CCREEE
CARIBBEAN CENTRE FOR RENEWABLE ENERGY & ENERGY EFFICIENCY

2023 ENERGY REPORT CARD

CARICOM

Introduction

This is the Energy Report Card (ERC) for 2023 for CARICOM.

The ERC provides an overview of the energy sector performance, highlighting the following areas:

- Installed Conventional and Renewable Power Generation Capacity
- Annual Electricity Generation, from Conventional and Renewable Plants
- Other Electricity Sector Metrics, such as Losses, Consumption, and Tariffs
- Renewable Energy Targets
- Renewable Energy Resource Potential

The ERC also includes sectoral data and information on policies and regulations; workforce; training and capacity building; and related areas.
The data and information that are available in the ERC were mostly provided by the government ministries, agencies, and departments, that have responsibility for statistics and planning, in general, and the energy sector and electricity subsector including the electric utilities, in particular. The data and information collected was supplemented by desk-based research and, in instances, information was generated from calculations and analyses that were performed by the CCREEE.

Quality Assurance

The collection and treatment of data and information that is produced for the ERC is consistent with the International Recommendations for Energy Statistics (IRES), which provides a comprehensive methodological framework for the collection, compilation, and dissemination of energy statistics in all countries irrespective of the level of development of their statistical system. The ERC is produced in accordance with these performance standards that seek, as far as is possible, to ensure the quality (i.e., objectivity, utility, and integrity) of data and information that it disseminates to the public.
The CCREEE strives for transparency on the information and methods that are used within the production of the ERC, with a view to improve understanding on how the information should be treated and to facilitate reproducibility of the information. Nevertheless, the Centre recognizes that quality may be limited by the nature and source of the data and information disseminated.

Disclaimer

The ERC includes data and information that is contained in a variety of public sources and, though every effort is made to validate the accuracy and validity of the contents, reliance on the information herein is strictly at the user's risk.

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Requests for Correction

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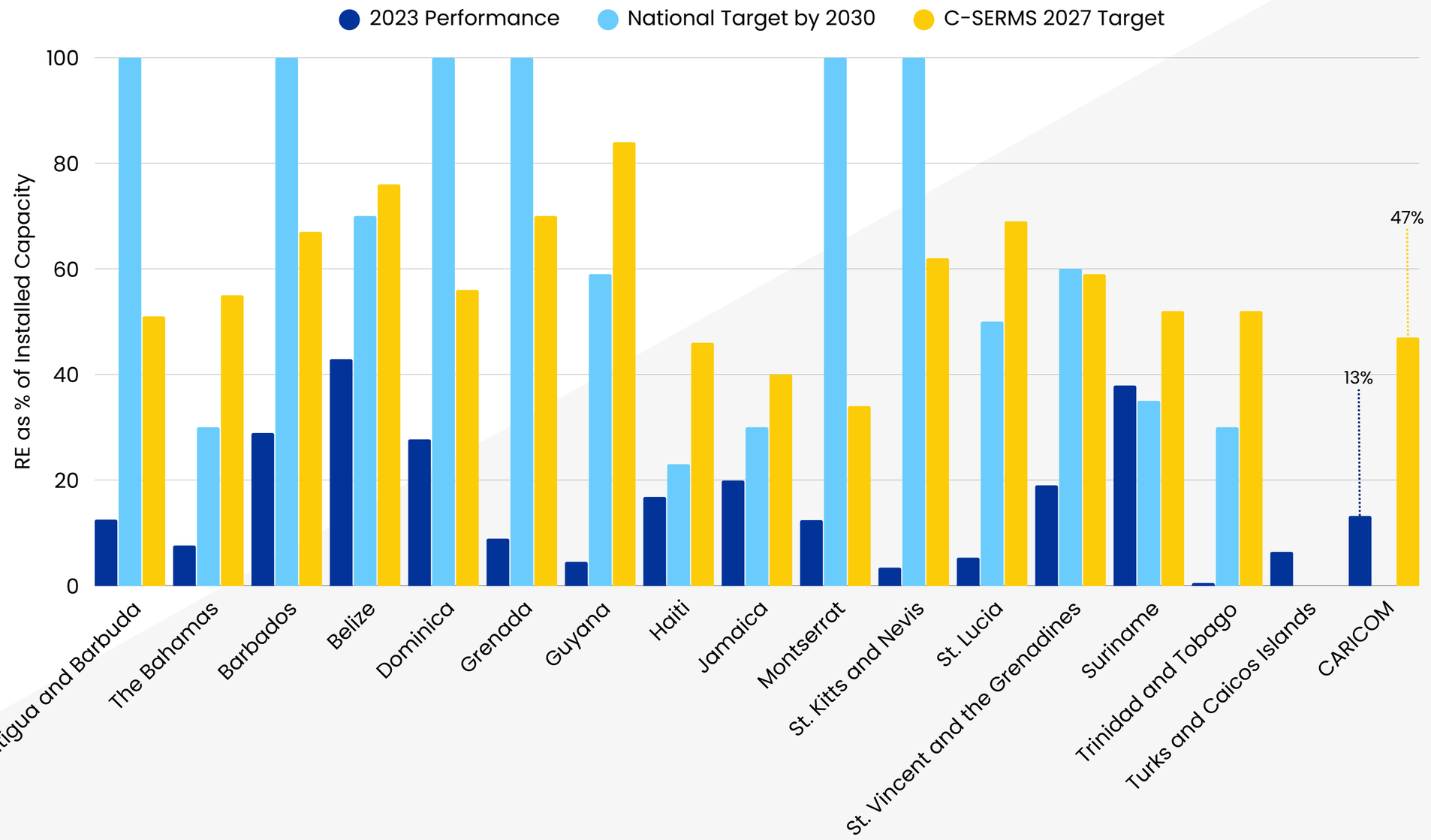
Energy Sector Summary

