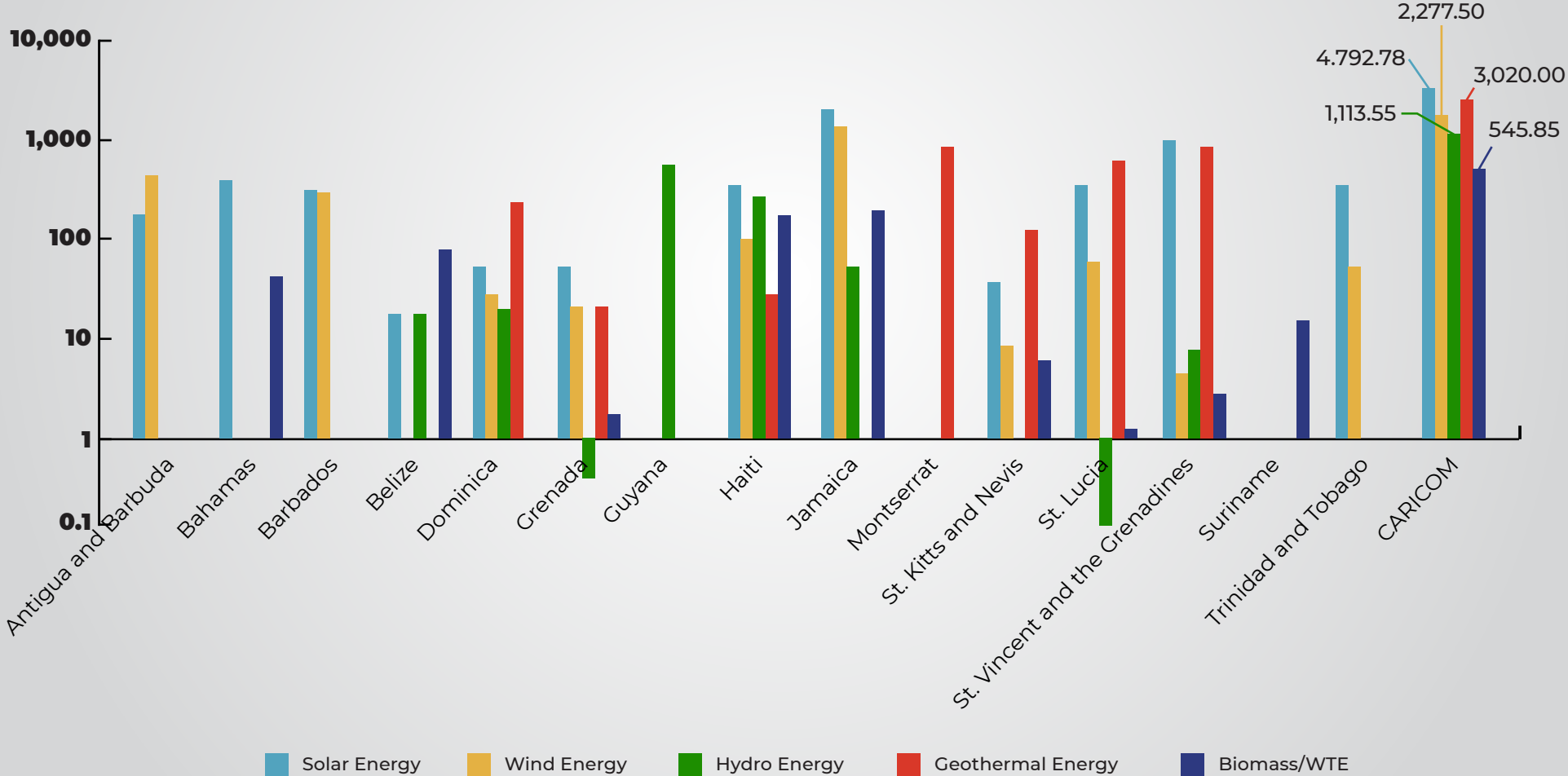


Access to electricity in Haiti is 45.4%.
This contributes significantly to the rate of energy consumption

