

Caribbean Energy and Water Policies Overview

*Pacific and Caribbean Conference on Effective and
Sustainable Regulation of Power and Water Services*

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Caribbean Electricity & Water Challenges

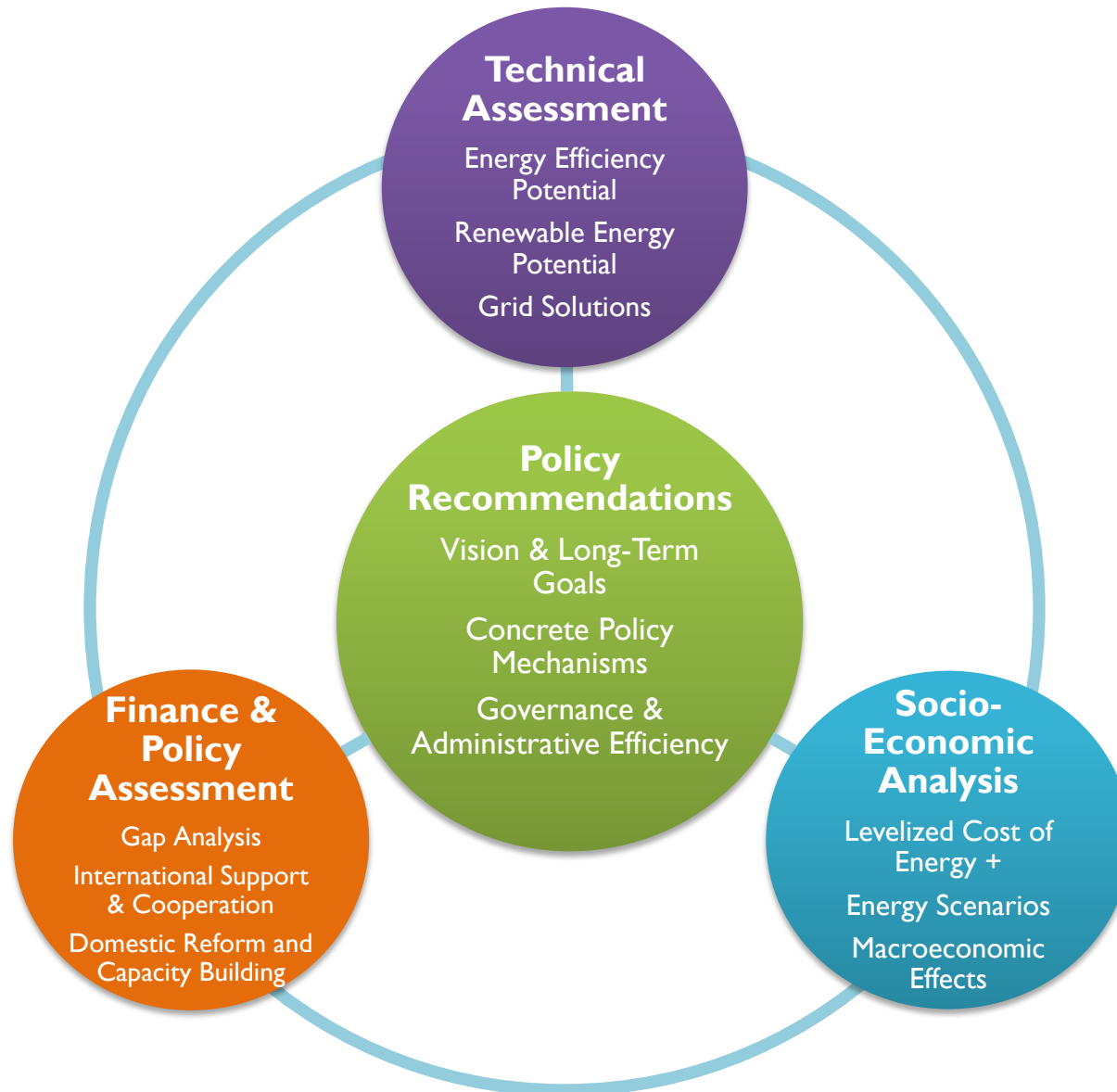
Electricity

- Limited fossil fuel resources
 - Electricity poverty
 - High electricity costs
 - Technical & non-tech. losses
 - High levels of system interruptions
 - Low efficiency & RE penetration, despite potentials
 - Limits to off-grid solutions & grid access for IPPs
- Need to transition to more sustainable systems

