

## 2020 ENERGY REPORT CARD

# DOMINICA



**CCREEE**

CARIBBEAN CENTRE FOR RENEWABLE  
ENERGY & ENERGY EFFICIENCY

AN INSTITUTION OF



[www.ccreee.org](http://www.ccreee.org)

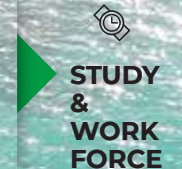
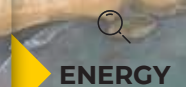


UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



Implemented by





## 2020 ENERGY REPORT CARD

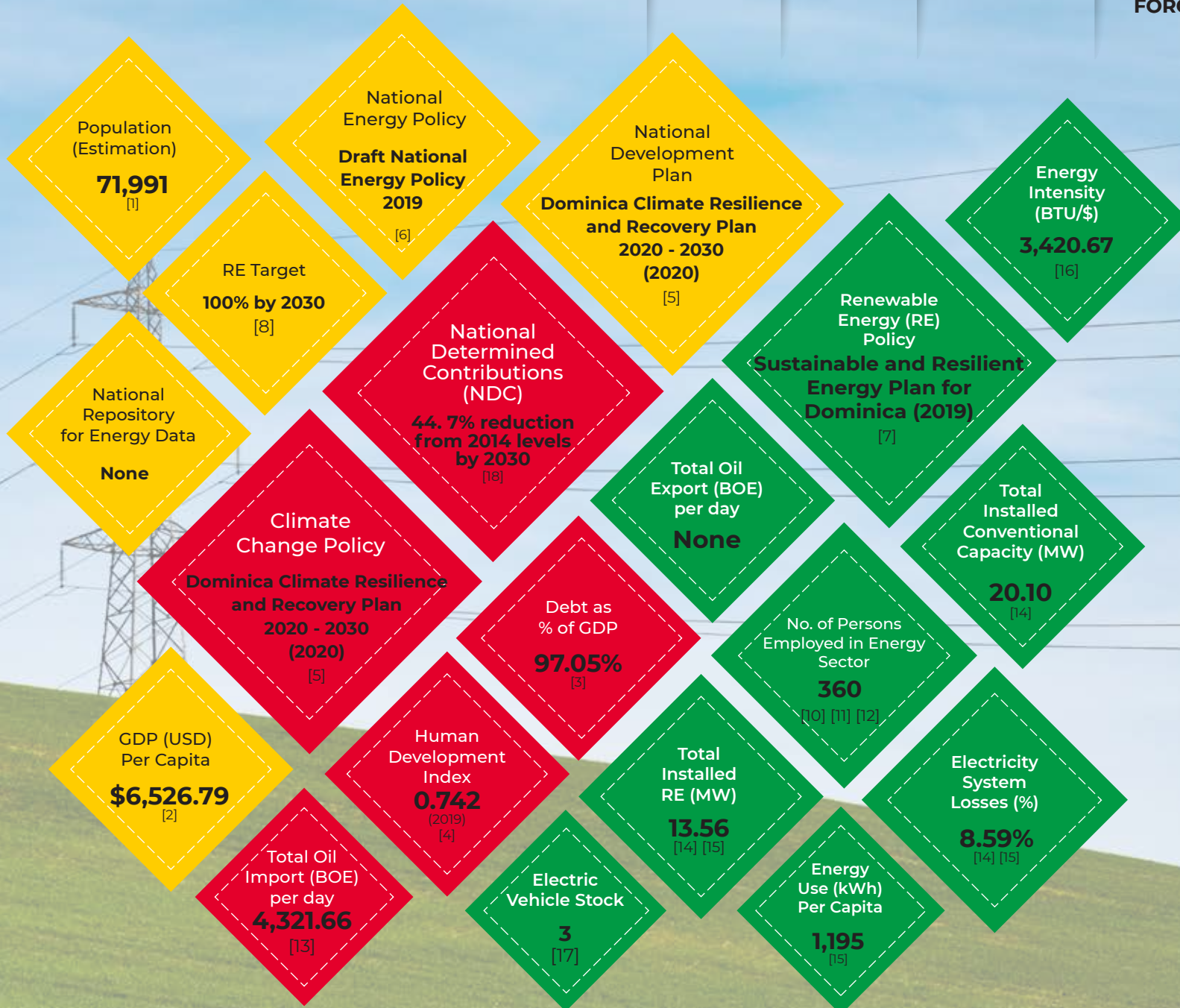
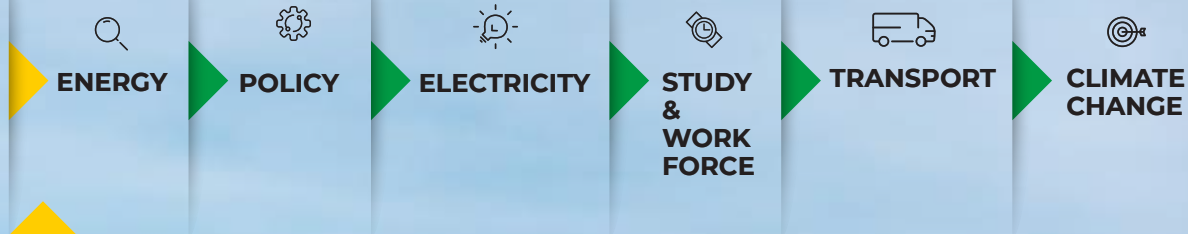
# INTRODUCTION

This document presents Dominica's Energy Report Card (ERC) for 2020.

The ERC provides an overview of the energy sector performance in Dominica. 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



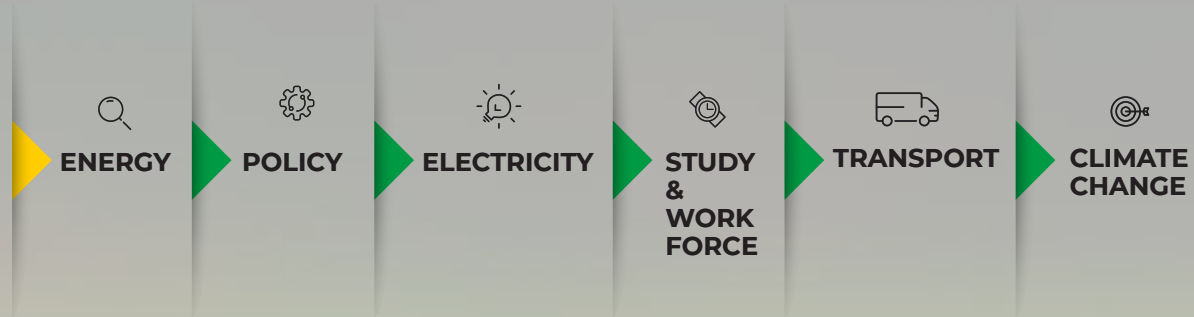
**Energy Performance Standards/Appliance Labelling**

The Dominica Bureau of Standards is in the processes of adopting the following:

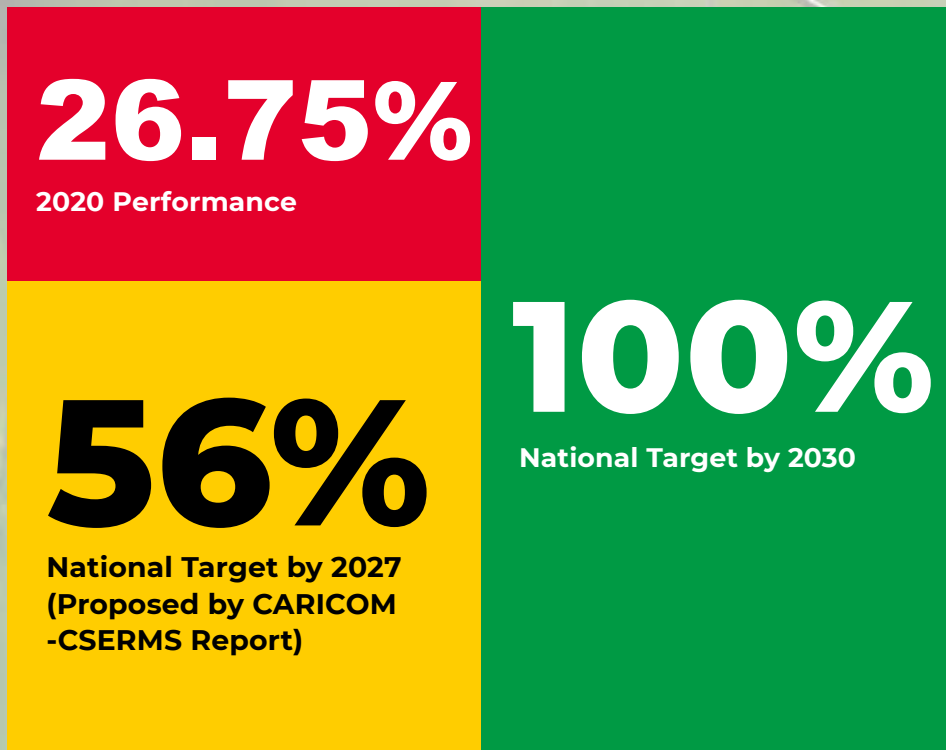
- CRS 59: 2019-Energy Labelling-Air Conditioners-Requirements
- CRS 58: 2018-Energy Labelling-Compact Fluorescent Lamps & Light Emitting Diodes Lamps-Requirements

