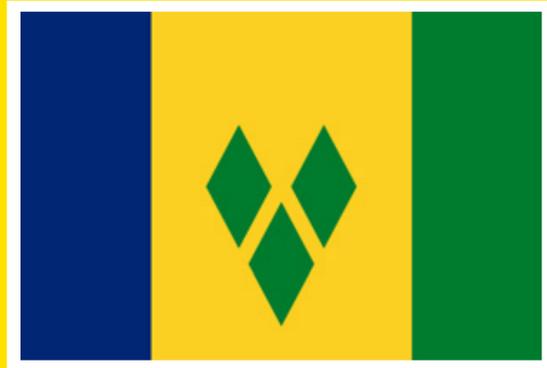


2019 ENERGY REPORT CARD

ST. VINCENT & THE GRENADINES



WWW.CCREEE.ORG



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

INTRODUCTION

This document presents St. Vincent & the Grenadines Energy Report Card (ERC) for 2019. The ERC provides an overview of the energy sector performance in St. Vincent & the Grenadines. 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, 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.



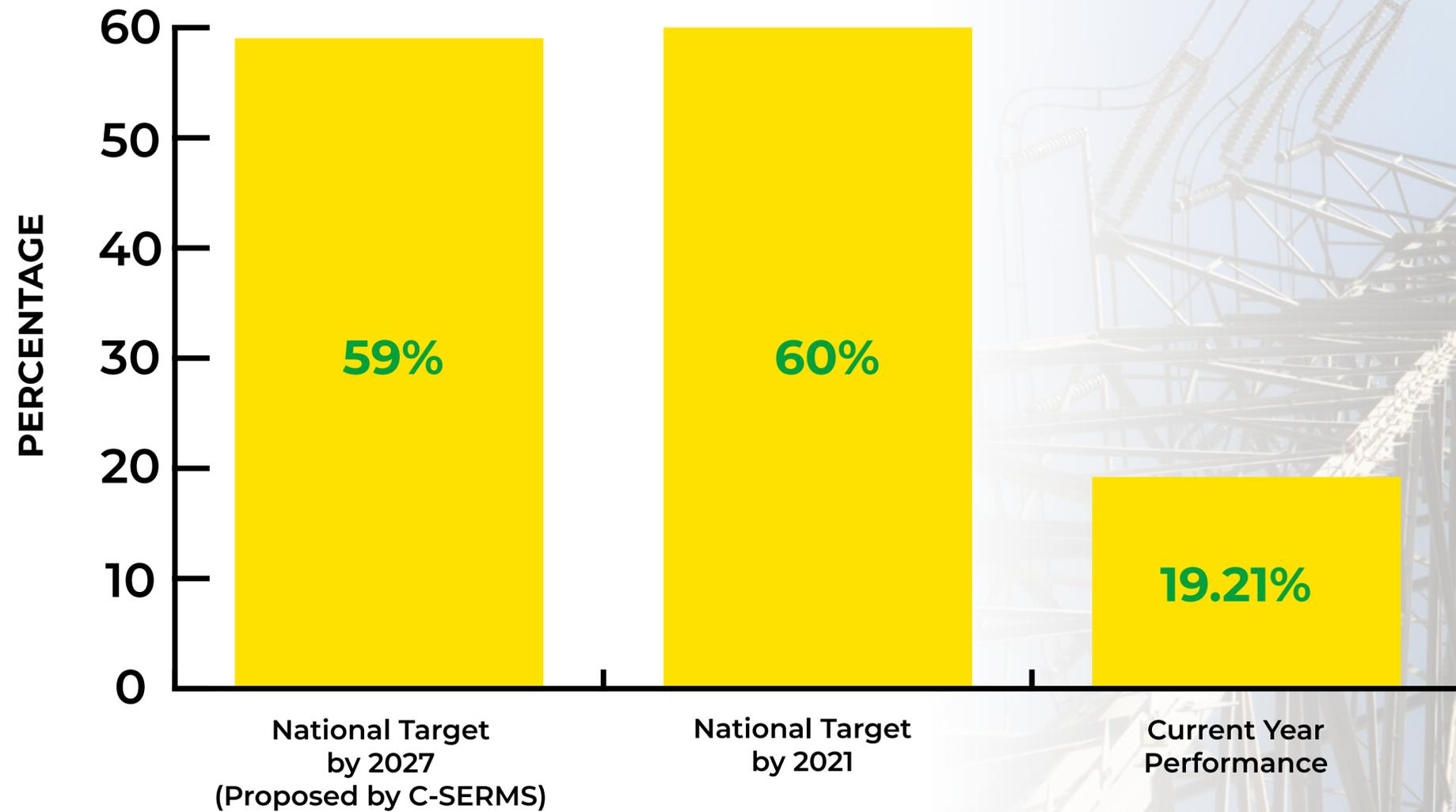
ENERGY SECTOR SUMMARY

Key Data and Information - Energy Sector	
Population	110,049 [1]
GDP (USD) Per Capita	\$6,077.41 [2]
Debt as % of GDP	75.20% [2]
Human Development Index (2018)	0.728 [3]
National Development Plan/Overall Country Development Strategy	National Economic and Social Development Plan 2013-2025 [4]
National Energy Policy	National Energy Policy (2009) [5]
Renewable Energy (RE) Policy	None
RE Target	60% by 2020 [6]
Energy Performance Standards/Appliance Labelling	Draft Energy labelling Standards for: [7] 1. Compact fluorescent lamps and light emitting diode lamps-requirements 2. Air-conditioners 3. Refrigeration Appliances Requirements
No. of Persons Employed in Energy Sector (Ministry of Energy and Energy Industries)	365 [8]
Total Installed Capacity (MW)	51.95 [9]
Total Installed RE (MW)	8.77 [9]
Fuel and Oil Imports as % of GDP	6.10% [2]
Climate Change Policy	National Climate Change Policy of Saint Vincent and the Grenadines (2019) [10]
Electric Vehicle Stock	27 [11]
National Determined Contributions (NDC)	22% reduction below business as usual(2010 baseline) by 2025 [12]
National Repository for Energy Data	None



ENERGY SECTOR PERFORMANCE AGAINST TARGETS