Country	Population	GDP	GDP per Capita (US$)	Debt as % of GDP	GNI	HDI
Antigua and Barbuda	102,388	$ 1,706,376,773.42	$ 17,684.75	71.8%	$20,200.00	0.826
The Bahamas	399,314[1]	$ 14,338,500,000.00	$35,735.00	83.8%	$35,210.00	0.820
Barbados	267,800[2]	$5,517,800,000.00	$20,700.00	115%	$22,870.00	0.796
Belize	404,198	$3,041,687,151.17	$6,289.41	46%	$13,710.00	0.700
Dominica	72,565	$454,168,373.33	$7,522.21	97.8%	$8,920.00	0.740
Grenada	113,173	$923,134,537.40	$9,521.10	63.1%	$10,470.00	0.793
Guyana	778,400	$16,060,192,685.15	$20,632.31	27%	$33,240.00	0.742
Haiti	11,637,398	$19,850,830,000.00	$1,705.80	24%	$1,760.00	0.552
Jamaica	2,704,300	$19,014,766,494.83	$7,031.88	73.6%	$11,160.00	0.706
Montserrat	4,578	$79,602,133.31	$15,692.16	3.6%	Not Applicable	Not Applicable
St. Kitts and Nevis	51,320	$1,065,663,392.00	$20,765.07	60.71%	$32,540.00	0.838
St. Lucia	184,474	$2,430,148,148.00	$13,412.10	73%	$13,710.00	0.725
St. Vincent and the Grenadines	110,960	$979,050,452.51	$7,910.88	87.3%	$10,300.00	0.771
Suriname	6,249,000[3]	$3,800,000,000.00	$5,953.00	108%	$21,520.00	0.690
Trinidad and Tobago	1,367,510	$28,140,000,000.00	$18,333.00	54.5%	$30,400.00	0.814
Turks and Caicos Islands	49,309	$1,638,653,000.00	$33,232.34	Not Available	Not Available	Not Applicable
CARICOM	**24,496,687**					

1 - 2022 Census
2 - 2022 Census
3 - 2022 Mid-Year Population

Energy Sector Performance - Renewable Energy Capacity Against Targets



Key Energy Stakeholders

Country	Energy Ministry	Climate Change Ministry	Electric Utility	Electricity Regulator
Antigua and Barbuda	Ministry of Public Utilities, Civil Aviation, Transport and Energy, Department of Energy	Ministry of Health, Wellness, Social Transformation and The Environment - Department of Environment	Antigua Public Utilities Authority (APUA)	Antigua Public Utilities Authority (APUA)
The Bahamas	Ministry of Energy and Transport	Ministry of Environment and Natural Resources Office of the Prime Minister - Climate Change & Environmental Advisory Unit	Grand Bahama Power Company Bahamas Power and Light	Utility Regulation and Competition Authority Grand Bahama Port Authority Limited
Barbados	Ministry of Energy and Business Development - Division of Energy	Ministry of Environment and National Beautification, Green and Blue Economy	Barbados Light and Power Company Limited	Fair Trading Commission
Belize	Ministry of Public Utilities, Energy, Logistics, and E-Governance - Energy Unit	Ministry of Sustainable Development, Climate Change and Disaster Risk Management - National Climate Change Office	Belize Electricity Limited (BEL)	Public Utilities Commission
Dominica	Ministry of Foreign Affairs, International Business, Trade and Energy	Ministry of Finance, Economic Development, Climate Resilience and Social Security	Dominica Electricity Services Limited (DOMLEC)	Independent Regulatory Commission (IRC)
Grenada	Ministry of Climate Resilience, the Environment and Renewable Energy - Energy Division	Ministry of Climate Resilience, the Environment and Renewable Energy	Grenada Electricity Services Limited (GRENLEC)	Public Utilities Regulatory Commission (PURC)
Guyana	Guyana Energy Agency	Department of Environment and Climate Change	Guyana Power and Light Hinterland Electrification Company Inc	Public Utilities Commission

Key Energy Stakeholders

Country	Energy Ministry	Climate Change Ministry	Electric Utility	Electric Regulator
Haiti	Ministère des Travaux Publics, Transport et Communications (Ministry of Public Works, Transport and Communications) - Cellule Energie (Energy Unit)	Mistère de l'Environnement (Ministry of Environment) - Department du Changement Climatique (Department of Climate Change)	Electricité D'Haïti (EDH) (Electricity of Haiti)	Autorité Nationale de Régulation du Secteur de l'Energie (National Authority of Regulation of the Energy Sector)
Jamaica	Ministry of Science, Energy, Telecommunications and Transport	Ministry of Economic Growth and Job Creation - Portfolio Areas of Environment and Climate Change	Jamaica Public Service Company	Office of the Utilities Regulation
Montserrat	Ministry of Communications, Work, Energy and Labour (MCWEL)	Ministry of Agriculture, Lands, Housing and the Environment	Montserrat Utilities Limited (MUL)	None
St. Kitts and Nevis	Ministry of Public Infrastructure, Utilities, Posts, and Urban Development - Energy Unit	Ministry of Environment, Climate Action and Constituency Empowerment	St. Kitts Electricity Company Ltd. (SKELEC) Nevis Electricity Company Ltd. (NEVLEC)	None
St. Lucia	Ministry of Infrastructure, Ports, Transport, Physical Development and Urban Renewal	Ministry of Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	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 Education, Sustainable Development, Innovation, Science, Technology and Vocational Training	St. Vincent and the Grenadines Electricity Services Limited (VINLEC)	None [3]
Suriname	Ministerie van Natuurlijke Hulpbronnen (Ministry of Natural Resources	Ministerie van Ruimtelijke Ordening en Milieu (Ministry of Spatial Planning and Environment)	NV Energiebedrijven Suriname	Suriname Energy Authority (Energie Autoriteit Suriname - EAS)

3 - Cabinet of the Government of St. Vincent and the Grenadines and VINLEC self-regulate.

