



# 2017 ENERGY REPORT CARD

## THE COMMONWEALTH OF DOMINICA

*This document presents Dominica's Energy Report Card (ERC) for 2017, which was prepared using data and information submitted by the Member State as well as supplemental data extracted from online resources (see list of References). The ERC provides an overview of energy sector performance in Dominica by focusing on two priority sub-sectors: Electricity and Transportation. The ERC also includes energy efficiency, climate change, energy sector workforce, training and capacity building information, subject to the availability of data.*

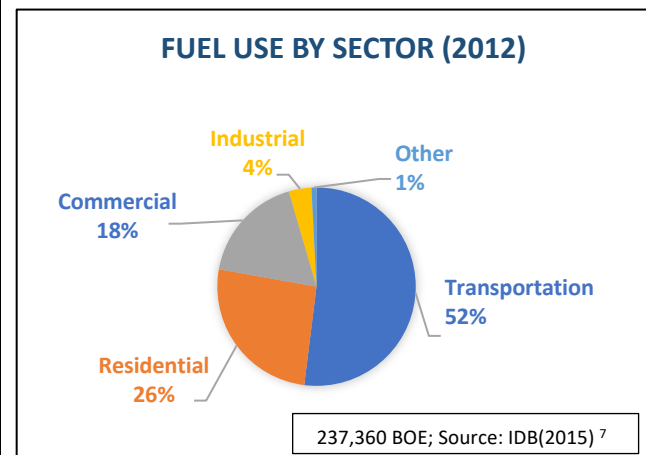
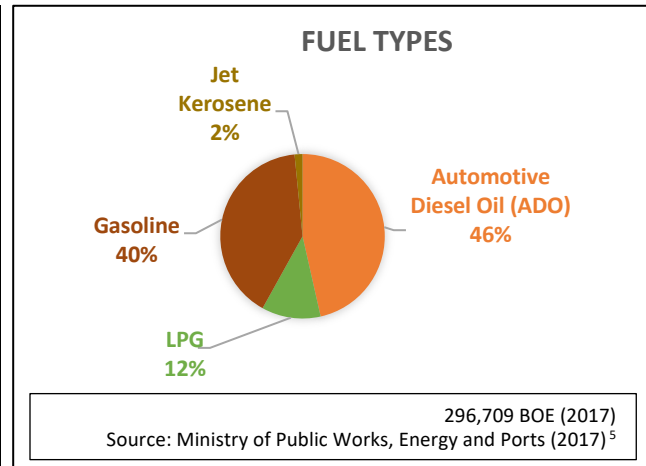
*December 2018*

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## “AT-A-GLANCE” SUMMARY OF DOMINICA’S ENERGY SECTOR

KEY DATA & INFORMATION – ENERGY SECTOR IN DOMINICA	
Population	73,897 (2017) <sup>1</sup>
GDP (USD) Per Capita	11,000 (2017) <sup>2</sup>
Debt as a % of GDP	82.7% of GDP (2017 est.) <sup>2</sup>
Human Development Index	0.715 (2017) <sup>3</sup>
National Development Plan/ Overall Country Development Strategy	Yes <sup>4</sup>
National Energy Policy	Yes (draft) <sup>5,6</sup>
Renewable Energy (RE) Policy	
RE Target	100% by 2020 <sup>5</sup>
Energy Performance Standards/Appliance Labelling	No <sup>5</sup>
Number of Persons Employed in Energy Sector	522 (2017) <sup>5</sup>
Total Oil Import (BOE) per day	913 (2012) <sup>7</sup>
Total Oil Export (BOE) per day	0 (2017) <sup>5</sup>
Total Installed Capacity (MW)	26.74 (2017) <sup>5,8</sup>
Total Installed RE (MW)	6.64 (2017) <sup>5</sup>
Electricity System Losses (%)	9% (2017) <sup>5</sup>
Energy Use (kWh) Per Capita	1,400 (2016) <sup>5</sup>
Energy Intensity	
Oil Imports as % of GDP	5.02 (2015) <sup>9</sup>
Climate Change Policy	Yes <sup>10, 11</sup>
National Determined Contributions	Yes (2015) <sup>12</sup>
National Repository for Energy Data	Ministry of Public Works and Ports