Performance Standards:

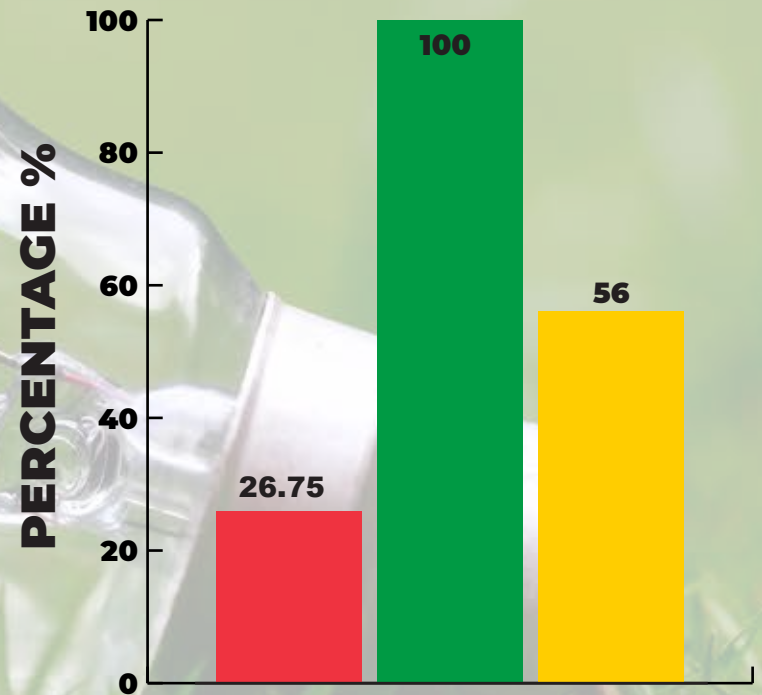
- IEC – 62552 Part 1: 2015 Household Refrigerating Appliances-Characteristics and Test Methods-Part 1: General Requirements
- IEC – 62552 Part 2: 2015 Household Refrigerating Appliances - Characteristics and Test Methods Part 2: Performance Requirements
- IEC – 62552 Part 3: 2015 Household Refrigerating Appliances - Characteristics and Test Methods Part 3: Energy Consumption and volume
- IEC 62612: 2013 Self-Ballasted LED Lamps for General Lighting with Supply Voltages >50V- Performance Requirements
- IEC 60969: 2016 Self-Ballasted Compact Fluorescent Lamps for General Lighting Services-Performance Requirements [9]



# ENERGY SECTOR PERFORMANCE AGAINST TARGETS



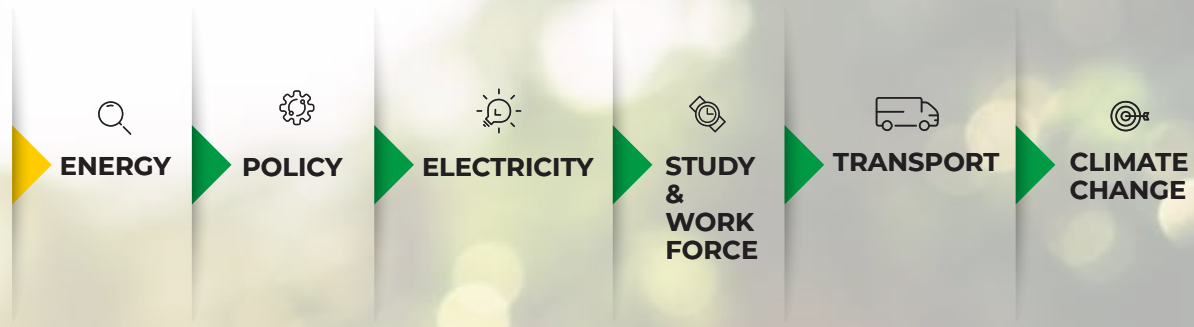
## RENEWABLE ENERGY PERFORMANCE AGAINST TARGETS



Installed Renewable Energy Capacity

- 2020 Performance
- National Target by 2030
- National Target by 2027 (Proposed by CARICOM -CSERMS Report)

# KEY ENERGY STAKEHOLDERS



## Government Ministries, Departments and Agencies

Ministry of Public Works and the Digital Economy [19]  
 Ministry of Blue and Green Economy  
 Agriculture and National Food Security - Energy Unit/Renewable Energy Programme [20]

## Fuel Suppliers

National Petroleum Marketing Company Limited [21]  
 West Indies Oil Company [22]  
 Rubis West Indies Limited [23]  
 PDV Caribe Limited (Petro Caribe) [24]  
 SOL EC Limited [25]  
 Sukie's Enterprises [26]

## Electric Utility

Dominica Electricity Services Limited (DOMLEC) [14] [5]

## Independent Power Producer

Dominica Geothermal Development Company [27]

## Electricity Regulator

Independent Regulatory Commission [27]

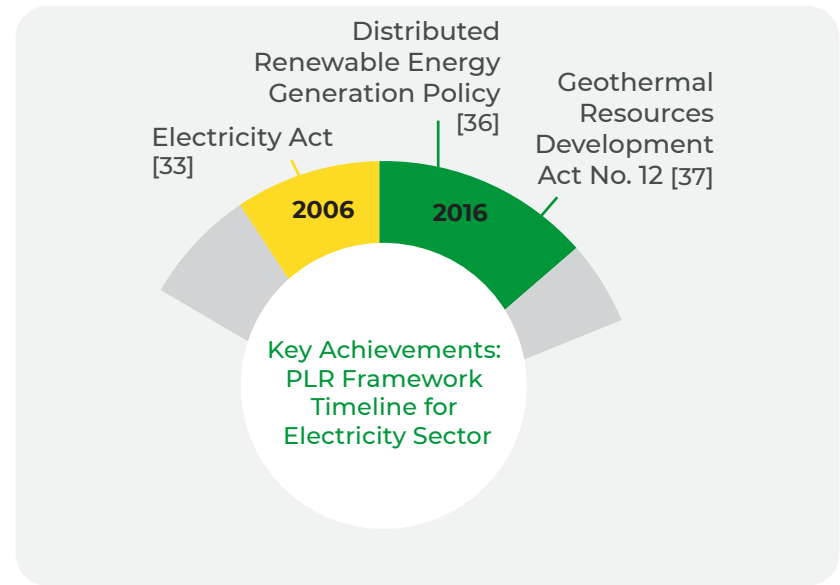
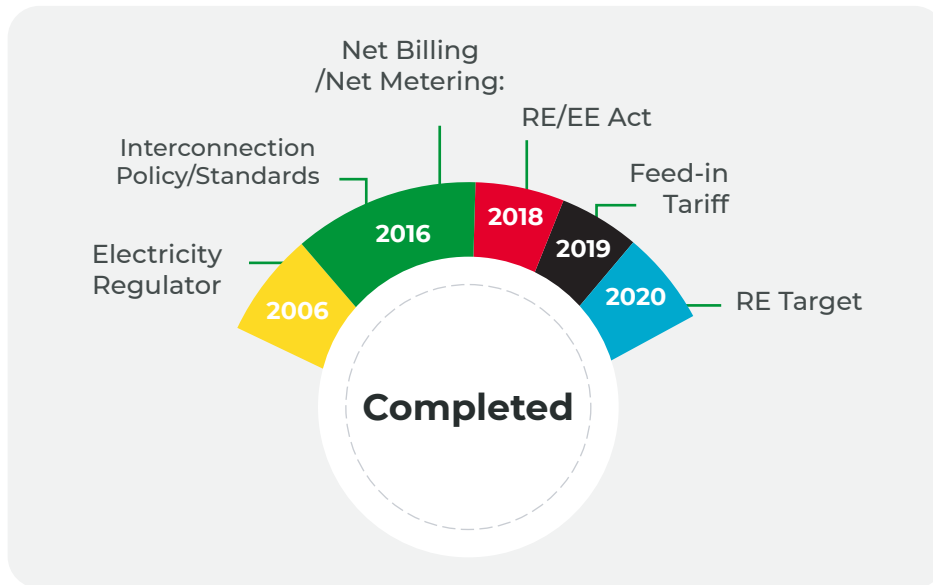
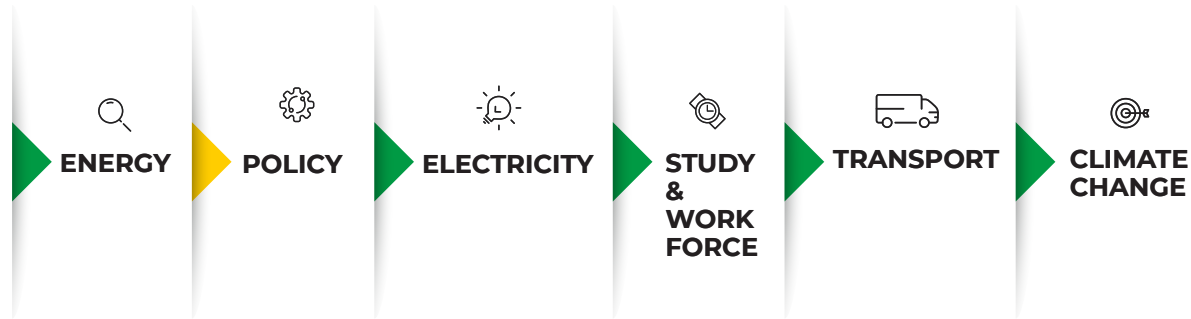
## Transportation