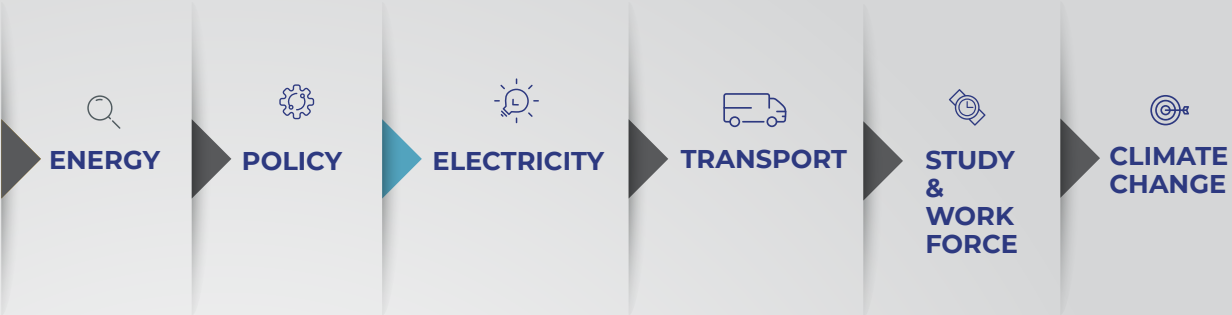
ELECTRICITY AND ENERGY EFFICIENCY



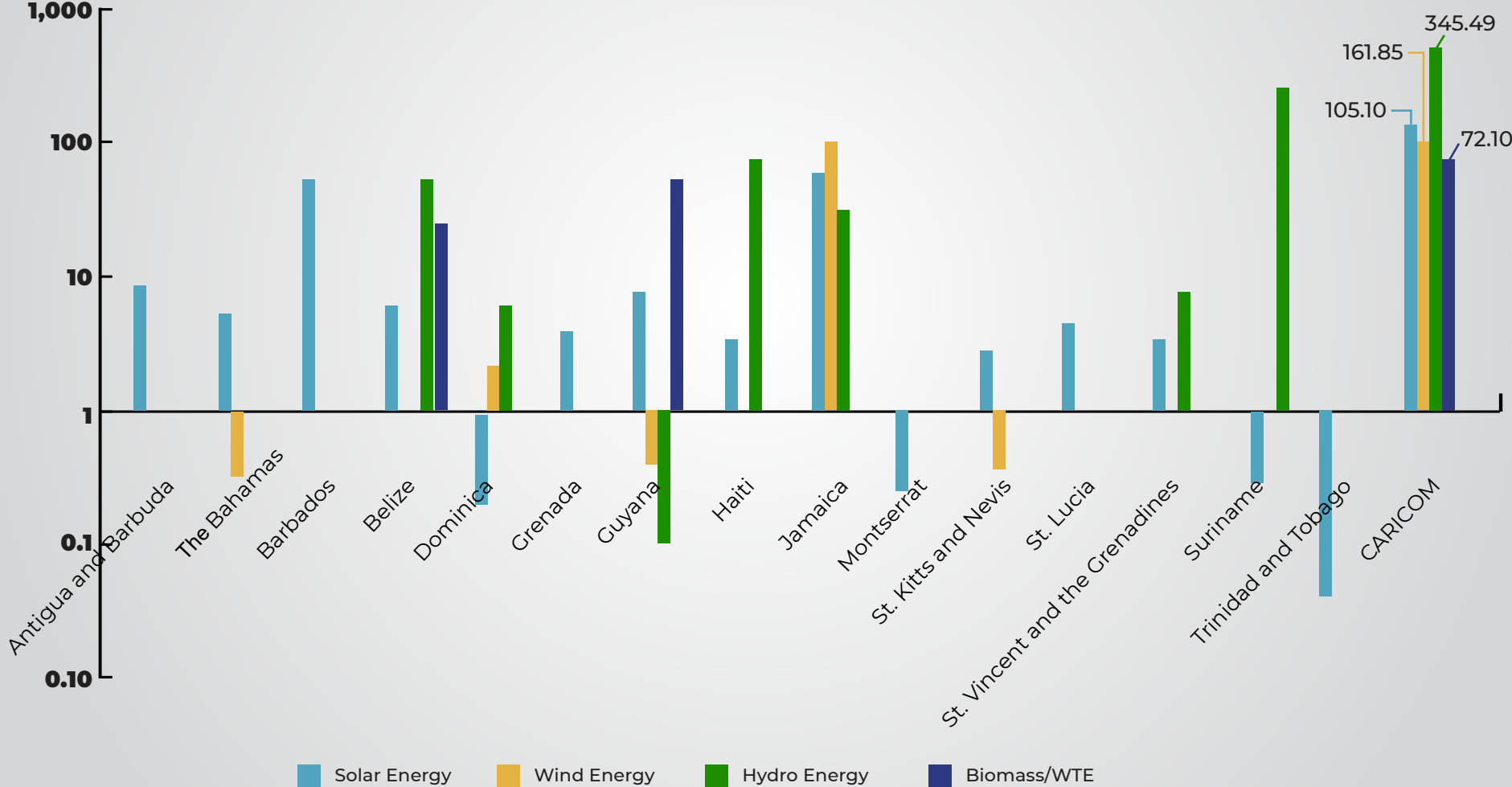
RENEWABLE ENERGY POTENTIAL (MW)



ELECTRICITY AND ENERGY EFFICIENCY

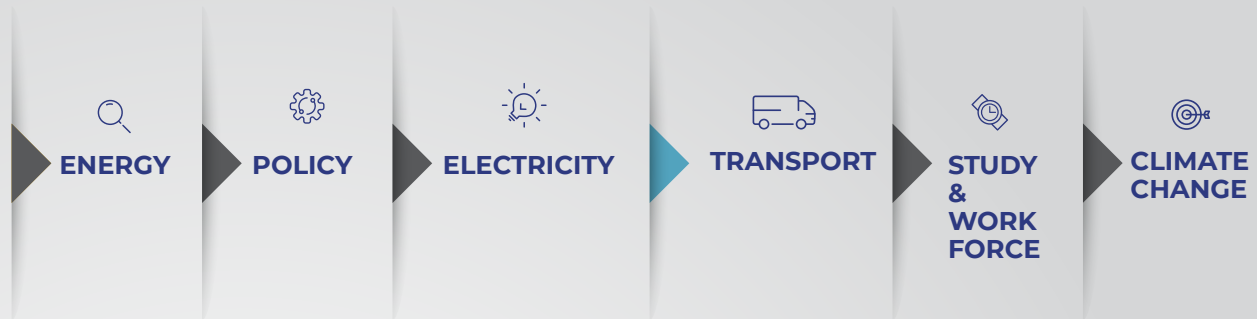


INSTALLED RENEWABLE ENERGY (MW)