RENEWABLE ENERGY AS A PERCENTAGE OF INSTALLED CAPACITY





KEY ENERGY STAKEHOLDERS

Government Ministries, Departments and Agencies

- Ministry of National Security, Air and Sea Port Development Energy Unit
- St. Vincent Electricity Services Limited (VINLEC)
- Ministry of Finance, Economic Planning, Sustainable Development and Information Technology
- Sustainable Development Unit

Fuel Importers & Suppliers

- Rubis West Indies Ltd
- Sol EC Ltd
- PetroCaribe

Electric Utility

- St. Vincent and the Grenadines Electricity Services Ltd. (VINLEC)

Independent Power Producers

- N/A

Electricity Regulator

- No independent Regulator; Cabinet of the Government of St. Vincent and the Grenadines self regulates

Transportation

- Ministry of Transport, Works, Urban Development & Local Governance



ELECTRICITY SECTOR: POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK

	Completed	Draft	In Progress	Not Established
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				✓

KEY ACHIEVEMENTS: PLR FRAMEWORK TIMELINE FOR ELECTRICITY SECTOR

Name	Year
Electricity Supply Act (ESA) [13]	1973
National Energy Policy [5]	2009
National Energy Action Plan [6]	2010
Geothermal Resources Development Act [14]	2015

Policies and Legislation Relevant to the Energy Sector

Policies:

- National Energy Policy (2009) [5]
- National Energy Action Plan (2010) [6]
- Electric Vehicle Policy (Draft Stage)
- Updated National Energy Policy (Draft Stage)
- National Economic and Social Development Plan 2013-2025 [4]

Legislation:

- Electricity Supply Act (1973) [13]
- Geothermal Resources Development Act (2015) [14]
- Customs (Control and Management) Act [15]

Policies and Legislation Relevant to the Transportation Sector

Policies:

- Electric Vehicle Policy (Draft)