### DOMINICA’S ENERGY SECTOR PERFORMANCE AGAINST TARGETS

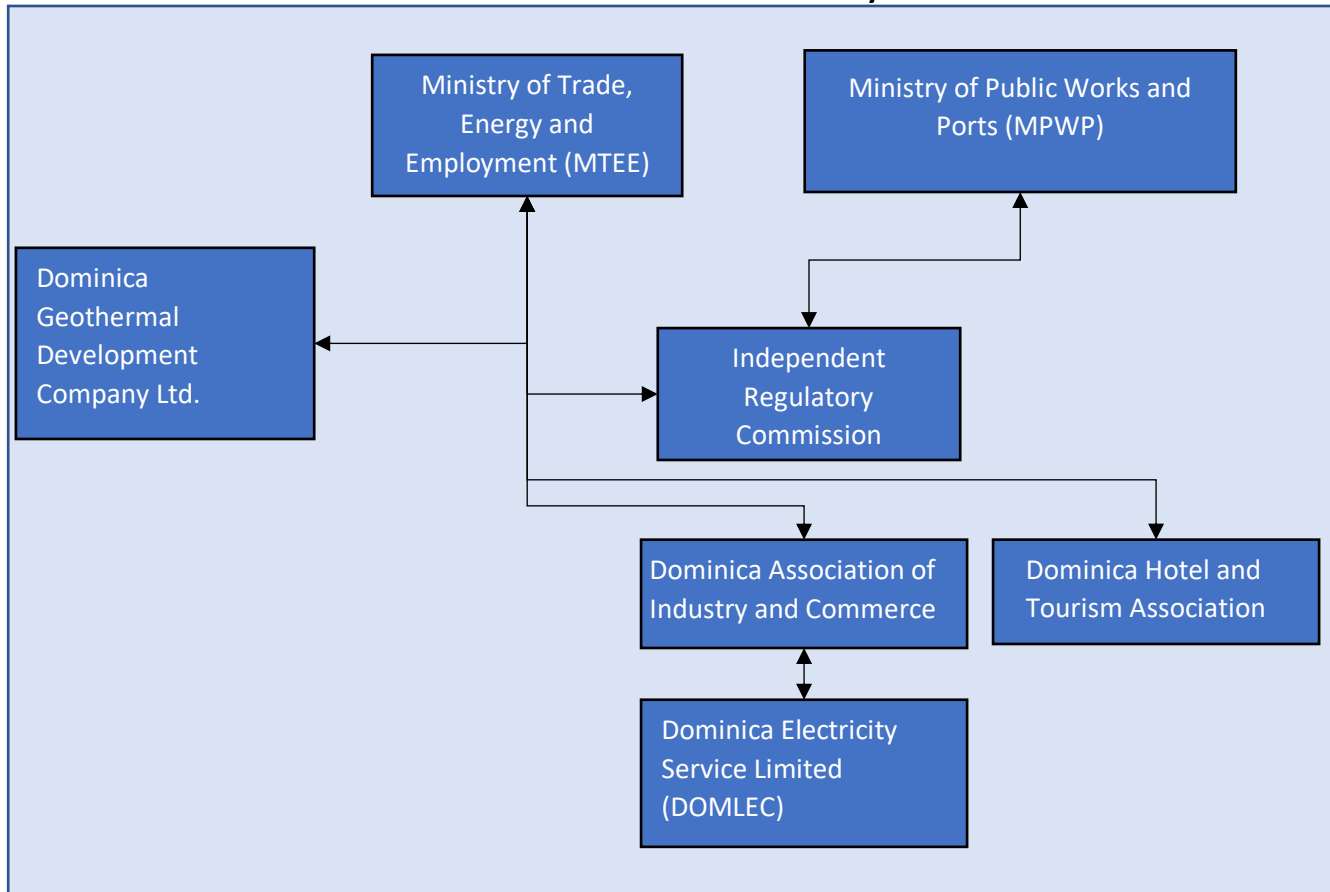
Indicator	Base /Current Performance (Year)	National Targets	Proposed CARICOM National Target by 2027	<p><b>Indicative RE Oil Displacement</b><sup>13,14</sup> <b>Potential Annually**</b></p> <ul style="list-style-type: none"> <li>1 MW wind displaces 1,760 barrels of oil equivalent (BOE)</li> <li>1 MW hydro displaces 3,300 BOE</li> <li>1 MW solar displaces 1,210 BOE</li> </ul> <p><b>Energy Intensity (EI)</b><sup>15</sup>:</p> <ul style="list-style-type: none"> <li>EI measures how energy benefits the economy and is calculated by taking the ratio of total primary energy uses (all of the fuels and flows that a country uses to get energy) to GDP (the total money made in a country). EI indicates how effectively an economy uses their fuels and flows.</li> </ul>
RE as % of Installed Capacity	26%	100% by 2020	56% <sup>16</sup>	
*Energy Intensity (BTU/US\$1 Unit of output)				
% Reduction in Energy Sector Emissions		98.6% reduction by 2030 <sup>12</sup>		