Key Energy Stakeholders

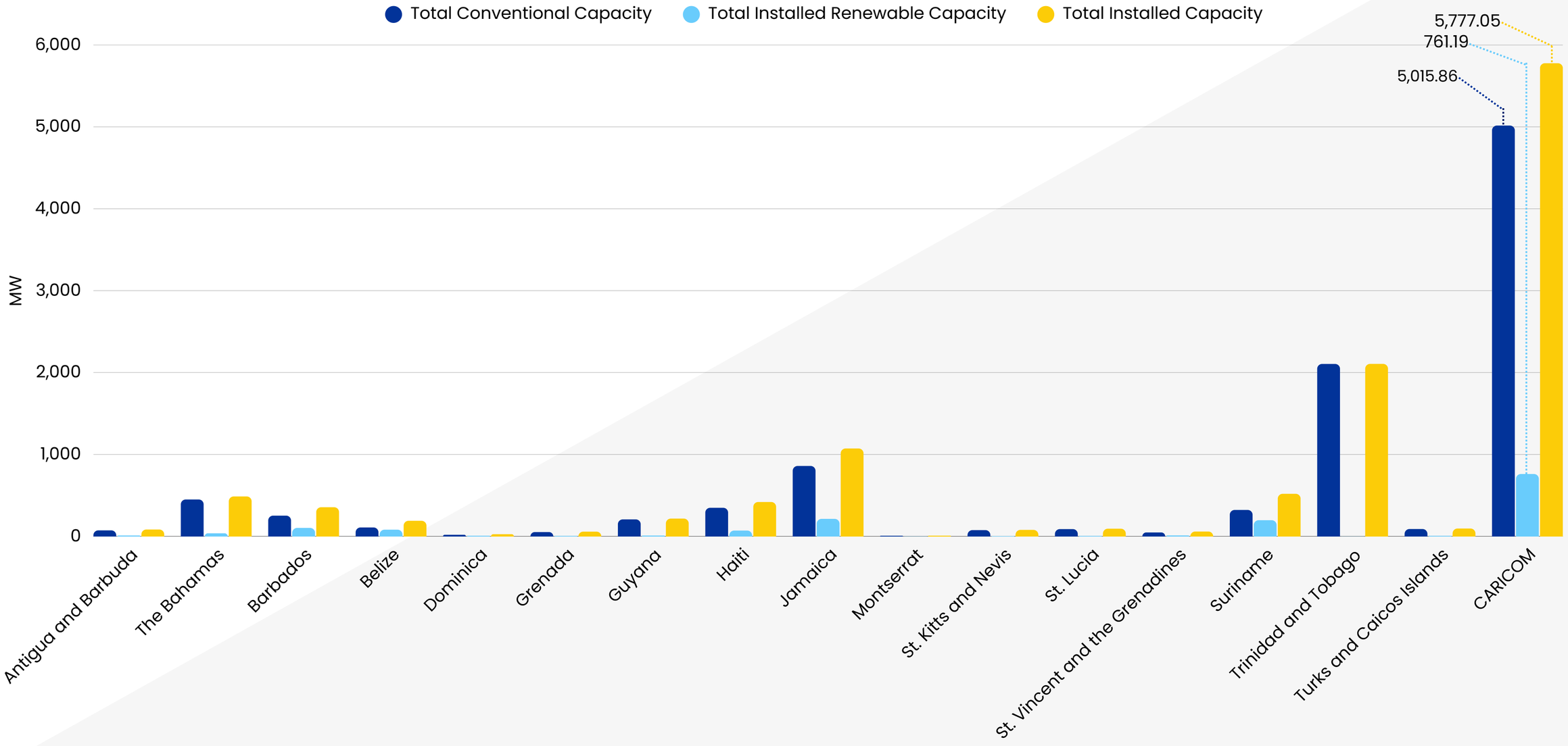
Country	Energy Ministry	Climate Change Ministry	Electric Utility	Electric Regulator
Trinidad and Tobago	Ministry of Energy and Energy Industries	Ministry of Planning and Development	Trinidad and Tobago Electricity Commission (T&TEC)	Regulated Industries Commission
Turks and Caicos Islands	Ministry Of Public Safety and Utilities - Energy and Utilities Department	Ministry of Tourism, Agriculture, Fisheries, Heritage and the Environment - Department of the Environment and Coastal Resources	Fortis TCI	Ministry Of Public Safety and Utilities - Energy and Utilities Department

Policy, Legal and Regulatory (PLR) Framework

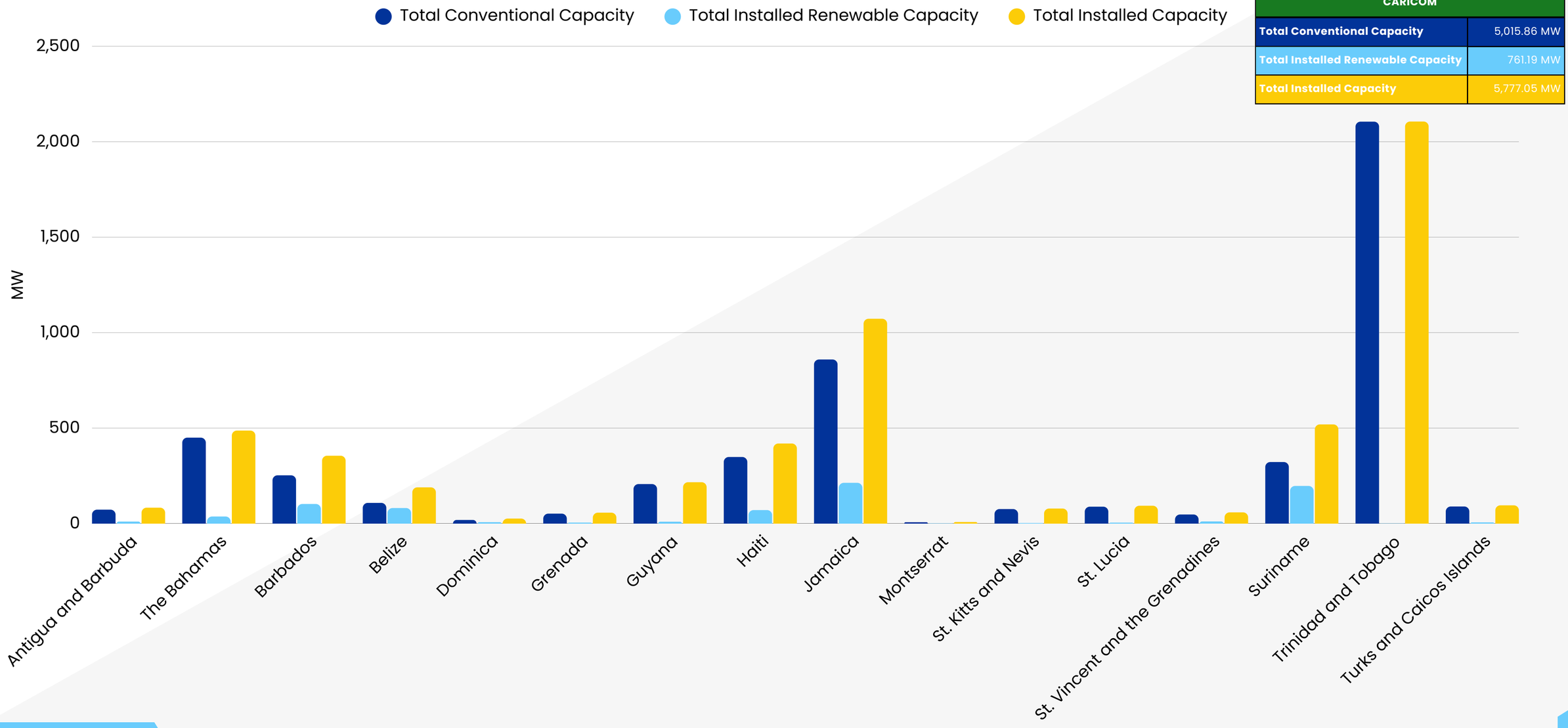
Country	Energy Policy	Energy Action Plan	RE Target	EE Target	Electricity Regulator	Net Billing/Net Metering	Feed-in-tariff:	Interconnection Policy/Standards	RE/EE Act	Integrated Resource and Resilience Plan
Antigua and Barbuda	2011		2012	2012	1973	2017		2011	2015	
The Bahamas	2013		2013		2009	2017	2017	2017		
Barbados	2019	2019	2019	2021	2002	2012	2019	2017		2021
Belize	2023		2023	2023	1999					2022
Dominica	2011	2011	2021		2006	2016		2016	2018	
Grenada	2023		2017		2016	2021		2023		
Guyana	2017		2022		1990	2022		2017		
Haiti	2012		2015		2016	2016				
Jamaica	2009		2022	2009	1995	2016		2016		
Montserrat	2016	2016	2016							
St. Kitts and Nevis	2014		2021					2018		
St. Lucia	2023	2023	2023		2016	2010			2015	2015
St. Vincent and the Grenadines	2009	2010	2010	2010		2019	2019	2019		
Suriname	2012		2020		2016		2018	2018		
Trinidad and Tobago			2021		1998			2011		
Turks and Caicos Islands			2019		2021					