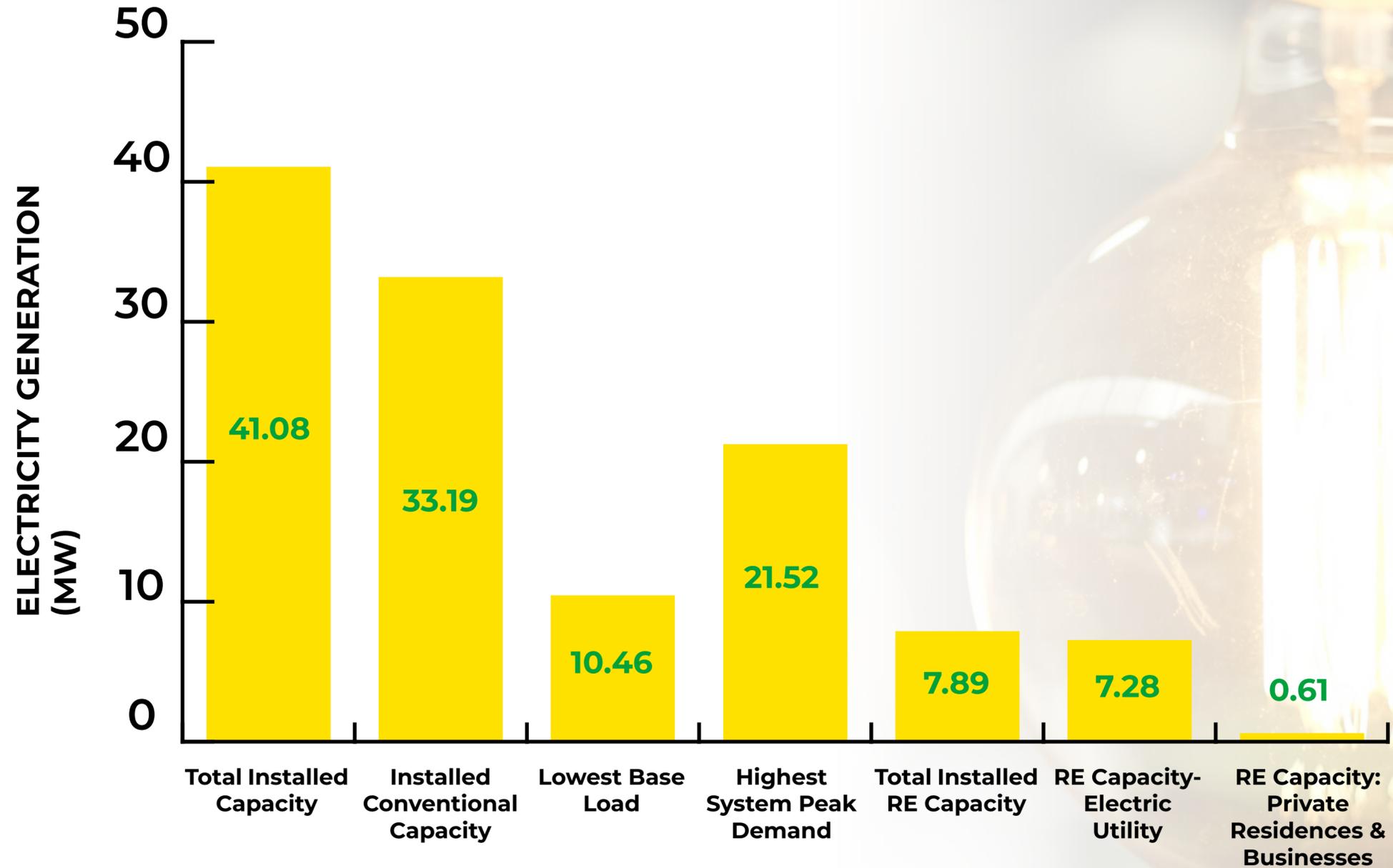
Legislation & Regulation:

- Customs (Control and Management) Act [15]



ELECTRICITY & ENERGY EFFICIENCY

ELECTRICITY GENERATION





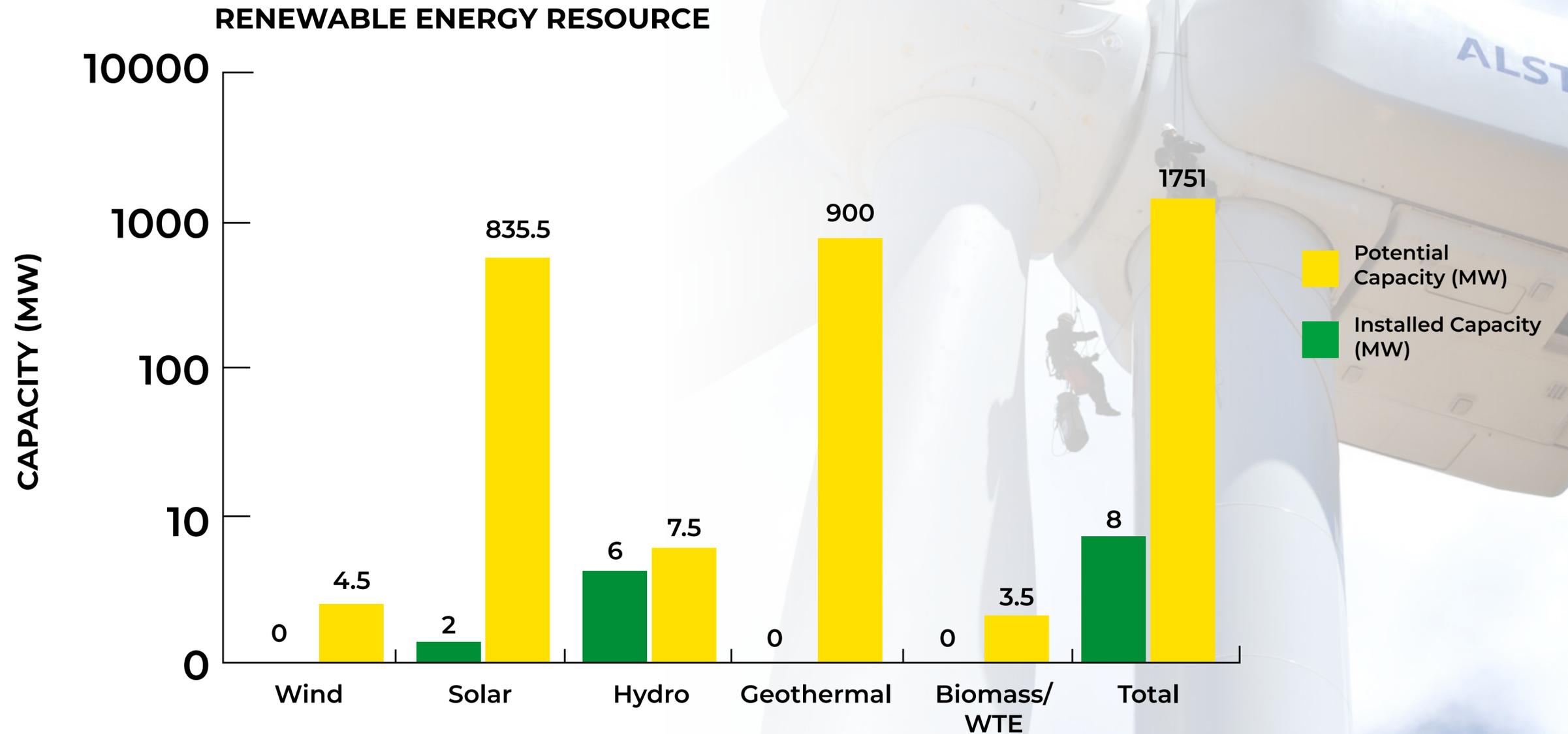
ELECTRICITY & ENERGY EFFICIENCY (CONT'D)

