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Report No: 51576-LAC

PROJECT APPRAISAL DOCUMENT

ON

PROPOSED CREDITS

IN THE AMOUNT OF SDR 1.8 MILLION
(US$2.80 MILLION EQUIVALENT)
TO GRENADA

AND

IN THE AMOUNT OF SDR 1.8 MILLION
(US$2.80 MILLION EQUIVALENT)
TO SAINT LUCIA

IN SUPPORT OF THE FIRST PHASE OF THE

EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY

PROGRAM (APL-1)

May 16, 2011

Sustainable Development Department
Caribbean Country Management Unit
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective on April 5, 2011)

Currency Unit	=	Eastern Caribbean Dollar (EC$)
EC$ (XCD) 2.61	=	US$ 1
SDR 0.64	=	US$ 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

APL	Adaptable Program Loan
APUA	Antigua Public Utilities Authority
CARILEC	Caribbean Electric Utility Services Corporation
CAS	Country Assistance Strategy
CEO	Chief Executive Officer
CPS	Country Partnership Strategy
CREDP	Caribbean Renewable Energy Development Programme
DOMLEC	Dominica Electricity Services Ltd.
EC$	Eastern Caribbean Dollar
ECCAA	Eastern Caribbean Civil Aviation Authority
ECCB	Eastern Caribbean Central Bank
ECERA	Eastern Caribbean Energy Regulatory Authority
ECTEL	Eastern Caribbean Telecommunications Authority
ED	Executive Director
ESA	Electricity Supply Act
FMR	Financial Management Report
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GRENLEC	Grenada Electricity Services Ltd.
GIZ	Gesellschaft für Internationale Zusammenarbeit
IBRD	International Bank for Reconstruction And Development
IDA	International Development Association
ICR	Implementation Completion Report
IFC	International Finance Corporation
IFR	Interim Financial Report
IMF	International Monetary Fund
IPP	Independent Power Producer
IRC	Independent Regulatory Commission
ISDS	Integrated Safeguards Data Sheet
ISR	Implementation and Status Results Report
kW	Kilowatt
kWh	Kilowatt hour

LUCELEC	St. Lucia Electricity Services Company Ltd.
MW	Megawatt
NEVLEC	Nevis Electricity Services Ltd.
OAS	Organization of American States
OECS	Organization of Eastern Caribbean States
PMU	Project Management Unit
PPIAF	Public-Private Infrastructure Advisory Facility
PUCA	Public Utilities Commission Act
RE	Renewable Energy
REC	Regional Energy Committee
SBD	Standard Bidding Documents
TOR	Terms of Reference
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
UNF	United Nations Foundation
US$	United States Dollar
VINLEC	St. Vincent Electricity Services Ltd.

Regional Vice President:	Pamela Cox
Country Director:	Françoise Clottes
Sector Director	Laura Tuck
Sector Manager:	Philippe Benoit
Task Team Leader:	Pierre Audinet

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PAD DATA SHEET

GRENADA
ST. LUCIA
EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY
PROGRAM (APL-1)

PROJECT APPRAISAL DOCUMENT

Latin America and the Caribbean Region
Sustainable Development Department

Date: May 16, 2011 Country Director: Françoise Clottes Sector Director: Laura Tuck Sector Manager: Philippe Benoit Team Leader(s): Pierre Audinet Project ID: P101414 Lending Instrument: Adaptable Program Loan	Sector(s): General Energy Sector (70%), Renewable Energy Sector (30%) Theme(s): Managing for development results (67%); Regional Integration (33%) EA Category: C

Project Financing Data:

Proposed terms: The credits will have a 10 year Grace Period and a Final Maturity of 35 years.

[ ] Loan [X] Credit [ ] Grant [ ] Guarantee [ ] Other:

Source	Total Amount (US$M)
Total Project Cost:	5.60
Cofinancing:	0.00
Borrowers:	0.00
Total Bank Financing:	5.60
IBRD	0.00
IDA	5.60

Borrowers:

Saint Lucia
Ministry of Finance
Financial Centre, Bridge Street
Castries
Saint Lucia

Grenada
Office of the Minister of Finance
Financial Complex Building

St. Georges
Grenada

Project Implementing Entity:

OECS Secretariat
Morne Fortune
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Estimated Disbursements (Bank FY/US$ m)

FY	2012	2013	2014	2015	2016	2017
Annual	0.60	2.00	1.10	1.00	0.50	0.40
Cumulative	0.60	2.60	3.70	4.70	5.20	5.60

Project Implementation Period: September 1, 2011 – June 15, 2016
Expected effectiveness date: November 18, 2011
Expected closing date: December 31, 2016

Does the Project depart from the CAS in content or other significant respects?	○ Yes **X** No
Does the Project require any exceptions from Bank policies?	○ Yes **X** No
If yes, please explain:	
Does the Project meet the Regional criteria for readiness for implementation?	**X** Yes ○ No

Project Development Objective: The objective of the Project is to establish and operationalize a regional approach to the development of the electricity sector in Participating Countries, by supporting the establishment of the Eastern Caribbean Energy Regulatory Authority (ECERA).

Project description *Part A –Setting up the ECERA* Part A will facilitate the creation and launching of the ECERA, including carrying out the legal and consultative process leading to the formulation and ratification of the ECERA treaty *Part B – Operationalizing ECERA* Part B of the Project will finance the operations of the ECERA for three years after its creation.

Safeguard policies triggered?	
Environmental Assessment (OP/BP 4.01)	○ Yes **X** No
Natural Habitats (OP/BP 4.04)	○ Yes **X** No
Forests (OP/BP 4.36)	○ Yes **X** No
Pest Management (OP 4.09)	○ Yes **X** No
Physical Cultural Resources (OP/BP 4.11)	○ Yes **X** No
Indigenous Peoples (OP/BP 4.10)	○ Yes **X** No
Involuntary Resettlement (OP/BP 4.12)	○ Yes **X** No
Safety of Dams (OP/BP 4.37)	○ Yes **X** No
Projects on International Waterways (OP/BP 7.50)	○ Yes **X** No
Projects in Disputed Areas (OP/BP 7.60)	○ Yes **X** No

Conditions and Legal Covenants:

Agreements Reference	Description of Condition/Covenant	Date Due
Conditions for Effectiveness (see Financing Agreements, Art. V)	1. The OECS Subsidiary Agreements have been executed on behalf of the Recipients and the Project Implementing Entity. 2. A regional energy committee (the REC) has been established, in form and substance satisfactory to the Association, and with functions and responsibilities acceptable to the Association, including the responsibility for providing overall administrative and policy guidance, to the Project Management Unit (PMU), and monitoring and evaluation of the implementation progress. 3. All conditions precedent to the effectiveness of the two Financing Agreements, have been fulfilled.	By Credit Effectiveness

Legal covenants (see Project Agreements, Section I.A.2.(a) & (b)	4. The Project Implementation Entity shall no later than seven months after the Effective Date or such later date as the Association shall establish, recruit to the PMU, a procurement specialist and a financial management specialist. 5. Thereafter, the OECS Secretariat shall: (i) ensure effective and coordinated transition of the responsibilities to the PMU from the interim arrangements to be implemented at project effectiveness; and (ii) upon the establishment of ECERA, cause the PMU to be responsible for assisting ECERA in carrying out Part B of the Project in accordance with the Financing Agreement.	After Effectiveness
Disbursement conditions (see Financing Agreements, Schedule 2, Section V. B.1.(b))	6. No withdrawal shall be made for payments under Category (2) unless: (i) the ECERA is legally established and fully operational, all in a manner acceptable to the Association; (ii) a technical and fiduciary (procurement and financial management) assessment of ECERA (as an implementing entity for Part B of the Project) has been carried out in a manner acceptable to the Association; and (iii) the ECERA Subsidiary Agreement has been executed on behalf of the Recipient and ECERA.	

I. Strategic Context

A. Country Context

1. The Organization of Eastern Caribbean States (OECS), established in 1981 under the Treaty of Basseterre, is composed of nine states, including six independent states that are members of the Association and IBRD – Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines – and the British territories of Anguilla, the British Virgin Islands and Montserrat.

2. OECS Member States are very small economies, depending largely on services, tourism, and agriculture. Key challenges in the region's infrastructure sector overall relate to performance in service delivery – in terms of affordability and financial sustainability – rather than to access per se. As a result of government policies that have established provision of infrastructure services as a key policy priority, the OECS countries have been successful in increasing access to electricity and water. Electrification rates exceed 95 percent in all of the countries concerned.

3. Although the OECS Member States share a number of common characteristics, each of them also has its own specificity and challenges:

- With a total population of 86,754 (2010) and a GDP per capita of US$12,784 (2010),[1] **Antigua and Barbuda**, primarily dependent on tourism and offshore services, is one of the wealthiest in the OECS region; however, income disparities remain significant. In 2009, the island's economy, severely impacted by the global recession saw a marked increase in the government's deficit. Public sector debt reached 83 percent of GDP in 2010.
- **Dominica**, with a population of 72,813 and a per capita GDP of US$5,147, is characterized by dependence on agricultural activity while tourism has remained underdeveloped due to geographical features.
- Devastated by Hurricane Ivan in 2004, **Grenada**, over the past few years, has struggled to rebuild its decimated housing stock and recover from the severe damage inflicted on the country's extensive nutmeg plantations and the tourism sector. In 2010, the population stood at 107,818, with a GDP per capita of US$6,264; however, in recent years, the poverty and the unemployment rates have averaged 38 percent and 25 percent, respectively, showing no decline.
- **St. Kitts and Nevis**, the two islands forming a federation, have a population of 49,898 and an average GDP per capita of US$10,206. The economy is based on tourism and agriculture, although the latter sector in St. Kitts has been shrinking. Unemployment, at 6.3 percent, is the lowest among OECS member countries; however, St. Kitts has a high poverty rate of about 23 percent and a very high level of public debt.
- **St. Lucia**, densely populated and mountainous, has a population of 160,922 and a GDP per capita of US$5,778. It is the biggest exporter of agricultural products among the OECS member countries, while the tourism sector provides most of the country's foreign

[1] IMF data: Gross Domestic Product per capita, current prices.

exchange earnings. However, 28 percent of the population is estimated to live in poverty, and the unemployment rate averages 16.8 percent St. Lucia was hit by Hurricane Tomas in 2010 and is now undertaking significant recovery efforts.

- **St. Vincent and the Grenadines**, has a population of 104,217 and a GDP per capita of US$5,434. St. Vincent and the Grenadines' economy is dominated by services and tourism. The unemployment rate is around 21 percent and poverty around 38 percent of the population. Authorities in recent years have focused on investments in infrastructure (construction of a new airport), while having to strengthen the government's fiscal position. St. Vincent and the Grenadines is a territory of 32 islands. Its fragmentation makes ensuring continuity of services and infrastructure access a challenge.

B. Sectoral and Institutional Context

4. The electricity systems of OECS Members are small, insular and almost completely dependent on diesel for electricity generation. Demand for electricity has been growing continuously (3-4 percent per annum) driven mostly by commercial and residential sectors in tourism led-economies. To ensure a reliable supply in such small (27MW peak demand per state on average – ranging from 9MW in Nevis to 49MW in St. Lucia) and insular electricity systems, the region's electricity utilities have to maintain large reserve margins and ensure regular investments in new capacity.

Table 1. Electricity supply sector in the OECS

Country	*Utility*	*Number of customers*	*Peak load (MW)*	*Electricity generation capacity (percent)*	*Total consumption (MWh/yr)*	*Residential consumption as percent of total*
Antigua & Barbuda	APUA	27,752	46.00	100 percent thermal	162,400	41.5
Dominica	DOMLEC	30,549	14.00	20 percent hydro; 80 percent thermal	80,308	45.2
Grenada	GRENLEC	42,928	30.46	100 percent thermal + some wind and solar PV	177,328	38.5
St. Kitts & Nevis (St. Kitts)	St. Kitts Electricity Department	5,500	23.80	100 percent thermal	n/a	n/a
St. Kitts & Nevis (Nevis)	NEVLEC	13,000	9.00	100 percent thermal	34,270	29.8
St. Lucia	LUCELEC	59,572	55.90	100 percent thermal	315,081	34.2
St. Vincent & the Grenadines	VINLEC	34,208	21.00	22 percent hydro; 78 percent thermal	106,524	47.4

Source: Utilities' 2008 and 2009 Annual Reports.

5. The financial crisis of 2008-9 resulted in a slight slowdown in electricity demand growth, and a lower need to add electricity supply capacity. However, the crisis also exacerbated the consequences of high electricity costs for electricity consumers, especially low-income ones.

Table 1 above provides an overview of the physical structure and characteristics of the respective electricity markets.

6. In all OECS Member States, Electricity Supply Acts (ESA) offer utilities exclusive licenses to produce and distribute electricity. Each OECS Member State's electricity supply is dominated by a single supplier. In Dominica, Grenada and St. Lucia, the electricity suppliers are privately owned and operated. In the other Member States, they are state-owned. In the case of Antigua and Barbuda, one large private electricity producer is selling its electricity to the state-owned single buyer.

7. Based on the existing legislative framework, with the exception of Dominica, electricity utilities' oversight is limited. As a result, some utilities' operational efficiencies are low, and their equipment is aging, putting electricity supply reliability at risk. Integrating surplus electricity from auto-producers into the grid and investments in wind or geothermal electricity production could improve the overall performance of the electricity supply sector. However, such investments take time to develop and would benefit from a clear regulatory and investment framework, along with incentives / penalties for the existing utilities to invest.

8. ESAs define electricity price adjustment rules through automatic mechanisms that adjust tariffs to fuel costs through a fuel surcharge (summarized in Annex 1). In some of the countries, price adjustment mechanisms have not been updated since their initial institutionalization, notwithstanding the changing reality regarding fuel costs and the scope of the utilities' operations. The drawbacks of these automatic price adjustment mechanisms became evident during the large price rises in 2008, reaching US$ 40 cents per kWh in some cases.

9. Electricity prices in the OECS countries are among the highest in the world. Part of this situation is due to structural reasons that drive costs up and reduce the scope for cost limitations (insularity, small size of the electricity systems, and lack of alternatives to fossil fuel-based generation). The need for regulatory reinforcement is also part of the issue. Stronger and more efficient regulation in the OECS is not needed to trigger a broad sector reform that would enable wide competition in electricity supply, but rather to improve the oversight of utilities, to increase the capacity to design and implement mechanisms to tame the growth of electricity costs, to reduce cost volatility by diversifying energy supply away from fossil fuels, and to ensure least cost investments in electricity supply.

10. Recognizing the regulatory, incentive and performance gaps outlined above, the OECS Members share a common view that the current regulatory set up, in which governments have limited capacity to exert oversight over utilities, is often insufficient, as is the individual government's capacity to implement medium-term national policies and comprehensive solutions to structural challenges. States agree that the electricity supply sector regulatory framework has to be reinforced, that it is timely to do so, and that the cost of doing so individually would not be sustainable.

11. The need for regional integration and resource pooling to perform regulatory functions at a regional level – or outsourcing them in some cases – is a view increasingly shared by OECS

Members, and is recognized globally as an effective means to sustain economic growth in small states.[2]

12. At the 44th OECS Authority Meeting in January 2007, Heads of States agreed that electricity supply challenges should be addressed regionally through a two-track approach, focusing on (1) improving the regulatory framework for electricity sector governance; and (2) diversifying sources of generation, including from renewables.

13. In response to this, a proposal was developed for the establishment of a regional energy regulator – the Eastern Caribbean Energy Regulatory Authority (ECERA) – as a way to improve efficiency in electricity service delivery in Member States. OECS Members collectively endorsed the proposal at the 49th Meeting of the OECS Authority in Tortola, May 20-22, 2009.[3] The endorsed proposal specified that the ECERA is to be located in St. Lucia.

14. Following the 49th Authority Meeting, a first set of OECS Member States expressed formal individual interest in establishing the ECERA and requested World Bank support to do so. Those are Grenada and St. Lucia, two countries in which the importance of the regulatory reinforcement is felt more acutely than in the rest of the OECS countries, due to the fact that their main electricity utilities are privately-owned and require independent regulatory oversight that the states are individually unable to provide. During the 50th OECS Authority Meeting (Anguilla, November 18th, 2009), Heads of State reiterated their interest in setting up the ECERA for the benefit of the whole OECS. On March 18, 2011, the Special Meeting of the OECS Authority held in St. John's, Antigua, gave its "no objection" for the OECS Secretariat to act as Implementing Agency on behalf of Saint Lucia, Grenada and Antigua and Barbuda to facilitate the establishment of the ECERA. CARICOM's Council for Trade and Economic Development (COTED) also supported the creation of the ECERA at its 35th Meeting on energy in Guyana held on March 24, 2011.

15. The ECERA Program is part of the World Bank Group's Regional Partnership Strategy (RPS) 2010-2014 (Report No. 53762-LAC) discussed by the World Bank's Board on June 8, 2010. Establishing a regional regulatory authority is instrumental for increasing efficiency improvements in electricity service delivery and helping to optimize the utilities' fuel choices and procurement of renewable energy. Specifically, the regulatory authority will be tasked with:

- Exerting pressure for efficiency on electricity companies that are currently not subject to regulatory oversight.
- Improving the scrutiny of the incumbent utilities' generation-capacity expansion plans, requiring them to purchase power from independent producers in cases where doing so can lower total system costs.