\*The energy efficiency target for CARICOM is 33% reduction in energy intensity by 2027, compared to a reference of Average Annual Energy Intensity of ~13,000 BTU per USD of GDP in 2015.






\*\*Based on capacity factors of 0.32 for wind. 0.6 for hydro and 0.22 for solar.<sup>13</sup>

## KEY ENERGY SECTOR STAKEHOLDERS: DOMINICA

### Governance Structure for the Electricity Sector <sup>5</sup>



#### Other key electricity stakeholders include<sup>5, 17</sup>:

-  Agencies, departments, divisions and units of the Ministry of Trade, Energy and Employment, such as the Dominica Bureau of Standards
-  Agencies, departments, divisions and units of the Ministry of Public Works and Ports, such as the Energy Unit, Electrical Division
-  Importers of Petroleum Products
-  Dominica Association of Industry & Commerce
-  Dominica Hotel and Tourism Association

#### Key Stakeholders: Road Transportation Sub-sector<sup>5, 7, 17</sup>

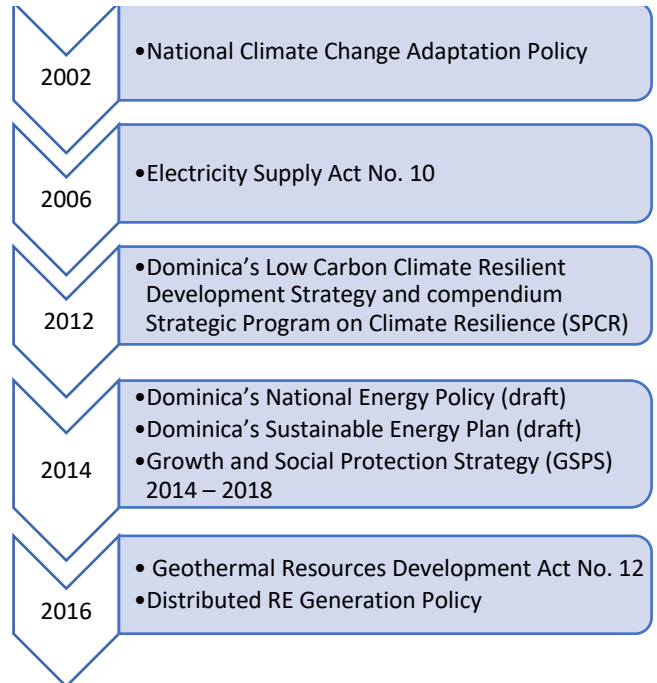
- Trade Division (Fuel Regulator)
- Ministry of Public Works and Ports
- Customs Division
- PDV Caribe Ltd, Rubis West Indies and West Indies Oil Company<sup>18</sup>
- National Petroleum Marketing Co Ltd
- Sol Petroleum