Dominica Transport Board [28]

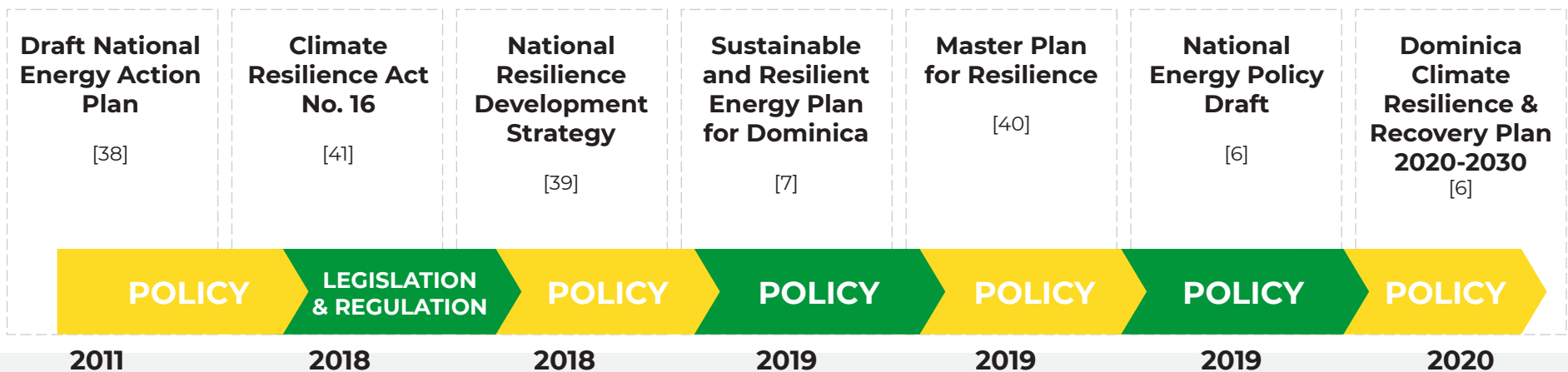
## Other

Bureau of Standards [29]  
 Ministry of Environment, Rural Modernisation and Kalinago Upliftment [30]  
 Ministry of Economic Affairs, Planning, Resilience and Sustainable Development  
 Telecoms and Broadcasting [31]  
 Climate Resilience Execution Agency for Dominica [32]

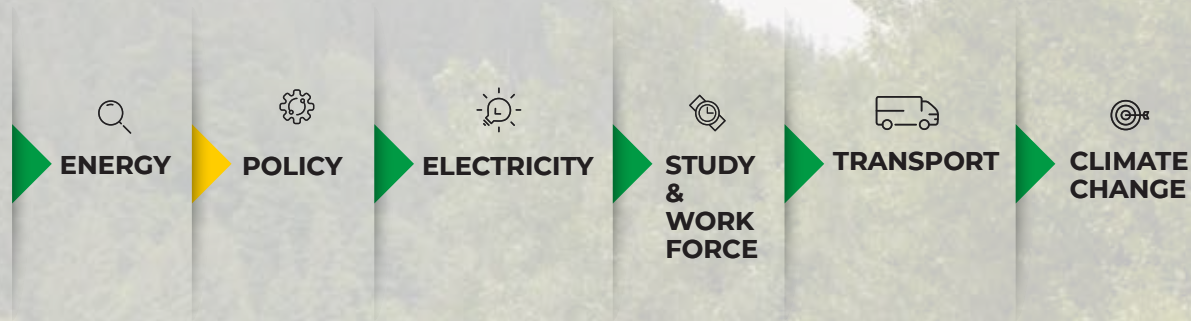
# POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK



## POLICIES AND LEGISLATION RELEVANT TO THE ENERGY SECTOR



# POLICY, LEGAL AND REGULATORY (PLR) FRAMEWORK



## POLICIES AND LEGISLATION RELEVANT TO THE TRANSPORTATION SECTOR

**2014**

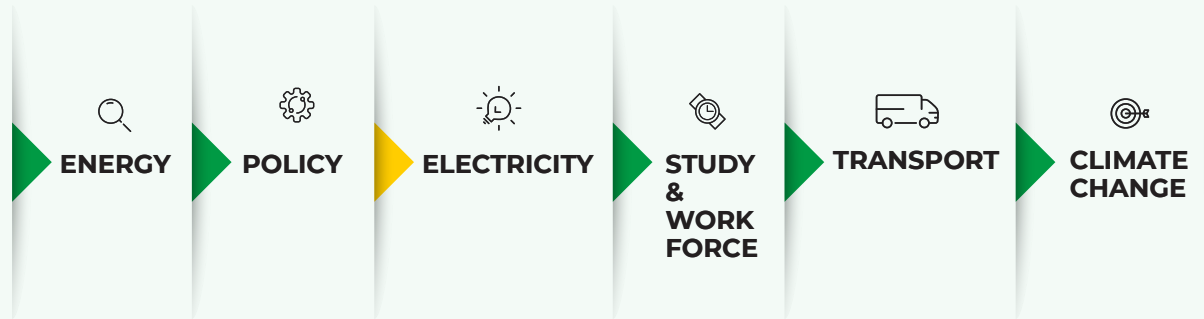
Draft Climate Change, Environment and Natural Resource Management Bill [42]

Electrical Vehicle Duty Free Importation [43]

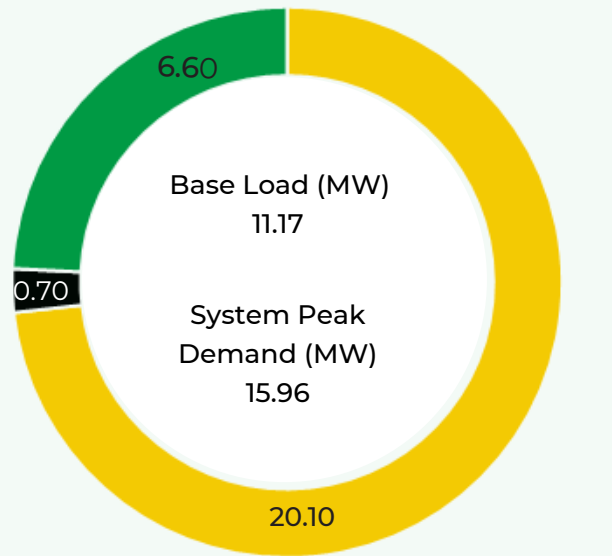
Environmental Levy on Vehicles [44]