In Force Updating Draft Draft in Progress Not Established

Electricity and Energy Efficiency - Electricity Data - Installed Capacity

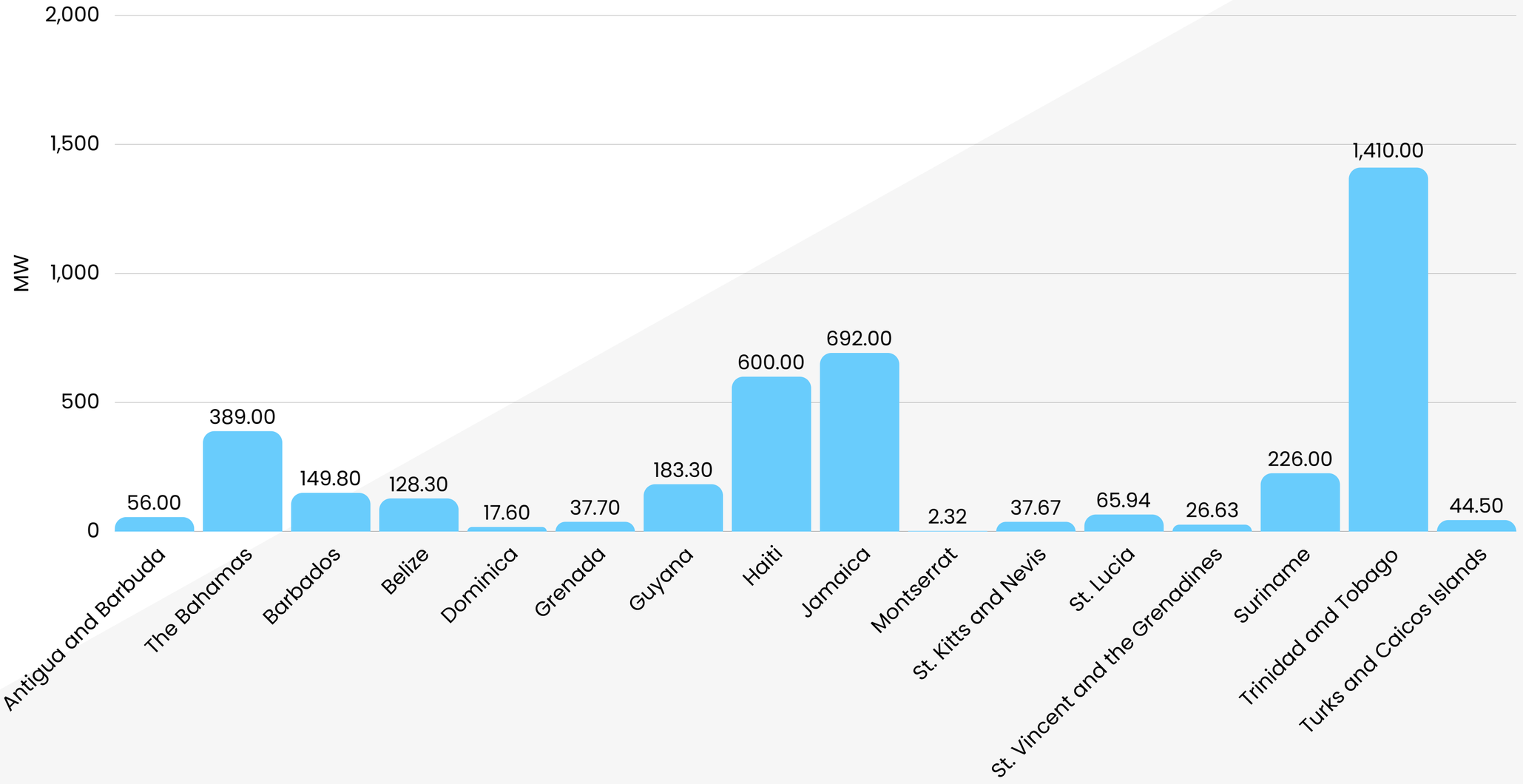


Electricity and Energy Efficiency - Electricity Data - Installed Capacity

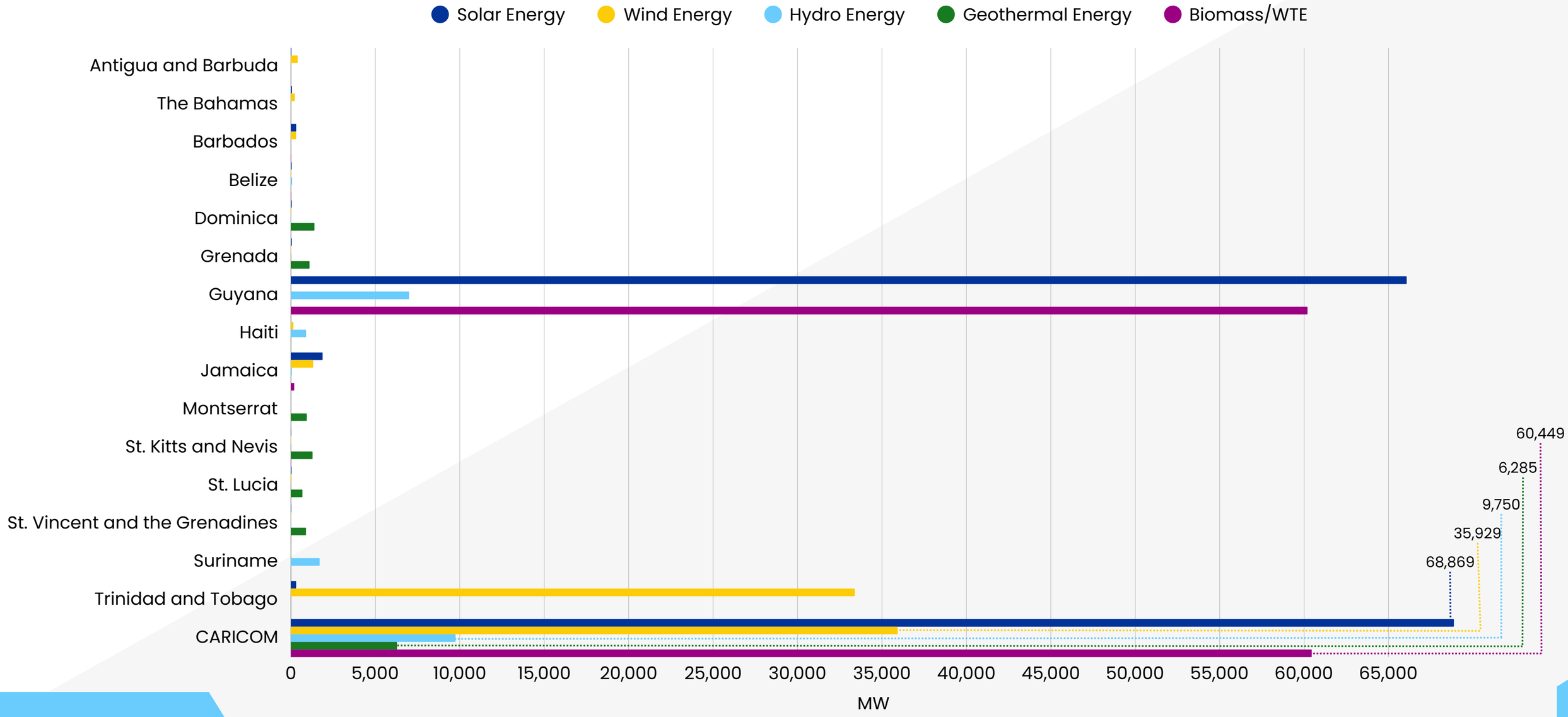


CARICOM	
Total Conventional Capacity	5,015.86 MW
Total Installed Renewable Capacity	761.19 MW
Total Installed Capacity	5,777.05 MW