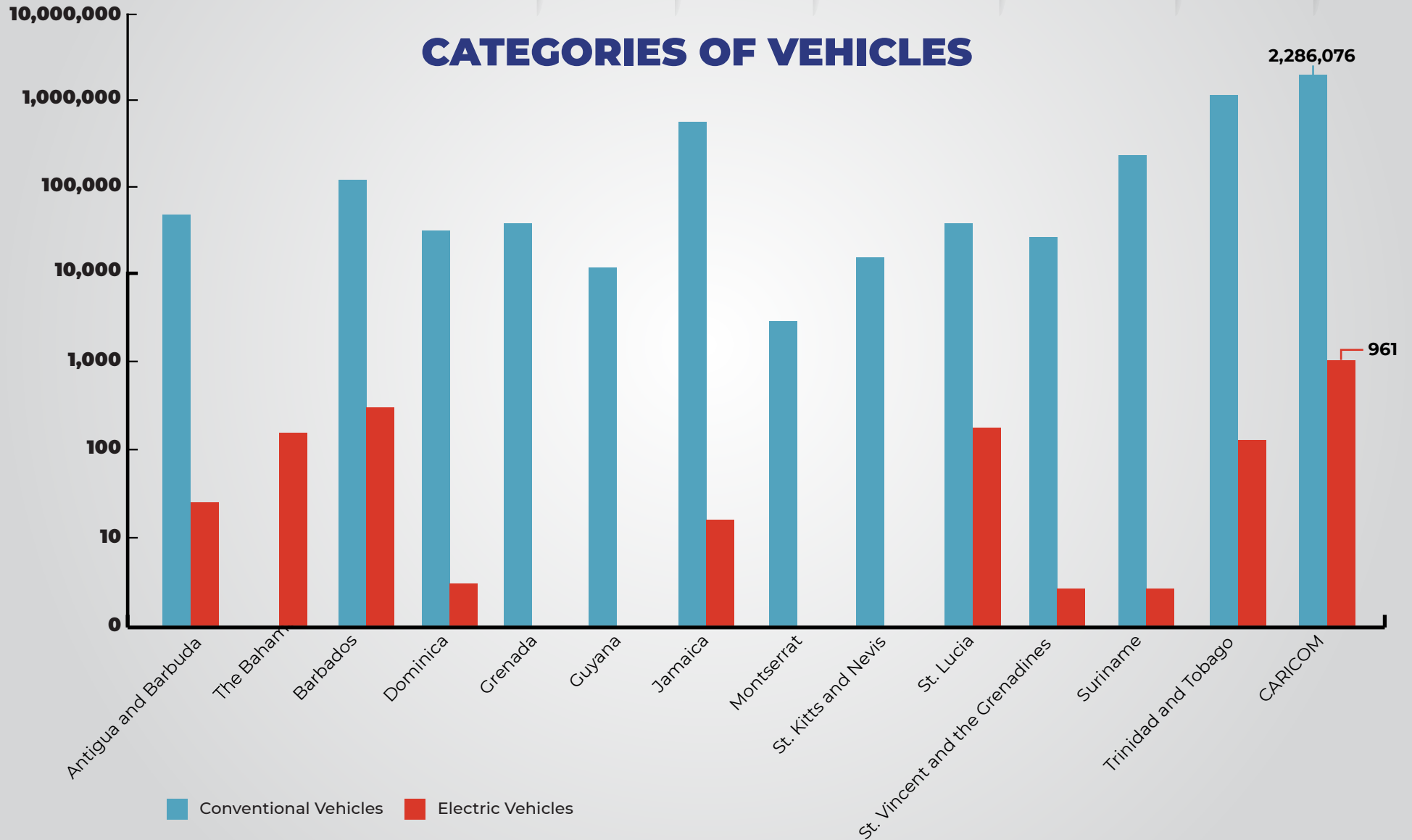


There is no geothermal energy installed within CARICOM.

