

E-mobility in CARICOM

IRENA/UN - CENTRE OF EXCELLENCE FOR THE SUSTAINABLE DEVELOPMENT OF SIDS CARIBBEAN WORKSHOP





- 1) Regional Transportation Polices
- 2) Regional Transportation Sector
- 3) Regional NDCs
- 4) EVWG
- 5) Regional Electric Vehicle Roadmap and Strategy.



- Implement strategies to encourage <u>fuel switching</u> in the transportation sector and improve fuel conservation and efficiency in <u>ground</u>, <u>marine and aviation</u> transportation.
- 2) Promote the use of <u>fuel efficient vehicles</u>.
- 3) Promote the use of <u>cleaner fuels</u>.
- Identify appropriate incentives for **promoting technological development in fuel switching** as well as the use of **electric and hybrid vehicles** and **collaborate with electric utilities** on suitable high-voltage upgrades to national grids.
- Apply appropriate <u>planning designs</u> to the <u>road transportation</u> <u>networks</u> and in <u>traffic management</u> to promote energy efficiency.
- 6) Identify and implement alternative modes of transport, in particular mass transit systems.

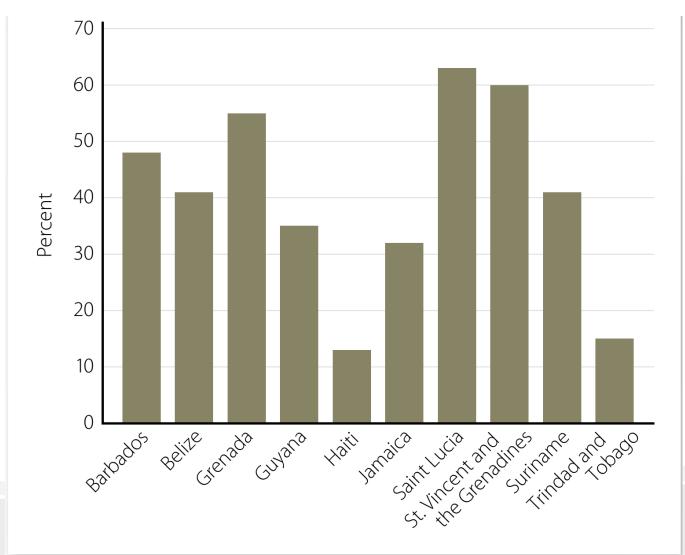


C-SERMS 2015: Transportation sector

- Transportation's sector overlooked because of the sector's complexity and lack of available data.
- The promotion of HEV and EV capable of reducing fuel consumption by 47% and 73%, respectively, could greatly benefit the CARICOM region.
- Electric vehicles also can provide ancillary benefits when integrated with renewable energy and smart grid development.



Transportation sector



Transportation's Share of Total End -Use Energy Consumption in Selected CARICOM Member States, 2014

Source: C-SERMS 2015



NDC Commitments for CARICOM Nations

CARICOM Country	NDC commitment related to Transportation	NDC commitment related to Energy
Antigua and Barbuda	By 2020, establish efficiency standards for the importation of all vehicles.	By 2030, achieve an energy matrix with 50 MW of electricity from renewable sources both on and off-grid in the public and private sectors.
Bahamas		30% RE in energy mix by 2030 allow 10% Residential Energy Self Generation within the year.
Barbados	a 29% reduction in non-electric energy consumption including transport, compared to a BAU scenario in 2029	Renewable energy: contributing 65% of total peak electrical demand by 2030. Electrical energy efficiency: a 22% reduction in electricity consumption compared to a BAU10 scenario in 2029.
Belize	20% reduction in Conventional transportation fuel use by 2030	Reduction in energy intensity per capita at least by 30% by 2033. Reduce fuels imports dependency by 50% by 2020 using renewable energy. 85% renewable energy by 2030
Dominica	By 2030, total emission reductions in Transport – 16.9%;	By 2030, total emission reductions in Energy industries – 98.6%
Grenada	Reduce its emissions in the transport sector by 20% by 2025	A 30% reduction in emissions through electricity production by 2025 with 10% from renewables and 20% from energy efficiency measures.