Electricity and Energy Efficiency - System Peak Demand

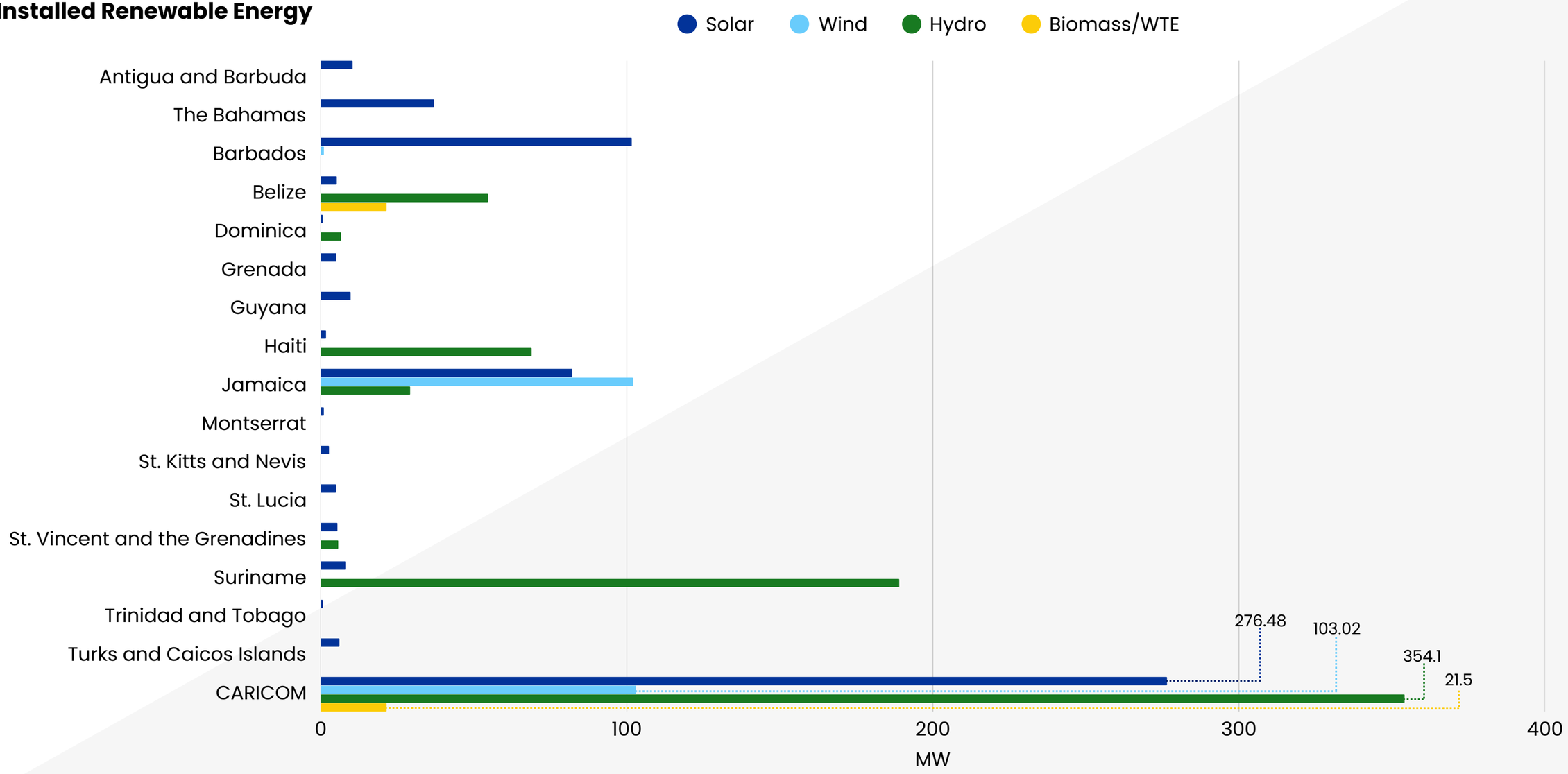


Electricity and Energy Efficiency - Renewable Energy Potential



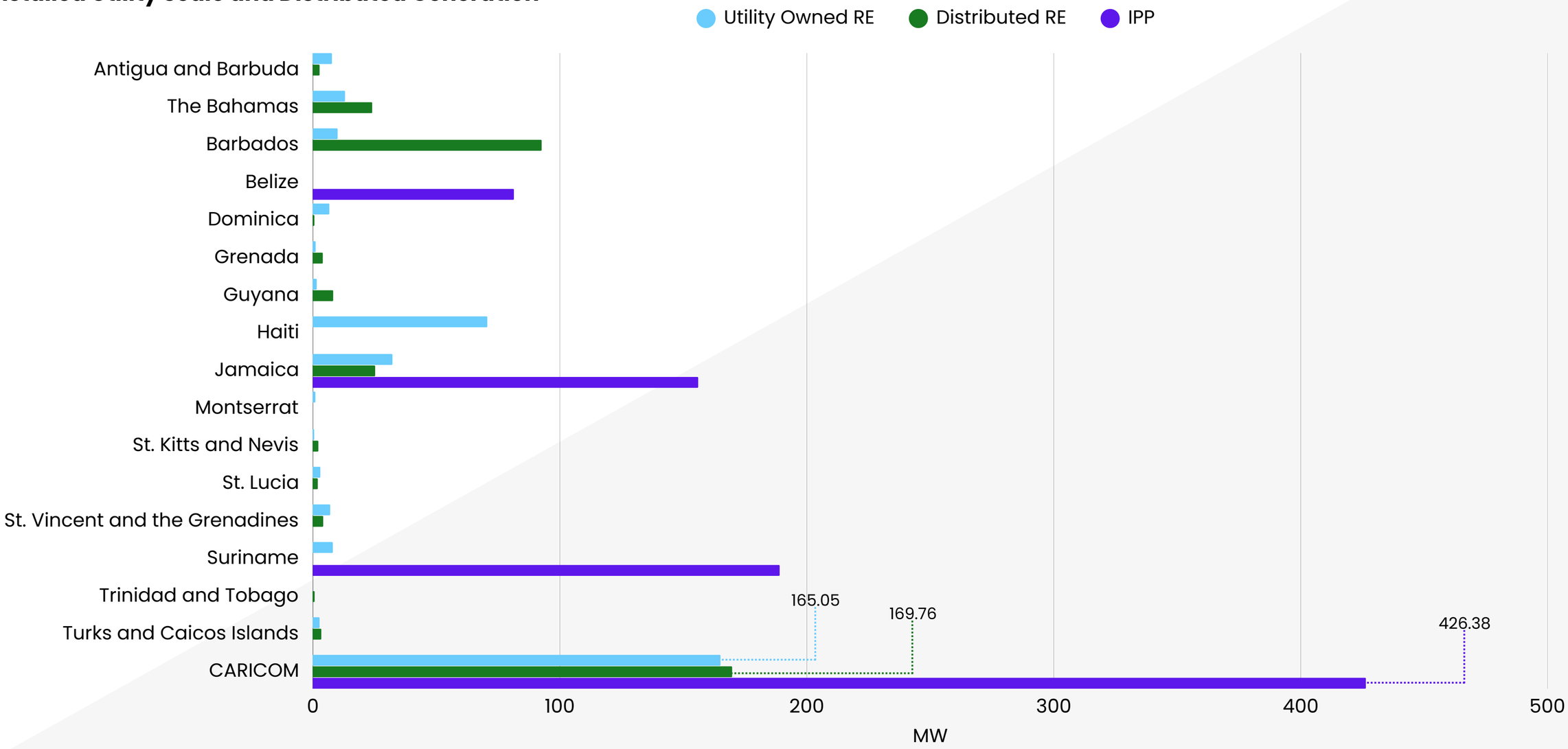
Electricity and Energy Efficiency

Installed Renewable Energy

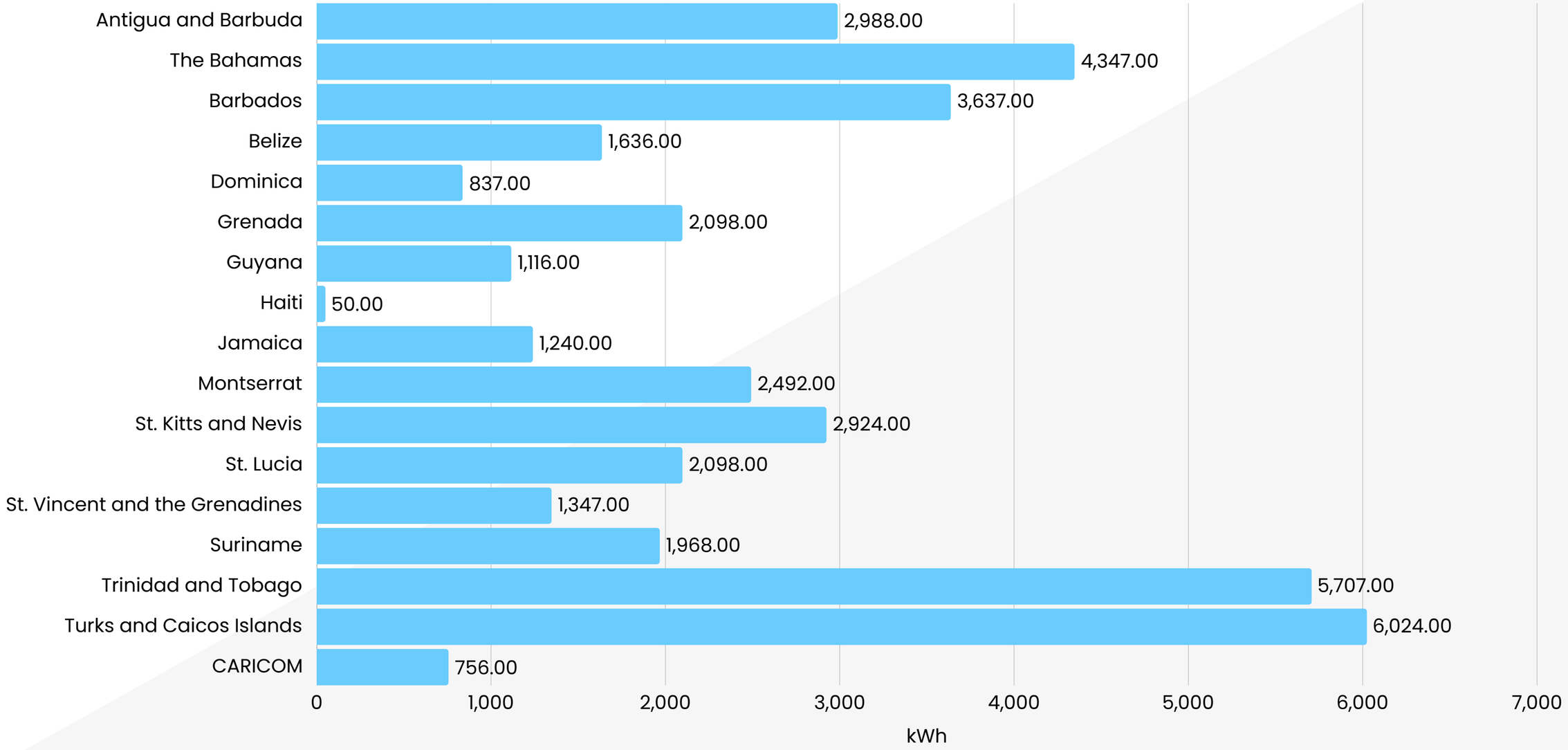


Electricity and Energy Efficiency

Installed Utility Scale and Distributed Generation



Electricity and Energy Efficiency - Electricity Use per Capita



Tertiary Programmes Offered

Country	Name of Education Programme Provided	Vocational Certificate	Associate Degree	Bachelors	Masters Degree	Mphil/PhD	Certification by a Professional Body
Antigua and Barbuda	Antigua State College		Two Programmes				
The Bahamas	Bahamas Technical and Vocational Institute	Two Programmes					
	University of the Bahamas			Three Programmes			
	The Bahamas Agriculture and Marine Science Institute		One Programme				
Barbados	University of the West Indies, Cave Hill Campus			Two Programmes	One Programme	One Programme	
	Barbados Community College	One Programme					
	Samuel Jackman Prescod Institute of Technology	Five Programmes					
	Barbados Vocational Training Board	One Programme					
Belize	Institute for Technical and Vocational Education and Training (ITVET)	One Programme					
	Galen University			One Programme			
	University of Belize		One Programme	One Programme			

Tertiary Programmes Offered

Country	Name of Education Programme Provided	Vocational Certificate	Associate Degree	Bachelors	Masters Degree	Mphil/PhD	Certification by a Professional Body
Dominica	Dominica State College						
Grenada		One Programme	One Programme				
Guyana	University of Guyana		One Programme	Six Programme	Eight Programmes		