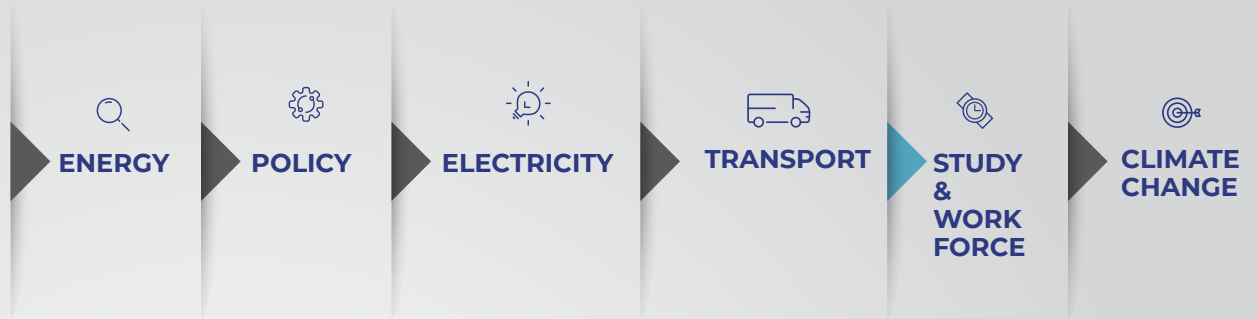
TRANSPORTATION



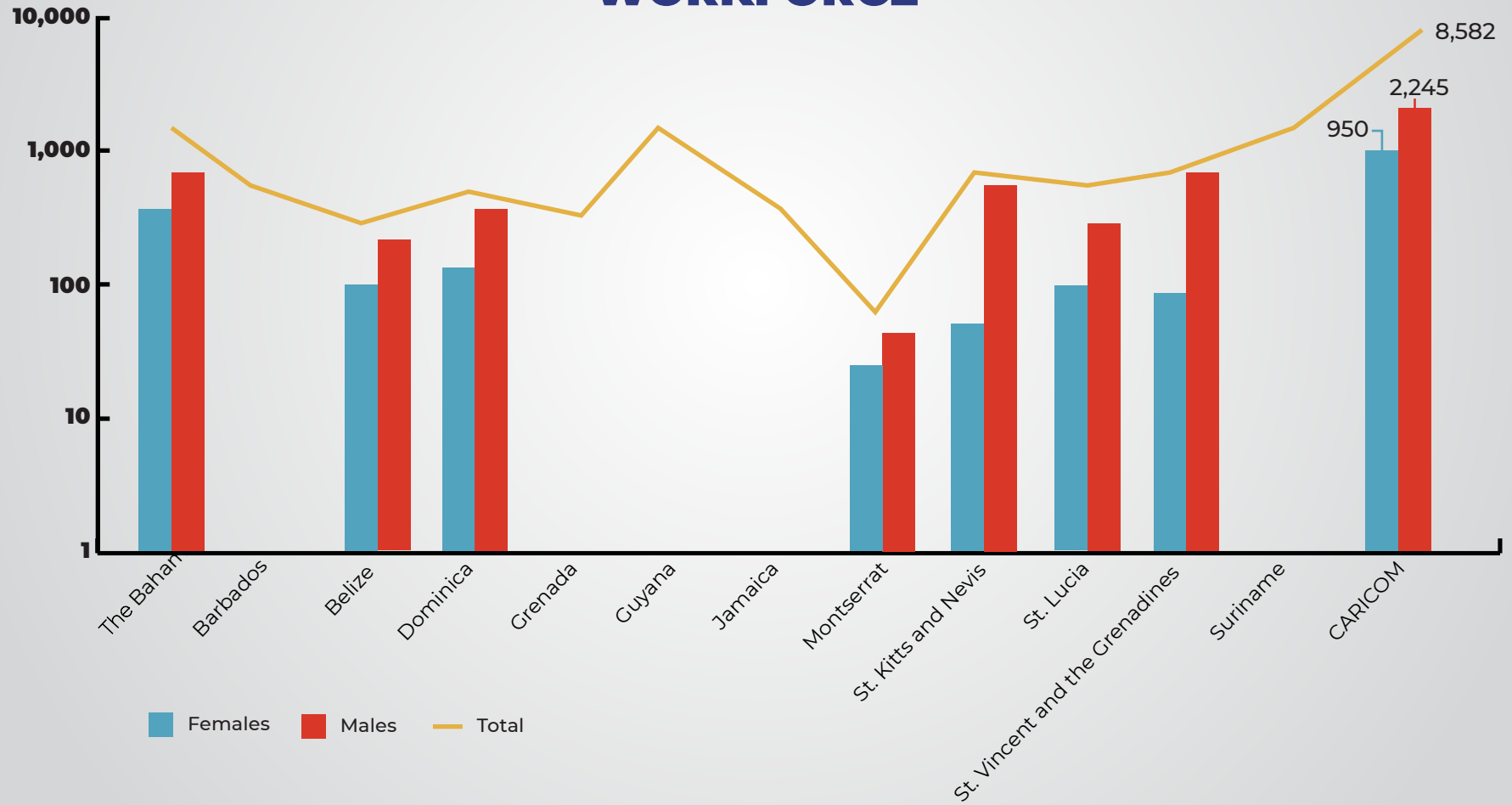
CATEGORIES OF VEHICLES



No conventional vehicle information was available for Haiti. It was reported that there are no electric vehicles. Transportation data was not available for Belize for 2020. It was reported that there are more than 200 Electric Vehicles in the Bahamas.



WORKFORCE



Workforce data was unavailable for Antigua and Barbuda, Haiti and Trinidad and Tobago.
Workforce data for Barbados, Grenada, Guyana, Jamaica and Suriname were not separated by gender.

TERTIARY PROGRAMMES OFFERED



	Name of Education Programme Provider	Types of Programmes						
		Vocational/ Professional Certificate	Apprenticeship	Certificate	Associate Degree	Bachelor's Degree	Master's Degree	MPHIL/ PHD
ANTIGUA AND BARBUDA	Antigua State College ¹							
BAHAMAS	University of the Bahamas					2 Programmes		
	US Solar Institute							
BARBADOS	Barbados Community College	2 Programmes						
	Samuel Jackman Prescod Institute of Technology ²	2 Programmes						
	The University of the West Indies, Cave Hill Campus					2 Programmes		
	Barbados Vocational Training Board							
BELIZE	Galen University							
	Saint John's College Junior College							
	University of Belize							
	Sacred Heart Junior College							
	Corozal Junior College							
	Institute for Technical Vocational Education and Training (ITVET) *							

¹Antigua State College offers CAPE

²The Samuel Jackman Prescod Institute of Technology offers two vocational programmes

TERTIARY PROGRAMMES OFFERED



	Name of Education Programme Provider	Types of Programmes						
		Vocational/ Professional Certificate	Apprenticeship	Certificate	Associate Degree	Bachelor's Degree	Master's Degree	MPHIL/ PHD
DOMINICA	Dominica State College							
	OECS Sustainable Energy Unit	3 Programmes						
GRENADA	Grenada Solar Energy Technical Research Institute							
GUYANA	University of Guyana							
HAITI	Centre de Formation Professionnelle d'Haiti - CANADO Technique (Haitian Vocational Training Centre - CANADO Technique)							
	Quisqueya University							
JAMAICA	University of the West Indies, Mona					2 Programmes		
	University of Technology, Jamaica						2 Programmes	
	Caribbean Maritime University, Jamaica							
	HEART Trust / National TVET Engineering Institute (NTEI)							
	Jamaica Society of Energy Efficiency Engineers							
	Vector Technology Institute							

Grenada Solar Energy Technical Institute offers two Caribbean Vocational Qualification (CVQ) programmes.

TERTIARY PROGRAMMES OFFERED



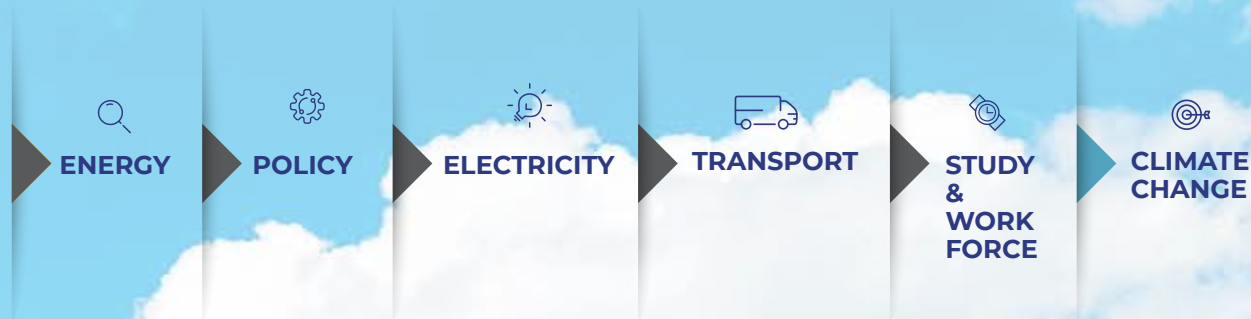
	Name of Education Programme Provider	Types of Programmes						
		Vocational/ Professional Certificate	Apprenticeship	Certificate	Associate Degree	Bachelor's Degree	Master's Degree	MPHIL/ PHD
MONTSERRAT								
ST. KITTS AND NEVIS	Clarence Fitzroy Bryant College (CFBC)							
ST. LUCIA	Sir Arthur Lewis Community College				5 Programmes			
	National Enrichment and Learning Unit (NELU)							
ST. VINCENT AND THE GRENADINES	Sector Skills Development Agency-Campden Park Technical Institute							
	St. Vincent & the Grenadines Community College- Division of Arts, Sciences and General Studies							
	OECS Photovoltaic Training & Certification for Installers and Inspectors							
	SVG Adult and Continuing Education (A division of the Ministry of Education)							