ELECTRICITY CONSUMPTION





ELECTRICITY & ENERGY EFFICIENCY (CONT'D)





ELECTRICITY & ENERGY EFFICIENCY (CONT'D)

TARRIFS

Rate Class	Monthly Consumption / Demand	Tarrif / (US\$/kWh)
Residential	0	1.85 ¹
	≤ 50	0.16
	50 - 150	0.19
	>150	0.21
Commercial	0 - 17	6.44 ²
	18 - 150,000	0.23
	150,000 - 200,000	0.22
	> 200,000	0.21
Industrial/Large Power	≤150,000	0.18
	150,000 - 200,000	0.17
	>200,000	0.16
Streetlights		0.24
The monthly Fuel Surcharge rate is applied to all kWh (unit used) excepting for streetlights		

¹ This is a flat rate

² This is a flat rate

EFFICIENCY

Electricity System Heat Rate (kJ/kWh)	9,460
EE Target %	15
Electricity System Losses (%)	7
Electricity System Losses (MWh)	10,049
Energy Use (MWh) Per Capita	1.25



PROJECTS IN THE PIPELINE

Donor Funding and Technical Assistance Landscape	Donor Organization & Banks	Technical Assistance Providers	Funding Awards	Year
VINLEC Solar Expansion & Battery Energy Storage	Caribbean Development Bank (CDB), United Kingdom Department for International Development (DFID), European Union (EU)	VINLEC	Combination of Loan (CDB) and Grant (DFID & EU)	2020 (Start)
CDB 600 kW Argyle Solar Expansion	Caribbean Development Bank (CDB), United Kingdom Department for International Development (DFID), European Union (EU)	VINLEC; Energy Unit	Combination of Loan (CDB) and Grant (DFID & EU)	TBD
LED Streetlight Project	Caribbean Development Bank (CDB), United Kingdom Department for International Development (DFID), European Union (EU)	VINLEC	Combination of Loan (CDB) and Grant (DFID & EU)	2020 (Start)

ENERGY EFFICIENCY PROJECTS

Energy Efficiency	Old/Existing Infrastructure (Number/Size)	Consumption (KWh)	Annual Costs (USD)	Change in Old/Existing Infrastructure Expected in Upcoming Calendar Year (Number/Size)
Street Lighting	Approximately 6848 Halogens (5249 50W; 1105 100W; 446 150W; 48 250W))	223,685.14 kWh	561,136.54	30% of Streetlights should be changed to LED by December 2020

RENEWABLE ENERGY PROJECTS

Renewable Energy Source	Resource and Projects Capacity	Development Partner	Total Estimated Cost	Funding Source
Solar Photo-Voltaic	Argyle expansion -600 kW	Energy Unit	estimated USD \$1,158,000	Combination of Loan (CDB) and Grant (DFID & EU)
Solar Photo-Voltaic	30 kW solar PV- Georgetown Secondary School	Energy Unit	TBD	UNEP ESD Project
Solar Photo-Voltaic	40 kW solar PV- NEMO Building	Energy Unit	TBD	UNEP ESD Project