## POLICY, LEGAL AND REGULATORY FRAMEWORK: DOMINICA

### Electricity Sector: Policy, Legal and Regulatory (PLR) Framework <sup>5, 16</sup>

✓ Finalized Energy Policy and Energy Action Plan	
✓ RE Targets	
✓ EE Targets	
✓ Electricity Regulator	
✓ Net billing/Net metering	
✓ Interconnection Policy/Standards	
✗ Feed-in-tariff	
✗ RE/EE Act	
Completed/ In place	In progress/ Draft
Not yet started/ Not established	

### Key Achievements: PLR Framework Timeline for the Electricity Sector <sup>5, 12, 19</sup>



### Policies and Legislation Relevant to the Transportation Sector <sup>6, 7, 9, 11</sup>

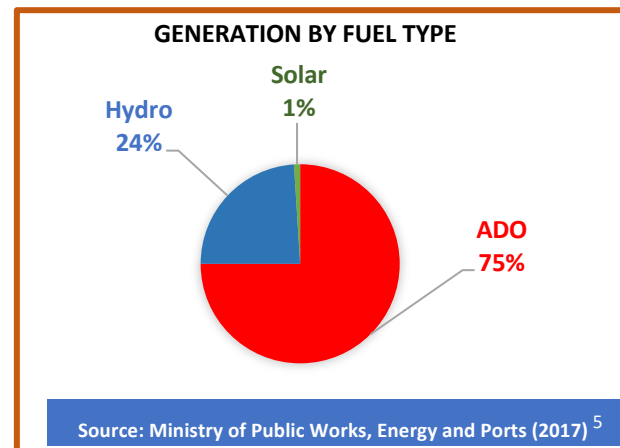
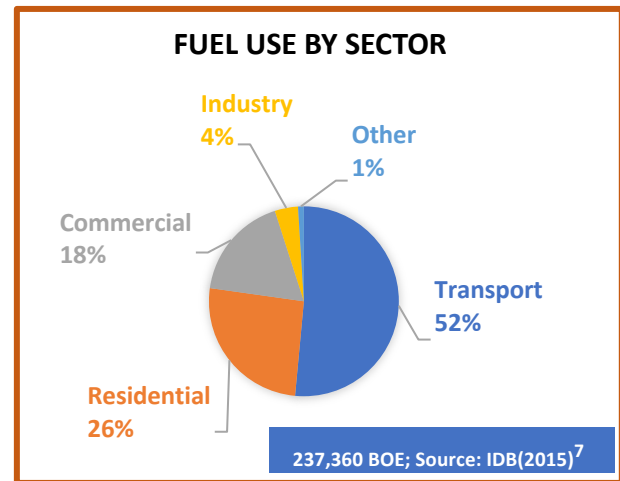
<b>Policies</b>	<ul style="list-style-type: none"> <li> Dominica's National Energy Policy (draft)</li> <li> Dominica's Sustainable Energy Plan (draft)</li> <li> Dominica's Low Carbon Climate Resilient Development Strategy</li> <li> National Roads Policy</li> </ul>
<b>Legislation &amp; Regulation</b>	<ul style="list-style-type: none"> <li> Supplies Control Act No. 21 of 1979</li> <li> Climate Change, Environment &amp; Natural Resource Management Bill, 2014</li> </ul>