TERTIARY PROGRAMMES OFFERED



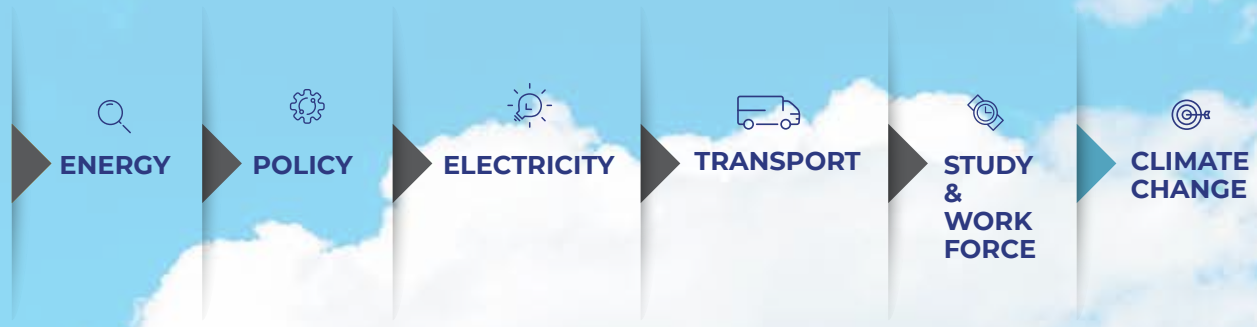
	Name of Education Programme Provider	Types of Programmes						
		Vocational/ Professional Certificate	Apprenticeship	Certificate	Associate Degree	Bachelor's Degree	Master's Degree	MPHIL/ PHD
SURINAME	Anton de Kom University of Suriname - FTeW							
	Institute for Graduate Studies & Research (IGSR/FTeW)							
TRINIDAD AND TOBAGO	The University of The West Indies St. Augustine Campus					2 Programmes	2 Programmes	
	The University of Trinidad and Tobago							
	School of Business and Computer Science							
	CTS College of Business and Computer Science							

CLIMATE CHANGE FRAMEWORK



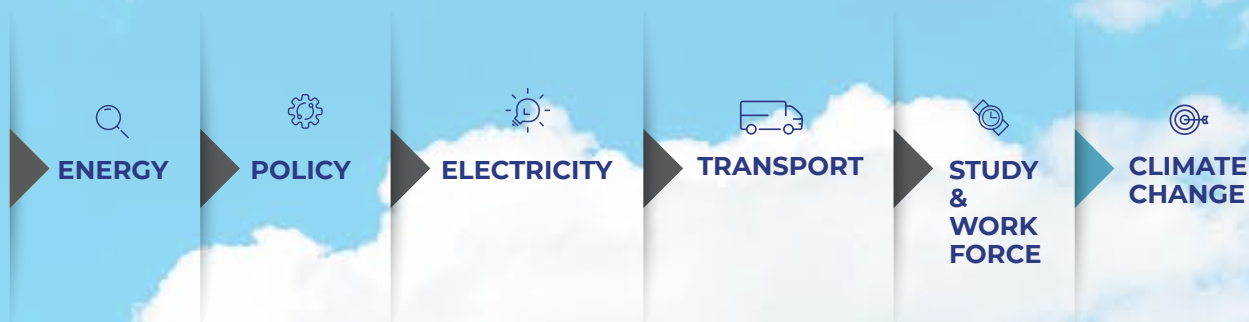
	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
ANTIGUA AND BARBUDA	Sustainable Energy Action Plan (2013)	<p>Conditional Mitigation Targets</p> <ol style="list-style-type: none"> By 2020, establish efficiency standards for the importation of all vehicles and appliances. By 2020, finalize the technical studies with the intention to construct and operationalize a waste to energy (WTE) plant by 2025. By 2030, achieve an energy matrix with 50 MW of electricity from renewable sources both on and off-grid in the public and private sectors. By 2030, all remaining wetlands and watershed areas with carbon sequestration potential are protected as carbon sinks. <p>Unconditional Targets</p> <ol style="list-style-type: none"> Enhance the established enabling legal, policy and institutional environment for a low carbon emission development pathway to achieve poverty reduction and sustainable development. By 2020, update the Building Code to meet projected impacts of climate change. 	Not available	Energy, Industrial Processes and Products Use, Agriculture, Forestry and Other Land Use, and Waste	2

CLIMATE CHANGE FRAMEWORK



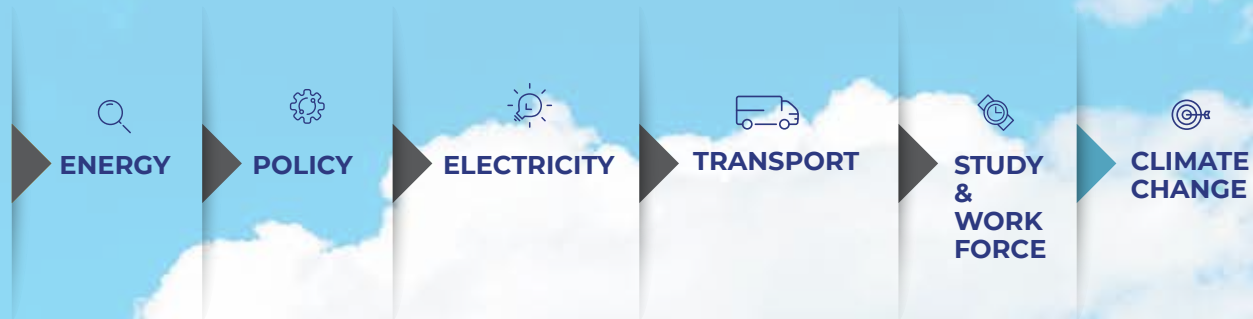
	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
THE BAHAMAS	Bahamas Climate Adaptation Policy	An economy-wide reduction of GHG emissions of 30% when compared to is BAU scenario by 2030	Land Use, and (iv) Waste	Energy, and Forestry	2
BARBADOS	National Climate Change Policy Barbados (2012)	21%, compared to 2008 by 2025 23%, compared to 2008 by 2030	20% below business as usual (BAU) by 2030	Agriculture, Water Resources, Fisheries, Tourism, Insurance, Human Health, Coastal Resources and Human Settlements	2
BELIZE	Belize National Climate Change Policy 2017	24 million metric tonnes of CO ₂ e from 2014 to 2033	199.83 Gg CO ₂ -eq from Renewable Energy Generation by 2033 123.86 Gg CO ₂ -eq from Transport by 2033	Forestry, Agriculture, Water Resources Coastal and Marine Resources, Tourism, Fisheries and Aquaculture, Human Health	3