NDC Commitments for CARICOM Nations – cont'd

Guyana		100% renewable power supply by 2025.
Haiti	Control, regulate the import of used vehicles.	Increase to 47% the share of renewable energies in the system Haitian electricity by 2030 (hydro 24.5%, wind 9.4%, solar 7.5%, biomass 5.6%)
Jamaica		Renewable Energy increase to 20% by 2030. Prime Minister announced 50% by 2030.
Saint Lucia	Efficient Vehicles ,Improved and Expanded Public Transit. Introduced a new levy to control importation of used vehicles Reduction of excise tax and duty for importers of fuel efficient vehicles and alternative energy vehicles	35% Renewable Energy Target by 2025 and 50% by 2030
St Kitts and Nevis	At Least reduce 5% of the national fuel consumption.	Increase the use of renewable energy sources by 50%
St Vincent and the Grenadines Suriname	New policies to reduce the import duty paid on low emission vehicles	Generate approximately 50% of the national annual electricity consumption needs From Geothermal Energy. Energy Efficency:15% reduction in national electricity consumption compared to a BAU scenario by 2025 31% emission reduction by 2025
	30% reduction in GHG emissions by 2030 in the public	
Trinidad and Tobago	transportation sector	



Electric Vehicle Work Group (EVWG)

CARICOM EVWG established in Nov 2017.

Members: Financial Institutions, Regional EV dealerships, Utility Companies, Energy and Transport Ministries and Regional Developmental Partners.

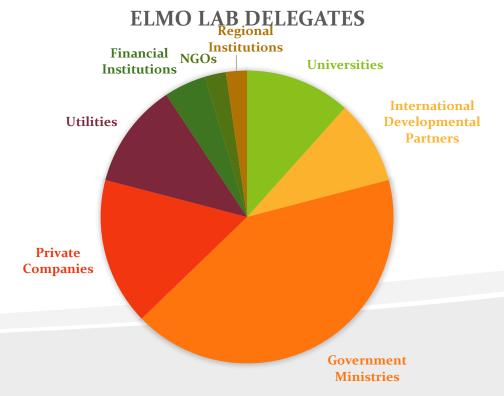
Aims

- To provide a forum through which national governments, institutions and industry players share experiences, lessons learned and good practices on electric vehicle use and performance within the region.
- Information and analytics that emerge from the group will serve as a guide towards the development of electric vehicle policies and strategies within CARICOM, aiming at a regional roadmap on e-mobility.
- Guide and inform the implementation of national and regional energy and transport action plans.

Electric Mobility Workshop (ELMo lab and Technology Expo – June 2018 Barbados.



• EVWG, CARICOM Energy and GIZ.



ELMo lab and Technology Expo - cont'd

Participants engaged in a co-creative innovation process called Design Thinking focused on creating a Regional Roadmap for Electric Mobility.

Solutions to E-mobility Challenges in the region:

- Innovative financing options.
- Training, Associations, Peer to Peer knowledge sharing.
- EV ,Resilience and Grid Modernization.
- Incentives for EVs.

Draft Regional Electric Vehicle and Roadmap Strategy Model. Flagship Flagship Flagship **Projects Projects Projects** nunity of Pra Goals and Governance and Fleet Implementation Objectives Finance. Assessment



Draft Regional Electric Vehicle and Roadmap Strategy Model – cont'd.

- Regional Stakeholders.
- CARICOM Energy Policy.
- C-SERMS
- ELMo Lab Stakeholder Consultation and Solutions

CSEF VI: C-SERMS Policy and Regulation Group.

Draft Regional Electric Vehicle and Roadmap Strategy Model – cont'd.

Priority: Electric Bus Pilot Projects



Maritime Sector.





Thank you for Listening