[2] Commission on Growth and Development (2008), *Growth Report – Strategies for Sustained Growth and Inclusive Development*, World Bank, Washington.

[3] The Communiqué of the 49th Meeting of the OECS Authority, held in Tortola (British Virgin Islands) on 20-22 May, 2009, states that "The Authority received a project proposal for the establishment of an Eastern Caribbean Regulatory Authority (ECERA), as a regional regulator for electricity sector stakeholders in the OECS. The Authority endorsed the proposal and instructed the Secretariat to continue engagement with the World Bank on the establishment of the regulatory body. ECERA is expected to enhance the efficiency of electricity provision in the OECS Member States."

- Improving the efficiency of the electricity market monitoring process in the respective countries, helping to promote and establish adequate mechanisms for the release of public data, as well as supervising compliance with operational and market rules.

16. Electricity utilities across the OECS also support setting up the ECERA. While some countries explicitly support efforts towards a regional harmonization of regulations in order to enable cross-border investments, others expect to benefit from the regional benchmarking of operating and financial performance. The Caribbean Electric Utility Services Corporation (CARILEC), representing the Caribbean electricity industry, formally expressed its support to the proposed ECERA program and commented on the proposal in a letter addressed to the World Bank dated April 15th, 2009. Those comments have been included in designing the ECERA Program.

17. Most importantly, setting up the ECERA is also compatible with the effort carried out by the OECS towards increased regional integration, which led to the creation of the Eastern Caribbean Telecommunications authority (ECTEL), the Eastern Caribbean Civil Aviation Authority (ECCAA) and the Eastern Caribbean Central Bank (ECCB). The integration process is ongoing, with the most recent and important milestones being the signing of the Revised Treaty of Basseterre establishing the OECS Economic Union in January 2011.

C. Higher Level Objectives to which the Program Contributes

18. Throughout the Program preparation process and the corresponding consultations with stakeholders, OECS Members agreed that sharing resources, coordinating efforts and harmonizing regulatory frameworks would facilitate achieving several high-level national policy goals, including energy security, competitiveness of their respective electricity supply industries, and a greater degree of energy diversification.

19. Establishing the ECERA is an integral part of the broader efforts by the OECS to increase regional integration. As a regional entity, the ECERA will maximize economies of scale in regulating the electricity sector, enable better utilization of scarce skilled human resources and, by providing the necessary regulatory tools, increase the capacity of OECS Members to implement regional-scale arrangements for electricity trade. Through its regulatory powers, the ECERA will also provide incentives to save energy, enable electricity cost savings to consumers, and, in the longer term, lower electricity price volatility by helping to reduce reliance on diesel.

20. In addition, once set up, the ECERA will provide a higher degree of regulatory certainty and lower regulatory risk to utilities, investors and consumers across the OECS Member States. The ECERA will operate in respect of the specific electricity sector policies and sector structures of the individual Member States, at the same time facilitating coordination and gradual harmonization of national regulations to encourage investments in the sector and to help the individual states implement their national electricity sector policies.

D. Program objective and APL phases

21. The objective of the Program is to establish and operationalize a regional approach to the development of the electricity sector in Participating Countries by supporting the establishment of the ECERA.

22. A first phase of the Adaptable Program Loan (APL), otherwise known as the "ECERA Project (APL1)" or the "Project", will launch the process with Grenada and Saint Lucia to set up the ECERA. Other states that are members of the Organization of the Eastern Caribbean States (OECS) have expressed interest to join the ECERA Program at a later date. Subsequent phases of the Program will be activated each time an additional OECS Member State that is a member of the Association or IBRD (Antigua and Barbuda, Dominica, St. Kitts and Nevis, and St. Vincent and the Grenadines) requests to join the ECERA Program. A critical mass of at least two countries has been judged as necessary to initiate the ECERA Program and to create the ECERA and to ensure that regional benefits materialize.

23. *APL Phases Triggers*. Prior to ECERA being legally established, additional countries wishing to join the ECERA Program will only need to formally express interest in doing so and to indicate whether they are interested in obtaining Bank financial support. After ECERA becomes a legal entity, countries wishing to participate will need to confirm their intent to accede to the Treaty establishing the ECERA and express whether they are interested in obtaining Bank financial support. The terms of accession to the Treaty, including the cost-sharing between the initial and the new participants, will be determined during the process of Treaty negotiation (Part A of the Project; see below). When an additional country joins the ECERA Program, the corresponding activities will imply an additional cost to the Program that will be covered by the new participant. This additional cost would cover the fixed and the variable costs of their participation as well as a participation fee set using an identical mechanism for all the Participating Countries to jointly finance the initial fixed cost of the establishment of the ECERA. The additional cost will be calculated during preparation of the new APL phase (see III. B. below and Annex 6 for details).

II. Project Development Objectives

A. PDO

24. The objective of the Project is to establish and operationalize a regional approach to the development of the electricity sector in Participating Countries by supporting the establishment of the ECERA.

25. The mandate of ECERA will be defined during the Treaty negotiating process (Part A of the Project; see below) to be consistent with the above-mentioned development objective.

26. As part of the ECERA Program, the extent of the regulatory powers of the ECERA as well as the scope of its electricity sector policy advisory role will be specified individually by each of the OECS Member States that participates in the ECERA Program.

B. Project Beneficiaries

27. Project beneficiaries will primarily be electricity consumers of OECS Members States. Other beneficiaries include electricity utilities in OECS Member States, as well as private sector investors in the electricity sector, who both will benefit from a clearer, and more efficient regulatory process. Governments, which currently act as regulators of the electricity sector, will benefit from handing over part of the regulatory process to an independent and efficient entity. Governments and consumers will benefit from the ability of the ECERA to create and consolidate energy sector knowledge through its advisory work.

C. PDO Level Results Indicators

28. The following indicators were identified as key for measuring progress toward achieving the Project outcomes:

- Entry into force of the ECERA, demonstrated by ratification of the ECERA Treaty by the Participating Countries (corresponding to Part A of the Project).
- Adoption of new licensing recommendations by the ECERA Council of Ministers (corresponding to Part B of the Project).
- Design and adoption of cost-reflective and performance-based tariffs in Participating Countries (corresponding to Part B of the Project).

III. Project Description

29. The Project will establish and operationalize a regional electricity entity, ECERA. Establishing the ECERA will contribute to improving public confidence in electricity sector governance through, among other things, stronger independent technical advice on electricity tariffs, licensing and other sectoral policies. Establishing the ECERA will improve the investment climate in the region's electricity sector, which in turn will facilitate the implementation of renewable energy projects and possibly future electricity cross-border interconnections across islands. Establishing the ECERA will help increase operating efficiency in the electricity sector.

A. Project components

Part A – Setting up the ECERA [US$ 2.61 million]

30. Part A will facilitate the creation and launching of the ECERA by at least two Participating Countries, including carrying out the legal and consultative process leading to the formulation and ratification of the ECERA treaty, and defining the options for the ECERA self-financing mechanism, reviewing tariffs and examining incentive mechanisms to promote renewable energy, all through the provision of technical advisory services, training, operating costs, and the acquisition of goods.

Part B – Operationalizing ECERA [US$2.99 million]

31. Part B will facilitate the initial three years or so of ECERA's operations, including the day-to-day operations and execution of core regulatory tasks. These tasks will include (i) tariff

and investment plan reviews; and (ii) defining a regional licensing framework for electricity market participants with a particular focus on facilitating the integration of electricity production from renewable sources into the supply mix. Support will be provided through the provision of technical advisory services, training, funding for operating costs and equipment.

B. Project Financing

1. Lending Instrument

32. The instrument proposed is an Adaptable Program Loan. The APL is horizontal which means that each OECS Member State that is a member of the Association or IBRD may participate in the Program when ready, as long as the triggers necessary to launch a new APL phase are fulfilled. The Bank will consider making financing available to additional countries wishing to join at a later stage, in subsequent phases of the APL (see I.D. and Annex 6 for details).

2. Project Cost and Financing

33. The ECERA Program will finance the Member States' contributions to establish the ECERA and subsequently to operationalize the ECERA for three years or so. As this is a regional project, the credits include a portion financed from the IDA regional allocation. The total cost of the ECERA Project (APL1) is estimated at US$5.60 million for two countries, equivalent to US$2.80 million per country.

C. Lessons Learned and Reflected in the Project Design

34. The design of the ECERA Program takes into account the lessons learned from World Bank financed operations in helping to set up regional institutions in the OECS and elsewhere. A study financed by the Public Private Infrastructure Advisory Facility (World Bank / PPIAF, 2007) summarized the relevant international lessons from establishing a range of regional regulatory authorities. These lessons are reflected in the choice towards structuring the ECERA as a full-fledged authority, operating with a lean staff and resorting to consulting services for a large number of its tasks.

35. Specifically, the Eastern Caribbean Telecommunications Authority (ECTEL), with a goal to improve regulation and promote market liberalization and competition in telecommunications in the OECS, serves as a positive precedent. The Bank supported the ECTEL with two consecutive satisfactory technical assistance projects (OECS: Telecommunications & ICT Development Project (P088448) and OECS: Telecommunication Reform (P035730)).

36. The ECERA will operate in a completely different market than the telecommunications sector, and will therefore differ in terms of the services it will provide. In particular, ECTEL and the national telecommunications regulatory authorities have to license numerous telecom operators. This will not be the case in the electricity sector, where, at least in the foreseeable future, a single dominant licensee will likely remain in every OECS countries, given the small size of the electricity markets. Yet, the ECTEL treaty provides a model in terms of the governance structure. Under that treaty, ECTEL is ultimately overseen by a Council of Ministers

of the Contracting Parties (i.e., the OECS Member States that ratified the ECTEL Treaty), the role of which includes the approval of its annual operating budget. A Board of Directors provides operational oversight, with representatives from each of the Contracting Parties. The daily operations of the ECTEL also offer valuable insights on how to design and implement regulations that reflect multiple interests of different Contracting Parties.

37. To benefit from this existing regional experience in the telecommunications sector regulation, ECTEL will be offered a seat on the Regional Energy Committee overseeing the preparation work to establish the ECERA.

38. Similarly, the ECERA Project design used the positive lessons from the OECS E-Government for Regional Integration project, also supported by the World Bank (EGRIP; P100635 and P117087). Specifically, the ECERA Project (APL1) mirrors the EGRIP project implementation arrangements, including the role of the OECS Secretariat as host of the ECERA Project.

39. Dominica's experience with creating an Independent Regulatory Commission (IRC) shows the value of setting up an electricity regulatory authority in a Member State to reinforce the capacity to oversee the electricity sector, particularly when the utility is privately owned. The design of the ECERA Program clearly reflects the various positive lessons from Dominica's experience with the IRC, related to the regulator's presence on the ground, including the important and useful role of the domestic regulatory structure in managing consumers expectations and complaints, handling public consultations, and maintaining close contact and effective communication with the electricity utility. The ECERA Program envisages funding of two staff members to represent ECERA in each Participating Country; however, the exact level of local representation will be determined individually by each Participating Country, with the countries themselves bearing the associated respective costs above the two staff covered under the Program.

40. At the same time, however, Dominica's experience with the IRC also demonstrates the challenges to maintain a domestic regulator for small electricity markets such as the ones in the OECS Member States. The IRC's cost — at 3 percent of the utility's electricity sales revenues— appears unsustainable over the long run. Another significant lesson from the experience of the IRC, is that it is hard to attract and retain sufficiently skilled staff (who are often difficult to find at the national level), which reinforces the importance of being able to pool resources at the regional level. IRC's experience also shows the importance of ensuring a high level of performance of the staff, including the updating and strengthening of skills. Therefore, a dedicated budget has been set-aside in the ECERA Project for training purposes.

41. Finally, regarding renewable energy, OECS countries have launched a variety of individual efforts to formulate policies and to design specific mechanisms for promoting and integrating renewable energy-based electricity into the electricity grid. However, those efforts have often been limited by lack of capacity at the Member State level to pursue a systematic attempt at promoting a comprehensive set of renewable energy options. In some cases, if translated into investments, by their sheer size and scope, some of the prospects for renewable energy supply challenge the existing utilities and undermine the prospect of their own investments (e.g.: geothermal energy supply projects). For this reason, the ECERA Project places

significant emphasis on designing an optimal model licensing policy as well as on formulating incentives for renewable energy development by new market participants and by the existing utilities. This effort is required to help market integration and catalyze multiple activities in the OECS that can more effectively converge towards the goal of renewable energy development.

IV. Implementation

A. Institutional and Implementation Arrangements

42. The implementation of the ECERA Project will be carried out in two parts: (a) **Part A** (the "Establishment Stage") –from project effectiveness to the establishment of the ECERA; and (b) **Part B** (the "Operationalization Stage") – from the Bank's assessment of the ECERA as competent to carry out the Project management responsibilities to Project completion. The Project components have been structured to track these two parts of the Project.

43. The implementing entity is the OECS, which will carry out the Project through the OECS Secretariat. The OECS Secretariat will be responsible for implementing the Project in Part A.

44. For effective project implementation, two new bodies will be formed:

i) The Regional Energy Committee (REC), which will be the technical and governmental steering committee for the Project.
ii) The Project Management Unit (PMU), which will be established within the OECS Secretariat.

45. The REC will be responsible for providing administrative and policy guidance to the PMU, including monitoring and evaluation of implementation progress and addressing implementation bottlenecks.

46. The REC will be comprised of country representatives appointed by each of the Participating Countries, preferably at the level of Permanent Secretary or other senior official with sufficient decision-making authority from the relevant line ministry. Each Participating Country shall appoint one representative and an alternate. Technical experts as needed at meetings of the REC may support each Participating Country's appointee. The REC may include a representative of each of the OECS countries not participating in the Program, the OECS Secretariat and ECTEL, all participating in an advisory capacity. The appointed representative of each Participating Country will chair the REC on a rotating basis. The PMU will act as the secretariat to the REC.

47. The PMU will be responsible for the day-to-day administration of the Project, including its technical, procurement and financial management aspects. Through the PMU, the Project implementing entity will carry out Part A of the Project, and coordinate the transition arrangement for implementation of Part B, including: (a) coordinating the Participating Countries' consultation process and treaty making process towards the establishment of the ECERA; (b) reviewing the progress made towards achieving the Project's objectives at the

regional level; (c) facilitating governmental and inter-governmental actions that may be required under the Project; and (d) coordinating the activities under Part A of the Project.

48. The PMU will be accountable to the REC and will seek guidance from the REC. The PMU will be responsible for providing timely progress reports to the Participating Countries, the Bank and other donors as appropriate. The PMU will be staffed with qualified technical staff at the core of which will be a procurement specialist and a financial management specialist (the latter two on a part-time basis). The OECS Secretariat will host the PMU and will ensure that the PMU is appropriately staffed and equipped and operates according to the guidance that the PMU receives from the REC.

49. The Operations Manual, setting forth detailed arrangements and procedures for implementation of the Project, has been agreed. The Operations Manual sets forth provisions for implementation of the Project, including, *inter alia*: (i) roles, responsibilities, terms of reference and composition of the REC and the PMU, respectively; (ii) institutional coordination and day-to-day execution of the Project; (iii) disbursement and financial management procedures for the Project; (iv) administrative arrangements, internal control procedures, and flow of funds to support the Project activities; (v) the final format of the Financial Statements, chart of accounts and the interim unaudited financial reports for the Project; (vi) the procurement procedures and the standard bidding documents to be used for each procurement method as well as the model contracts for the procurement of goods and services; (vii) the procedures for carrying out monitoring, evaluation and reporting of the Project; (viii) the Project monitoring indicators; and (ix) other administrative, financial, technical and organizational arrangements and procedures required for the Project. The Operations Manual will be updated as needed during implementation to incorporate lessons learned.

50. To ensure integration of the Project into the regional policymaking framework of the OECS, information on the major milestones attained in the process of establishing the ECERA as well as on significant policy decisions requiring the agreement of the Heads of State will be transmitted to the OECS Authority.

Transition to Part B of the Project

51. To facilitate the implementation of Part B of the Project, the ECERA will be established through an ECERA Treaty, signed and legally ratified by each of the Participating Countries. In turn, the Participating Countries will, upon the written approval of the Bank, enter into an ECERA Subsidiary Agreement, with separate conditionalities stated in each agreement. By this time, the appointment of the ECERA coordinator and key staff will have been confirmed, allowing the Project management responsibilities of the PMU within the OECS Secretariat and the REC to evolve into the Eastern Caribbean Energy Regulatory Authority (ECERA). Once the ECERA has been assessed by the Bank as competent to carry out the Project management responsibilities, the Project will transition into a different implementation arrangement, whereby the ECERA will replace the OECS Secretariat as the Project implementing entity. This will signal the start of Part B implementation of the Project.

52. More details, including on the specific arrangements to ensure the flow of funds between the Bank and the Participating Countries as well as the proposed structure of the ECERA, are provided in Annex 6.