CLIMATE CHANGE FRAMEWORK



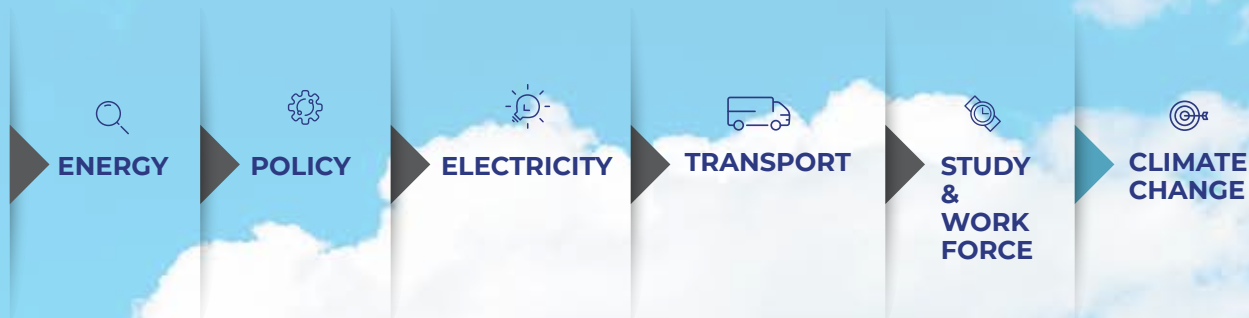
	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
DOMINICA	Dominica Climate Resilience and Recovery Plan 2020 - 2030 (2020)	To reduce emissions 44.7% below 2014 levels	39.2% reduction in GHG by 2025 and 44.7% GHG by 2030. Previous target - 17.9% by 2020.	Energy, Solid Waste, Manufacturing, and Construction	3
GRENADA	National Climate Change Policy for Grenada, Carriacou and Petite Martinique 2017-2021	<p>The Government of Grenada has committed itself at the COP 21 (Paris), with the submission of the Nationally Determined Contributions.</p> <p>The main aims of Grenada's NDC are as follows:</p> <p>Reduce carbon dioxide (CO₂) emissions from the power sector by 40% by 2030.</p> <p>Reducing emissions from land transport 20% by 2025</p> <p>Using methane capture technologies for reducing waste management emissions by over 90%.</p> <p>Doubling carbon storage in areas for protected forest by for example, planting indigenous (faster growing) species.</p>	Not available	Electricity, Transport, Waste, and, Forestry	2

CLIMATE CHANGE FRAMEWORK



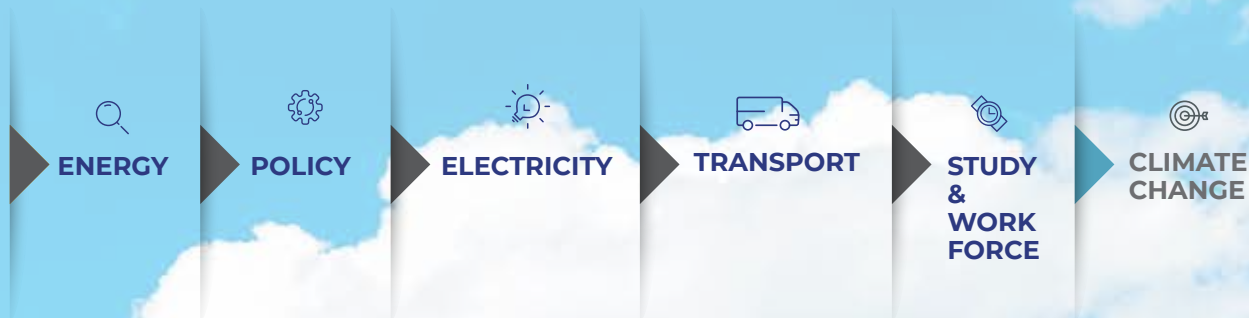
	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
GUYANA	National Climate Change Policy and Action Plan 2020-2030; Low Carbon Development Strategy (2013); Climate Resilient Strategy and Action Plan (2015)	11% annually compared to historic levels from the timber industry (Note that Guyana is a net carbon sink)	Not available	Forestry (including Avoided Deforestation), and Energy	2
HAITI	National Policy to Combat Climate Change (PNCC) 2019 (Politique Nationale de Lutte contre les Changements Climatiques (PNCC) 2019)	Unconditional: 5% compared to BAU by 2030 Conditional: 26% compared to BAU by 2030	5% by 2030	Energy, Agriculture, Forestry and Allocation of Land (AFAT), Waste	2
JAMAICA	Climate Change Policy Framework for Jamaica (2015)	5.4% (unconditional) or 28.5% (conditional on international support) reduction in emissions by 2030 relative to a business-as-usual scenario	Not available	Land-use and forestry, Energy, Agriculture and Waste to energy	3

CLIMATE CHANGE FRAMEWORK



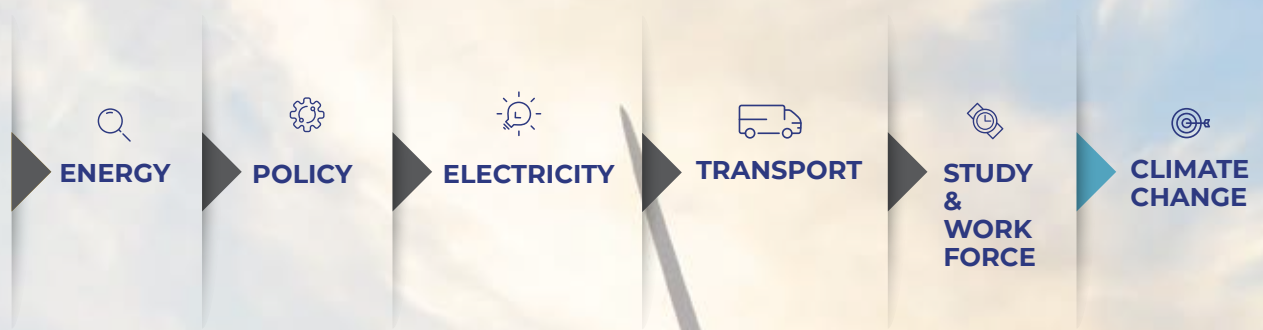
	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
MONTSERRAT	National Climate Change Policy for Montserrat 2011 (Draft)	<p>Montserrat is a crown colony of the United Kingdom. The United Kingdom Government indicated that they will consult with UK Crown Dependencies and Overseas Territories on extending the Paris Agreement and the UK's NDC to cover their emissions at an appropriate point in the future.</p>			
ST. KITTS AND NEVIS	St. Kitts and Nevis National Climate Change Policy 2017	22% GHG reduction by 2025, 35% GHG reduction by 2030 as of 2015	Not available	Transport and Electricity	2
ST. LUCIA	Saint Lucia Climate Change Adaptation Policy	7% GHG reduction from energy sector relative to 2010 levels, by 2030	Not available	Energy (electricity generation and transportation)	3
ST. VINCENT AND THE GRENADINES	National Climate Change Policy of Saint Vincent and the Grenadines (2019)	60% by 2025	Unconditional, economy wide reduction in GHG of 22% by 2025 compared to its business as usual (BAU) scenario by 2025	Energy (including domestic transportation), Industrial processes and product use, Agriculture, Land use, Land use change and forestry	2