NUMBER AND TYPE OF TERTIARY LEVEL & VOCATIONAL TRAINING SUSTAINABLE ENERGY PROGRAMMES OFFERED

Name of Education Programme Provider	No of Persons Enrolled	Types of Programme		Programme Link
		Certificate	Associate in Applied Science	
St. Vincent and the Grenadines Community College: Division of Technical and Vocational Studies	18		Electrical Engineering Technology	https://svgcc.vc/programmes/full-time/associate/departement-of-engineering#Electrical
Organisation of Eastern Caribbean States (OECS)	9	OECS Photovoltaic Training & Certification for Installers and Inspectors		https://www.lokjackgsb.edu.tt/programmes/postgraduate/mba-in-sustainable-energy-management/



Organisation of Eastern Caribbean States

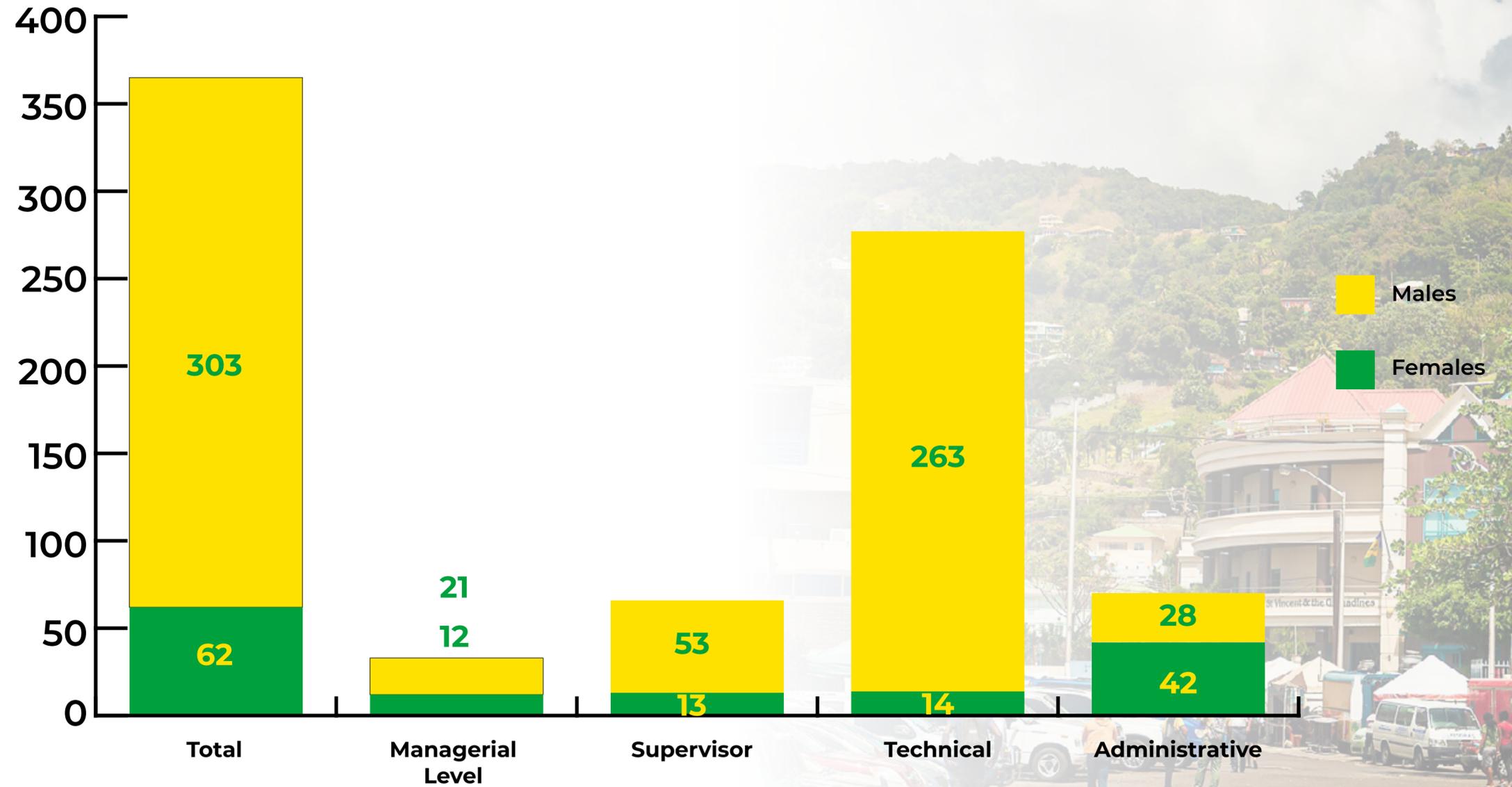


One Community · Growing Together



WORKFORCE

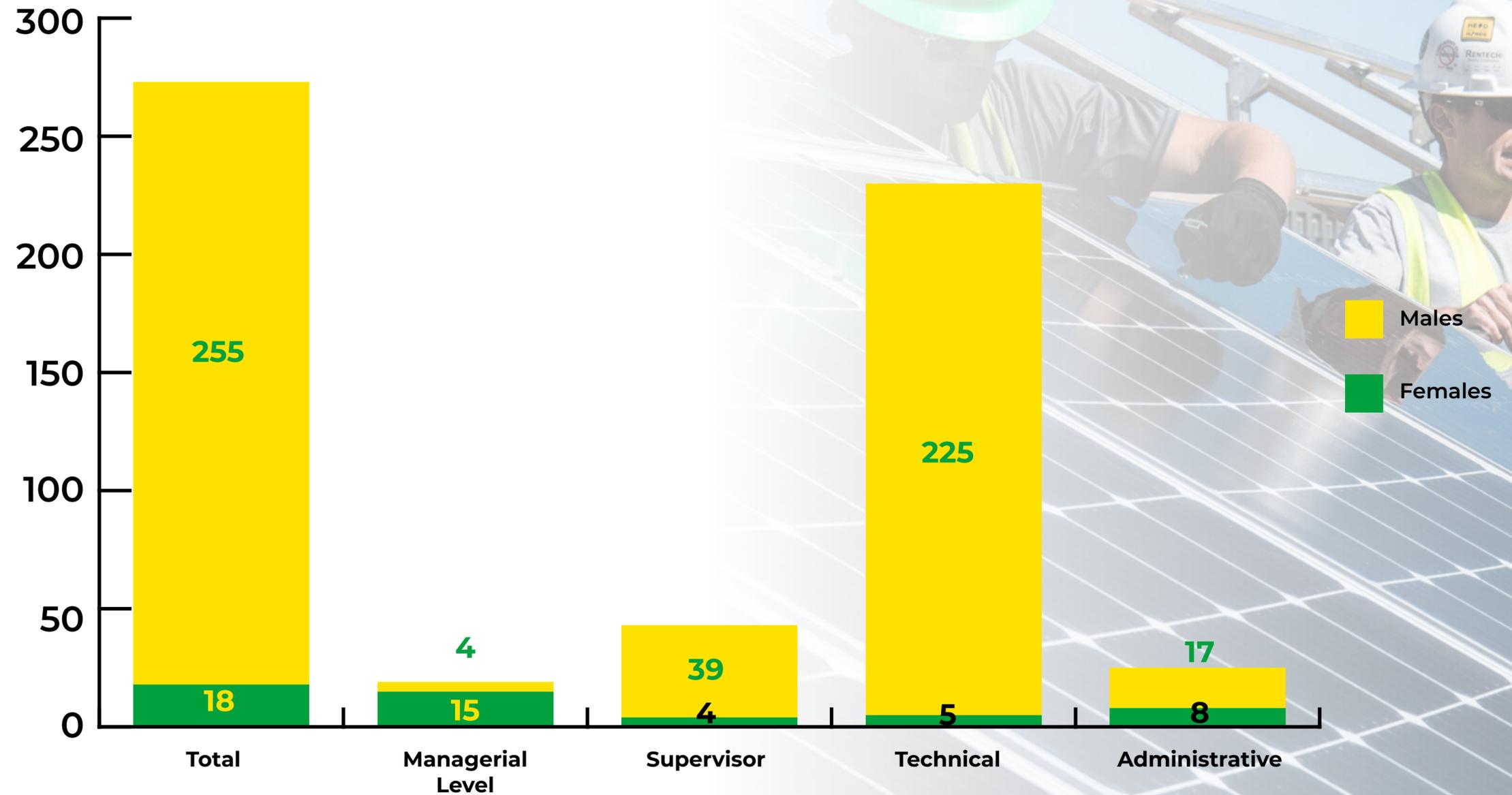
NO. OF PERSONS EMPLOYED IN ENERGY SECTOR
MINISTRY OF ENERGY AND ENERGY INDUSTRIES





WORKFORCE (CONT'D)

