



# 2017 ENERGY REPORT CARD

## HAITI

*This document presents Haiti's Energy Report Card (ERC) for 2017 and was prepared using data and information submitted by the Member State, which was supplemented by several online resources (see list of References). The ERC provides an overview of energy sector performance in Haiti 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*

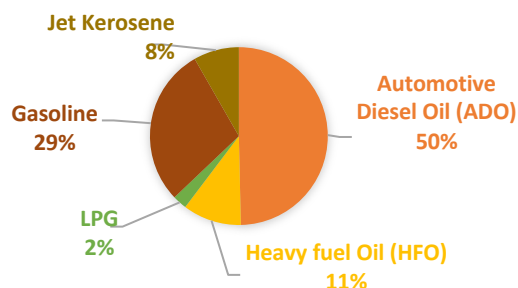
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## “AT-A-GLANCE” SUMMARY OF HAITI’S ENERGY SECTOR

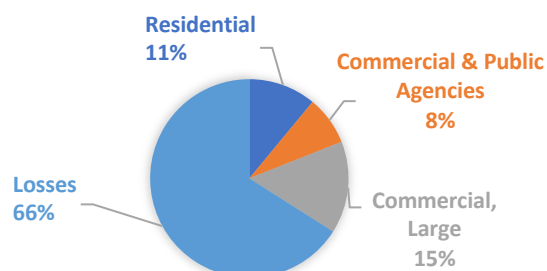
KEY DATA & INFORMATION – HAITI’S ENERGY SECTOR	
Population	10,646,714 (2017) <sup>1</sup>
GDP (USD) Per Capita	\$1,800 (2017 est.) <sup>1</sup>
Debt: GDP Ratio	31.1% of GDP (2017 est.) <sup>1</sup>
Human Development Index	0.498 (2017) <sup>2</sup>
National Development Plan/ Overall Country Development Strategy	
National Energy Policy	
Renewable Energy (RE) Policy	
RE Target (RE Electricity)	50% by 2020 <sup>3</sup>
Energy Performance Standards/Appliance Labelling	No <sup>4</sup>
Number of Persons Employed in Energy Sector	
Total Oil Import (BOE) per day	
Total Oil Export (BOE) per day	
Total Installed Capacity (MW)	310 (2017) <sup>4</sup>
Total Installed RE (MW)	
Electricity System Losses (%)	15% (2015) <sup>4</sup>
Energy Use (kWh) Per Capita	
Energy Intensity	
Oil Imports & Fuel as % of GDP	4% (2015) <sup>3</sup>
Climate Change Policy	
National Determined Contributions (NDC)	Yes (2015) <sup>5</sup>
National Repository for Energy Data	

### FUEL: TOTAL ENERGY SUPPLY



7.6 million BOE<sup>4</sup>; Source: Ministry of Public Works, Transportation and Communications (2017)

### FUEL USE BY SECTOR (2011)



Source: NREL (2015)

## HAITI’S ENERGY SECTOR PERFORMANCE SUMMARY









Indicator	Base /Current Performance (Year)	National Target	National Target (Proposed by CARICOM – CSERMS Report) <sup>6</sup>	Indicative RE Oil Displacement <sup>7,8</sup> Potential Annually**
RE as % of Installed Capacity	20% (2015)	50% by 2020 <sup>3</sup>	46% by 2027	<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>
*Energy Intensity (BTU/US\$1 Unit of output)		30% reduction by 2030 <sup>3</sup>		<b>Energy Intensity (EI)<sup>9</sup>:</b> <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 use (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>
% Reduction in Energy Sector Emissions (NDC)				

\*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>7</sup>

## KEY ENERGY SECTOR STAKEHOLDERS: HAITI

Key electricity stakeholders include:












<b>GOVERNMENT MINISTRIES, DEPARTMENTS AND AGENCIES)<sup>4</sup>:</b>	 Ministry of Public Works, Transportation and Communication (Energy Cell)   Bureau des Mines et de l'Energie d'Haïti
<b>ELECTRIC UTILITY(IES) <sup>4</sup>:</b>	 Electricite d'Haiti (EDH)   Centrale tripartite PBM (Petion, Bolivard et Marti)
<b>INDEPENDENT POWER PRODUCER(S)<sup>4</sup>:</b>	 SOGENER   E-POWER   HAYTRAC
<b>ELECTRICITY REGULATOR)<sup>4</sup>:</b>	 National Authority for the Regulation of the Energy Sector (Autorite  Nationale De Regulation Du Secteur De L'energie (ANARSE)