B. Results Monitoring and Evaluation

53. The data to monitor and evaluate the outcome and results of the Project will be collected by the PMU during part A and by ECERA during Part B of the Project, and sources of information and data will include annual reports of the Participating Countries' electricity companies and Ministries of Energy. Monitoring and Evaluation of the Project components and sub-components will be integrated in project implementation and management (see Annex 3).

54. The Bank will supervise the ECERA's operations during the first five years following Project effectiveness, corresponding to the two years estimated to complete Part A of the Project and three years for Part B (as described above in Implementation Arrangements).

C. Sustainability

55. The OECS Member States have repeatedly renewed and confirmed their strong support to reinforcing the regulatory framework for the electricity sector as a means to enhance the efficiency of electricity provision within each State, and to do so at a regional level as part of a broader effort towards regional integration.

56. The Project will help mobilize the budget to cover the needs of the ECERA for the three initial years following its establishment as a way to mitigate the risk of under-funding in the initial set-up period. Beyond, the Project will ensure design and implementation of a self-financing mechanism to ensure the regulator's financial sustainability.

57. The ECERA Project will help undertake a process of consultation with Participating Countries to design a self-financing mechanism for the ECERA within a year of project effectiveness, to finalize the mechanism and its schedule for deployment at least two years before project completion.

V. Key Risks and Mitigation Measures

Risks	*Risk Mitigation Measures*	*Risk Rating with Mitigation*
To project development objective		
Weaknesses in public institutions and legislative frameworks	To address the institutional and judicial weakness, the Bank has – and will continue to – engage in a dialogue – at the technical and strategic levels – with the key stakeholders in the sector in each of the ECERA member countries and with development partners in the sector	Low
Countries' fiscal and debt sustainability	Because of the financing mechanism envisaged for the ECERA Project (Bank credits/loan, followed by financing through user fees charged to electricity bills at a later stage), its dependence on public funds will be minimal	Moderate
Delays in ECERA coming into force endangering the ability of the institution to operate	Efforts to enlarge the number of participating countries	Substantial
Difficulty to ensure regional consensus on regulatory decisions, as the regulator will have to coordinate and monitor activities in the Participating Countries	Guidance on developing and sustaining the coordinating role will be provided by OECS Secretariat and ECTEL. Presence of Participating Countries' representatives in the REC will mitigate this risk	Substantial
Time and effort to harmonize the existing legal frameworks for the electricity sector, (i.e.: provisions in the ESAs) given the systems' heterogeneity	Project supervision will monitor that adequate level of highly qualified staff for the ECERA is secured, as well as rigorous formulation and supervision of the deployment of the ECERA business plan and its components, in particular management of consultants (preparation of Terms of Reference, hiring of legal and technical consultants)	Substantial
Financial sustainability of the ECERA	Design of a self-financing mechanism as part of the process of establishing ECERA. Mechanisms under consideration include levy on electricity services and licensing fees	Moderate
In a two participating country scenario, a change of government in one country may jeopardize the establishment of the ECERA if the new government withdraws support	Increase the number of participating countries quickly to maintain momentum and sufficient funding sources to advance the Project objectives	Moderate
To component result		
Overlap between the responsibilities assumed by the ECERA and the domestic regulatory structures	Review of the delineation of responsibilities at the mid-term review (end of the Part A)	Moderate

Risks	*Risk Mitigation Measures*	*Risk Rating with Mitigation*
Speedy implementation may be compromised by the region's limited procurement and energy expertise and the difficulty of securing rapidly a fully staffed ECERA	To mitigate this risk, a financial management specialist (accountant) and a procurement specialist with strong qualifications will be hired in the first quarter following project effectiveness to serve the ECERA, reporting to the Project coordinator	Moderate
Limitations in the current existing regulatory framework for the respective domestic electricity sectors could place a new regulator in a difficult position, being blamed for adverse impacts of under-investment in the sector at a time when investments in generation capacity expansion are badly needed	The regional regulatory entity will be staffed and operational as soon as possible and attention will be paid to carefully sequencing the elements of the business plan to be prepared before the Project becomes effective. Care will be given to manage expectations of the ECERA's role through appropriate external communication. An adequate budget has been set aside for this purpose	Moderate
Procurement capacity in the PMU and in the ECERA may be limited	Special attention will be given to the quality of procurement support hired for the Project. Additional procurement training of project management staff will be carried out	Moderate
Financial management capacity is limited to handle the complexity of a regional project	Attention will be given to the quality of accountants used under the Project, and hands-on training provided	Substantial
Overall risk rating → **Moderate**		

VI. Appraisal Summary

A. Economic and Financial Analysis

Economic analysis

58. Due to the institutional nature of the Project, not all of its benefits are possible to quantify. However, the costs associated with the Project (namely establishing and operating the ECERA) are expected to be more than offset by benefits from improved regulation and increased expertise.

59. The cost of the ECERA is equivalent to its annual operating cost, and is estimated to translate into about 0.60 cents EC$ per kWh delivered (equivalent to a quarter of a cent US$ per kWh), assuming that two OECS States join the ECERA Project. At current average revenue per kWh sold in the OECS, the annual operating cost of the ECERA will be equivalent to less than 1 percent of customer bills. Should all six countries join the ECERA, the annual regulatory cost will be equivalent to approximately one half of a cent EC$ (a fifth of a cent US$) per kWh, which is around 0.8 percent of consumer bills.

60. The type of arms-length regulation that the ECERA will provide typically yields several benefits that go well beyond potential cost savings achieved through increased cost efficiency in

electricity supply. As outlined in Annex 9, regulation of the electric utilities by a separate authority can be expected to improve public confidence in tariff decision making, make investment in the region's electricity sector more attractive, improve operating efficiency, and create a sustainable investment framework.

61. At the same time, there are also clear limits to the economic and financial benefits that setting up the ECERA can be expected to deliver. For instance, whereas governments often regard the value of independent regulation as being primarily about reducing electricity prices, the ability of the ECERA to ensure decreases in the electricity price will be limited, particularly in the short term. Electricity costs in the region are dominated by the price of oil, over which the regulator has no direct control. Thus, while the operational costs of the ECERA will be relatively modest compared to the cost of power, lower electricity rates in the short run cannot be guaranteed.

62. Still, the ECERA provides promising opportunities for providing important cost savings in the medium and long term. Namely, once the regulator has obtained greater experience in regulating the region's diverse electricity utilities, it will be more capable of ensuring that they improve operational efficiencies and pass savings onto consumers. Additionally, assuming the costs of new electricity producing technologies – at a scale appropriate to the size of these utility systems – continue to fall, and the cost of integrating these technologies into the grids is not insurmountable, there is promise of greater cost savings to consumers and reduced price volatility from reduced reliance on diesel engines.

63. Finally, there are benefits associated with the advisory services that the ECERA will provide beyond regulations per se, and which will increase the quality of analysis and advice provided to governments in a range of areas (including on renewable energy development, electricity sector expansion plans, etc).

64. The impact of the costs of regulation on electricity consumers is an important concern for governments. Therefore, the design of the ECERA and the corresponding budget has taken into account the scope of activities of the institution and a desire to be cost-effective.

Financial analysis

65. The activities envisaged under the Project are not investments designed to generate financial returns for the implementing agencies. The ECERA is designed to be financially self-sustaining three years after it becomes operational, relying on a license fee charged to the entities it regulates and possibly a small levy charged to electricity rates. The regulated utilities, in turn, would recover these costs from consumers in their regulated rates.

66. The ECERA is designed to be very lean in permanent staffing, with an extensive reliance on consultants to perform specialized tasks. This approach is viable within the context of the assumed mandate. However, if large geothermal resources of the region are to be developed with some priority, then more resources will be needed to support work related to the development of cross border electricity interconnections. Additional specialist staff will likely be required as well as additional consulting resources. A surcharge to electricity bills to be calculated would be

needed to cover the additional costs. This surcharge has been estimated at around a tenth to a third of a cent US$ per kWh (in 2009).

B. Technical

67. There are no applicable international technical standards associated with the creation of a regional electricity regulatory authority. The institutional design of a small core group of specialists, supplemented by consulting expertise when needed, is appropriate as it provides the necessary expertise at a lower up-front cost. The joint oversight of the ECERA by the REC is similar to that of other Eastern Caribbean regional organizations.

C. Financial Management

68. Financial Management responsibilities will be assumed by a PMU created under the auspices of the OECS Secretariat. Based on the results of the financial management assessment undertaken by the Bank as well as the implementation of the action plan proposed during preparation, the proposed financial management arrangements are deemed acceptable to the World Bank. Detailed description of the proposed financial management arrangements can be found in Annex 7.

D. Procurement

69. A procurement assessment has been completed and has rated the Project as “Moderate". While the OECS Secretariat has nominated a procurement specialist to serve the Project before hiring a full complement of staff to the PMU, the procurement risk is due to such factors as the creation of a new PMU that does not yet have a dedicated procurement officer or yet have any experience in the procurement of goods and services under Bank funded projects (the proposed action plan in mitigating the risk is included in Annex 8).

E. Social (including safeguards)

70. The Project does not trigger any social safeguards or have significant social impacts. Support to the establishment of an institution will not trigger issues subject to a social assessment.

F. Environment (including safeguards)

71. There are no significant environmental issues in relation to this Project. No civil works, typically subject to environmental assessment, will be financed as part of the Project. The Project has been classified category C.

Annex 1: Country and Sector or Program Background
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

Country Context

1. The OECS Member States, like most small states, face a vulnerability to external shocks, including natural disasters, high dependence on external trade, and a high cost of public service provision due to the absence of economies of scale. In a few sectors, these diseconomies of scale and capacity constraints have been successfully overcome through regional initiatives and institutional developments. Leveraging regional approaches more aggressively is considered to be critical to the sub-region's efforts to improve competitiveness and reduce vulnerabilities.

2. **Antigua and Barbuda** was severely impacted by the global recession and the associated decline in tourism and construction sectors. The economy contracted by 6.5 percentage points in 2009 and, despite recent improvements in direct tax collections, saw a marked expansion in central government deficit and public sector debt.

3. In **Dominica**, as much as one fourth of the labor force is unemployed, and a third of the population is below poverty line. Yet, while the recent global recession resulted in a decline in Dominica's food manufacturing and tourism sectors, growth in 2009 continued due to the recovery of the banana industry and public sector construction activity. The central government was able to maintain a strong fiscal position despite its increased expenditures on the 2009 fiscal stimulus program.

4. In **Grenada**, in 2009 the economy contracted by 6.2 percent, attributed to the fall in foreign direct investment and local tourism and construction activity. Key obstacles to economic growth include fiscal slippages in 2006-2008, difficulties prioritizing capital spending, and delays in improving the business climate and reforming investment incentives.

5. In **St. Kitts and Nevis**, due to the global recession and Hurricane Omar that struck the islands in 2008, the economy declined in 2009, with substantial adverse impact on government finances. In 2009, the government implemented a tax relief for small hotels, a targeted support program for the vulnerable, and eliminated the consumer tax on food and the price cap on fuel.

6. In **St. Lucia**, GDP growth slowed to 0.7 percent in 2008, mainly due to the contraction in activity in the hotels and restaurants, construction, and manufacturing sectors. Also in 2009, tourism-related investments continued to slow, with associated spikes in unemployment generated; by contrast, exports of agricultural goods and manufactured products, especially paper, continued to prosper. Total value of the damage to from the October 2010 Hurricane Tomas was estimated at US$336.2 million or 43 percent of GDP (United National Economic Commission for Latin America and the Caribbean).

7. **St. Vincent and the Grenadines**' economy is dominated by services and tourism. The economy suffered from the recent financial crisis and is estimated to have contracted by 1.1 percent in 2009. A lot of the efforts by the authorities have focused on fiscal consolidation in

recent years. Given the already tight fiscal situation characterized by high fixed expenditures and the downward pressure the global economic slowdown has exerted on revenues, fiscal reform is imperative to create fiscal space and bring down public debt. The total outstanding debt of the public sector increased by 8.1 percent in 2008, reaching an estimated $1.1 billion. This increase was spurred by a 28.8 percent increase in the debt of public corporations (associated with financing for the international airport project).

Electricity sector

8. Electricity sector and system development are challenged by the market size and insularity of the individual countries. The peak electricity demand in the region is only 27 MW per state on average, ranging from 9 MW in Nevis to 49 MW in St. Lucia. These combined external and inherent factors have resulted in numerous problems, epitomized in average electricity tariffs circa US cents 40 per KWh, posing a considerable challenge to the OECS economies. In effect, the impact of oil price growth on electricity generation cost is significantly higher in the OECS than in most Latin American countries. A US$10 increase in the price of oil has been estimated to translate into a growth of electricity generation cost equivalent to 1.5 percent of GDP in the OECS Member States.

9. The high electricity costs are also a reflection of structural peculiarities common to all of the region's generation systems, such as the relatively high share of commercial/tourism and residential (as opposed to industrial) consumers in the overall electricity demand, and the associated need for utilities to maintain large reserve margins to ensure that sufficient levels of electricity are generated for direct distribution to customers. Likewise, specific to tourism-led economies, a 3-4 percent growth per annum on average in electricity demand from the commercial and residential sectors over the past several years is a common challenge to which all of the region's utilities have had to respond.

10. Consumption per customer is low in the OECS in comparison to other island countries. This is because, on average, the OECS economies are poorer and have a lower proportion of commercial and industrial electricity sales. Consumption per customer varies significantly among the OECS countries, ranging from less than 200kWh per month in Dominica to over 500kWh per month in Nevis and Antigua and Barbuda. High consumption per customer in Nevis is the result of a high proportion of non-residential sales (70 percent), which goes to one large hotel customer, while Dominica's low consumption is a result of a comparatively low proportion of non-residential sales (50 percent). High consumption in Antigua and Barbuda appears to be a result of higher GDP per capita (more than twice the GDP per capita of most other OECS countries).

11. Similarly, peak demand varies significantly among the OECS utilities. LUCELEC and APUA have similar levels of peak demand of around 45 megawatts (MW), which is remarkable since APUA's volume of sales and number of customers are lower than LUCELECs. In turn, the lower sales volume implies that APUA has to invest more in capacity relative to its total sales. GRENLEC and VINLEC have similar levels of peak load and are of a similar size in terms of customers and electricity sales. Therefore, their investment costs are also expected be similar. DOMLEC also appears to have a peak demand that is similar to those of GRENLEC and VINLEC when taking into account the relative number of customers and electricity sales.

NEVLEC has the lowest peak demand and therefore less of an incentive to invest in larger, more efficient generators.

12. The load factors of the OECS utilities fall within the 60-75 percent range. Therefore, none of the utilities has a very large cost advantage or disadvantage over the other utilities. LUCELEC does have the highest load factor, indicating that it has some cost advantage, particularly over VINLEC and APUA whose generators are expected to be operating approximately 10 percent of the time less than LUCELEC's.

Infrastructure for generation, distribution, and transmission

13. Among the most important contributors to the OECS economies' vulnerability to exogenous market developments is their high level of dependency on imported diesel for electricity generation. As outlined in the main introductory sections of this Project Appraisal Document, in all of the countries concerned, imported diesel dominates the electricity generation mix, and only a handful of successful renewable energy (RE) projects are currently in place, altogether supplying only slightly above 2 percent of the region's commercial electricity. OECS governments are determined to undertake comprehensive assessments of domestically available renewable resources and the costs to develop them. The targets and incentives for developing local renewable energy (RE) sources vary across the islands (see Table 1.1 below). However, at the moment, the governments still lack specific regulatory tools to implement the set targets at a reasonable cost, as the lack of regulatory clarity poses an obstacle to attracting investment.

Table 1.1. Renewable energy policies and regulations in select OECS Members States[4]

	Dominica	***Grenada***	***St. Lucia***	***St. Vincent and the Grenadines***
RE targets	No formal target; 2015: Government plans RE to reach 65-70 percent of installed capacity	No formal target; Government plans RE to reach 10 percent of all generating capacity in the near term	Government plans RE to reach 20 percent of generating capacity by 2010	No formal target; Proposals to develop 8-9MW of wind power
Independent Power Producers (IPPs) allowed	Yes	With sub-license from utility	With sub-license from utility	With sub-license from utility
Autonomous generation allowed	Yes, up to 20 kW unlicensed	Yes, net metering up to 10 kW	Yes, but only off-grid	Yes, but only off-grid
Injection by IPP regulated by law	Yes	Only net metering up to 10kW and subject to unit verification	No	No
Utility's position on RE injection	Regulated by a new law	Own generation and net metering	Own generation preferred	Generation and willingness to purchase

Source: World Bank.

[4] Based on a 2007 report by the GIZ and on the World Bank team's interviews with utility and Ministry representatives in 2009.

