



FOSTERING GROWTH IN ENERGY EFFICIENCY
AND RENEWABLE ENERGY



USAID
FROM THE AMERICAN PEOPLE



**Caribbean Clean
Energy Program**



ATTRACTING INVESTMENT TO SECURE CARIBBEAN ENERGY SECTOR

Thursday, January 26, 2017

Jefferies

CM **CAPITAL MARKETS**
LIMITED

JAMAICA
OBSERVER

Television Jamaica



Just Look At Us Now!



GLOBAL OPPORTUNITY

Global Opportunity (IRENA Roadmap, 2016)

2015 Global investment in RE - \$360 US Billion
\$330 US B - power sector
\$ 30 US B - buildings, industry, transport

2016 – 2030: need av. \$770 US B/yr to double RE Gen/hit COP21 goals

Figure 51: Investment in renewable power generation capacity with REmap Options, 2016-2030



Based on IRENA estimates



CARIBBEAN OPPORTUNITY

- Ambitious national and regional RE/EE goals:
- CARICOM 2027 Regional Goals:
 - RE Gen: 47% of Gen capacity
 - EE savings: 33% reduction in energy intensity
 - CO₂ 36% emission reductions
- National goals expressed in RE/EE policies, INDC
 - Jamaica NEP 2009-2030: 20% RE by 2030; 30% RE Gen in electricity sector
 - Plans to implement; laws and regulations in process



CARIBBEAN OPPORTUNITY

- IDB, T. Turner Jones CREF Presentation Oct 2016

The Caribbean: Energy Investments Needs (in millions of USD)

	Private Investment ¹	Public Investment ²	Total Investment	Total Investment (%GDP) ³
The Bahamas	441	70	511	6.0
Barbados	324	115	439	10.1
Belize	59	-	59	3.5
Jamaica	720	140	860	6.3
Suriname	288	90	378	7.8
ECCU ⁴	0	0	379	8.6
Antigua & Barbuda	-	-	-	
Dominica	-	-	52	9.9
Grenada	-	-	87.5	9.6
St. Kitts and Nevis	-	-	86.5	10.2
St. Lucia	-	-	66	4.7
St. Vincent & Gr.	-	-	87	11.9
Region Total	2062	1255	3696	11.5



CARIBBEAN CHALLENGES

- Global competition for capital, skilled developers
- Private capital essential to meet targets
 - RE Generation – Grid-scale and Self-Generators
 - Smart Grid to support new technology (T&D)
 - EE Projects – cheapest energy of all
- Enabling Framework is essential
 - Alignment of policy, law, regulation and projects
 - Engagement of public & private sectors
 - Mature, transparent, stable investment environment
 - “Regulatory certainty”
- Long-term priority commitment is required
 - Alignment of electricity sector stakeholders
 - Electricity Sector transformation in stages
 - Streamlining of project procurement, implementation
 - Consistent message to global investors- stable market





CARCEP NATIONS PROFILE

Enabling Environment for Energy Efficiency - Overview Compiled by USAID CARCEP – January 22, 2016

	Population	GDP per capita USD 2015	Power Price USD ¢ IADB 2013	Lending Interest Rate WB Data 2015	Majority Government owned utility	Independent regulator	Decoupling Utility Revenues	Gov't Owned Oil Company
Antigua and Barbuda	91,295	23,600	43	9.8%	Yes	No	No	Yes
Barbados	289,680	16,600	32	8.1%	No	Yes	No	Yes
Dominica	73,449	10,700	43	8.7%	No	Yes	No	Yes
Grenada	110,152	13,100	40	9.0%	No	Just starting	Considering	Yes
Jamaica	2,920,050	8,800	36	17.0%	No	Yes, scope reduced	Maybe	Yes
Saint Kitts and Nevis	39,181	24,600	28 (2014)	9.3%	Yes	No	No	Yes
Saint Lucia	163,362	11,700	38	8.9%	No	Just starting	No	Yes
Saint Vincent and the Grenadines	102,918	11,000	36	9.3%	Yes	No	No	Yes



SOLUTIONS

- Complete Build out of Legal Framework (laws, rules to implement policy; offer clear roadmap)
 - Assure alignment of tax policy across sectors; EE incentives
 - Prioritize EE – Building codes for new and retrofit, appliance labeling
- Manage the message to Global Marketplace
 - Stable investment marketplace with supportive legal framework
 - Clear roadmap for project development and reasonable timeframes to deal and development
 - Competitive procurement
 - No surprises during license term – mitigate perception of “political risk”
- Create long-term forum for public-private collaboration
 - Gives private sector input into Ministry policies, laws, and rules to right-size programs
 - Educates private sector on opportunities and challenges
 - Prioritize planning, execution and monitoring of G, T, D, Storage to execute Smart Grid ; Smart Grid Working Group model
- Assure a Creditworthy Off-taker – Single Buyer/utility
 - Small island grids require careful planning and transition
 - Limited economic capacity of customer base to support transformation costs
 - Legacy utility must have a viable business model after G monopoly removed
- Assure Independent Regulator remains strong and proficient



NEAR-TERM PRIORITIES

- Hotel Sector

No of Hotels	No of Rooms	Annual Elec consumption (GWh)	CO2 emissions (1000 tons)	Potential savings GWh	Potential Savings US\$ Mill	Investment req'd. US\$ Mill
2,269	241,058	4,360	3,144	1,049	271	433

Source: CHENACT Final report

Slow progress due to lack of private financing

Solutions include ESCOs, public and private financing , bundled funds



MEDIUM TERM PRIORITY



Electric Transport – Public and Private EV; Battery Storage for load-shifting or peak shaving; lowers investment to balance variable RE
Tesla Model 3 - \$35,000, 215 mi range/charge, 0 to 60 mph <6 sec.
Synergy with strong Jamaica car sector and tourism sectors



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Thank You!



USAID Caribbean Clean Energy Program