	Texila American University				One Programme		
	Nations School of Law				One Programme		
	Nations School of Technology	Four Programme					
Haiti	Quisqueya University			One Programme			
	Université G.O.C (GOC University)			One Programme			
	Faculty of Science (Faculté Des Sciences) State University of Haïti (Université d'Etat d'Haïti)			One Programme			
Jamaica	University of the West Indies, Mona Campus			Eight Programme	Three Programme		
	University of Technology	One Programme		One Programme	Two Programmes	One Programme	
	Excelsior Community College		One Programme				
	University of the Commonwealth Caribbean		One Programme				

Tertiary Programmes Offered

Country	Name of Education Programme Provided	Vocational Certificate	Associate Degree	Bachelors	Masters Degree	Mphil/PhD	Certification by a Professional Body
Jamaica	HEART/NSTA Trust	Four Programmes					
	Wigton Renewable Energy Training Lab	Seven Programmes					
	Vector Technology Institute	One Programme					
Montserrat	No Programmes conducted in country						
St. Kitts and Nevis	Clarence Fitzroy Bryant College		Two Programmes				
St. Lucia	Sir Arthur Lewis Community College	One Programme	Three Programmes				
St. Vincent and the Grenadines	St. Vincent and the Grenadines Community College	One Programme	Three Programmes				
Suriname	Polytechnic College Suriname			One Programme			
	Anton de Kom Universiteit van Suriname (Anton de Kom University of Suriname)			One Programme			
Trinidad and Tobago	University of the West Indies, St. Augustine Campus Campus			Three Programmes	Two Programmes	Four Programmes	
	School of Business and Computer Science						One programme
	The University of Trinidad and Tobago		Two Programme	Two Programme	One Prgramme		