# ELECTRICITY & ENERGY EFFICIENCY

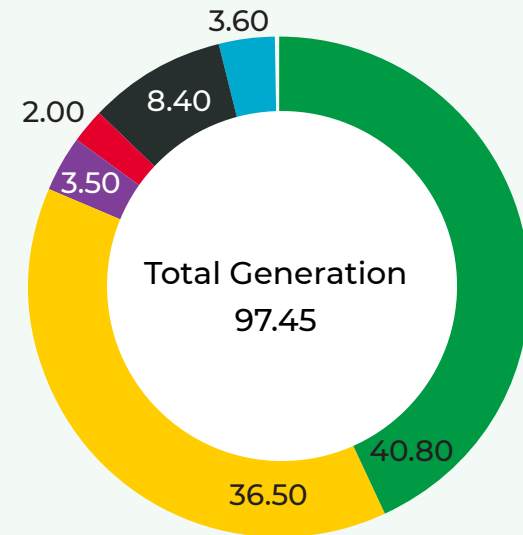


## INSTALLED CAPACITY (MW)



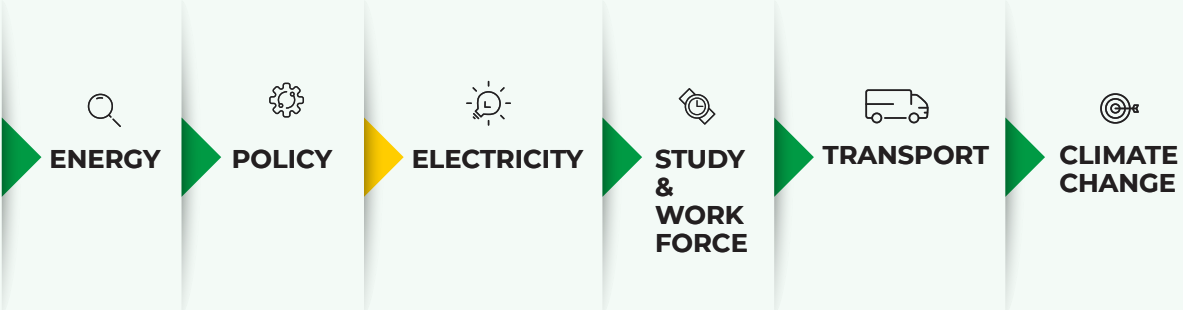
- Electric Utility - Diesel
- Electric Utility - RE
- RE Capacity- Residential and Commercial

## ENERGY CONSUMPTION (MWh)

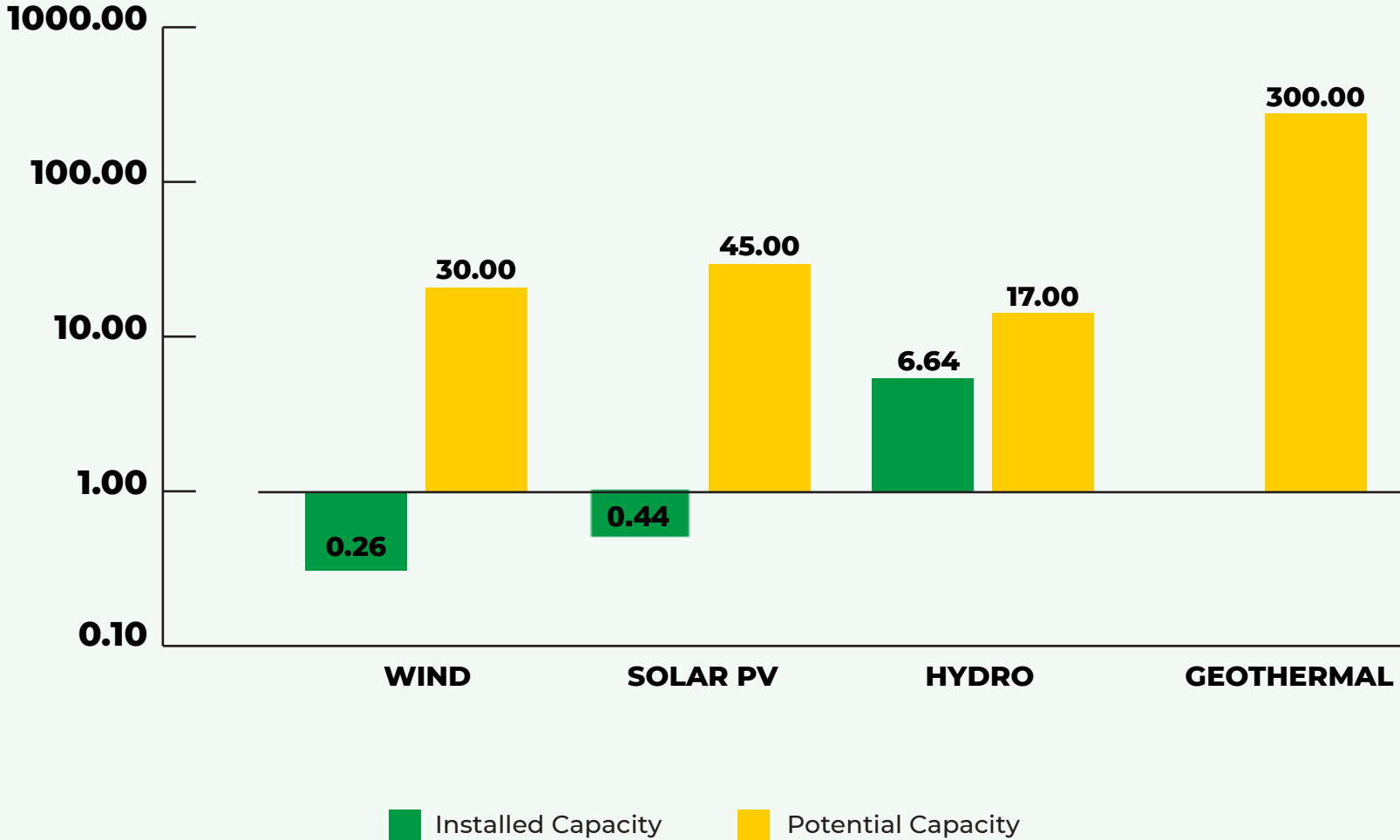


- Residential
- Commercial
- Industrial
- Streetlighting
- Losses
- Parasitic Load

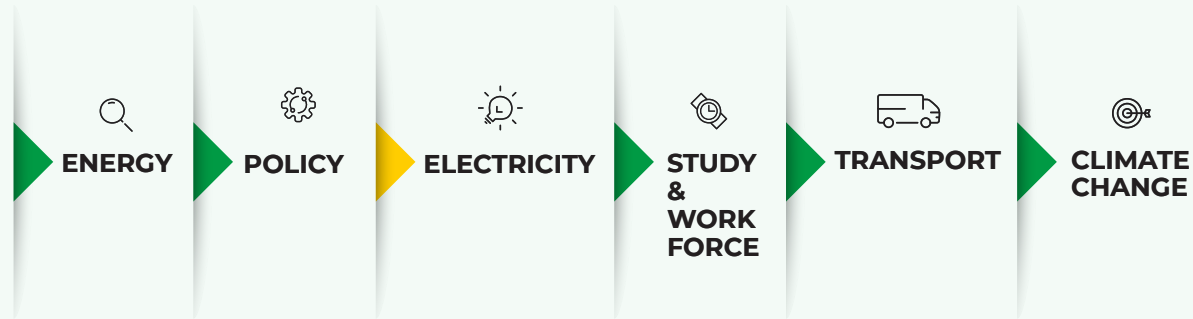
# ELECTRICITY & ENERGY EFFICIENCY



## RENEWABLE ENERGY RESOURCES (MW)

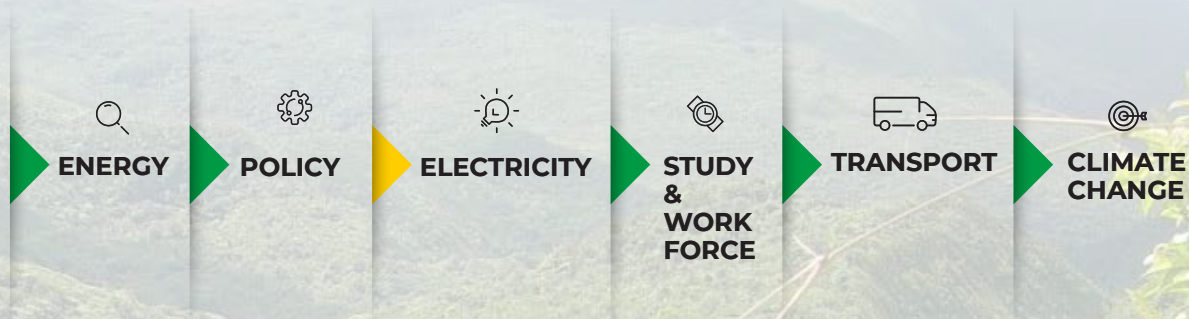


# ELECTRICITY TARIFFS



RATE CLASS	MONTHLY CONSUMPTION (kWh)	TARIFF (US\$/kWh)
RESIDENTIAL	FIRST 50 kWh USAGE OVER 50 kWh	0.11 0.13
COMMERCIAL		0.13
INDUSTRIAL/HOTELS (FROM 6AM TO 10PM)		0.12
INDUSTRIAL/HOTELS (FROM 10PM TO 6AM)		0.11
STREETLIGHTS		0.13