Table 1.2. Electricity Supply Industry in the OECS

Country	Utility	Ownership	Regulations	Scope of Operations
St. Lucia	St. Lucia Electricity Services Ltd. (LUCELEC)	Listed corporation, partially owned by public institutions	Power Supply Regulation (1964), superseded by the Electricity Supply Act (1994)	Universal license for electricity generation, transmission and distribution. Auto-generation is allowed, but requires approval and sub-license from LUCELEC.
Dominica	Dominica Electricity Service Company (DOMLEC)	Majority of shares owned by a private company	Electricity Supply Act (2007)	Legally, the company no longer has monopoly in any parts of the sector, and the electricity market is open to IPPs. In reality, DOMLEC is still the only power provider.
Grenada	Grenada Electricity Services Ltd. (GRENLEC)	Majority of shares owned by a private company	Electricity Supply Ordinance (1960); Electricity Supply Act (1974)	The only power provider for Grenada, Carriacou, and Petit Martinique; universal license for generation, transmission, and distribution. Auto-generation is allowed, but requires permission from GRENLEC and the government.
St. Vincent and the Grenadines	St. Vincent Electricity Services Ltd. (VINLEC)	State-owned	Electricity Supply Act (1973)	Universal license for electricity generation, transmission, and distribution; a few private operators provide power to the islands of Mustique and Palm Islands in the Grenadines. Auto-generation requires permission from VINLEC and the competent ministry.
St. Kitts and Nevis	St. Kitts Electricity Department; Nevis Electricity Services Ltd. (NEVLEC)	Both utilities are state-owned	Electricity Supply Act: St. Kitts (1993) and Nevis (1998)	Both utilities have a universal license for electricity generation, transmission, and distribution.
Antigua and Barbuda	Antigua Public Utilities Authority (APUA)	State-owned	Electricity Supply Act (1974), last amended in 2004	Universal license for electricity generation, transmission, and distribution; presence of a single IPP that supplies as much as 80 percent of the utility's power.

Source: World Bank.

14. At the time of assessing the feasibility of a regional regulatory authority in 2007, the fuel costs per unit generated by the OECS utilities differed significantly. This situation remains to date. DOMLEC's fuel costs are much higher than those of the other utilities because its fuel is subject to higher tax rates. LUCELEC leads the OECS utilities with the lowest fuel cost of 7.22 US cents per kWh generated (in 2007). NEVLEC, VINLEC and APUA's fuel costs are around 1 US cent above LUCELEC's fuel cost and a 1-cent cost saving, if it could be achieved, would reduce total operating costs by about 5 percent. GRENLEC falls behind these four OECS utilities, with a fuel cost of 8.58 US cents per kWh generated. GRENLEC's higher fuel cost is

the main differentiating cost between itself and LUCELEC; otherwise these two utilities are similar in most cost components and have consistently had almost identical tariffs.

Institutions and market structure

15. Overall, the utilities are regulated by fairly similar arrangements. Structures of ownership and the intended scope of operations, as summarized in Table 1.2 and 1.3, whereby generation, transmission and distribution rights are defined by a universal license granted to the utility through a provision in the respective ESAs, with some margin for auto-generation and IPP participation.

Industry challenges

16. According to the regional benchmarking study carried out by World Bank / PPIAF in 2007, there are differences also in the utilities' operational efficiency and financial performance:

- LUCELEC, the electricity utility of St. Lucia, has generally had the most efficient indicators in terms of fuel costs per kWh generated and staff productivity, with comparatively low technical and non-technical losses. In recent years, the island's distribution network has seen massive expansion, particularly, to serve rural inland areas. A challenge particular to LUCELEC lies in the low customer density, with the center of the island being mountainous and uninhabitable and therefore its population spreads out around the outside of the island.
- APUA, the Antigua Public Utilities Authority, has consistently had the highest cost of service in the region, mainly due to low staff and overall operating efficiency and substantial system losses. Within the OECS, APUA is the most overstaffed utility. It is a large utility, with a customer base not too dissimilar to LUCELEC, yet each APUA's staff is providing service to only 101 customers on average, less than half that of LUCELEC's 225.
- Dominica's utility, DOMLEC, although still operating below the legally prescribed fuel efficiency, has, over the past few years, managed to reduce technical and non-technical losses through such measures as a meter replacement program and the installation of pre-paid meters.
- Substantial reductions in technical and non-technical losses have occurred also in Grenada, partially as a result of the reconstruction of the power grid implemented by GRENLEC in response to the catastrophic effects of Hurricane Ivan (September 2004).
- VINLEC, the power utility serving St. Vincent and the Grenadines, consistently achieves the lowest technical and non-technical system losses of all the OECS islands. On the other hand, there is scope for the reduction of VINLEC's labor costs that, similarly to the labor costs of DOMLEC, are higher than those of LUCELEC and NEVLEC. It is important to note, however, that the operations of VINLEC span five separate islands (and, hence, networks), implying higher maintenance and investment costs.

Regulatory: pricing and licensing

17. The regulatory oversight of electricity utilities in the OECS is limited, with domestic Electricity Supply Acts (ESA) offering exclusive licenses to produce and distribute electricity and set electricity prices using automatic mechanisms that adjust tariffs to fuel costs through a fuel surcharge, as summarized in Table 3. Almost across the board, the tariff setting mechanisms

defined in the respective ESA have not been updated since their initial institutionalization, notwithstanding the changing reality regarding fuel costs and the scope of the utilities' operations.

18. Likewise, the region's electric utilities lack clarity about the regulatory framework governing the potential and ongoing exploration and development of renewable energy sources for electricity generation – domestically as well as regionally. As a result, the recent fuel price hike and volatility present challenges to their respective electricity sectors' current operation, as well as future expansion. Similarly, the dependence on diesel fuel for power generation creates an increasing fiscal drain to the countries' economies and government budgets, as some of them currently spend as much as one half of their export revenues on fossil fuel imports.

Table 1.3. Electricity Tariff Regulation in the OECS: Basic Rates

	Antigua and Barbuda	Dominica	Grenada	Nevis	St. Kitts	St. Lucia	St. Vincent
Who determines the tariff	APUA, after public and private sector consultation and approval of Minister	Minister of Public Works and Utilities	Utility, but subject to max rates set by Parliament	The PUC. Note: there is no PUC	The Governor General, subject to approval by the National Assembly	Minister of Public Utilities	Government and VINLEC
Who determines changes in the tariff	Same as above. But, the APUA may make agreements with a customer for payment of a rate lower than that set under the one above. Also, fuel price changes require changes in rate	Utility makes temporary changes using statutory formula. The Minister Public Works and Utilities, after consultation with utility on Review Board report makes changes every 5 or more years Note: the Review Board is not operational	Utility, subject, up to 2004, to adjustments approved by PUC in max rates and after 2004 to increases approved by the PUC. Note: there is no PUC	The PUC of its own motion or upon complaint. Note: there is no PUC	Same as above. But the Electricity & Cold Storage Authority may charge fixed rates, or may charge special rates by agreement with a consumer which are not to exceed the Governor General rates Note: there is no Electricity & Cold Storage Authority	Company makes temporary changes using statutory formula changes. The Minister of Finance, after consultation with utility on Review Board report makes changes at most every 5 years. or more	Company or Government may initiate process for change. Change is by agreement between them or by arbitration if no agreement is reached
How is the tariff determined	Apart from the above, the Act does not regulate how the rate is to be determined	Fair rate of return according to the methodology	Formula in ESA to set the maximum rates.	Fair and reasonable rates	Entirely in the Governor General's discretion. He or she establishes them by regulations	Fair rate of return according to the methodology	No criteria are set for Government and VINLEC. See below
How are changes in the tariff determined	Apart from the above, the Act does not regulate how the rate is to be determined.	Company compares allowed return to actual return. Review Board looks at fairness & suitability Note: the Review Board is not operational	Changes to formula only after 2004 based on fair adjustments by applying formula. Changes to return after 2004 based on what is fair	Utility to apply to PUC. Appeal to PUC tribunal. PUC may change rates if it considers the utility's rate or return excessive. Note: there is no PUC	Entirely in the Governor General's discretion. He or she establishes new rates by regulations	Company compares allowed return to actual return. Review Board looks at fairness and suitability	Criteria set out for arbiter to consider: expenses, asset replacement, investment, profit
Is there monitoring and enforcement	APUA to table audited accounts and report of activities in	Utility to submit audited & management accounts. Certification Committee checks	PUC monitors application of formula. Complaint against rates if not fair or not lawful. Offence to overcharge (34	PUC may inquire into utility. Utility to pay fine or may	The regulations are subject to approval by the National Assembly but no criteria is given	Utility to submit audited and management accounts. Certification committee checks	No.

of the costs and fairness of tariff	Parliament through the Minister of Works, Transportation, and the Environment	calculation of temporary changes	PUCA). Note: there is no PUC	lose license if it overcharges. Note: there is no PUC	for this oversight	calculation of temporary changes	
Who has discretion to alter terms	Parliament	Parliament	Parliament	Parliament	Parliament	Parliament	Parliament
How frequently is the tariff adjusted?	The legislation authorized changes 'from time to time	Basic rates can be increased or decreased annually to compensate for a return in the previous year lower or higher, respectively, than the guaranteed return. The increase or decrease involves an interim adjustment by the utility and a final adjustment based on a review by the Certification Committee where the utility's calculations do not comply with the Act. They can also be reviewed every 5 years	Annually after 2004. (Fixed from 1994–2004 subject only to statutory adjustments	At any time. The legislation does not provide any specifications as to time for when the PUC or the utility may trigger the adjustment process. Note: there is no PUC	In last 20 years regulations with new rates have been passed in 1986, 1990, 1998 and 2000	Basic rates can be increased or decreased annually to compensate for a return in the previous year lower or higher, respectively, than the guaranteed return. The increase or decrease involves an interim adjustment by the utility and a final adjustment based on a review by the Certification Committee where the utility's calculations do not comply with the Act. They can also be reviewed every 5 years	At any time. The legislation does not provide any specifications as to time for when Government or VINLEC may trigger the adjustment process
What rate of return is guaranteed, if any	No guaranteed rate of return	The sum of the weighted average percentage cost of equity and the weighted average percentage cost of debt	No guaranteed rate, but non-fuel rates are adjusted on January 1st each year according to formulae which adjusts the tariff according to a price cap formula, based on projected sales for the next year to each class and 80 percent of the movement of a price index excluding the price of fuel and other fuel	The rate of return is not quantified. It is fair and reasonable	No rate of return is guaranteed or provided for in the legislation	Return on average contributed capital based on a spread of 2 percent and 7 percent above the cost of the most recent Government long term bonds or 10 percent, whichever is greater	There is no guaranteed rate. However, the legislation does a commercial rate of return be the guide for adjustment to the rate determined by arbitration

Source: World Bank / PPIAF, 2007.

19. In the absence of a common regional framework, the OECS States have been formulating individual responses to the challenges they face, opting for a variety of solutions to improve the current regulatory framework.

20. For example, Dominica has set up its own independent regulatory commission (IRC), with Bank support through the Dominica Growth and Social Protection Technical Assistance Credit (2006).[5] The experience of the IRC is useful to the rest of the region, but the IRC's future is been considered by the Government of Dominica in the broader context of strengthening regulatory framework at the regional level, as it recognizes that the cost of maintaining a full-fledged domestic regulator is costly. In Nevis, with donor support, the government is considering a model where the state-owned utility would become a single buyer of electricity from a relatively large geothermal independent power producer, in effect replacing its current diesel-based electricity production with a large share of geothermal electricity.

21. Similarly, the possibility of interconnecting the island of Nevis with St. Kitts is also currently being explored, while in Grenada, the utility has developed rules to connect small independent solar systems to the grid. In States with state-owned utilities, as in Antigua and Barbuda and Saint Vincent and the Grenadines, for example, governments are looking for ways to benchmark utilities' performances and improve their efficiency, while developing incentives to stimulate investments. All governments would welcome a stronger capacity to analyze cost allocations when reviewing tariffs and to scale up their individual efforts to promote investments by the electricity supply sector.

The regional policy framework

22. The six countries of the OECS are pursuing a mandate of regional economic integration by recently launching the OECS Economic Union and thus moving towards full harmonization of the respective economic policy frameworks and approaches to sector-specific issues. The creation of the Economic Union, aimed at enlarging the overall market size, also concerns the countries' energy sectors, given the three broad policy goals common to all countries: (1) energy security through lower costs; (2) diversification of energy sources away from diesel; and (3) improved competitiveness of the energy sector.

The regional vision for strengthening sector regulation: the rationale for establishing the ECERA

23. Given the broad common goal of regional integration as well as the common structural and external challenges facing the OECS region as a whole, all six States now agree that sharing

[5] To open the market to investors, just before the IRC's creation, the Government repealed the ESA 1996 which granted an exclusive license to privately-owned DOMLEC to generate, transmit, distribute and sell electricity in Dominica from June 1, 1976 until 2025. Under the new ESA 2006, DOMLEC holds an exclusive license to December 31, 2015. This change in legislation reduced the term of DOMLEC's license by almost 10 years and removed DOMLEC exclusivity in electricity supply, creating a degree of uncertainty for the incumbent with potential impacts for the reliability of electricity supply in the island. At the end of 2009, DOMLEC filed an arbitration complaint, asking the Government of Dominica for compensation for the change in the license terms compared to the 2004 terms of purchase.

resources, coordinating efforts, and harmonizing regulatory frameworks is necessary for enabling each of them to implement such important policy goals as energy diversification, competitiveness of the electricity supply sector, and energy security. To achieve these goals, the States are ready to consider entrusting a regional institution with the regulatory powers needed to review and advise on – or set – electricity tariffs, to oversee domestic electricity suppliers, and to help formulate policies which balance incentives for new investments by the electricity suppliers with sufficient stability and regulatory predictability for the existing utilities to function efficiently and invest as needed.

24. The Governments and the electricity utilities across the OECS have repeatedly expressed a strong support to setting up a regional regulator, with some seeing the greatest value in the regional harmonization of regulations (e.g. in terms of licensing and tariff setting) that would enable cross-border investments, and others supporting such proposed exercises as a regional benchmarking of utility performances. CARILEC formally expressed its support and listed its main comments on the Project to set up an Eastern Caribbean Energy Regulation Authority (ECERA) in a letter to the World Bank dated April 15th, 2009.

25. The regional structure will assume the core regulatory functions that can best be carried out at regional level to take advantage of economies of scale or which deal with regional matters. These core functions include the following:

- Public reviews of tariffs including review of utility application and publication of regulator's decision.
- Development of standard licenses for electricity sector participants, particularly for the connection of generation to a transmission or distribution system and the issuance of license to generators.
- As part of rate review, review and approval of investment plans related to electricity generation, transmission and distribution.
- Create framework for renewable energy procurement through, for example, the development of standardized contracts and connection arrangements.
- Development of standards for reliability and technical losses.
- Audit the accounts of regulated utility.
- Explore options for further integration of electricity markets across the OECS.

26. At the same time, other regulatory functions will likely be carried out at the national level. In particular, it is recommended that customer-related matters and compliance with ECERA's regulatory requirements be monitored at the national rather than the regional level. A national presence is particularly important because of the raised expectations of consumers to the presence of the regulator. In short, the functions of the national-level staff would include:

- Verification that license applicants meet all of the regional (ECERA) and local requirements prior to issuing license and monitoring license compliance;
- Addressing customer complaints in accordance with national legislation;
- Enforcement of customer service standards established by the ECERA; and
- Reporting to the ECERA on compliance of utilities with the reliability and customer service standards established by the ECERA.

27. The current proposal provides for two ECERA officials at the national level to undertake these tasks. However, taking into account the different legislative contexts set out by each of the national Electricity Supply Acts (ESA), these national level functions could be carried out by nationals employed by the government, or, in the case of Dominica, employees of the IRC. These arrangements, and the cost implications, will need to be determined by each country in its negotiations for accession to the ECERA treaty.

28. While the OECS Member States are striving to harmonize their electricity sector policies to a greater degree, it is recognized that distinct national policies are going to remain, whether on issues such as diversity of supply or ownership of the utility. The role of the regulator is very much focusing on the facilitation of the implementation of these policies at the national level. Energy policy making will, of course, remain the sovereign responsibility of the national governments.

29. However, as the structure of the electricity market is determined by policymakers rather than regulators, it is believed that all of the markets would be best served by the so-called Single Buyer structure. This choice is appropriate, given the small size of the vertically integrated utilities which supply the OECS States, combined with a desire to encourage investment by utilities and third parties in renewable forms of power generation. In this structure, where the existing vertically integrated utilities would remain intact while third parties would be able to develop new generation sources, the regulator would oversee the utilities rates and investments, and define the terms under which the third party generators would connect and sell power to the utility.

30. Final details on how the regional regulator's decisions will be implemented domestically will be delineated in the process of consultation that will prepare the ECERA Treaty and the subsequent amendments to be made to the Electricity Supply Acts of each Participating Countries.

Attachment 1 to Annex 1:

Description of the ECERA

1. In line with the objective of enhancing the efficiency of electricity provision in OECS countries, the Project will support the establishment and operationalization of the ECERA, a regional regulatory institution with a clearly articulated mandate stated in the establishing Treaty signed by the Contracting Parties and a strong anchoring in the respective national energy legislative frameworks.

2. By signing the Treaty establishing the ECERA, Participating Countries of the ECERA Project will become Contracting Parties to the ECERA. The mandate of the ECERA will be to enhance the efficiency of electricity provision in the OECS Participating Countries once they ratify the Treaty and to facilitate the achievement of the three common broader energy policy goals of:

a. Energy diversification, including through the development of renewable energy sources;
b. Energy security, including reliability of electricity supply and energy conservation; and
c. Competitiveness of the electricity supply sector to ensure least-cost provision of electricity services.