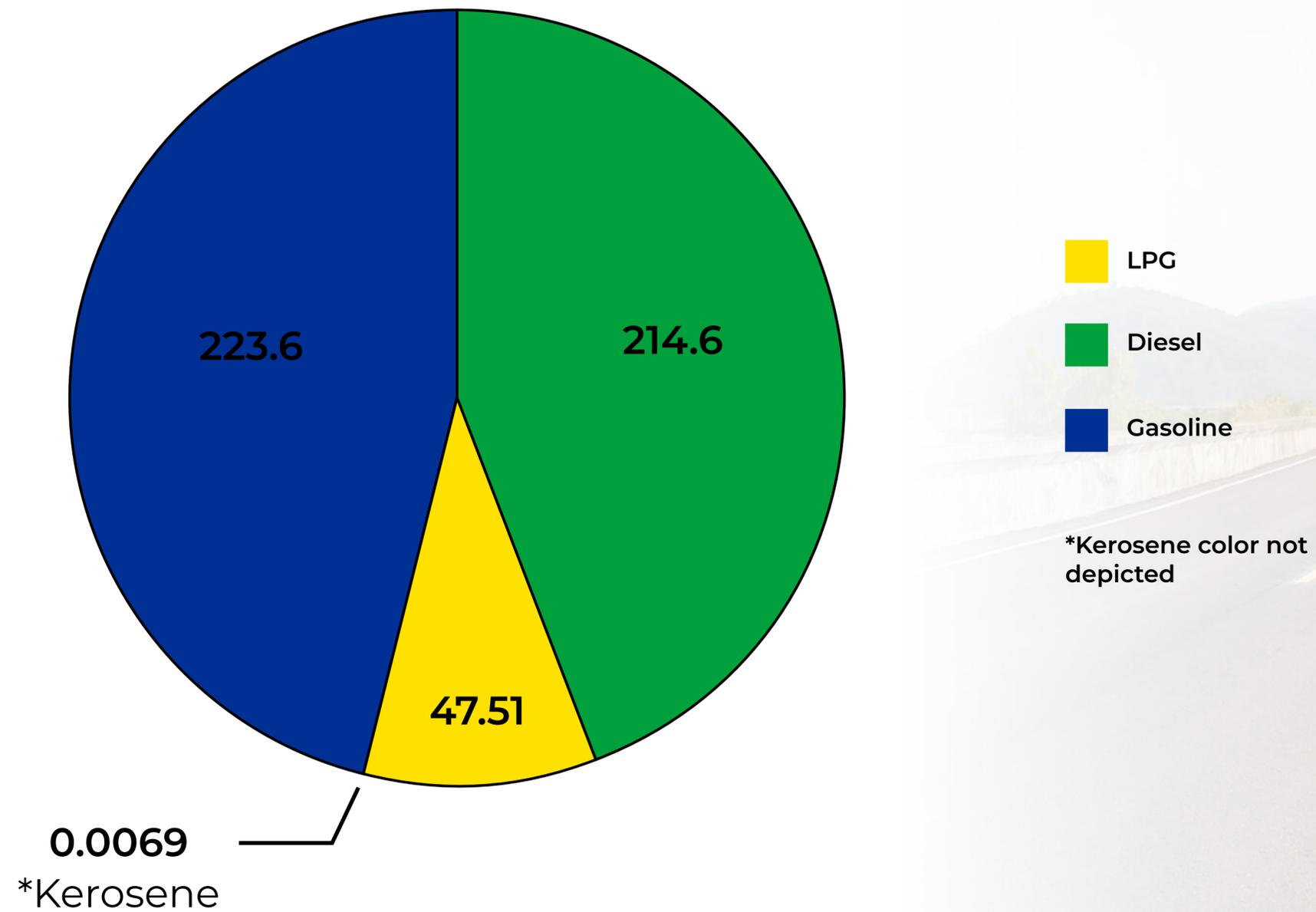
NUMBER OF PERSONS TRAINED IN ENERGY SECTOR





TRANSPORTATION SECTOR

BREAKDOWN OF FUEL USE IN TRANSPORTATION SECTOR/BOE





CLIMATE CHANGE FRAMEWORK

Climate Change Policy	The National Climate Change Policy (2019) [10] National Adaptation Plan [17]
National Determined Contributions	Yes, 2015 [12]
Emissions Reduction Target	22% below business as usual growth (2010 baseline) by 2025 [12]
Priority Sectors for NDC	Energy, Transport and Agriculture [12]
National Communications (NC) to the UNFCCC	Initial National Communication on Climate Change: St. Vincent and the Grenadines (2000) [18]
	Second National Communication on Climate Change: Saint Vincent and the Grenadines (2015) [19]



CLIMATE CHANGE FRAMEWORK (CONT'D)

GREENHOUSE GAS (GHG) INVENTORY (2015) [21]

Gas	Sector	Volume / Gg CO ₂ equivalent
Carbon Monoxide (CO)	Energy	7.903
	Land-Use Change & Forestry	0.188
	International Bunkers (Aviation)	0.001
Carbon Dioxide (CO ₂)	Energy	217.377
	Waste	0.037
	International Bunkers (Aviation)	0.723
	CO ₂ Emissions from Biomass	7.530
	Land-Use Change & Forestry	-34.731
Methane (CH ₄)	Energy	0.040
	Agriculture	0.243
	Land-Use Change & Forestry	0.022
	Waste	2.896
Non-Methane Volatile Organic Compounds (NMVOC)	Energy	1.410
	Industrial Processes	3.812
	Solvent and Other Product Use	0.965
	International Bunkers (Aviation)	0.001
Nitrogen Oxides (NO _x)	Energy	1.346
	Land-Use Change & Forestry	0.005
	International Bunkers (Aviation)	0.003
Nitrous Oxide (N ₂ O)	Energy	0.002
	Solvent and Other Product Use	0.005
	Agriculture	0.179
	Waste	0.007
Sulphur Oxide (SO ₂)	Energy	0.456