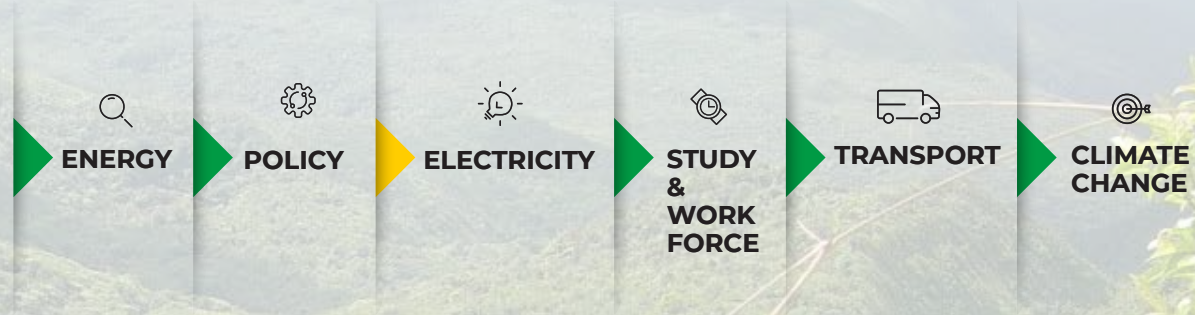
# PROJECTS IN THE PIPELINE



## TECHNICAL ASSISTANCE PROJECTS

DONOR FUNDING AND TECHNICAL ASSISTANCE LANDSCAPE	DONOR ORGANIZATION & BANKS	TECHNICAL ASSISTANCE PROVIDERS	FUNDING AWARDS (US\$)	YEAR
<b>30 kW Photovoltaic Systems at 2 Dominica Water and Sewerage Company Limited (DOWASCO) Water Pumping Stations</b>	Government of Italy and CARICOM	Caribbean Community Climate Change Centre	NOT AVAILABLE	Announced 2020
<b>Hurricane Resistant Energy Storage System</b>	United Arab Emirates Caribbean Renewable Energy Fund through the Abu Dhabi Fund for Development	Masdar	50 MILLION	Approved 2020, Start date not determined
<b>Master Plan for Resilient Electrical System</b>	Funding not yet identified	Not Available	17.30 MILLION (ESTIMATE)	Not yet determined

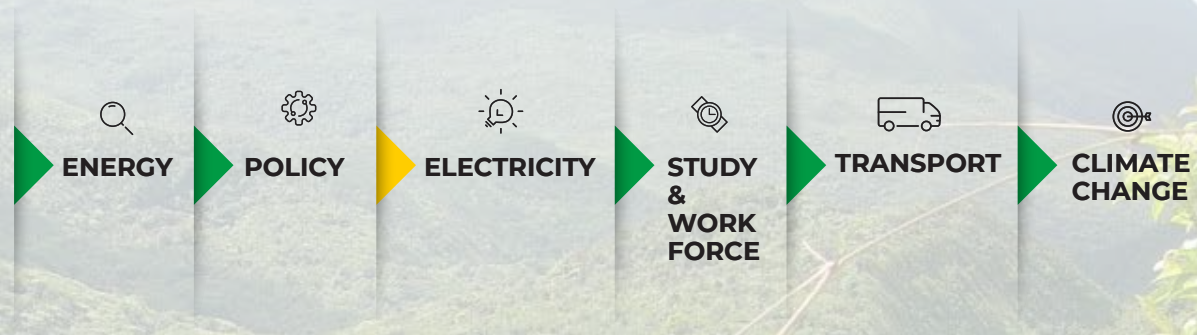
# PROJECTS IN THE PIPELINE



## ENERGY EFFICIENCY PROJECTS

ENERGY EFFICIENCY INITIATIVE	CONSUMPTION (kW)	ENERGY EFFICIENCY LEGISLATION OR REGULATIONS	ENERGY SERVICE COMPANIES (YES/NO)	CHANGE IN OLD / EXISTING INFRASTRUCTURE EXPECTED IN UPCOMING CALENDAR YEAR (NUMBER/SIZE)
<b>Street Lighting</b>	Average 80 to 150 Watts	None	No	267
<b>Public Buildings</b>	Not Available	None	No	Based on Funding
<b>Resilient upgrade of system -transmission &amp; distribution</b>	Not Yet Determined	None	Yes	Based on Funding
<b>Grid Modernization</b>	Not Yet Determined	None	Yes	Based on Funding

# PROJECTS IN THE PIPELINE



## RENEWABLE ENERGY PROJECTS

RENEWABLE ENERGY SOURCE	RESOURCE & PROJECTS CAPACITY (MW)	TOTAL ESTIMATED COST (US\$)	FUNDING SOURCE	OWNERSHIP
<b>Solar Photo-Voltaic</b>	3-5 MW Solar Farm at Layou	425 THOUSAND	Not Yet Identified	Not Yet Determined
	PV Cooling of Agricultural Storage Facility	Not yet determined		Not Yet Determined
<b>Solar Photo-Voltaic and Wind Energy</b>	10 kW wind and solar at Central Livestock Farm	Not yet determined	Not Yet Identified	Not Yet Determined
<b>Geothermal</b>	Geothermal Power Plant and Expansion	51.50 MILLION	World Bank/IDA Government of New Zealand	State Owned
<b>Hydro</b>	1MW expansion of Padu Hydro Power plant based on funding availability	Not Yet Determined	Not Yet Identified	Utility Owned
<b>Other</b>	Renewable powered microgrids as part of Master Plan for Resilient Energy Systems	7.50 MILLION	Not Yet Identified	State owned (Leased to utility)

# TERTIARY PROGRAMMES OFFERED



## OECS SUSTAINABLE ENERGY UNIT

### CERTIFICATE

	PERSONS ENROLLED	PERSONS GRADUATED
NORTH AMERICAN BOARD OF CERTIFIED ENERGY PRACTITIONERS (NABCEP) PHOTOVOLTAIC ASSOCIATE COURSE (PVA)	29	21

<https://pressroom.oecs.org/oecs-photovoltaic-training-and-certification-for-installers-and-electrical-inspectors>

NORTH AMERICAN BOARD OF CERTIFIED ENERGY PRACTITIONERS (NABCEP) PHOTOVOLTAIC SYSTEMS INSPECTOR COURSE (PVSII)	4	2
---	---	---

<https://pressroom.oecs.org/oecs-photovoltaic-training-and-certification-for-installers-and-electrical-inspectors>