### Key Stakeholders: Road Transportation Sub-sector

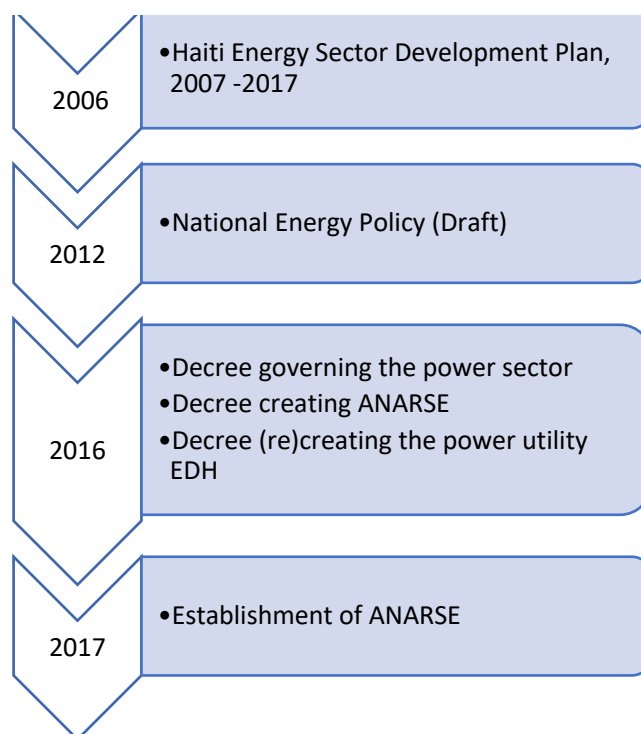
- National Authority for the Regulation of the Energy Sector (Autorite Nationale De Regulation Du Secteur De L'energie (ANARSE)) – Fuel Regulator<sup>4</sup>
- Ministry of Public Works, Transportation and Communication

## POLICY, LEGAL AND REGULATORY FRAMEWORK: HAITI



### Electricity Sector: Policy, Legal and Regulatory (PLR) Framework <sup>3, 4, 6</sup>

✓	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	
	Completed/ In place	
	In progress/ In Development	
		Not yet started/ Not established

### Key Achievements: PLR Framework Timeline for the Electricity Sector <sup>3, 4</sup>



### Policies and Legislation Relevant to the Transportation Sector

Policies	 National Energy Policy (draft)
Legislation & Regulation	

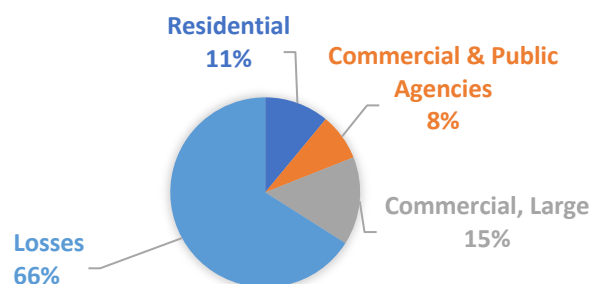
### Climate Change Framework - Haiti

Climate Change Policy	
National Determined Contributions	Yes (2015) <sup>5</sup>
Emissions Reduction Target	
Priority Sectors for NDC	
National Communications (NC) to the UNFCCC	NC1 submitted in 2002; NC2 in 2013 <sup>10</sup>
Greenhouse Gas (GHG) Inventory	

## ELECTRICITY SUBSECTOR &amp; ENERGY EFFICIENCY: HAITI

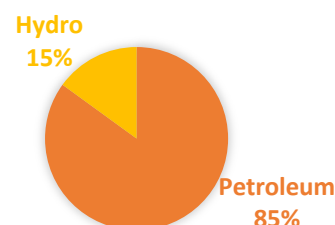
KEY DATA & INFORMATION	
CONVENTIONAL ENERGY	
1. Total Fuel Use – Electricity Subsector (barrels)	
2. Total Installed Capacity (MW)	310 (2015) <sup>4</sup>
3. Installed Conventional Capacity – Electric Utility (MW)	106 (2015) <sup>4</sup>
4. Installed Conventional Capacity – IPPs (MW)	142MW (2015) <sup>4</sup>
5. Base Load (MW)	
6. System Peak Demand (MW)	424 MW (2015) <sup>4</sup>
7. Total Generation (MWh)	875,000(2011) <sup>3</sup>
8. Total Sales (MWh)	413,638 (2015) <sup>4</sup>
9. Total Number of Customers	245,300 (2015) <sup>4</sup>
RENEWABLE ENERGY	
10. Total Installed RE Capacity (MW)	62MW (2015) <sup>4</sup>
11. RE Capacity – Electric Utility (MW)	62MW (2015) <sup>4</sup>
12. RE Capacity – IPPs (MW)	
13. RE as % of Total Installed Generating Capacity	20%
14. RE Target (Re Electricity)	50% by 2020 <sup>3</sup>
TARIFFS	
15. Residential Tariff (US\$/kWh)	\$0.1600 <sup>4</sup>
16. Commercial (US\$/kWh)	\$0.3500 <sup>4</sup>
17. Industrial/Large Power (US\$/kWh)	\$0.3600 <sup>4</sup>
18. Street Lights (US\$/kWh)	
EFFICIENCY	
19. Electricity System Heat Rate	
20. Electricity System Losses (%)	15% (2015) <sup>4</sup>
21. Energy Use (kWh) Per Capita	
22. Energy intensity index (EII) BTU/US\$1 Unit of output	
23. EE Target	
MANAGEMENT OF ENERGY DATA/KNOWLEDGE	
24. Name of Energy Knowledge Management System	
25. Name of Energy Data Management System	