CLIMATE CHANGE FRAMEWORK

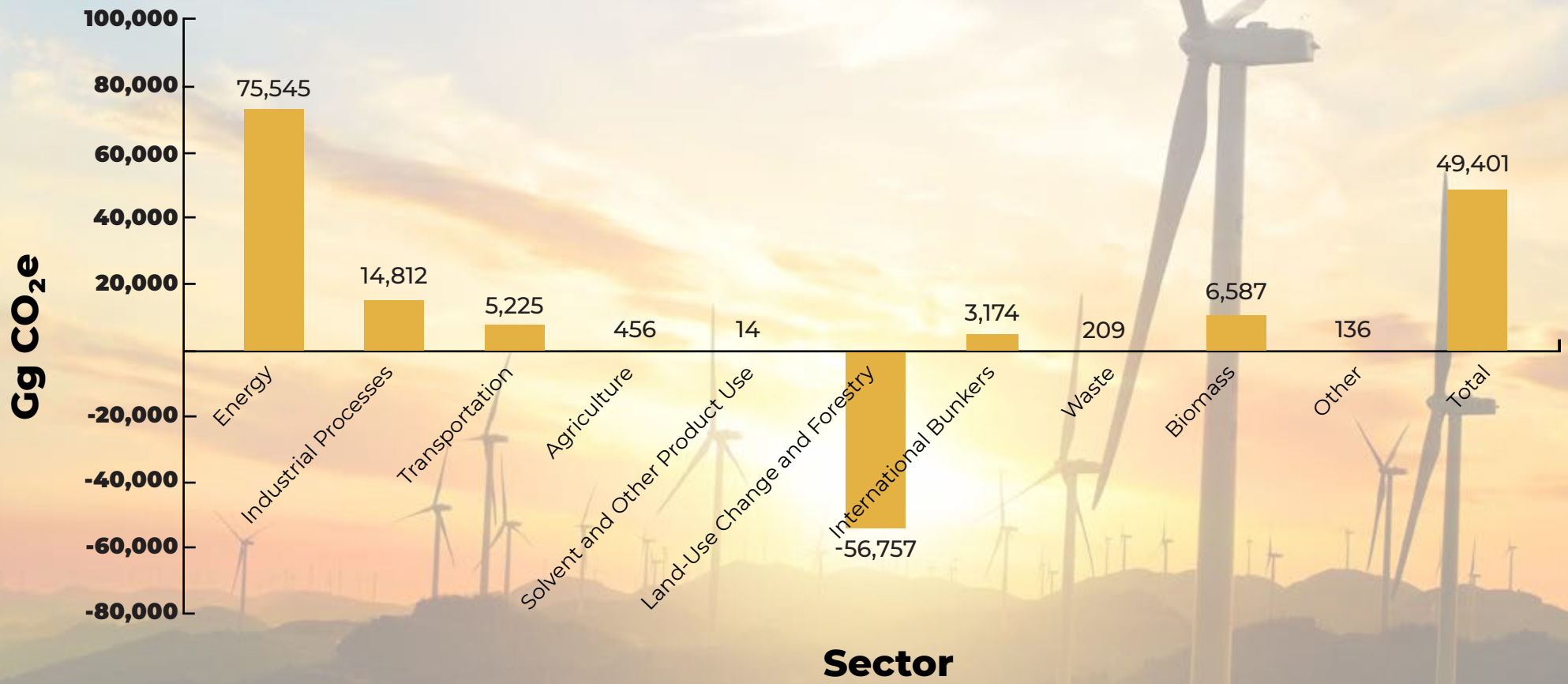


	CLIMATE CHANGE POLICY	NATIONALLY DETERMINED CONTRIBUTIONS	EMISSION REDUCTION TARGET	PRIORITY SECTORS FOR NDC	NUMBER OF NATIONAL COMMUNICATION REPORTS TO UNFCCC
SURINAME	National Climate Change Policy, Strategy and Action Plan (NCCPSAP)	Maintaining its 93% forest cover, 35% renewables by 2030	Not available	Forest, Electricity, Transport, Agriculture	2
TRINIDAD AND TOBAGO	National Climate Change Policy	<p>Unconditional: 30% reduction in GHG emissions by December 31, 2030 in the public transportation sector compared to a business as usual (BAU) scenario (reference year 2013).</p> <p>Conditional: Additional reduction achievable under certain conditions which would bring the total GHG reduction to 15% below BAU emission levels by December 31, 2030.</p>	15% below BAU by 2030	Power Generation, Transportation, and Industry	2