3. The Program's objective is to create an ECERA that will serve as many of OECS countries as possible. Thus, while the above three goals are common to the ECERA's mandate, the scope of powers that ECERA may vary from country to country and will depend on the precise national legal framework.

4. In the amendments to their individual Electricity Supply Acts, Participating countries will specify how the ECERA's regulatory decisions will be translated into domestic decisions, either on an automatic basis or following an internal decision-making process.

5. Therefore, the responsibilities will be split between: (1) the central (regional) ECERA, which, consisting of a small core staff and reinforced with consultants when necessary, will carry out core regulatory function relating to ratemaking, capital plan review and connection of new generation, and (2) the national-level representatives who will directly interface with consumers and deal with consumer and regulatory compliance matters. The complementary functions are summarized in the list below.

Function	ECERA responsibility	National responsibility
Public reviews of tariffs, including review of utility application and publication of regulator's decision.	√	
The development of standard license conditions, particularly for the connection of a generator to a transmission or distribution system and the issuance of licenses to generators.	√	
Verification that license applicants meet all ECERA and local requirements prior to issuing license and monitoring license compliance.		√
As part of rate review, review and approval of investment plans for utilities	√	
Create framework for renewable energy-based electricity procurement, for example, through the development of standardized contracts and connection arrangements.	√	
Address customer complaints in accordance with national legislation.		√
Explore options for further integration across the OECS	√	
Enforce customer service standards established by the ECERA		√
Development of standards for reliability and technical losses	√	
Audit the accounts of regulated utility	√	
Develop incentives to energy efficiency	√	

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

The World Bank:

Table 2.1. Selected World Bank projects in the Caribbean

Financing Institution	Name of the Project	Amount	Dates	ICR/ISR Rating
IDF	OECS: Strengthening Institutional Capacity for Project Implementation (P104531)	US$403,450	June 2007-April 2011	DO: MS IP : MS
IDA	OECS Catastrophe Insurance (P094539)	US$14.20 million	March 2007-Dec. 2010	DO: S IP: S
IBRD & IDA	OECS: Telecommunications & ICT Development Project (PO88448) and OECS: Telecommunication Reform (P035730)	US$5.5 million	June. 1998 – Dec. 2004	DO: S IP: S
IDA	Dominica Growth and Social Protection Technical Assistance Credit (P094869)	US$1.45 million	Feb. 2007-June 2010	DO: S IP: S
IBRD & PPIAF	Caribbean Regional Energy Strategy (P112173)	US$ 366,264	Oct. 2008-March 2010	NA
IDA	E-Government for Regional Integration Project / Program (EGRIP) (P100635)	US$7.6 million	May 2008-June 2012	DO: S IP: S

ICR/ISR ratings: HS: Highly Satisfactory; S: Satisfactory, MS: Moderately Satisfactory; MU: Moderately Unsatisfactory; U: Unsatisfactory. DO: Development Objective; IP: Implementation Progress.
Source: World Bank.

1. Key lessons learnt from these projects are the following:
   a. Small economies can benefit from sharing the fixed costs of regulatory institutions.
   b. Coordination of a regional project is complex and stretches very thinly both project management and supervision resources.
   c. The financing and retention of high caliber technical advisors is critical for successful negotiations with dominant operators (as in the case of ECTEL in the telecom sector).

Other donors:

2. In defining the scope of tasks to be carried out by the ECERA with regard to the development of renewable energy sources, the Project will take into account the previous and currently ongoing initiatives in the region, carried out by the UNDP, GIZ, the EU, and other donors. In its day-to-day activity, the ECERA will endeavor to coordinate closely its actions with ongoing renewable energy policy developments and projects supported by Members of the OECS and receiving support from donors. The following table summarizes some of the most important regional initiatives aimed at the development of specific renewable energy sources.

Table 2.2: Selected renewable energy related initiatives by other donors in the OECS

Initiative	Donors	Countries covered	Components	RES covered	Time-frame
Eastern Caribbean Geothermal Development Project (Geo-Caraibes)	GEF, UNEP, AFD	St. Lucia, St. Kitts, Nevis, Dominica	Pre-feasibility assistance (Phase 1), feasibility and commercial development - technical, policy/legal, financial, training (Phase 2)	Geo-thermal	Since 2003
Caribbean Renewable Energy Development Programme (CREDP)	GEF, UNDP, GIZ	SVG, St. Lucia, Dominica, Grenada, St. Kitts, Barbados, regional OECS, regional CARICOM	Capacity building for RE system planning, feasibility studies, resource assessments, regulatory advice to governments, project identification, small grants for pre-feasibility analyses, policy reform	Wind, hydro, hydro rehabilitation	2003-2008 (Phase 1)
Global Sustainable Energy Islands Initiative (GSEII)	EU, UNF, OAS, etc	St. Lucia, Dominica, Grenada, St. Kitts and Nevis, SVG, Antigua	Resource assessment, sustainable energy policies, mitigation of financing and institutional obstacles, capacity building, training	Micro-hydro, geo-thermal, wind, etc	Since Nov. 2000
Caribbean-EUEI Sustainable Energy Assistance Programme	EU, OAS	SVG, St. Lucia, Dominica, St. Kitts and Nevis, Antigua and Barbuda, Grenada	Institutional and human capacity development, policy preparation for sustainable energy, project identification and assessment, electric utility staff training	Various	Launched in 2008
USA-Brazil Biofuels Bilateral Agreement	U.S. Government	St. Kitts and Nevis	Support of biofuels development: policy advice, economic analysis, feasibility studies, capacity building	Bio-energy, biofuels	Ongoing

Source: World Bank.

Annex 3: Results Framework and Monitoring
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

Table 3.1. Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
To establish and operationalize a regional approach to the development of the electricity sector in the OECS Participating countries by supporting the establishment of the ECERA	• Entry into force of the ECERA, materialized by ratification in Participating countries of the ECERA Treaty (corresponding to Part A) • Adoption of new licensing recommendations by the Council of Ministers (corresponding to Part B) • Design and adoption of cost reflective and performance based tariffs in Participating Countries (corresponding to Part B)	Assess decision to regionalize and operationalize the energy regulator
Intermediate Outcomes	**Intermediate Outcome Indicators**	**Use of Project Outcome Information**
To create a new regional institutional framework and to help harmonize sector policies and regulations	• Draft treaty establishing the ECERA prepared, for approval of the Heads • Treaty establishing the ECERA ratified, by Participating Countries • Amendments to domestic legislation to operationalize the ECERA at a national level prepared, for review by the respective Attorneys General • Full complement of staff for the ECERA hired	Measures regionalization and legal empowerment of the regulatory authority
To initiate regulatory activities of ECERA	• Commissioners appointed • Self Financing Mechanism for the ECERA approved and operational. • Licensing rules enabling new investments in electricity generation designed • Authority's decision on tariff designed and adopted	Demonstrates regulator is performing core function

Table 3.2. Arrangements for results monitoring

		Target Values					Data Collection and Reporting		
Project Outcome Indicators	**Baseline**	**YR1**	**YR2**	**YR3**	**YR4**	**YR5**	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**
1. Entry into force of the ECERA as the regulator of Participating Countries' electricity markets, materialized by ratification in Participating countries of the ECERA Treaty (corresponding to Part A)				X			Bi-annual	Progress reports and field visit	PMU
2. Adoption of new licensing recommendations by the Council of Ministers (corresponding to Part B)						X	Bi-annual	Progress reports and field visit	PMU
3. Design and adoption of cost reflective and performance based tariffs in Participating Countries (corresponding to Part B)						X	Bi-annual	Progress reports and field visit	PMU
Intermediate Outcome Indicators									
1. Draft treaty establishing the ECERA prepared, for approval of the Heads			X				Bi-annual	Progress reports and field visit	PMU
2. Treaty establishing the ECERA ratified, by Participating Countries				X			Bi-annual	Progress reports and field visit	PMU
3. Amendments to domestic legislation to operationalize the ECERA at a national level prepared, for review by the respective Attorneys General			X				Bi-annual	Progress reports and field visit	PMU
4. Full complement of staff for the ECERA hired			X				Bi-annual	Progress reports and field visit	ECERA
5. Commissioners appointed				X			Bi-annual	Progress reports and field visit	PMU and governments of member countries
6. Self Financing Mechanism for the ECERA approved and operational				X			Bi-annual	Progress reports	ECERA
7. Licensing rules enabling new investments in electricity generation designed					X		Bi-annual	Progress reports and field visit	ECERA
8. Authority's decision on tariff designed and adopted						X	Bi-annual	Progress reports and field visit	ECERA

Annex 4: Detailed Project Description
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. To establish and operationalize the ECERA, the Project has two main parts.

Part A – Setting up the ECERA [US$ 2.61 million]

2. Part A will support the creation of a new institutional, legal, and regulatory framework for the electricity sector of the Participating Countries. In effect, this part of the Project will: (1) create a Regional Energy Committee - the technical and government steering committee for the Project - and ensure the hiring of a project coordinator and support staff to carry out Project implementation; (2) carry out the legal process to formulate and ratify ECERA's Treaty; (3) hire appropriate staff to ensure ECERA's operationalization; (4) define options for ECERA's self-financing and; (5) prepare the ground for regulatory activities by drafting terms of reference for consultants services to review tariffs and to examine incentives mechanisms to promote renewable energy. Part A will cover the operating costs of the PMU and of the audits.

3. The OECS Secretariat will be responsible for implementing Part A.

4. An indicative timeline of tasks under Part A is provided in Table 4.1 (tasks #1 to #18).

5. Completion of the tasks outlined above will enable the setting up of the new regulatory entity, allowing it to move out the OECS Secretariat and become self-standing.

Part B – Operationalizing ECERA [US$2.99 million]

6. This part of the Project will finance the operations of the ECERA for the first three years or so after it comes into force and becomes a self-standing institution. It will cover the operating costs of ECERA (including audits), including specific core regulatory tasks, such as tariff reviews and the definition of a regional licensing framework for electricity market participants, as well as regulatory activities aimed at facilitating the integration of electricity production from renewable sources into the supply mix.

7. The tasks outlined under Part B of the Project will be implemented by the ECERA.

8. An indicative timeline of tasks under Part B is provided in Table 4.1 (tasks #19 to #30).

Table 4.1. Project Description Timeline (indicative; each column corresponds to a month)

1	Hiring PMU staff (Project Coordinator, etc.)	1/2011 – 12/16/2011
2	Establishing ECERA's Council of Ministers	11/1/2013 – 11/14/2013
3	Hiring the Chief Executive Officer of the ECERA	11/14/2013 – 5/14/2014
4	Appointing the Commissioners to carry out ECERA's core functions	1/1/2014 – 7/1/2014
5	Hiring of the full complement of staff for the ECERA	/2011 – 7/30/2014
6	Delineating options and parameters for Treaty to establish ECERA through legal advice and consultations with electricity sector stakeholders	10/10/2011 – 12/16/2011
7	Drafting of the Treaty to establish the ECERA, for approval of the Heads of Government in the Participating Countries	12/19/2011 – 5/4/2012
8	Launching of national consultations to refine the Treaty and start raising attention to the scope and limitations of the new regulatory framework	5/7/2012 – 9/21/2012
9	Ratification of the Treaty establishing ECERA by Participating Countries	9/24/2012 – 2/8/2013
10	Examination of the ESAs of Participating Countries and preparation of amendments + consultations within Participating Countries	5/14/2012 – 12/3/2012
11	Preparation of amendments to domestic legislation to operationalize the ECERA at a national level, for review by the respective Attorneys General	12/4/2012 – 2/25/2013
12	Examination of options for ECERA's self-financing mechanism	2/1/2012 – 3/27/2012
13	Definition of options for a self-financing mechanism to be operationalized as part of Part B	3/28/2012 – 7/17/2012
14	Design of the regulatory mechanism to guide ECERA's operations including design and implementation of communication campaign to raise public awareness of the proposed regulatory framework	2/13/2012 – 10/19/2012
15	Conducting national consultations on design of regulatory mechanism	10/22/2012 – 3/8/2013
16	Completion of the design of the regulatory mechanism and its structure	3/11/2013 – 5/3/2013
17	Finalization of exact scope of mandate and authority and the specific regulatory functions of ECERA in each respective Participating Country	5/6/2013 – 5/17/2013
18	Drafting of ECERA's work program and TORs for core activities (licensing recommendations, tariff reviews, studies on standards, designing of incentives to increase RE and EE)	9/3/2012 – 3/29/2013
19	Preparation of guidelines for tariff reviews, setting out the types of information to be included by a utility in its tariff application	4/1/2013 – 7/1/2013
20	Carrying out of the necessary research work to obtain cost and operating information from the regulated utilities for benchmarking purposes	7/2/2013 – 10/1/2013
21	As part of the tariff-setting process, reviewing of electricity utility investment plans, including not only investment and procurement plans for new generation capacity, but also for transmission and distribution	4/1/2013 – 7/1/2013
22	Definition of rules to review investment plans to take into account existing best practices on social/ environmental safeguards, and exploration of options and costs to increase climate resilience of potential investments	4/1/2013 – 10/25/2013
23	Conducting of the tariff review and publication of the regulator's decision on the tariff review application of each respective electricity utility	6/28/2013 – 1/9/2014
24	Drafting of new License Regulations to enable new investments in electricity generation, transmission, and distribution	8/13/2013 – 2/24/2014
25	Development of recommendations on specific new licensing arrangements, for approval by the Council of Ministers	2/25/2014 – 5/27/2014
26	Designing and implementing a structured communication plan	7/1/2014 – 11/3/2014
27	Establishing of technical standards for connecting renewable resources, particularly intermittent resources such as wind and solar power	7/1/2014 – 4/6/2015
28	Upon request, assistance to utilities and Participating Country governments in evaluating the feasibility of alternative sources and forms of power generation	7/1/2014 –
29	Designing specific incentives schemes to promote RE	5/12/2014 – 3/27/2015
30	Operationalization of the self-financing mechanism for the ECERA	3/10/2014 – 7/25/2014

Annex 5: Project Costs
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

TOTAL PROJECT COSTS (US$ Million)

Table 5.1. Project Cost for Each Part

	Local US$ Million	Foreign US$ Million	Total US$ Million
Part A : Setting up the ECERA	0.00	2.61	2.61
Part B : Operationalizing ECERA	0.00	2.99	2.99
Total	0.00	5.60	5.60

Table 5.2. Total Project Cost by Source of Expenditure (for two countries)

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
	US$	US$	US$	US$	US$	US$
Staff Costs	166,222	221,337	336,873	331,233	335,889	**1,391,554**
Training Costs	75,000	50,000	27,000	15,000	15,000	**182,000**
Consultant Services	1,000,000	420,000	700,000	150,000	-	**2,270,000**
Goods	293,000	275,000	252,000	244,000	239,000	**1,303,000**
Unallocated Funds	55,446	50,000	258,000	50,000	40,000	**453,446**
Total Financing	**1,604,668**	**1,031,337**	**1,573,873**	**775,233**	**614,889**	**5,600,000**

Annex 6: Implementation Arrangements
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. The ECERA Project supports the development of a new regulatory, institutional and legal framework for the electricity sector in the OECS Member States, resulting in the establishment and operation of the ECERA.

2. This annex describes the implementation and institutional arrangements for the Project. It also details the specific arrangements to ensure the flow of funds between the Bank and the Participating Countries and clarifies the operationalization details of the ECERA.

A. The Eastern Caribbean Energy Regulatory Authority

3. The following represent the consensus between the OECS members reached during project preparation on the structure and functioning of the ECERA:

i. The Project will establish the legal framework for energy regulation at a regional level and a national level for each OECS Member State participating in the ECERA. The legal framework would include, among other things, the preparation of the treaty establishing the ECERA and amending or drafting national legislation governing electricity supply and regulation, in line with international best practice and national and regional objectives, and harmonizing these as far as possible. The ECERA treaty and the domestic legislation in each participating OECS Member State would provide, in a transparent manner, the criteria, which ECERA would consider in arriving at regulatory decisions, provisions to ensure due process for regulated entities in their interactions with the ECERA and mechanisms for review of the ECERA's regulatory decisions. To implement a critical function of the proposed ECERA, the Project would also support the design and implementation of a transparent and workable mechanism for tariff setting, balancing the interests of all the stakeholders.

ii. The ECERA would be an independent and transparent regional regulatory body with adequate enforcement powers and the requisite procedures to ensure accountability.

iii. To the extent that the ECERA is given authority to take on the main tasks of an electricity regulator, full-fledged individual regulatory institutions at the country level for this sector should no longer be necessary.[6] In this event, the ECERA could be complemented within the contracting party by a very light domestic structure. It is important that in the elaboration of the design of that domestic structure, care be taken to avoid conflicts of interests, overlapping of functions, direct or indirect interference in the ECERA's work and overstaffing.