REFERENCES

- [1] Statistical Office, Government of St. Vincent and the Grenadines, "Population and Demography," 2020. [Online]. Available: http://stats.gov.vc/stats/?page_id=256. [Accessed 2020].
- [2] Statistical Office, Government of St. Vincent and the Grenadines, Kingston, 2020.
- [3] United Nations Development Programme, "Human Development Report 2019 Inequalities in Human Development in the 21st Century Briefing note for countries on the 2019 Human Development Report Saint Vincent and the Grenadines," 2019. [Online]. Available: http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/VCT.pdf. [Accessed 2020].
- [4] Government of St. Vincent and the Grenadines, "National Economic and Social Development Plan," 11 January 2013. [Online]. Available: <https://observatorioplanificacion.cepal.org/sites/default/files/plan/files/SanVicenteylasgranadinascompleto.pdf>. [Accessed 2020].
- [5] Government of St. Vincent and the Grenadines, "Sustainable Energy for SVG: The Government's National Energy Policy," 3 March 2009. [Online]. Available: <http://www.gov.vc/images/PoliciesActsAndBills/SVGNationalEnergyPolicyApprovedMar09.pdf>. [Accessed 2020].
- [6] Government of St. Vincent and the Grenadines, "Energy Action Plan for St. Vincent and the Grenadines, First Edition," January 2010. [Online]. Available: <http://www.gov.vc/images/PoliciesActsAndBills/SVGEnergyActionPlanSvgFirstEdition.pdf>. [Accessed 2020].
- [7] St Vincent and the Grenadines Bureau of Standards, Kingstown, 2020.
- [8] Various Stakeholders in the Energy Industry, "Workforce Data," 2020.
- [9] St. Vincent Electricity Services Limited, "Electricity and Energy Efficiency Data," Kingstown, 2020.
- [10] Caribbean Natural Resources Institute (CANARI), "National Climate Change Policy of Saint Vincent and the Grenadines," 2 August 2019. [Online]. Available: http://finance.gov.vc/finance/images/Policies/SVG_National_Climate_Change_Policy.pdf. [Accessed 2020].
- [11] Inland Revenue Department, Government of St. Vincent and the Grenadines, "Transportation Sector Data," 2020.
- [12] Government of St. Vincent and the Grenadines, "St. Vincent and the Grenadines Intended Nationally Determined Contribution," 18 November 2015. [Online]. Available: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Saint%20Vincent%20and%20Grenadines%20First/Saint%20Vincent%20and%20the%20Grenadines_NDC.pdf. [Accessed 2020].
- [13] Government of St. Vincent and the Grenadines, "Electricity Supply Act," 30 May 1973. [Online]. Available: http://energyunit.gov.vc/energyunit/images/pdf_documents/Electricity_Supply_Act_1973.pdf. [Accessed 2020].



REFERENCES (CONT'D)

- [14] Government of Saint Vincent and the Grenadines, "Geothermal Resources Development Act," 31 August 2015. [Online]. Available: http://energyunit.gov.vc/energyunit/images/pdf_documents/Geothermal-Resources-Development-Act-2015.pdf. [Accessed 2020].
- [15] Government of St. Vincent and the Grenadines, "Customs (Control and Management) Act," 2007. [Online]. Available: https://svgfiu.com/images/pdf/legislation/Acts_4_customs_control_and_management_act.pdf. [Accessed 2020].
- [16] St. Vincent Electricity Services Limited, "Service, Fuel Surcharge and Utility Rate Structure," St. Vincent Electricity Services Limited, 2020. [Online]. Available: <https://www.vinlec.com/contents/service-and-utility-rate-structure>. [Accessed 2020].
- [17] Government of St. Vincent and the Grenadines, "National Adaptation Plan for St. Vincent and the Grenadines," 2019. [Online]. Available: https://www4.unfccc.int/sites/NAPC/Documents/Parties/FINAL%20NAP_SVG_Approved.pdf. [Accessed 2020].
- [18] Government of St. Vincent and the Grenadines, "Initial National Communication on Climate Change: St. Vincent and the Grenadines," November 2000. [Online]. Available: <https://unfccc.int/sites/default/files/resource/SVG1020.PDF>. [Accessed 2020].
- [19] Government of St. Vincent and the Grenadines, "Second National Communication on Climate Change Saint Vincent and the Grenadines," 2015. [Online]. Available: <https://unfccc.int/resource/docs/natc/vctnc2.pdf>.