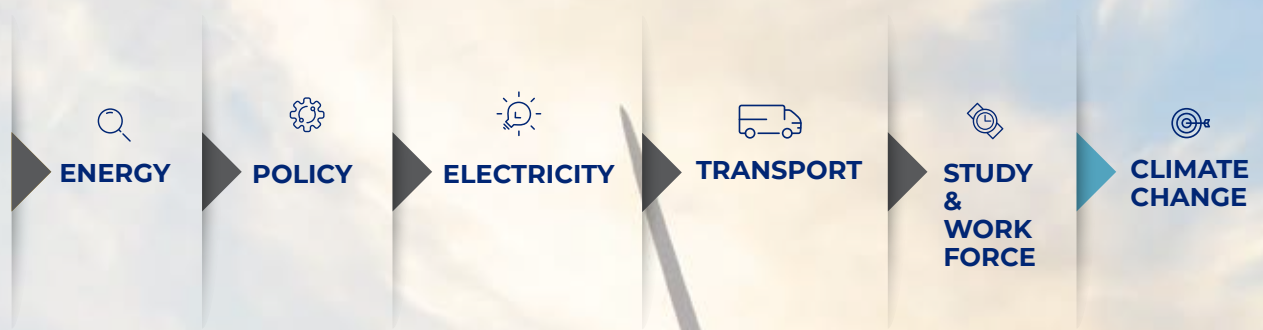
CLIMATE CHANGE FRAMEWORK



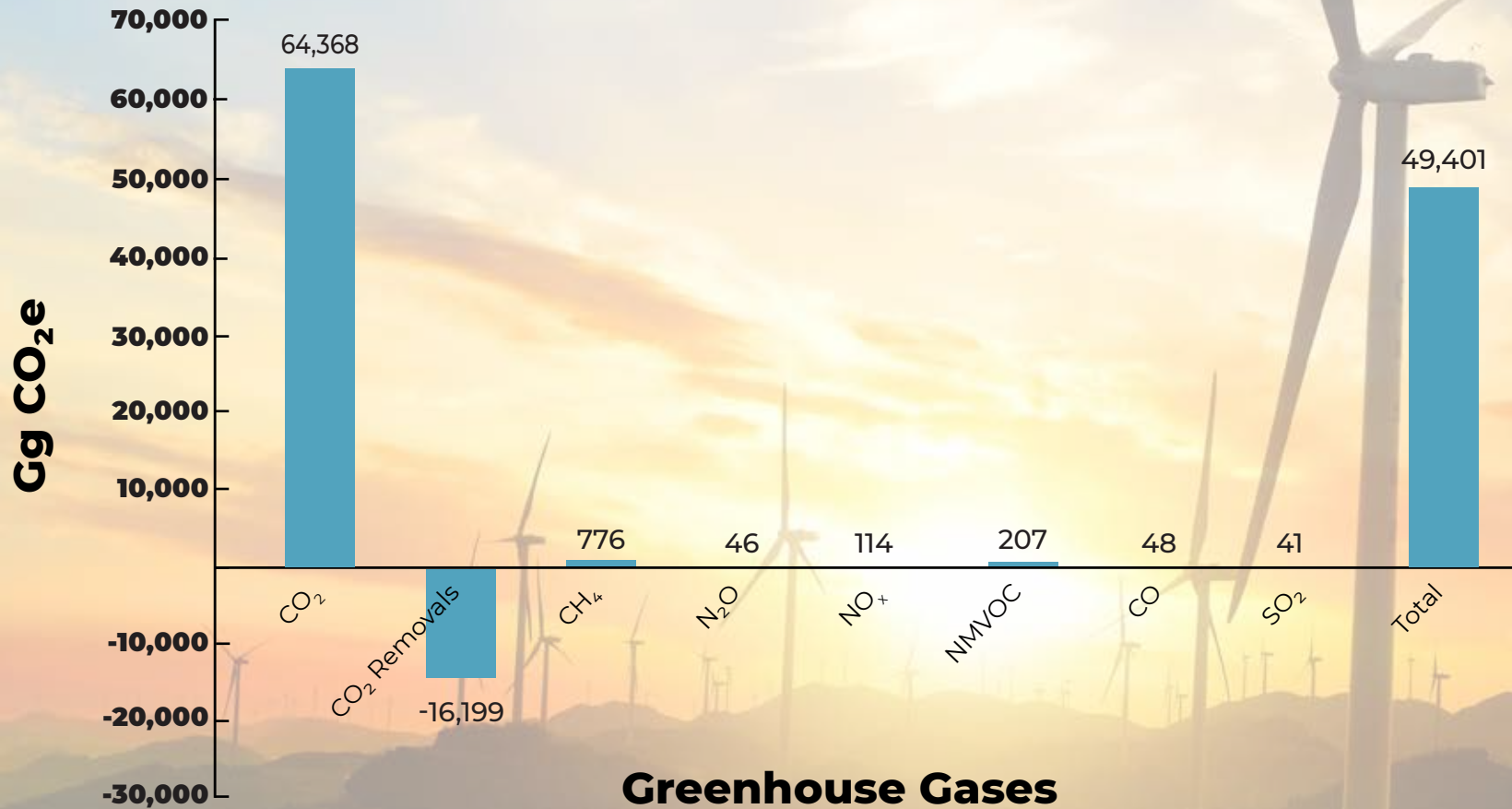
TOTAL GHG EMISSIONS FOR CARICOM BY SECTOR



CLIMATE CHANGE FRAMEWORK

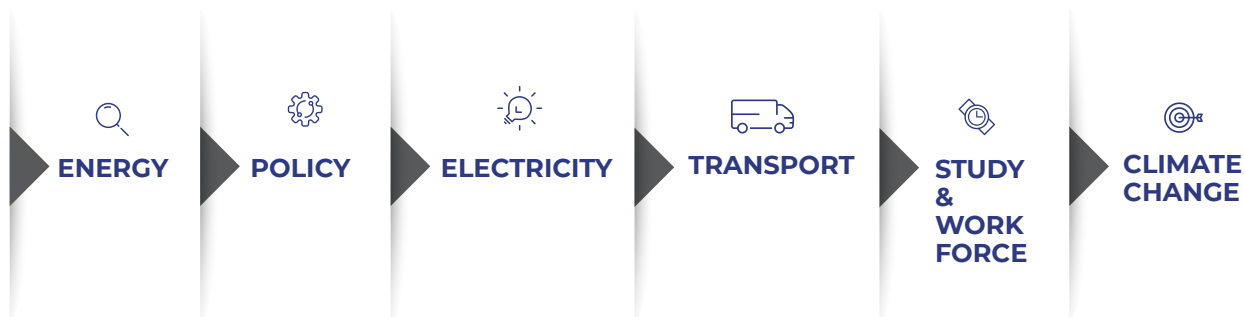


TOTAL GHG EMISSIONS FOR CARICOM BY GAS



Gg represents giga grams

REFERENCES



The data and information in this report were from the individual Energy Report Cards for the CARICOM Member States: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago.

CARICOM Energy Knowledge Hub CCREEE “2020 Energy Report Cards” 2021. [Online].
Available: <https://cekh.ccreee.org/?s=2020+energy+report+card>