Water

- Limited freshwater resources
 - Water poverty
 - Low sewerage access
 - Varying water quality
 - Unprofitable service providers
 - Lack of investment in new & existing infrastructure
 - High levels of non-revenue water
- Need to design more sustainable solutions

Integrated Energy Planning



Regulatory Analysis

- Utility set-up
- Regulatory structure
- Governmental oversight
- Tariff setting mechanisms
- Quality control
- Licensing and permitting

Technical Assessment

Energy Efficiency Potential
Renewable Energy Potential
Grid Solutions

Policy Recommendations

Vision & Goals
Policies & Mechanisms
Governance & Regulatory structure

Finance Assessment

Gap Analysis
International Support & Cooperation
Domestic Reform and Capacity Building

Socio-Economic Analysis

Levelized Cost of Energy +
Energy Scenarios
Macroeconomic Effects

Electricity Sector Status

	Access	Affordability (%GNI/household)	Quality (SAIDI)	Sustainability (Renewable share)	Operational efficiency
Barbados	100%	3%	4.99 hrs	0%	Rate of return: 6.7% Grid losses: 6.2%
Dominica	99%	3.5%	20.1 hrs	26%	Rate of return: 12.7% Grid losses: 8%
Jamaica	98% Urban:100% Rural: 84%	4.9%	13.5 hrs	7%	Rate of return: 3.5% Grid losses: 24%
St. Lucia	99%	3.6%	11.8 hrs	0%	Rate of return: 15% Grid losses: 9.6%

Water Sector Status

	Access	Affordability (%GNI/household)	Quality	Sustainability	Operational efficiency
Barbados	96-98%	1.1%	Failed water quality tests in past	No water mgmt regulations	Rate of ret'n: N/A Non-revenue: 49%
Dominica	95%	1.6%	No water quality data available	No water mgmt regulations	Rate of return:-1% System losses:40%
Jamaica	70% Urban: 91% Rural: 47%	1.3%	WHO standards 95% of time	Water mgmt regulations	Rate of retn:-11% Non-revenue: 69%
St. Lucia	88%	1.7%	No water quality data available	No water mgmt regulations	Rate of return:-9% Non-revenue: 50%

Regulatory Overview: Electricity

	Operator	Regulator	Regulatory Model	Tariff Setting Procedure
Barbados	BL&P	FTC	Independent multi-sector regulator	Rate of return assessed by FTC
Dominica	DOMLEC	IRC	Semi-autonomous single-sector regulator	Proposed CPI-X assessed by IRC
Jamaica	JPS	OUR	Independent, multi-sector regulator	CPI-X assessed by OUR
St. Lucia	LUCELEC	None	Statutory tariff mechanism, no regulator	Rate of return set by government statute

Regulatory Overview: Water

	Operator	Regulator	Regulatory Model	Tariff Setting Procedure
Barbados	BWA	None	No independent regulation	Set by Board of BWA, subject to Cabinet approval
Dominica	DOWASCO	None	No independent regulation	Set by Minister based on “full cost basis”
Jamaica	NWC	OUR	Independent, multi-sector regulator	CPI-X-type controls, assessed by OUR
St. Lucia	WASCO	NWSC	Single sector regulator	Set by NWSC based on “efficiently incurred costs of the service” & “reasonable return on capital”

Importance, Regulatory Structure

- Decoupling services and oversight
- Create clarity of roles
- Enable autonomy/independence/authority
- Provide transparency/accountability

Tariff Structure, Setting, Review

- Block tariffs provide demand side efficiency, affordable access
- Prices need to balance customer and operator needs (including funds for new investments)
- Different impacts of differing tariff mechanisms: Efficiency v. investment security
- Independent, regularly conducted reviews necessary for efficient pricing

Importance of Standards

- Service, technical, and operation standards
- Ambitious but feasible
- Monitoring, reporting, verification/review, enforcement

Maximizing Limited Capacity

- Mechanisms to reduce capacity needs
 - Multi-sector regulation
 - Statutory tariff setting
 - Regional regulation
- Mechanisms to create new capacity
 - Regional knowledge centers

Utility Models & Challenges: Past and Future

- Successes of the past v. challenges of the future
- Improving efficiency; creating sustainable energy supply
- Need to transition the grid
 - Public vs. private operations
 - Monopolies vs. competitive markets

Regulation w/in Enabling Framework

- Smart regulatory system not enough
- Importance of national policy framework to link to effective regulation
 - Goals and concrete policy mechanisms
- Importance of integrated energy planning

THANK YOU!

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