[6] As opposed to the telecom sector for example, where domestic regulators can be justified on the basis of the work generated by the number of licenses for operators.

iv. Ultimately, the ECERA would be self-financed, with funds being raised through a licensing fees and possibly a nominal fee or levy clearly identified in the electricity bills of consumers in the participating OECS Member States. However, the first three years following establishment / operation of the ECERA would be financed from funds from the proposed World Bank Project. It is preferable that consumers not be charged for the ECERA services before the ECERA has had a chance to complete some tangible regulatory work, hence the recommendation of 3 years of funding the operations from government's contributions and the resources borrowed from the Bank.

v. The physical location of the ECERA will be in St. Lucia.

vi. The ECERA will be established as a new, stand-alone entity as it would simplify the legal framework for the ECERA. ECTEL's responsibilities will not be expanded at this time. In the future, OECS Member States can determine the efficacy of merging ECTEL with the ECERA.

4. The implementation of the ECERA Project will be carried out in parts:

Part A (the "Establishment- or setting up – Stage") – from Project effectiveness to the establishment of the ECERA.
Part B (the "Operationalization Stage") – from the Bank's assessment of the ECERA as competent to carry out the Project management responsibilities to the Project completion.

B. Setting up the ECERA and joining the ECERA Program

5. The setting up of the ECERA is supported financially through a Bank-financed Adaptable Program Loan, of which the first phase enables two countries to launch the process of establishing the ECERA and through which other OECS countries that are Members of the Bank may join in the process of establishing the ECERA in subsequent phases.

6. When additional countries join the ECERA Program, new responsibilities to the ECERA will imply an additional cost to the Project, to be covered by the new entrants. This additional cost, or variable cost, will be calculated during preparation of the new APL phase. In addition, for the sake of fairness with regards to the fixed cost of the Project borne by the first Participating Countries, new entrants will pay a participation fee negotiated with Participating Countries upon entry, calculated on a pro rata basis proportionate to the share of fixed cost incurred by the first Participating Countries over the period beginning with the effectiveness of the first APL phase and ending with the date of entry of the new entrant. Both additional cost and participation fee will need to be assessed on a case-by-case basis, depending upon the time of entry of the new entrant. The participation fee will be used to the benefit of the ECERA. The total cost for a new entrant will likely be slightly higher per country than for the initial two countries, as joining later will require specific ad hoc arrangements to be factored in the total cost for a new entrant.

C. Project Implementation Phases and Management Arrangements

Project Implementation Part A

7. The major milestones in Project Implementation Part A include:

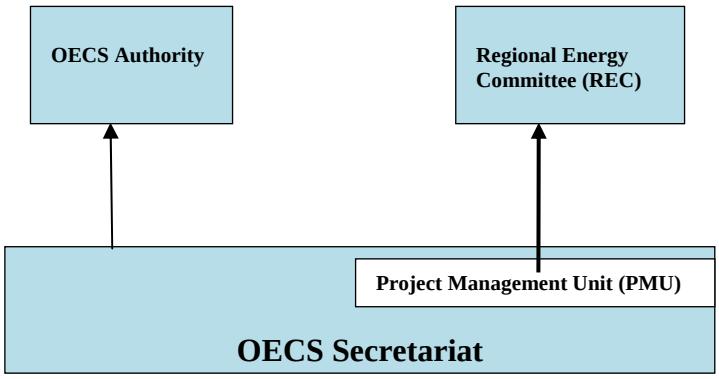
- Members of the REC appointed, by Participating Countries.
- Staff of the PMU hired.
- Design the regulatory mechanism, its structure, the scope of its regulatory authority completed.
- National consultations on the design of the regulatory mechanism completed.
- Options for Self-Financing Mechanism for the ECERA are defined.
- Draft treaty establishing the ECERA prepared, for approval of the Heads of Government.
- Treaty establishing the ECERA ratified, by Participating Countries.
- Amendments to domestic legislation to operationalize the ECERA at a national level prepared, for review by the respective Attorneys General.
- Council of Ministers formed.
- ECERA CEO hired.
- Full complement of staff for the ECERA hired.

8. The OECS Secretariat will be responsible for implementing the Project Implementation Part A. For effective Project implementation, two new bodies will be formed:

i. Regional Energy Committee (REC), which will be the technical and governmental steering committee for the Project.
ii. Project Management Unit (PMU) that will be established within the OECS Secretariat.

9. The REC will be responsible for providing administrative and policy guidance to the PMU, including monitoring and evaluation of implementation progress and addressing implementation bottlenecks. The REC's responsibilities will include hiring the Project coordinator and approving the hiring of the remaining PMU staff; reviewing and approving TORs for consultants; approving the hiring of consultants; overseeing the use of Project funds; providing policy and technical inputs in the design of the regulatory mechanism; drafting the Treaty and the related domestic legislation; and facilitating stakeholder consultations on the new regulatory mechanism. Figure 6.1 describes the implementation arrangements for the Project in Implementation Part A.

Figure 6.1. Implementation arrangements for the Project, Implementation Part A



10. The REC will be comprised of the country representatives appointed by each of the Participating Countries, preferably at the level of Permanent Secretary or other senior official with sufficient decision-making authority from the relevant line ministry. Each Participating Country shall appoint one representative and an alternate. Technical experts as needed at meetings of the REC may support each Participating Country's appointee. The REC will also include a representative of each of the other OECS countries as well as a representative of the OECS Secretariat and the ECTEL, all participating in an advisory capacity. The appointed representative of each Participating Country will chair the REC on a rotating basis. The PMU will act as the secretariat to the REC.

11. The PMU will be responsible for the day-to-day administration of the Project, in its technical, procurement and financial management aspects. The PMU will be accountable to the REC and will seek guidance from the REC. The PMU will be responsible for providing timely reports to the Participating Countries, the Bank and other donors as appropriate. The PMU will be staffed by highly qualified technical staff and will consist of a Project coordinator, a lawyer with expertise in the energy sector and /or regulation on a full-time basis, as well as a procurement specialist and a financial management specialist, on a part-time basis. The Project coordinator will be hired on an international competitive basis.

12. Prior to hiring of the Project Coordinator, the OECS Secretariat will designate one competent staff responsible for the PMU, and will identify, as an interim arrangement, competent staff responsible for financial management and procurement of the Project.

13. The OECS Secretariat will host the PMU and will ensure that the PMU is appropriately staffed and equipped and operates according to the guidance the PMU receives from the REC.

14. The Operations Manual will include a detailed description of the roles and responsibilities as well as the composition of the REC and the PMU. To ensure integration of the Project into the regional policymaking framework of the OECS, information on the major milestones attained in the process of establishment of the ECERA will be transmitted to the

OECS Authority, in addition to significant policy decisions requiring the agreement of the Heads of State.

Transitioning from Implementation Part A to Implementation Part B

15. To facilitate the implementation of Part B of the Project, the ECERA will be established through a Treaty, signed and legally ratified by each of the Participating Countries. In turn, the Participating Countries that have received Bank financing will, upon the written approval of the Bank, enter into an ECERA Subsidiary Agreement, with separate conditionalities stated in each agreement. By this time, the appointment of the ECERA coordinator and key staff will have been confirmed, allowing the Project management responsibilities of the PMU within the OECS Secretariat and the REC to evolve into the Eastern Caribbean Energy Regulatory Authority (ECERA). Once the ECERA has been assessed by the Bank as competent to carry out the Project management responsibilities, the Project will transition into a different implementation arrangement, whereby the ECERA will replace the OECS Secretariat as the Project implementing entity. This will signal the start of Implementation Part B of the Project.

16. It is expected that the mid-term review will be carried out approximately 24 months from the date of effectiveness. The mid-term review will evaluate the progress of implementation against planned objectives.

17. To facilitate the transition, PMU staff that has exhibited satisfactory performance would be encouraged to apply to positions within the ECERA, as it would be optimal for the sake of continuity, if the staff holding these positions in the PMU would be re-hired by the ECERA.

Project Implementation Part B

18. The major milestones in Implementation Part B include:

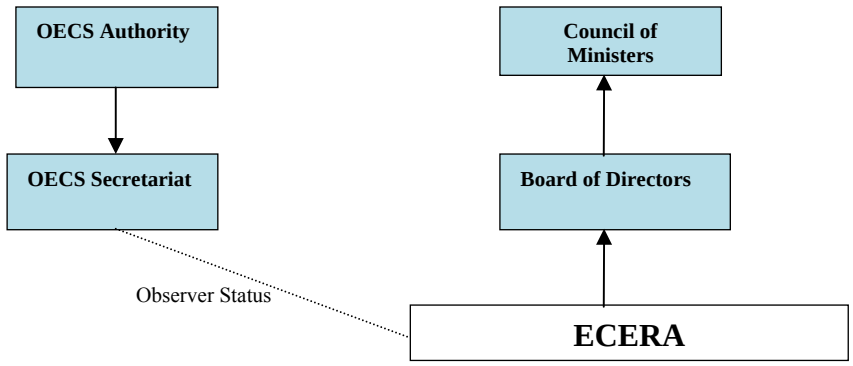
- Commissioners appointed.
- Tariff review conducted.
- Self-Financing Mechanism for the ECERA is operational.

The ECERA will be responsible for Project implementation in Part B. For the purpose of carrying out its mandate as a regulator, the staff of the proposed ECERA will consist of a Chief Executive Officer and technical experts (two energy Engineers, one Lawyer, one Economist, and a Financial Management Specialist) and a small administrative staff to fulfill the core functions in the regional hub. The staff of the proposed ECERA will also include 2 local representatives in each of the Participating Countries. The more senior of the two will be responsible for facilitating ECERA's activities in-country, including national consultations, as well as to ensuring regular relations with the Government, regulated entities and electricity consumers. The other will be responsible primarily for regulatory enforcement (ensuring treatment of consumer complaints and detailed monitoring of regulated entities, as well providing support to the senior ECERA representative).

19. Each Participating Country will appoint one Commissioner/Board member and an alternate and together the group of Commissioners/Board members will comprise the Board of Directors. The appointed individuals should be of good character and recognized technical experts in the areas of law, forensic accounting, economics, engineering or regulation. The Board's responsibilities will include making regulatory decisions; hiring the CEO of the ECERA, with the approval of the Council of Ministers; approving the hiring of consultant; assessing consultants' recommendations and monitoring Project performance. The expenses for the Board, consisting of one Commissioner for each Participating Country, have been accounted for in the budget. An arbitration mechanism should be designed to ensure that the Board of Directors can exercise its decision-making authority.

20. Each participating OECS Member State will appoint a Minister of Government and together the ministers of the Participating Countries will comprise the Council of Ministers. The Council's responsibilities will include promoting the effective implementation of the ECERA Treaty, giving directives to the Board/Commissioners on matters arising from the Treaty, and approving ECERA's operating budget (see figure 6.2). The OECS Secretariat will be granted observer status on the Council of Ministers.

Figure 6.2. Implementation Arrangements for Project Implementation Part B (Operationalization Stage- ECERA graduated to an independent legal entity)



4. Flow of Funds

21. The Participating countries will borrow directly from the Bank. Credits (or loans for IBRD countries) proceeds will be managed by the OECS Secretariat in Project Implementation Part A, and directly by the ECERA in Project Implementation Part B (see Annex 7 for details of the financial flows).

22. A corresponding legal structure will govern the flow of funds and fiduciary responsibilities. In Project Implementation Part A, this architecture will be governed by a Project Agreement between the World Bank and the OECS Secretariat; Financing Agreements between the Bank and each Participating Countries; and Subsidiary Agreements between Participating Countries and the OECS Secretariat. In Project Implementation Part B, the legal architecture will be amended to reflect the entry into force of ECERA (see Figures 6.3 and 6.4 below).

Figure 6.3. Funds Flow Arrangements and corresponding Legal Architecture Implementation Part A- Establishment Stage

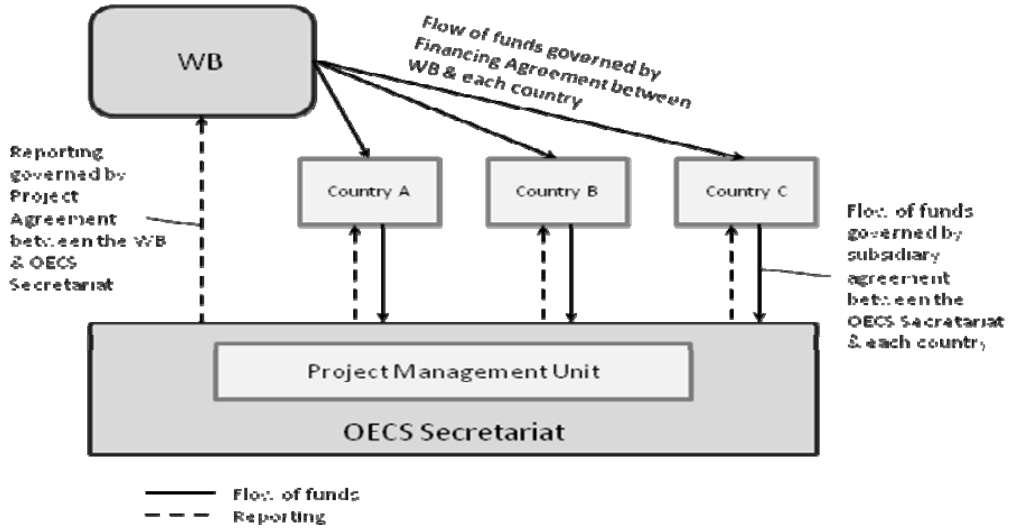
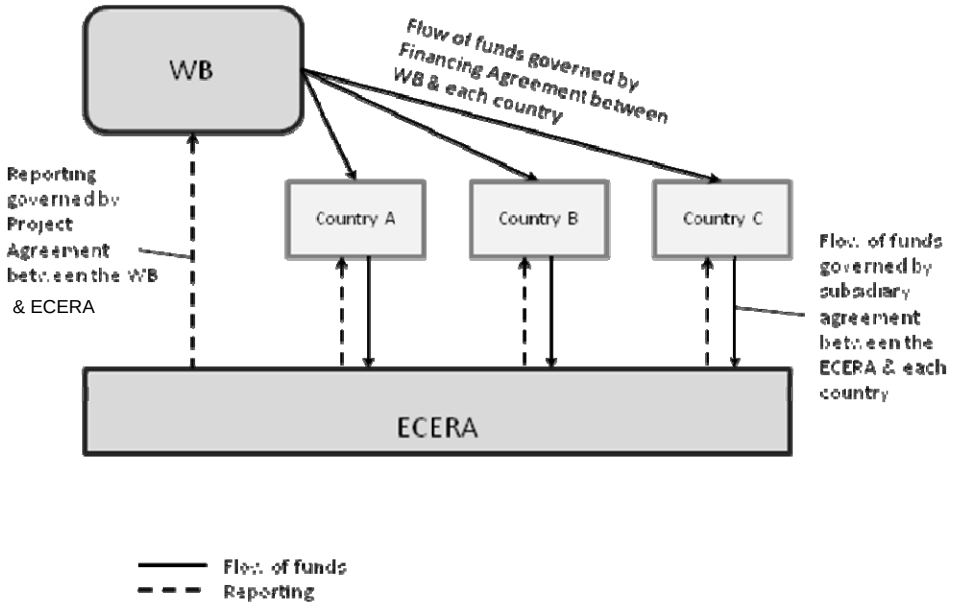


Figure 6.4. Funds Flow Arrangements and corresponding Legal Architecture Implementation Part B-Operationalization Stage



5. Functional Responsibilities of the PMU

23. The PMU, managed by the Project Coordinator in Project Implementation Part A, and the ECERA, managed by the Chief Executive Officer in Project Implementation Part B, will have the following specific functions:

- Elaborate and execute the Annual Operating Plan, including budget and the procurement plan.
- Prepare and execute all procurement processes, including preparing TORs and bidding documents.
- Request, coordinate, execute and receive goods and services.
- Prepare the financial statements, withdrawal applications and supporting documents, and progress reports in the timeframe required for the World Bank and other donors, as needed.
- Provide supporting documentation for annual audits.
- Ensure the measurement of the Result Framework indicators.
- Prepare suggestions for modification of the Operational Manual, as needed.
- Provide support, technical advice and information to the Participating Countries in conducting national consultations on the development of the regional regulatory framework when necessary.
- Any other functions as prescribed by the corresponding supervisory body.

Annex 7: Financial Management and Disbursement Arrangements
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. An initial assessment of the proposed financial management arrangements for the ECERA Project was undertaken in January 2010 and updated in April 2011. These arrangements include systems of budgeting, accounting, financial reporting, auditing, and internal controls and to a large extent they build upon already existing structures of the OECS Secretariat.

Financial Management Implementation Arrangements

2. Annex 6 details the Project's implementation arrangements. A PMU established under the auspice of the OECS Secretariat will be responsible for the implementation of the fiduciary management aspects and disbursements for the Part A of the Project. While individual credit agreements will be signed with the participating countries, the Project implementation, fiduciary management and disbursements will be centralized at the regional level.

3. It is expected that once the ECERA becomes fully operational during Part B of the Project (approximately 24 months into the Project implementation), the Project implementation will be undertaken by the ECERA. Depending on the experience in financial management during Part A of the Project, a determination would be made with respect to the nature and extent of additional financial management assessment that would be conducted prior to the transition.