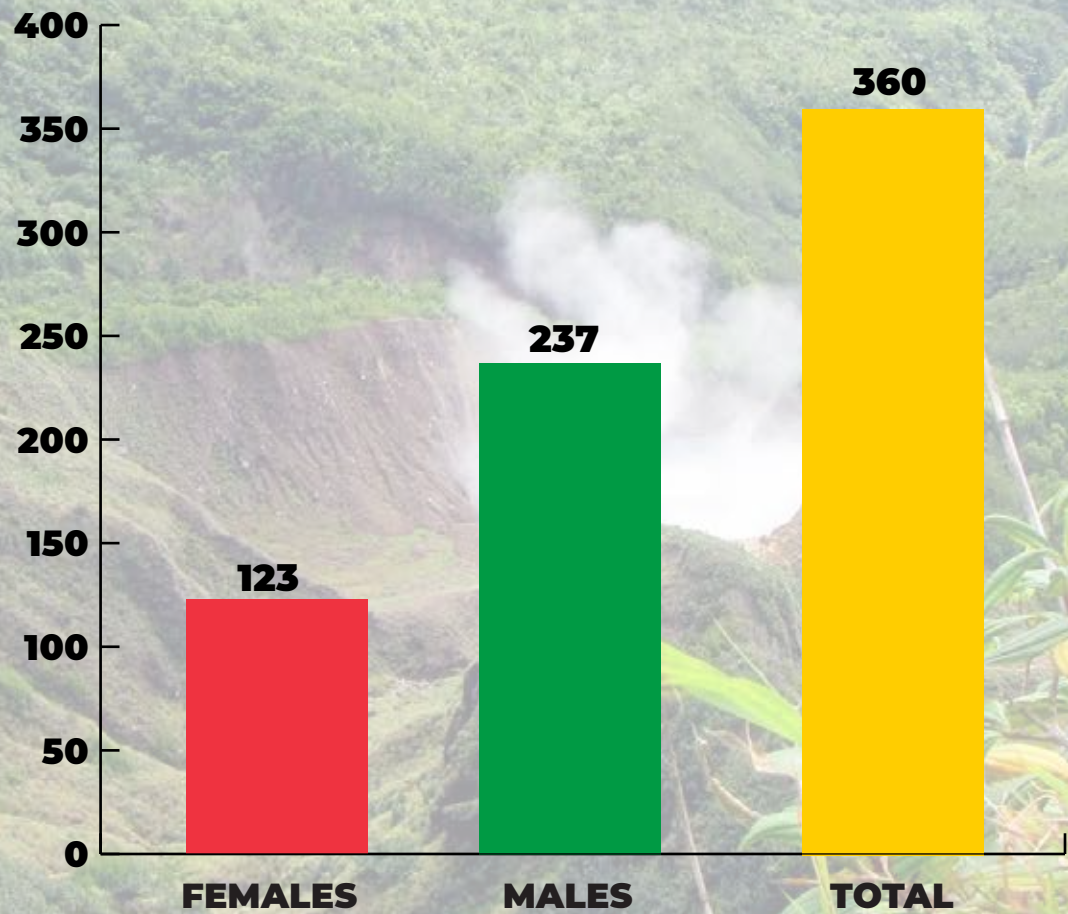
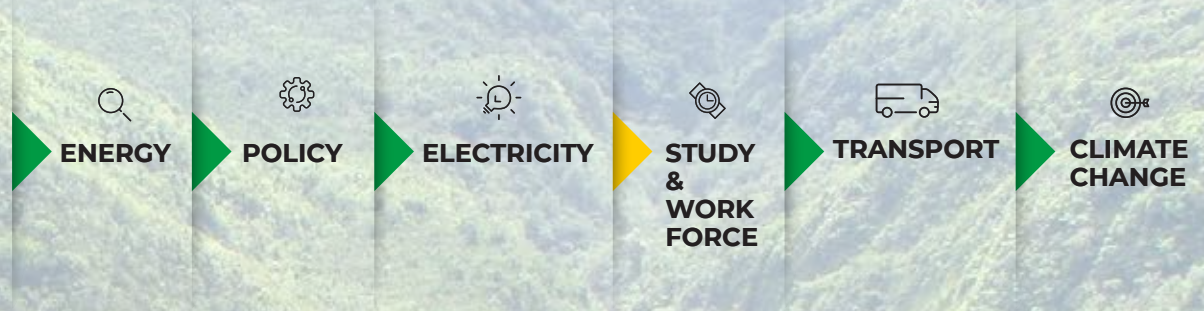
## DOMINICA STATE COLLEGE

### ASSOCIATE DEGREE

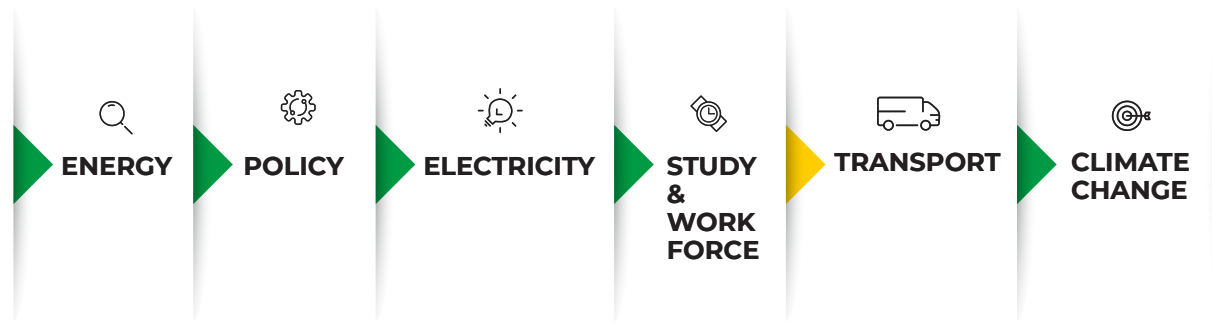
ELECTRONIC ENGINEERING  
TELECOMMUNICATIONS &  
RENEWABLE TECHNOLOGY

PERSONS ENROLLED  
-

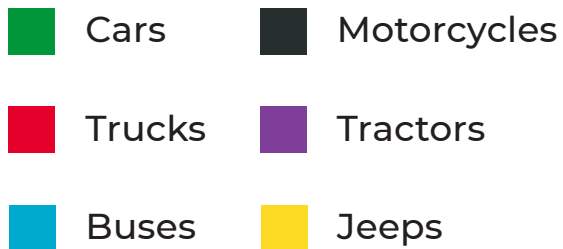
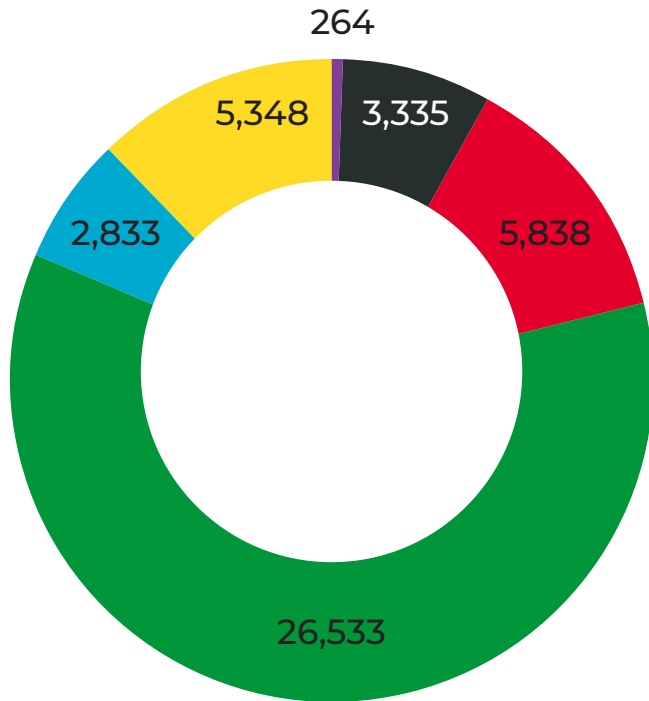
# WORKFORCE



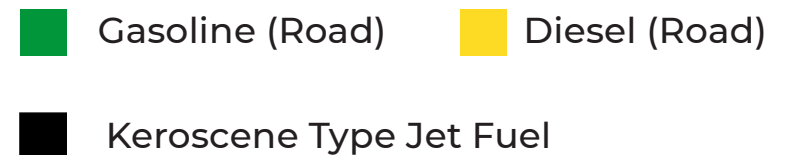
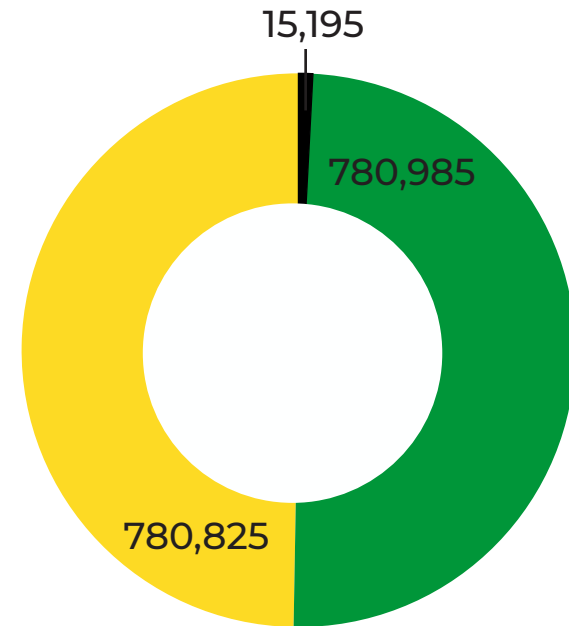
# TRANSPORTATION SECTOR