## FUEL USE BY SECTOR



Source: NREL (2015)

## ENERGY GENERATION MIX (2011)



Source: NREL (2015)

RE Resource	Installed Capacity (MW)	Year Commissioned
Wind		
Solar	0.4 <sup>6</sup>	
Hydro	62 <sup>4</sup>	
Geothermal		
Biomass/ WTE		
<b>Total</b>	<b>62.4</b>	

RE as % of installed Power Capacity = 20%

RE Resource Potentials	Potential Capacity (MW)	Assessment Conducted?
Wind	27.3GWh <sup>6</sup>	
Solar	1.7 <sup>6</sup>	
Hydro	896.5 <sup>6</sup>	
Geothermal		
Biomass/ WTE	8.2 <sup>6</sup>	
<b>Total</b>		

## TRANSPORTATION SUBSECTOR: HAITI

Key Transportation Data and Information		Breakdown of Fuel Use in the Transportation Sector		
Barrels of oil used				
Energy-related transportation targets?				
Sustainable /Alternative fuels used?				
Total Imports for Alternative Fuels				
Conventional Vehicle Stock/Vehicle Registration				
Trucks				
Cars				
Buses				
SUVs				
Hybrid vehicle stock				
Electric vehicle stock				
Fuel Quality Standards?				

## WORKFORCE: ENERGY SECTOR, HAITI

### Number of Persons Employed in the Energy Sector

NAME OF ENTITY	PRIVATE OR PUBLIC?	NUMBER OF PERSONS EMPLOYED	BREAKDOWN BY GENDER AND EMPLOYMENT LEVEL	
			<b>Females:</b> Managerial Level: Supervisor: Technical: Administrative:	<b>Males:</b> Managerial Level: Supervisor: Technical: Administrative:

### Number of Persons Trained in the Energy Sector in 2017

NAME OF ENTITY	PRIVATE OR PUBLIC?	NUMBER OF PERSONS TRAINED	BREAKDOWN BY GENDER AND EMPLOYMENT LEVEL	
			<b>Females:</b> Managerial Level: Supervisor: Technical: Administrative:	<b>Males:</b> Managerial Level: Supervisor: Technical: Administrative:

### Indicative Number and Type of Tertiary level and vocational training SE Programmes Offered in Haiti

[illegible]



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- <sup>1</sup> Central Intelligence Agency. (2018). *The World Factbook: Central America – Haiti*. Retrieved from <https://www.cia.gov/library/publications/resources/the-world-factbook/geos/ha.html>
- <sup>2</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>3</sup> National Renewable Energy Laboratory. (2015). *Energy Transition Initiative: Islands Energy Snapshot – Haiti*. Retrieved from <https://www.nrel.gov/docs/fy15osti/64121.pdf>
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- <sup>5</sup> Government of Haiti. (2015). Contribution Prévue Déterminée au niveau National République de Haiti. Retrieved from [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Haiti%20First/CPDN\\_Republique%20d%27Haiti.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Haiti%20First/CPDN_Republique%20d%27Haiti.pdf)
- <sup>6</sup> Worldwatch Institute. (2015). *Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) Baseline Report and Assessment*. Retrieved from [http://www.worldwatch.org/system/files/C-SERMS\\_Full\\_PDF.pdf](http://www.worldwatch.org/system/files/C-SERMS_Full_PDF.pdf)
- <sup>7</sup> Ministry of Science, Energy, Technology and Mining. (2013). *Grid Impact Analysis and Assessment for Increased Penetration of Renewable Energy into the Jamaican Electricity Grid*. Retrieved from [https://www.mset.gov.jm/sites/default/files/pdf/Grid%20Impact%20Analysis%20for%20Renewable%20Energy%20Penetration\\_2.pdf](https://www.mset.gov.jm/sites/default/files/pdf/Grid%20Impact%20Analysis%20for%20Renewable%20Energy%20Penetration_2.pdf)
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- <sup>10</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>