Tertiary Programmes Offered

Country	Name of Education Programme Provided	Vocational Certificate	Associate Degree	Bachelors	Masters Degree	Mphil/PhD	Certification by a Professional Body
Trinidad and Tobago	The College of Science, Technology and Applied Arts of Trinidad and Tobago	One Prgramme					
	CTS College of Business and Computer Science	One Prgramme					
Turks and Caicos Islands	No Programmes conducted in country						

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
Antigua and Barbuda	Antigua and Barbuda Sustainable Energy Action Plan	86% renewable energy generation from local resources in the electricity sector by 2030. 100% of all new vehicle sales to be electric vehicles by 2030. Explore potential for emissions reductions in the waste sector by 2025. Explore potential for emissions reductions in the Agriculture, Forestry and Other Land Use (AFOLU) sector by 2030	A mitigation target of; 86% renewable energy generation in the electricity sector 100% of all new vehicle sales to be electric vehicles by 2030	Energy Sector Industrial Processes and Products Use Agriculture, Forestry and Other Land Use Waste Electricity Transportation	3
Bahamas	National Policy for the Adaptation to Climate Change (2005)	Reducing GHG emission by 30% compared to its BAU scenario. This covers gases and sectors included in The Bahamas National Inventory. Having at least 30% of renewables in the country's energy mix. Electric and hybrid vehicles represent 35% and 15% of total vehicle sales, respectively	Absolute economy-wide emissions target expressed as a single-year target (2030)	Energy Transportation Industrial Processes and Produce Use (IPPU) Land-Use, Land-Use Change and Forestry (LULUCF) Waste	2