Risk assessment

4. The table below summarizes the financial management assessment and risk ratings:

Table 7.1.: Financial Management Assessment and Risk Ratings

	Risk Assessment	***Risk Mitigating Measures***	***Residual Risk***
INHERENT RISKS			
Country level			
Since this is a regional project, the PMU will have to deal with a challenge of coordinating activities taking place in 2 countries participating in the Project.	S	While each country will have to sign an individual credit/grant agreement, fiduciary management will be centralized in the PMU opened under the auspice of the OECS Secretariat. The PMU will handle accounting, financial reporting and disbursement for all of the individually signed agreements.	S
Entity level			
While the OECS Secretariat has some experience in implementing donor-financed projects, the complexity and magnitude of the	S	A qualified accountant will be hired and provided training to carry out the financial management of the Project.	M

proposed Project present a number of new challenges and will require significant capacity building.			
Project level			
OVERALL INHERENT RISK			
CONTROL RISKS			
PDO: Project Development Objectives may not be fully achieved if not all OECS countries join the ECERA even at a later stage.	S	Efforts are undertaken to seek participation of third and fourth Member States	M
Budget: project activities will need to be reflected in the budgets of participating countries as well as in the OECS Secretariat budget.	S	Project accountant will supply budget information directly to the OECS secretariat accounting system. Prior to the beginning of the fiscal year, he/she will communicate with the countries' budget department to provide them with all necessary information.	M
Accounting: project accountant will be responsible for recording transactions for each credit agreement and consolidating them into a single Project reports.	S	A qualified, experienced accountant will be hired and appropriate chart of accounts will be developed to manage Project operations.	M
Internal Controls	S	Project-specific, detailed Operations Manual has been prepared and would be used during the Project implementation to enhance controls in effect during the Project.	M
Funds flow: individual contributions received from each credit agreements, will then be combined to pay for the shared activities.	S	Individual designated accounts will be opened for each signed credit agreement. Whenever possible, funds will be combined in the Project accounts prior to being paid to the supplier. All Project accounts will be reconciled regularly.	M
Financial Reporting: single consolidated report will be prepared for the Project. It will include all bank accounts opened for each credit agreement.	S	Format of the periodical financial reports has been agreed. Project accountant will be trained to prepare these reports.	M
Auditing	S	Qualified private sector audit firm will be hired to audit consolidated financial statements of the Project, including activities pertaining to each of the signed credit agreement.	L
OVERALL CONTROL RISK	**S**		**M**
RESIDUAL RISK RATING	**S**		**M**

Staffing

5. A qualified accountant has been designated within the OECS Secretariat to undertake the financial management aspects of the Project. The accountant is experienced in project management and is an ACCA affiliate. He/she will report to the Project coordinator. In addition,

an administrative assistant has been hired to work with both the accountant and the procurement specialist.

Budgeting

6. Project annual budgeting will be based on annual operation plans, consistent with the cost estimates and the procurement plan, and will be updated according to the latest information as the implementation will roll-out. The annual budgets will be prepared by the implementing unit and submitted to the REC for approval. The approved annual budget will then be entered into the Project accounting system and used for periodic comparison with actual results as part of the monitoring progress in project implementation and for preparing the interim financial reports.

7. The Project budget will also be presented as part of the overall OECS Secretariat budget for monitoring purposes. In addition, prior to the beginning of the fiscal year, the Project accountant will communicate with the participating countries' budget departments to provide them with all the necessary information to enable the participating countries to incorporate the actual and planned Project expenditures into their respective budget processes.

Accounting System and Records

8. The Project will use the Peachtree accounting software to maintain the Project accounts. The software will allow for the tracking of inflows by funding source, and outflows by: (i) project part; (ii) funding source; (iii) project components as defined in the Project appraisal document. Based on this information, relevant financial reports can be prepared. A Chart of Accounts for the Project has been prepared and is expected to be sent to Bank for review. The Chart of Accounts would enable all project transactions to be captured in the Project accounting system. Accounting transactions will be recorded as incurred, and all primary supporting documentation will be maintained to facilitate ex post reviews and the external annual audits. All records (contracts, orders, invoices, bills, receipts, and other documents) evidencing eligible expenditures will be available for examination by visiting Bank missions or the auditors. The records would be retained for at least one year following receipt by the Bank of the final audited financial statement required in accordance with the legal agreement, or two years after the Closing Date, whichever is later.

Internal Controls and Safeguard of Assets

9. The detailed accounting policies and procedures will be set forth in the Project Operational Manual. The Financial Management part of the Manual will reflect the structure of the implementing unit, administrative arrangements, internal control procedures, including procedures for authorization of expenditures, maintenance of records, safeguard of assets (including cash), segregation of duties to avoid conflict of interest, regular reconciliation of bank account statements, bank signing mandate (to include at least two signatories), regular reporting to ensure close monitoring of project activities, as well as the flow of funds to support project

activities. The project specific information, i.e. the Chart of Accounts, the formats of the Reports, etc. will be added as part o f the Annexes to the Manual.

10. Assets acquired by the Project will be in the custody of the institutional departments in the respective countries, which will also keep copies of the supporting documentation. Because the Project is being implemented in two parts, it is important that all assets that would be acquired for the use of the Project should be carefully monitored as these assets would be transferred to ECERA at the end of Part A of the Project. Consequently the PMU has agreed to prepare and maintain an asset register in accordance with good accounting practice during the implementation of Part A of the Project. Agreement has been reached on the format of the asset register.

Interim and Annual Reporting

11. The PMU will be responsible for producing periodic Project Progress Reports, which will include the consolidated *Interim Unaudited Financial Reports* (IFRs). The IFRs will be submitted to the World Bank on a quarterly basis, no later than 45 days after the end of each reporting period. The IFRs will provide consolidated information pertaining to the Project and will include information pertaining to each of the individually signed credit/loan/grant agreements for the financing of the Project. At a minimum, the IFRs will include a narrative section outlining the major project achievements for the quarter as well as emerging issues in project implementation, a statement of the Project's sources of funds by Credit, Grant or Loan uses of funds by project expenditure categories, a detailed analysis of incurred expenditures, opening and closing bank account balances and the reconciliation of all project accounts. The format of the IFRs has been agreed.

12. *Consolidated annual financial statements* will comprise a consolidation of the quarterly IFRs, a detailed analysis of expenditures from an annual perspective, a schedule of withdrawal applications presented during the year, reconciliations of Designated Accounts and Notes to the financial information. These reports will be prepared by the PMU and made available to the auditors after the end of each fiscal year.

External Audit Arrangements

13. Consolidated project financial statements will be audited annually. A private sector audit firm will be hired on a competitive basis to undertake the audit. The annual Project financial statements will be audited in accordance with International Standards on Auditing (ISA) and the World Bank's guidelines on auditing as stated in the guidelines: Financial Management Practices in World Bank-financed Investment Operations (November 2005). The auditors' terms of reference (TORs) will be prepared by the PMU and cleared by the World Bank before the engagement of the auditor. The TORs will require the audit of financial transactions as well as a review of the internal control mechanisms and project's compliance with the requirements of the Financing, Project and Subsidiary Agreements as well as applicable laws and regulations.

14. The annual audit report will be prepared in a format in accordance with ISA and World Bank guidelines, and will include an opinion on the Project's consolidated financial statements, including Designated Account Reconciliations, review of the internal controls, opinion on the Project's compliance with the terms of the credit/loan/draft agreements, and a management letter. The Project's annual audit report will be required to be submitted to the World Bank for review no later than six months following the end of the fiscal year.

Disbursement Arrangements and Flow of Funds

15. The Project will utilize the following disbursement methods: Advances (Designated accounts), and Direct Payments. *Designated Accounts*. Project funds will be primarily channeled to the Project through Designated Accounts denominated in US Dollars, which will be opened by the implementing unit in a commercial bank acceptable to the Bank. As each participating country will have to sign a separate Financing Agreement, individual segregated Designated Accounts will be opened to serve each of these agreements. Separate withdrawal applications will have to be prepared to withdraw funds from each of the Credits. Proceeds of the Credits would be disbursed to the US Dollar-denominated designated accounts managed by the OECS Secretariat, through a PMU, following effectiveness. Documentation of the use of the Advances will be based on Records/Summary Sheets and Statement of Expenditures (SOEs) submitted to the Bank at a minimum on a quarterly basis. The Ceiling of each of the individual Designated Accounts will be set at a fixed amount of US$ 500,000. *Direct Payments*. Project expenditures can also be financed by the direct transfers from the World Bank credit accounts to the supplier/contractor. The Minimum Application Size for Direct Payments is US$ 75,000 equivalent. All withdrawal applications for Direct Payment will be fully documented.

16. *Project accounts*. The OECS Secretariat, will also open and operate a single pooled EC$ account and US$ project account, to finance project expenditures. The funds from the US Dollars Designated Accounts will be periodically transferred (funds sufficient to cover no more than 30 days worth of expenditures) to these accounts. In case of jointly financed contracts, the share of financing applicable to each participating country will be clearly stated in the service/purchase contract and paid in this proportion. Payments to suppliers/contractors will be made from the pooled Project Account (either the EC$ or US$ account), to which the necessary transfers from the Designated Accounts have been made in the required contributory/financing percentages, so that the supplier/contractor will be receive a single payment from a single source. These accounts will be operated in accordance with the procedures and guidelines set forth in the Bank's Disbursement Handbook.

17. As eligible expenditures are incurred, the OECS Secretariat (in Part A) and the ECERA (Part B) will withdraw the amount to be financed by IDA/IBRD from the Designated Accounts. In case of jointly financed contracts, the share of financing applicable to each participating country will be clearly stated in the service/purchase contract.

18. In Part B of the Project, ECERA will establish new accounts and seek transfer of remaining balances on OECS Secretariat managed accounts of the Project, following an independent audit of the Project. Financial management and disbursement arrangements will be reviewed once ECERA is established.

Supervision arrangements

19. As part of its project supervision missions, IDA will conduct risk-based financial management supervisions, at appropriate intervals. These will pay particular attention to: (i) project accounting and internal control systems including a strict monitoring of the asset register; (ii) budgeting and financial planning arrangements; (iii) review of the Interim Unaudited Financial Reports; (iv) review of audit reports, including financial statements and remedial actions recommended in the auditor's Management Letters; (v) disbursement management and financial flows; and (vi) any incidences of corrupt practices involving project resources. It is proposed that there should be at least one supervision mission during the first year of project implementation. Frequency of the subsequent supervision should be based on the updated project's risk and performance.

Table 7.2. Disbursements to the countries recipients by parts and disbursement category (US$ equivalent)

Disbursement Category	**Grenada**	**St. Lucia**	**Total**	**IDA Share percent**
	US$ Million	US$ Million	US$ Million	
Goods, consultant services, Training and Operating Costs* for Part A of the Project:** ***Setting up the ECERA [US$ 2.61 million]	1.305	1.305	2.610	100
Goods, consultant services, Training and Operating Costs* for Part B of the Project:** ***Operationalizing ECERA for the first three years [US$2.99 million]	1.495	1.495	2.990	100
Total Cost	**2.800**	**2.800**	**5.600**	**100**

Annex 8: Procurement Arrangements
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

A. General

1. Procurement for the proposed Project would be carried out in accordance with the World Bank's "Guidelines: Procurement Under IBRD Loans and IDA Credits" published by the Bank in May 2004 and revised in October 2006 and May 2010; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" published by the Bank in May 2004 and revised in October 2006 and May 2010, and the provisions stipulated in the Legal Agreements. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan/Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

2. **Procurement of Works**: Not envisaged.

3. **Procurement of Goods:** Goods procured under this Project would include: possibly low value items such as office equipment and supplies for the PMU and the ECERA. The procurement will be done using the Bank's SBD for all ICB and National SBD and Shopping (Request for Quotations) documents agreed with or satisfactory to the Bank.

4. **Procurement of non-consulting services:** (NCS): NCS under this Project would include training logistics, printing documents, etc. for project implementation. The procurement will be done using the Bank's SBD for all ICB and National SBD and Shopping (Request for Quotations) documents agreed with or satisfactory to the Bank

5. **Selection of Consultants:** Legal consultancy to draft the Treaty for Contracting States and corresponding legislation in each country; recruitment of staff for the Authority. Short lists of consultants for services estimated to cost less than $100,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

6. **Operating Costs:** These will include rental of office space, utilities, office supplies, and miscellaneous expenses. These will be procured following procedures acceptable to the Bank and outlined in the Operations Manual.

7. **Others**: None

8. The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for consultants and goods procured are presented in the Operations Manual.

B. Assessment of the agency's capacity to implement procurement

9. An assessment of the capacity of the Implementing Agency (OECS Secretariat) to implement procurement actions for the Project was carried out for the OECS EGRIP Project in March 2008. An update was done in May 2010.

10. The key issues / risks concerning procurement for implementation of the Project have been identified with proposed action agreed during appraisal, as follows:

- The ECERA Project PMU within the OECS Secretariat will be established and staffed within seven months of effectiveness. Before the above procurement specialist is hired, the OECS Secretariat has nominated the Procurement Specialist in the Functional Cooperation and Project Management Unit (FCPMU) of OECS Secretariat with prior experience in implementing World Bank financed projects and other donor funded projects to work on this Project procurement during the transition. The FCPMU Procurement Specialist will be in charge of procurement responsibilities, including conducting the selection of PMU Procurement Specialist with his/her contract ready to be signed by Project effectiveness.
- Key Project staff within the Project Management Unit to be trained in World Bank procurement procedures.

11. It is envisioned that for Part B of the Project, the Project implementation will be assumed by the ECERA. A new procurement capacity assessment will need to be conducted prior to the change in implementation arrangements.

12. The overall Project risk for procurement is Moderate.

C. Procurement Plan

13. The Borrower, at appraisal, developed a procurement plan for project implementation which provides the basis for the procurement methods. This plan has been agreed between the Borrower and the Project Team on April 6, 2011 and is available at the OECS Secretariat's office in St. Lucia. It will also be available in the Project's database and in the Bank's external website. The Procurement Plan will be updated in agreement with the Project Team annually or sooner, as required, to reflect the actual project implementation needs and improvements in institutional capacity. Supervision of procurement will be carried out through prior review supplemented by supervision missions with post review at least once a year.

Table 8.1. Summary Procurement Plan (SPP)

Goods

Package identification	Description	Selection Method	Allocated amount US$	Prior / post review	Launching of Bidding Process	Contract signature	Contract completion
G1	PMU furniture and equipment	ICB	106,000	prior	11/1/2011	Tbd	Tbd
	Total Cost		106,000				

Consultant Services

Package identifica-tion	Description	Selection Method	Cost estimate US$	Contract type	Prior / post review	Planned launch of bidding Process	Contract Signing	Contract Completion
C1	Treaty preparation and corresponding ESA amendments	QCBS	800,000	lump sum	prior	Apr-2012	Tbd	Tbd
C2	Consultancy to design self-financing mechanism to fund ECERA's activities	QCBS	150,000	lump sum	prior	May-2012	Tbd	Tbd
C3	Consultancy to prepare Model ESA	QCBS	280,000	lump sum	prior	Jun-2012	Tbd	Tbd
C4	Tariff study in Participating Countries and draft regulatory decision on tariff	QCBS	190,000	lump sum	prior	Jun-2013	Tbd	Tbd
C5	Licensing Policy Study and draft Regulatory decision on licensing policy	QCBS	650,000	lump sum	prior	Aug-2013	Tbd	Tbd
C7	Coordinator	IC	72,541	time-based	prior	Oct-2011	Tbd	Tbd
C8	CEO	IC	197,566	time-based	post	Dec-2013	Tbd	Tbd
C9	Lawyer	IC	208,683	time-based	post	Jan-2012	Tbd	Tbd
C10	Economist	IC	184,797	time-based	post	Mar-2012	Tbd	Tbd
C11	Accountant	IC	139,122	time-based	post	May-2012	Tbd	Tbd
C12	Accountant Specialist (Part Time)	IC	30,568	time-based	post	Oct-2013	Tbd	Tbd
C13	Engineer for ECERA	IC	184,797	time-based	post	Oct-2012	Tbd	Tbd
C14	Engineer for ECERA	IC	146,000	time-based	post	Oct-2013	Tbd	Tbd
C15	Procurement specialist (Part time)	IC	40,452	time-based	post	Oct-2011	Tbd	Tbd
C16	FM Specialist (part	IC	92,748	time-	post	Oct-	Tbd	Tbd

	time)			based		2011		
C17	Admin assistant	IC	56,894	time-based	post	Nov-2011	Tbd	Tbd
C18	Admin assistant	IC	35,685	time-based	post	Oct-2013	Tbd	Tbd
C19	Senior ECERA Ground Representative	IC	71,595	time-based	post	Jun-2013	Tbd	Tbd
C20	Regulations Enforcement officer	IC	35,685	time-based	post	Jun-2013	Tbd	Tbd
C21	Senior ECERA Ground Representative	CQS	71,595	time-based	post	Jun-2013	Tbd	Tbd
C22	Regulations Enforcement officer	CQS	35,685	time-based	post	Jun-2013	Tbd	Tbd
C23	Training services for REC and ECERA staff [trainer, training services, training expenses]	TBD	182,000	Tbd	prior	Sep-2012	Tbd	Tbd
C24	Audit services	CQS	100,000	lump sum	prior	Jun-2012	Tbd	Tbd
C25	Communications services [preparation of communication plans, communication materials and other communication expenses]	QCBS	450,000	lump sum	prior	May-2012	Tbd	Tbd
	TOTAL		4,778,412				Tbd	Tbd

Table 8.2.: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold) US $ thousands	Procurement Method	Contracts Subject to Prior Review
1. Works	>1,500	ICB	All
	100-1,500	NCB	The first contract
	<100	Shopping	None
	Regardless of value	Direct Contracting	All
2. Goods	>150	ICB	All
	25-150	NCB	The first contract
	<25	Shopping	None
	Regardless of value	Direct Contracting	All
3.Consulting Services			
-3.A Firms	≥100	QCBS,QBS,FBS, LCS	All
	<100	QCBS,QBS,FBS,LCS, and CQS	First contract of each method
	Regardless of value	Single Source	All
-3.B Individuals	Regardless of value	Comparison of 3 CVs in accordance with Chapter V of the Guidelines	The first two contracts

Note: IC = individual consultant
ICB = International Competitive Bidding - NCB = National Competitive Bidding
QCBS = Quality- and Cost-Based Selection - QBS = Quality-Based Selection
FBS = Fixed Budget Selection - LCS = Least-Cost Selection
CQS = Selection Based on Consultants' Qualifications

Annex 9: Economic and Financial Analysis
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. The economic analysis prepared for this Project focuses on describing mainly qualitatively the key benefits that the creation of the ECERA is expected to generate in the short and longer terms. Those economic benefits are in turn compared to the cost of creating and operating the ECERA. A brief financial analysis of the cash flow of the ECERA is presented thereafter.