## Registered Vehicles

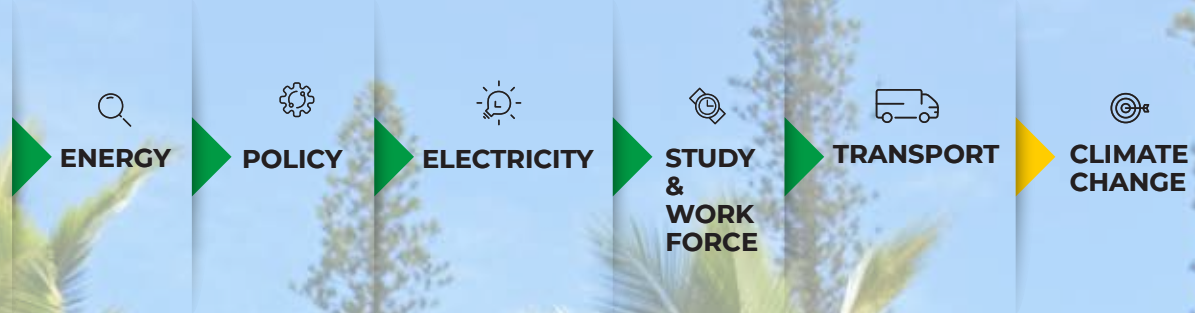


## Fuel Use (BOE)



400 BOE of Non-diesel fuel oils were also used in the transportation sector

# CLIMATE CHANGE FRAMEWORK



## DOMINICA CLIMATE RESILIENCE AND RECOVERY PLAN 2020 - 2030 (2020) [5]

### NATIONAL DETERMINED CONTRIBUTIONS

To reduce emissions 44.7% below 2014 levels [18]

### EMISSIONS REDUCTION TARGET:

39.2% reduction in GHG by 2025 and 44.7% GHG by 2030.  
Previous target - 17.9% by 2020 [18]

### PRIORITY SECTORS FOR NDCS

Energy, Solid Waste, Transportation, Manufacturing and Construction [18]

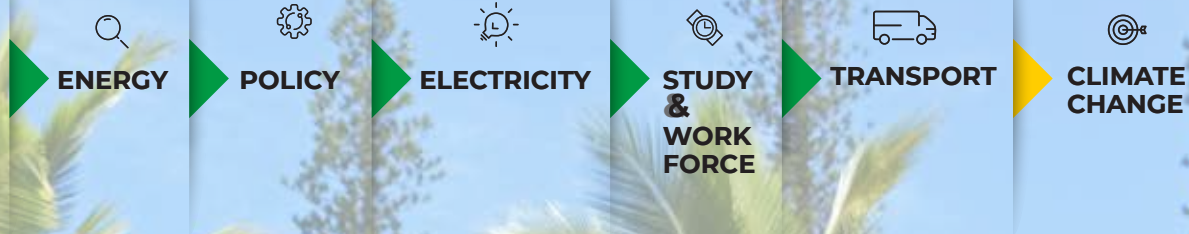
### NATIONAL COMMUNICATIONS (NC) TO THE UNFCCC:

Initial National Communication to the United Nations Framework Convention on Climate Change of the Commonwealth of Dominica (2001) [45]

Second National Communication to the United Nations Framework Convention on Climate Change of the Commonwealth of Dominica (2012) [46]

Third National Communication to the United Nations Framework Convention on Climate Change of the Commonwealth of Dominica (2020) [47]

# CLIMATE CHANGE FRAMEWORK



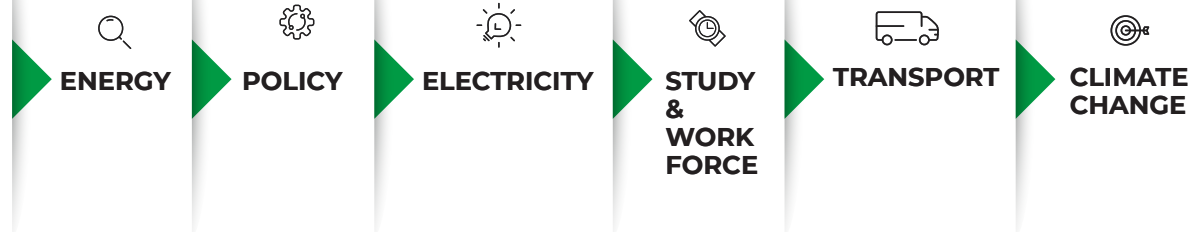
## SUMMARY OF DOMINICA'S GHG EMISSIONS [47]

### EMISSIONS (Gg CO<sub>2</sub> EQUIVALENT)\*

CATEGORIES	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
ENERGY	156.20	1.32	0.0048
MANUFACTURING, INDUSTRIES & CONSTRUCTION	4.08		
CIVIL AVIATION			
ROAD TRANSPORTATION	67.17		
RESIDENTIAL	7.03		
COMMERCIAL/INSTITUTIONAL	28.71		
NAVIGATION			
AGRICULTURE / FORESTRY / FISHING	2.34	0.96	0.0020
WASTE		1.53	0.0051

\*Gg represents giga grams

# REFERENCES



[1] "Population, total - Dominica," The World Bank, [Online]. Available:

<https://data.worldbank.org/indicator/SP.POP.TOTL?locations=DM..> [Accessed 06 August 2021].

[2] "GDP per capita (current US\$) - Dominica," The World Bank, [Online]. Available:

<https://data.worldbank.org/indicator/NY.GDP.PCA.P.CD?locations=DM.> [Accessed 06 August 2021].

[3] "Public Sector Debt - Debt to GDP Ratios (in percent of GDP)," The Eastern Caribbean Central Bank, [Online]. Available:

<https://www.eccb-centralbank.org/statistics/debt-datas/comparative-report/2..> [Accessed 06 August 2021].

[4] "Human Development Report 2020 The Next Frontier.," United Nations Development Program, 2020.

[5] Government of the Commonwealth of Dominica, "Dominica Climate Resilience and Recovery Plan 2020-2030," 2020. [Online].

Available:

<http://dominica.gov.dm/images/documents/CRRP-Final-042020.pdf>. [Accessed 6 6 2021].

[6] "Draft National Energy Policy," Government of Dominica, 2019.

[7] K. T. S. T. A. e. a. Coulam, "Sustainable & Resilient Energy Plan for Dominica," 2019.

[8] Government of the Commonwealth of Dominica, "National Energy Policy of the Commonwealth of Dominica," 2019. [Online].

Available:

[http://www.oas.org/en/sedi/dsd/Energy/Doc/OAS-DominicaNEP\\_web.pdf](http://www.oas.org/en/sedi/dsd/Energy/Doc/OAS-DominicaNEP_web.pdf). [Accessed 6 6 2021].

[9] Dominica Bureau of Standards, Labelling Standards, Roseau: Private Communication, 2021.

[10] Independent Regulatory Commission, "Management and Staff," 2021. [Online]. Available: <https://www.ircdominica.org/about-us/management-staff/>. [Accessed 06 08 2021].

[11] Dominica Social Security, Workforce Data, Rouseau: Email Communication, 2020.

[12] Dominica Geothermal Development Company Limited, "Who we are," 2021. [Online]. Available:

<https://www.geodominica.dm/who-we-are/>. [Accessed 06 08 2021].

[13] Customs and Excise Division, Fuel Import Data, Roseau: Private Communication, 2021.

[14] "Remaining Constant Duing Wavering Times: 2020 Annual Report," DOMLEC, Roseau, 2021.

[15] F. Julien, Interviewee, Independent Regulatory Commission. [Interview]. 2021.

[16] "Energy intensity level of primary energy (MJ/\$2011 PPP GDP) - Dominica," The World Bank, [Online]. Available:

<https://data.worldbank.org/indicator/EG.EGY.PRIM.PP.KD?locations=DM..> [Accessed 06 August 2021].

[17] Ministry of Environment, Rural Modernisation and Kalinago Upliftment, Roseau, 2021.

[18] Government of the Commonwealth of Dominica, "Intended Nationally Determined Contribution of the Commonwealth of Dominica," 30 9 2015. [Online]. Available:

[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominica%20First/Commonwealth%20of%20Dominica-%20Intended%20Nationally%](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominica%20First/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20(INDC).pdf)

[20Determined%20Contributions%20\(INDC\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominica%20First/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20(INDC).pdf). [Accessed 9 7 2021].

[19] Government of the Commonwealth of Dominica, "Ministry of Public Works and the Digital Economy," [Online]. Available: <https://publicworks.gov.dm/>. [Accessed 12 08 2021].

[20] "Ministry of Blue and Green Economy, Agriculture and National Food Security," Government of Dominica, [Online]. Available: <http://agriculture.gov.dm/>. [Accessed 12 August 2021].

[21] M. H. B. -. C. Manager, Interviewee, Telephone communication, National Petroleum Marketing Co Ltd Dominica Office. [Interview]. 2021.

[22] M. C. S. -. C. Manager, Interviewee, Telephone communication, West Indies Oil Co Bulk Terminal Office. [Interview]. 2021.

[23] M. N. D. -. C. Manager, Interviewee, Telephone communication, Rubis West Indies Ltd. [Interview]. 2021.