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
Barbados	National Climate Change Policy (2012)	Total absolute emissions in the base year (2008) have been restated at 2,123Gg CO2e. The 2015 NDC inventory stated emissions at 1,816Gg CO2e. The absolute emissions reductions resulting from this 2021 NDC update conditional contribution below the 2008 base year are 705Gg CO2e (2025) and 1,459Gg CO2e (2030) respectively. Total economy wide BAU emissions projections are 1,881Gg CO2e (2025) and 1,958Gg CO2e (2030) respectively.	2025 20% reduction relative to business-as-usual emissions scenario in 2025 without international support (unconditional). 35% reduction relative to the business-as-usual emissions scenario in 2025 conditional upon international support. 2030 35% reduction relative to business-as-usual emissions scenario in 2030 without international support (unconditional). 70% reduction relative to business-as-usual emissions scenario in 2030 conditional upon international support.	• Energy, including transport • Agriculture • Industrial Processes and Product Use, • Land-use Land Use Change and Forestry • Waste	2
Belize	National Climate Change Policy, Strategy and Master Plan (2021)	Targets included in this updated NDC are estimated to avoid a cumulative emissions total of 5,647 KtCO2e between 2021 and 2030 (peaking at 1,080 KtCO2e in avoided emissions in 2030).	Greenhouse Gas (GHG) reduction target of 20% by 2030 compared to the business-as-usual (BAU) scenario.	• LUCF • Agriculture • Energy • Waste management	4

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
Dominica	National Climate Change Policy and Action Plan (2019-2024)	45% GHG emissions reduction below 2014 levels by 2030	To reduce emissions by 39% by 2025 and 45% by 2030. Sectoral GHG emission reduction targets by 2030 have also been identified as shown below: • Energy Industries - 98.6% • Transportation - 20% • Shipping - 100% • Agriculture - 50% • Manufacturing and Construction - 8.8% • Commercial /Institutional, Residential, Fishing - 8.1% • Solid Waste - 78.6%	Energy Industries Transportation Shipping Agriculture Manufacturing and Construction Commercial/Industrial Residential Fishing Solid Waste	3
Grenada	National Climate Change Policy for Grenada, Carriacou and Petite Martinique (2017-2021)	The Government of Grenada has committed itself at the COP 21 (Paris), with the submission of the Nationally Determined Contributions. The main aims of Grenada's NDC are as follows: Reduce carbon dioxide (CO2) emissions from the power sector by 40% by 2030. Reducing emissions from land transport 20% by 2025 Using methane capture technologies for reducing waste management emissions by over 90%. Doubling carbon storage in areas for protected forest by for example, planting indigenous (Faster growing) species.	Reducing GHG emissions by 40% of the 2010 emissions levels by 2030	Electricity Transport Waste Forestry	2

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
Guyana	National Climate Change Policy and Action Plan 2020-2030 (Draft) (2019) Climate Resilient Strategy and Action Plan for Guyana (2015) Low Carbon Development Strategy (2030)	Green Economy through a low-emission development pathway, achieving improved human well-being and social equity while significantly reducing environmental risks. By 2025, Guyana intends to: Increase its share of renewable energy by 100%. Maintain and enhance its role as a net carbon sink.	70% emission reductions by 2030	Forestry (including Avoided Deforestation) Energy	3
Haiti	Politique Nationale de Lutte contre les Changements Climatiques (PNCC) 2019 (National Policy for the Fight against Climate Change (PNCC) (2019))	Unconditional reduction of 6.32% compared to the baseline Conditional reduction of 25.5% compared to the baseline	32% by 2030	Agriculture Fishing Infrastructure Forests Water resources	2
Jamaica	Climate Change Policy Framework for Jamaica	25.4% reduction relative to business-as-usual emissions in 2030 without international support (unconditional) 28.5% reduction relative to business-as-usual emissions in 2030 conditional upon international support		Land-use and forestry Agriculture Waste to energy	3
Montserrat	National Climate Change Policy for Montserrat (Draft)	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
St. Kitts and Nevis	St. Kitts and Nevis National Climate Change Policy	Transition to 100% renewable energy in power generation* Improve efficiency in transmission and distribution of electricity. Electrification of 2% of the total vehicle Development of EV infrastructure *35 MW of renewable energy proposed to be sourced from a solar farm that will be constructed through private capital, beyond which, all other interventions are conditional.	St. Kitts and Nevis pledges a 61% total CO2 emissions reduction against a 2010 base year.	All sectors, with a focus on the energy sector (power generation and transportation)	2
St. Lucia	Saint Lucia's National Adaptation Plan 2018-2028 (2018)	7% GHG emissions reduction in the energy sector relative to 2010, by 2030, equivalent to 37 GgCO2 eq.	The reduction of 16% and 23% of national greenhouse gas emissions by 2025 and 2030, respectively (relative to those in 2010)	Energy: Electricity generation and transportation	3
St. Vincent and the Grenadines	National Climate Change Policy of Saint Vincent and the Grenadines (2019)	An unconditional, economy-wide reduction in greenhouse gas (GHG) emissions of 22% compared to its business as usual (BAU) scenario by 2025.		• Energy (including domestic transport) • Industrial processes and product use • Agriculture • Land use, land use change and forestry • Waste	2

Climate Change Framework

Country	Climate Change Policy	National Determined Contributions	Emission Reduction Target	Priority Sectors for NDC	No. of National Communication Reports to UNFCCC
Suriname	National Climate Change Policy, Strategy and Action Plan (2014 - 2021)	Maintaining 93% forest cover; Renewable energy above 25 % by 2025 and above 35 % by 2030	An estimated 70% of emissions from the following sectors: Forests, energy, agriculture, and transport.	Forestry Energy Transportation Agriculture	3
Trinidad and Tobago	National Climate Change Policy (NCCP) (2011)	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). Conditional: Additional reduction achievable under certain conditions which would bring the total GHG reduction to 15% below BAU emission levels by December 31, 2030.	15% below BAU by 2030	Power Generation Transportation Industry	3
Turks and Caicos Islands	Turks and Caicos Islands Climate Change Charter	Not Applicable	Not Applicable	Not Applicable	Not Applicable

References

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