### Climate Change Framework - Dominica

<b>Climate Change Policy</b>	National Climate Change Adaptation Policy, 2002 <sup>10</sup> ; Low-Carbon Climate Resilient Development Strategy 2012-2020 <sup>11</sup>
<b>National Determined Contributions</b>	Yes (2015) <sup>12</sup>
<b>Emissions Reduction Target</b>	Reduction of 44.7% from 2014 levels <sup>12</sup>
<b>Priority Sectors for NDC</b>	Energy (98.6% emissions reduction against base year (2014)); transportation (16.9%), Manufacturing and construction (8.8%), Solid waste (78.6%); Commercial/institutional, residential, agriculture, forestry, fishing – 8.1% <sup>12</sup>
<b>National Communications (NC) to the UNFCCC</b>	NC1 submitted in 2001, NC2 in 2012 <sup>20</sup>
<b>Greenhouse Gas (GHG) Inventory</b>	Yes <sup>11</sup>

## ELECTRICITY SUBSECTOR & ENERGY EFFICIENCY: DOMINICA

KEY DATA & INFORMATION		
<b>CONVENTIONAL ENERGY</b>		
1. Fuel Consumption – Electricity Subsector (BOE)	55,480 (2012) <sup>7</sup> (152 BOE/day)	
2. Total Installed Capacity (MW)	26.74 (2017) <sup>5</sup>	
3. Installed Conventional Capacity – Electric Utility (MW)	20.1 (2017) <sup>5</sup>	
4. Installed Conventional Capacity – IPPs (MW)	0 (2017) <sup>5</sup>	
5. Base Load (MW)	9 (2017) <sup>5</sup>	
6. System Peak Demand (MW)	8.82 MW (2017) (48.9% of pre-Hurricane Maria peak) <sup>21</sup>	
7. Total Generation (MWh)	111.8 (2016) <sup>5</sup>	
8. Total Sales (MWh)	99.38 (2016) <sup>5</sup>	
9. Total Number of Customers	36,467 (2016) <sup>5</sup>	
<b>RENEWABLE ENERGY</b>		
10. Total Installed RE Capacity (MW)	6.64 (2017) <sup>5</sup>	
11. RE Capacity – Electric Utility (MW)	6.64 (2017) <sup>5</sup>	
12. RE Capacity – IPPs (MW)	0	
13. RE as % of Total Installed Generating Capacity	26%	
14. RE Target	100% by 2020 <sup>5</sup>	
<b>TARIFFS</b>		
15. Residential Tariff (US\$/kWh)	0.2141 – 0.2481 (2017) <sup>5</sup>	
16. Commercial (US\$/kWh)	0.2641 (2017) <sup>5</sup>	
17. Industrial/Large Power (US\$/kWh)	0.2344 (2017) <sup>5</sup>	
18. Street Lights (US\$/kWh)	0.2630 (2017) <sup>5</sup>	
<b>EFFICIENCY</b>		
19. Electricity System Heat Rate		
20. Electricity System Losses (%)	9 (2017) <sup>5</sup>	
21. Energy Use (kWh) Per Capita	1400 (2016) <sup>5</sup>	
22. Energy intensity index (EII) BTU/US\$1 Unit of output		
23. EE Target	20% by 2020 <sup>5</sup>	
<b>MANAGEMENT OF ENERGY DATA/KNOWLEDGE</b>		
24. Name of Energy Knowledge Management System	N/A	
25. Name of Energy Data Management System	N/A	



RE Resource	Installed Capacity (MW)	Year Commissioned
Wind	0.225 (2017) <sup>5</sup>	
Solar		
Hydro	6.64 (2017) <sup>5</sup>	
Geothermal		
Biomass/ WTE		
<b>Total</b>	<b>6.865</b>	

**RE as % of installed Capacity =26%**

RE Resource Potentials	Potential Capacity (MW)	Assessment Conducted?
Wind	30 <sup>9</sup>	
Solar	45 <sup>9</sup>	
Hydro	17 <sup>9</sup>	
Geothermal	300 <sup>5</sup>	Yes
Biomass/ WTE		
<b>Total</b>	<b>392</b>	