[24] M. I. P. -. C. Manager, Interviewee, Telephone communication, Petro Caribe. [Interview]. 2021.

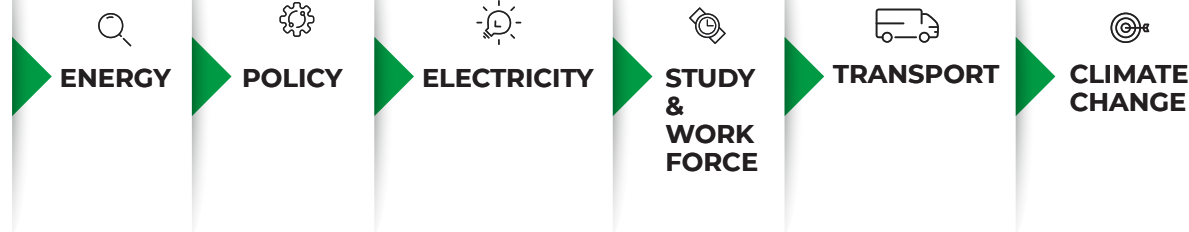
[25] M. D. E. -. G. Manager, Interviewee, Telephone communication, Sol Petroleum. [Interview]. 2021.

[26] M. H. W. -. G. Manager, Interviewee, Telephone communication, Sukie Enterprises. [Interview]. 2021.

[27] M. M. Fabelle, Interviewee, Internship Meeting 1. [Interview]. 06 July 2021.

[28] M. L. E. -. A. Superintendent, Interviewee, In person communication, Traffic Department. [Interview]. 2021.

# REFERENCES



[29] M. M. Larocque, Interviewee, Telephone communication, Bureau of Standards. [Interview]. 2021.

[30] "Ministry of Environment, Rural Modernisation and Kalinago Upliftment," Government of Dominica, [Online]. Available: [http://publicworks.gov.dm/..](http://publicworks.gov.dm/) [Accessed 12 August 2021].

[31] "Ministry of Economic Affairs, Planning, Resilience and Sustainable Development Telecoms and Broadcasting," Government of Dominica, [Online]. Available: [http://environment.gov.dm/..](http://environment.gov.dm/) [Accessed 12 August 2021].

[32] "CREAD Team," Climate Resilience Execution Agency for Dominica, [Online]. Available: <https://www.creadominica.org/about-us..> [Accessed 12 August 2021].

[33] The Government of the Commonwealth of Dominica, "Electricity Supply Act 10," 2006. [Online]. Available: [https://www.domlec.dm/download/electricity-supply-act/.](https://www.domlec.dm/download/electricity-supply-act/) [Accessed 6 6 2021].

[34] "Distributed Renewable Energy Generation Policy," Government of Dominica, 2016.

[35] The government of the Commonwealth of Dominica, "Climate Resilience Act 16 2018," 2018. [Online]. Available: <https://static1.squarespace.com/static/5cb79b0f9b8fe873d303393a/t/5d0a8432dd07c100013e7eda/1560970291289/Climate+Resilience+Act+2018+%281>

%29.pdf. [Accessed 6 6 2021].

[36] Dominica Electricity Services, "Distributed Renewable Energy Generation Policy," 2016. [Online]. Available: [https://www.ircdominica.org/files/downloads/2016/09/DECISION-2016002D-Renewable-Energy-Generation-Policy.pdf.](https://www.ircdominica.org/files/downloads/2016/09/DECISION-2016002D-Renewable-Energy-Generation-Policy.pdf) [Accessed 6 6 2021].

[37] The Government of the Commonwealth of Dominica, "Geothermal Resources Development Act 12 2016," 2016. [Online]. Available: [http://extwprlegs1.fao.org/docs/pdf/dmi172017.pdf.](http://extwprlegs1.fao.org/docs/pdf/dmi172017.pdf) [Accessed 6 6 2021].

[38] Department of Sustainable Development of the General Secretariat of the Organization of American States, "Draft National Energy Action Plan," December 2011. [Online]. Available: [http://www.oas.org/en/sedi/dsd/Energy/Doc/OAS-DominicaEAP\\_web.pdf.](http://www.oas.org/en/sedi/dsd/Energy/Doc/OAS-DominicaEAP_web.pdf) [Accessed 06 12 2021].

[39] Government of the Commonwealth of Dominica, "National Resilience Development Strategy Dominica 2030," 2018. [Online]. Available: [https://observatorioplanificacion.cepal.org/en/plans/national-resilience-development-strategy-2030-dominica.](https://observatorioplanificacion.cepal.org/en/plans/national-resilience-development-strategy-2030-dominica) [Accessed 6 6 2021].

[40] Agence Francaise de Developpment, "Master Plan for Resilience Report," Consultancy Services for Technical Assistance to the Electricity and Geothermal Sectors, Dominica, 2018.

[41] Gouvernement of the Commonwealth of Dominica, "Climate Resilience Act," 2018. [Online]. Available:

<https://storage.googleapis.com/cclow-staging/8ked6w17zw00fma7xit8muqv5rwq?GoogleAccessId=laws-and-pathways-staging%40soy-truth-247515.i am.gserviceaccount.com&Expires=1638806128&Signature=NGo0DLbDm9yag17%2BNNLYEBz%2FGbCOlvzWseh3vy4Mrlqtq%2BaPJ8siZUm5NMPmMC> . [Accessed 06 12 2021].

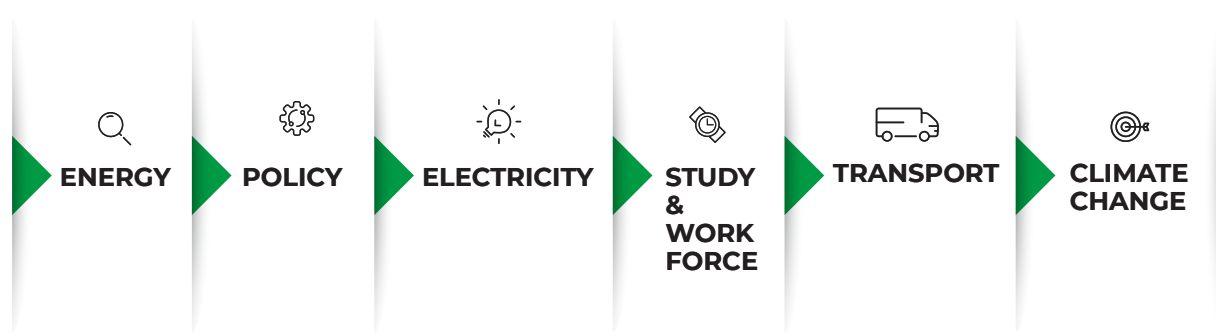
[42] Government of the Commonwealth of Dominica, "Climate Resilience in Dominica," June 2015. [Online]. Available: [https://www.climateinvestmentfunds.org/sites/cif\\_enc/files/meeting-documents/dominica-2015\\_ppcr\\_results\\_report.pdf.](https://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/dominica-2015_ppcr_results_report.pdf) [Accessed 06 12 2021].

[43] Customs and Excise Division of the Government of the Commonwealth of Dominica, "Renewable Energy Equipment," 2020. [Online]. Available: [http://customs.gov.dm/index.php/duty-free/renewable-energy-equipment.](http://customs.gov.dm/index.php/duty-free/renewable-energy-equipment) [Accessed 27 08 2020].

[44] Customs and Excise Division of the Government of the Commonwealth of Dominica, "Vehicle Imports," 2020. [Online]. Available: [http://customs.gov.dm/index.php/features/imports/vehicle-importation.](http://customs.gov.dm/index.php/features/imports/vehicle-importation) [Accessed 27 8 2020].

[45] Government of the Commonwealth of Dominica, "Initial National Communication Under the United Nations Framework Convention on Climate Change," 10 2001. [Online]. Available: [https://unfccc.int/sites/default/files/resource/Dominica%20INC.pdf.](https://unfccc.int/sites/default/files/resource/Dominica%20INC.pdf) [Accessed 9 7 2021].

# REFERENCES



[46] The Government of the Commonwealth of Dominica, "Second National Communication of the Commonwealth of Dominica Under the United Nations Framework Convention on Climate Change," 2012. [Online]. Available: <https://unfccc.int/sites/default/files/resource/dmanc2.pdf>. [Accessed 9 7 2021].

[47] The Government of the Commonwealth of Dominica, "Third National Communication to the United Nations Framework Convention on Climate Change of the Commonwealth of Dominica," 20 3 2020. [Online]. Available: <https://unfccc.int/sites/default/files/resource/Dominica%20TNC%20-%20Final%20%28March%202020%29.pdf>. [Accessed 9 7 2021].