## TRANSPORTATION SUBSECTOR: DOMINICA

Key Transportation Data and Information	
Fuel Consumption, Transportation (BOE)	123,370 (2012) (338 BOE/day) <sup>7</sup>
Energy-related transportation targets?	
Sustainable /Alternative fuels used?	
Total Imports for Alternative Fuels	
Conventional Vehicle Stock/Vehicle Registration	<b>18,047*</b> (1998-2017) <sup>5</sup>
Trucks	3483
Cars	6667
Buses	2400
SUVs	5946
Hybrid vehicle stock	
Electric vehicle stock	1
Fuel Quality Standards?	

Breakdown of Fuel Use in the Transportation Sector		
Type of Fuel/s	Quantity (BOE)	Purpose (Road, Railway, Aviation, Marine)
Gasoline		
Diesel		
Kerosene		

\* In 2011, Dominica had about 23,500 registered vehicles. (IDB, 2015)<sup>7</sup>

## WORKFORCE: ENERGY SECTOR, DOMINICA

### Number of Persons Employed in the Energy Sector

NAME OF ENTITY	PRIVATE OR PUBLIC?	NUMBER OF PERSONS EMPLOYED	BREAKDOWN BY GENDER AND EMPLOYMENT LEVEL	
Ministry of Public Works, Energy and Ports	Public	1 <sup>5</sup>	<b>Females:</b> Managerial Level: Supervisor: Technical: Administrative:	<b>Males:1</b> Managerial Level: Supervisor: Technical: Administrative:
DOMLEC	Private	500 <sup>5</sup>	<b>Females: 300</b> Managerial Level: Supervisor: Technical: Administrative:	<b>Males:200</b> Managerial Level: Supervisor: Technical: Administrative:
Dominica Geothermal Development Company		12	<b>Females: 3</b>	<b>Males:9</b>
Independent Regulatory Commission		9	<b>Females: 6</b>	<b>Males:3</b>





## References

- <sup>1</sup> Central Intelligence Agency. (2017). *The World Factbook 2017*. Retrieved from <https://www.cia.gov/library/publications/download/download-2017/index.html>
- <sup>2</sup> Central Intelligence Agency. (2018). *The World Factbook: Central America – Dominica*. Retrieved from <https://www.cia.gov/library/publications/the-world-factbook/geos/do.html>
- <sup>3</sup> United Nations Development Programme. (2018). *Human Development Reports: Table 2. Human Development Index Trends, 1990-2017*. Retrieved from <http://hdr.undp.org/en/composite/trends>
- <sup>4</sup> Government of the Commonwealth of Dominica. (2014). *Growth and Social Protection Strategy (GSPS) 2014-2018*. Retrieved from <http://finance.gov.dm/national-development-strategies/strategies/file/12-gsp-2014-2018>
- <sup>5</sup> Ministry of Public Works, Energy and Ports (Focal Point: Mr. Michael Fadelle). (2018). *CARIFORUM Energy Report Card Input Data 2017 (completed for Dominica)*.
- <sup>6</sup> Government of the Commonwealth of Dominica. (2014). *Draft National Energy Policy of the Commonwealth of Dominica*. Retrieved from [http://www.caribbeanelections.com/eDocs/strategy/dm\\_strategy/dm\\_National\\_Energy\\_Policy\\_2014.pdf](http://www.caribbeanelections.com/eDocs/strategy/dm_strategy/dm_National_Energy_Policy_2014.pdf)
- <sup>7</sup> Inter-American Development Bank. (2015). *Challenges and Opportunities for the Energy Sector in the Eastern Caribbean: Dominica Energy Dossier*. Retrieved from <https://publications.iadb.org/bitstream/handle/11319/7302/IDB-TN-850%20Energy%20Dossier%20Dominica.pdf>
- <sup>8</sup> Generation availability in December 2017 was 19.73MW or 72% of installed capacity. (<http://www.domlec.dm/pdf/DomlecAR2017.pdf>)
- <sup>9</sup> National Renewable Energy Laboratory. (2015). *Energy Snapshot: Dominica*. Retrieved from <https://www.nrel.gov/docs/fy15osti/62704.pdf>
- <sup>10</sup> World Bank – Climate Investment Funds. (2015). *Climate Resilience in Dominica: Final Report on the Progress of Dominica’s Strategic Program for Climate Resilience and Annual Monitoring*. Retrieved from [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)
- <sup>11</sup> Government of the Commonwealth of Dominica. (2015). *Dominica’s Low-Carbon Climate-Resilient Development Strategy*. Retrieved from [https://unfccc.int/files/cooperation\\_support/nama/application/pdf/dominica\\_low\\_carbon\\_climate\\_resilient\\_strategy%28finale%29.pdf](https://unfccc.int/files/cooperation_support/nama/application/pdf/dominica_low_carbon_climate_resilient_strategy%28finale%29.pdf)
- <sup>12</sup> Government of the Commonwealth of Dominica. (2015). *Intended Nationally Determined Contribution (INDC) of the Commonwealth Of Dominica*. Retrieved from [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominica%20First/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20\(INDC\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominica%20First/Commonwealth%20of%20Dominica-%20Intended%20Nationally%20Determined%20Contributions%20(INDC).pdf)
- <sup>13</sup> Ministry of Science, Energy, Technology and Mining. (2013). *Grid Impact Analysis and Assessment for Increased Penetration of Renewable Energy into the Dominican Electricity Grid*. Retrieved from [https://www.mset.gov.jm/sites/default/files/pdf/Grid%20Impact%20Analysis%20for%2.30Renewable%20Energy%20Penetration\\_2.pdf](https://www.mset.gov.jm/sites/default/files/pdf/Grid%20Impact%20Analysis%20for%2.30Renewable%20Energy%20Penetration_2.pdf)

- <sup>14</sup> Sustainable Energy Ireland – Renewable Energy Information Office. (2011). Energy Unit Conversion Tool. Retrieved from <https://ec.europa.eu/energy/intelligent/projects/sites/iee-projects/files/projects/documents/make-it-be-energy-unit-conversion-tool.xlsx>
- <sup>15</sup> J.M.K.C. Donev et al. (2018). *Energy Education - Energy intensity*. Retrieved from [https://energyeducation.ca/encyclopedia/Energy\\_intensity](https://energyeducation.ca/encyclopedia/Energy_intensity)
- <sup>16</sup> Worldwatch Institute. (2015). *Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) Baseline Report and Assessment*. Retrieved from <http://www.worldwatch.org/cserms/baseline-report>
- <sup>17</sup> Government of Dominica Web Portal. (2018). *Ministries*. Retrieved from <http://www.dominica.gov.dm/ministries>
- <sup>18</sup> World Food Programme/Logistics Cluster. (2018). *Logistics Capacity Assessment: Dominica*. Retrieved from <https://dlca.logcluster.org/display/public/DLCA/3.1+Dominica+Fuel>
- <sup>19</sup> Dominica Electricity Services Ltd DOMLEC. (2016). *Distributed Renewable Energy Generation Policy*. Retrieved from <https://www.ircdominica.org/files/downloads/2016/09/DECISION-2016002D-Renewable-Energy-Generation-Policy.pdf>
- <sup>20</sup> United Nations Framework Convention on Climate Change. (2018). *Process and Meetings: National Communication submissions from Non-Annex I Parties*. Retrieved from <https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/national-communications-and-biennial-update-reports-non-annex-i-parties/national-communication-submissions-from-non-annex-i-parties>
- <sup>21</sup> Dominica Electricity Services. (2017). *Annual Report 2017*. Retrieved from <http://www.domlec.dm/pdf/DomlecAR2017.pdf>