Economic analysis

2. A lack of economic regulation of the electricity companies in the OECS has produced companies of different operating efficiencies and a fragmented approach to generation investment, particularly by third parties wishing to invest in renewable power generation. A single regional energy regulator is expected to lead to significant improvements in sector efficiency, which, in turn, will translate into significant cost savings and a number of qualitative and indirect benefits:

- **Opportunities to improve operating efficiency:** The Authority, by being able to compare the performance of participating companies, will be able to direct utilities to improve their operating efficiency thereby leading to a reduction of costs in the long run. There may be some opportunities to ensure that best practices are followed in purchasing of fuel and in fuel cost adjustments to electricity prices.

- **Opportunities to improve investment efficiency:** The current regulatory frameworks provide limited incentive for investment in new generating technologies. For example, several of the islands are experimenting with innovative schemes to attract investment in renewable technologies, but a regional focus is lacking. The ECERA will establish a common planning and investment framework for investment in renewable energy technologies, attracting new investment to these systems, reducing overall costs to consumers in the long run, and lowering dependence on imported fuels. If a common regulatory framework is established for entry of small-scale providers, a market of six States is much more attractive for entry both for a private investor with an innovative generation scheme and for a manufacturer to supply and support its technology. Licensing arrangements will be gradually streamlined under a common regional mandate for the ECERA.

- **Improved public confidence in tariff decision-making:** The core mandate of ECERA will include establishing tariffs that balance the interests of consumers with those of investors. Carrying out this mandate would normally involve a public process with filings of materials by interested parties, and, at the conclusion, the publication by the Authority of its decision with reasons by the Authority. A single regulator setting or advising on tariffs for several states is more likely seen to be independent. Greater transparency and

independence in tariff decision making will increase public confidence in the fairness of the tariffs.

- **A more attractive investment climate:** Experience from other similar States suggests that utilities find it easier to raise capital if they are being regulated. Regulation provides reassurance to investors regarding competent monitoring and supervision of investments. A single regional regulatory framework will make it easier to attract cross border investment into the region and make investment into each state more attractive.

- **Potential for higher quality independent regulation:** A single regional regulator will have the advantages of scale. It will be able to draw on a broader group of skilled individuals for its staff and have a larger caseload to keep them fully engaged.

- **Strengthening economic integration:** A regional institution will create a common regulatory framework for oversight and for investment. The common investment framework can be expected to encourage investment by companies based in the OECS to invest in fellow OECS Member States, thereby strengthening economic integration.

3. The impact of the costs of regulation on power consumers is an important concern for governments. A single regional regulator will be more cost effective than six national electricity regulators would otherwise be. Furthermore, the governance structure is structured in a way as to provide effective oversight of the budget the ECERA, and the proposed budget for the regulatory Authority is very lean.

4. Financing of the ECERA's establishment and first three years of operations is considered necessary for securing a sustainable source of financing for the regulator that would protect it from political interference during its future years of operation. Once established, the regulatory cost will be equivalent to the annual expenditures of the ECERA. This cost is estimated to reach US$1.28 million (or EC$3.35 million). This will be raised through the self-sustaining financing mechanism to be established by the ECERA Project (through a small levy on electricity tariffs and possible licensing fees).[7] It should be noted that this is an average cost per kWh implying that the costs of ECERA are shared among consumers in the participating countries on a per kWh basis. The actual terms by which the ongoing operating costs of the ECERA are to be shared are a matter for negotiations among the participating countries.

5. Although most of the benefits of regulation will be difficult to quantify, the high variability in operating costs between the utilities suggests that there is potential for savings that would greatly exceed the costs of regulation. There may also be scope for improvement in fuel purchasing. The table below illustrates the operating costs of each of six utilities and estimates the percentage reduction in operating costs that would be required to offset the increased costs due to the direct cost of regulation. As can be seen, should regulatory action succeed in reducing operating costs by 1.6 percent or more, the cost savings will offset the direct regulatory costs for every utility's consumers.

[7] Should all six countries join, the budget increases to $US 1.876 million (EC $4.896 million) but cost would be spread over a larger number of consumers, hence reducing the regulatory cost per kWh delivered.

Table 9.1. Operating cost reduction estimates needed to offset direct costs of ECERA

	Non Fuel Operating (US cents/kWh)	Fuel (US cents/kWh)	Total Operating (US cents/kWh)	Required Reduction (percent)
LUCELEC	6.6	8.4	15	1.6
GRENLEC	8.1	9.7	17.8	1.3

6. The most significant economic benefits are expected to be in the long term. It is well established both in theory and in practice that independent electricity regulation, particularly in developing countries, is better able to attract investment in generation capacity.[8] The high cost and high carbon intensity of oil-based generation resources combined with falling costs for new renewable generation technologies suggests that there is substantial potential for new renewable investment to supply customers with a relatively economic source of electricity, provided the costs of integrating these resources is manageable. Much of the world's investment in these technologies, particularly wind and solar power, has been carried out by private companies that develop projects and sell power to the host utility. Through independent regulation, a suitable investment framework can be developed by the independent regulator that will provide the stability required to attract such investment in generation, and ensure that any necessary network investments are made to enable the integration of intermittent renewable resources while preserving reliability.

7. The investment framework created by the ECERA will also be supportive of the development of major geothermal resources on some of the islands. The technical potential of such developments is in some cases, estimated in hundreds of megawatts,[9] which would far exceed what an individual island system could usefully absorb. For these resources to be economically developed, it will be necessary to export much of the energy to larger markets in the region through undersea cables.[10] While this will necessitate government-to-government arrangements, the investment oversight provided by the ECERA would provide the stable framework needed to assure recovery of domestic costs (particularly in networks) associated with such developments, as well as the necessary technical standards to be implemented for cross-border electricity exchanges.

8. At the same time, there are also clear limitations to the economic and financial benefits that ECERA can be expected to deliver. For instance, whereas governments often regard the value of independent regulation as being primarily about reducing prices, it must be acknowledged that the ability of the proposed ECERA to ensure decreases in the electricity price is limited, particularly in the short term. Electricity costs in the region are dominated by the price of oil, over which the regulator will have no direct control. Thus, while the operational costs of the ECERA will be relatively modest compared to the cost of power, lower electricity rates in the short run cannot be guaranteed as cost savings may be overwhelmed by higher oil prices.

[8] Stern, J. and J.S. Cubbin (2005) "Regulatory Effectiveness: The Impact of Regulation and Regulatory and Regulatory Governance Arrangements on Electricity Industry Outcomes", World Bank Policy Research Working Paper 3536, Washington.

[9] See, for example, K. Macdonald, "Caribbean Geothermal Update", presentation to CARILEC, June 2009.

[10] US Virgin Islands, Draft Comprehensive Energy Strategy, May 5, 2009, http://www.vienergy.org/menubar/Energy%20Strategypdf.pdf

Furthermore, the high oil dependence and relatively small size of the utilities means that there is at best limited scope to reduce the short-term electricity price volatility.

Financial analysis

9. As a technical assistance credit, the activities envisaged under the Project are not investments designed to generate financial returns for the implementing agencies. ECERA is designed to be financially self-sustaining after three years of operation, relying on a self-financing mechanism.

10. The proposed Authority is designed to be very lean in permanent staffing, with an extensive reliance on consultants to perform specialized tasks. This approach is viable within the context of the assumed mandate. However, if large geothermal resources of the region are to be developed with some priority, then more resources will be needed on the final sub-component related to cross border integration. Additional specialist staff will likely be required as well as additional consulting resources. An increase in the license fee estimated at a tenth of a cent per kWh would be sufficient to cover the additional costs.[11]

[11] At a base fee of half a cent (EC$) per kWh delivered, the combined surcharge to electricity bills would therefore be about 0.81 cents EC$ per kWh, equivalent to a third of a US$ cent.

Annex 10: Safeguard Policy Issues
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. Social

The Project is not expected to have direct negative social impacts that would trigger specific Bank's safeguards.

2. Environment

There are no significant environmental issues in relation to this Project. No civil works, typically subject to environmental assessment, will be financed as part of the Bank-financed Project.

The Project category is C.

3. Safeguard policies

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[ ]	[x]
Natural Habitats (OP/BP 4.04)	[ ]	[x]
Pest Management (OP 4.09)	[ ]	[x]
Physical Cultural Resources (OP/BP 4.11)	[ ]	[x]
Involuntary Resettlement (OP/BP 4.12)	[ ]	[x]
Indigenous Peoples (OP/BP 4.10)	[ ]	[x]
Forests (OP/BP 4.36)	[ ]	[x]
Safety of Dams (OP/BP 4.37)	[ ]	[x]
Projects in Disputed Areas (OP/BP 7.60)*	[ ]	[x]
Projects on International Waterways (OP/BP 7.50)	[ ]	[x]

* *By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas.*

Annex 11: Project Preparation and Supervision
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. The timeline for project preparation is presented below:

	Planned	Actual
PCN review		11/25/2008
Initial PID to PIC		12/18/2008
Initial ISDS to PIC		01/05/2009
Appraisal		04/06/2011
Negotiations		04/15/2011
Board/RVP approval	06/16/2011	
Planned date of effectiveness	11/18/2011	
Planned date of mid-term review	01/15/2014	
Planned closing date	12/31/2016	

2. Key institutions responsible for preparation of the Project:
   - The Organization of Eastern Caribbean States (OECS) Secretariat

3. Bank staff and consultants who worked on the Project included:

Name	Title	Unit
Pierre Audinet	Task Team Leader	SEGES
Fowzia Hassan	Operations Analyst	MNSEG
Rolande Simone Pryce	Senior Country Officer	LCC3C
Aiga Stokenberga	Junior Professional Associate	LCSSD
Peter Fraser	Regulation Specialist	Consultant
Svetlana V. Klimenko	Senior Financial Management Specialist	LCSFM
Emmnuel Njomo	Senior Financial Management Specialist	Consultant
Yingwei Wu	Senior Procurement Specialist	LCSPT
Judith C. Morroy	Procurement Specialist	LCSPT
Edith Mwenda	Senior Counsel	LEGAF
Miguel-Santiago Oliveira	Senior Finance Officer	CTRFC
Alonso Zarzar	Senior Social Scientist	LCSSO
Enos Esikuri	Senior Environmental Specialist	LCSEN
Shern Frederick	Junior Professional Associate	LCSEG
Fernanda Pacheco	Program Assistant	LCSEG

4. Bank funds expended to date on project preparation: US$ 420,000.

Annex 12: Documents in the Project File
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

1. PPIAF / World Bank (2007), *The Feasibility of Regional Cooperation in Regulation of the Electricity Sector of the Eastern Caribbean States*, Castalia Consultants, 4 volumes, Washington.

2. Towards and Eastern Caribbean Energy Regulatory Authority, Document for Discussion, World Bank (February 2009).

3. Letters from Prime Ministers of St. Lucia, Dominica and Grenada confirming Government's intention to become member of Eastern Caribbean Energy Regulatory Authority (ECERA) & interest obtaining financial support from the World Bank (2010).

4. Letter from CARILEC with comments on ECERA Discussion Note (March 2009).

5. Minutes 44th Meeting of the OECS Authority January 10-12 2007.

6. Communiqué of the Heads of State, 49th OECS Authority Meeting, Tortola, May 2009.

7. Communiqué of the Special Meeting of the OECS Authority, Cabinet Room, Office of the Prime Minister, St. John's, Antigua, March 18, 2011.

Annex 13: Statement of Loans and Credits
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

OECS COUNTRIES

			Original Amount in US$ Millions						Difference between expected and actual disbursements	
Project ID	FY	Purpose	IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P117087	2010	OECS EGRIP-SVG (APL 2)	0.00	2.30	0.00	0.00	0.00	2.00	-0.02	0.00
P100635	2008	OECS E-Gov for Regional Integration	0.00	7.20	0.00	0.00	0.00	6.02	1.88	0.00
P088448	2005	OECS-Telecomm & ICT Development Pro	1.36	1.35	0.00	0.00	0.00	1.16	0.97	0.05
		Total:	1.36	10.85	0.00	0.00	0.00	9.18	2.83	0.05

OECS COUNTRIES
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

		Committed				Disbursed			
		IFC				IFC			
FY Approval	Company	Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
	Total portfolio:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
	Total pending commitment:	0.00	0.00	0.00	0.00

GRENADA

Project ID	FY	Purpose	Original Amount in US$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P095681	2009	OECS (Grenada) Skill for Inclusive Growt	0.00	3.00	0.00	0.00	0.00	2.62	0.78	0.00
P101322	2008	GD TAC	0.00	1.86	0.00	0.00	0.00	0.81	0.84	0.00
P082392	2006	GD Public Sector Modernization TAC	0.00	3.50	0.00	0.00	0.00	2.65	2.23	0.99
P077759	2003	GD EDUCATION DEV (2nd APL)	4.00	5.90	0.00	0.00	1.08	0.19	-1.08	0.00
		Total:	4.00	14.26	0.00	0.00	1.08	6.27	2.77	0.99

GRENADA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

FY Approval	Company	Committed				Disbursed			
		IFC				IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2002	Bel Air	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
	Total portfolio:	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00

FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic.
	Total pending commitment:	0.00	0.00	0.00	0.00

ST. LUCIA

Project ID	FY	Purpose	Original Amount in US$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements	
			IBRD	IDA	SF	GEF			Orig.	Frm. Rev'd
P125205	2011	SLU Hurricane Tomas ERL	0.00	15.00	0.00	0.00	0.00	15.24	0.00	0.00
P097141	2007	OECS (St Lucia) Skills for Inclu. Growth	0.00	3.50	0.00	0.00	0.00	2.76	2.37	0.00
P086469	2004	LC Disaster Management Project II	3.70	6.80	0.00	0.00	0.00	1.37	-1.66	1.27
		Total:	3.70	25.30	0.00	0.00	0.00	19.37	0.71	1.27

ST. LUCIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

FY Approval	Company	Committed IFC				Disbursed IFC			
		Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
	Total portfolio:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

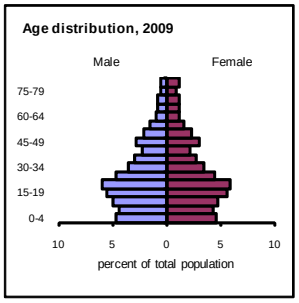
FY Approval	Company	Approvals Pending Commitment			
		Loan	Equity	Quasi	Partic.
	Total pending commitment:	0.00	0.00	0.00	0.00

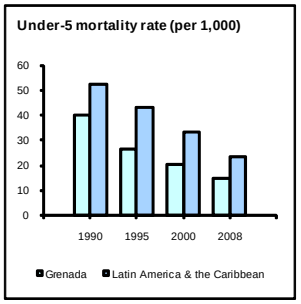
Annex 14: Countries at a Glance
OECS Countries: EASTERN CARIBBEAN ENERGY REGULATORY AUTHORITY (ECERA)

Grenada at a glance

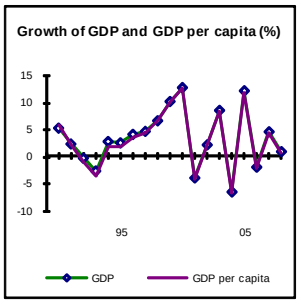
2/25/11

Key Development Indicators	Grenada	Latin America & Carib.	Upper middle income
(2009)			
Population, mid-year (millions)	0.10	566	993
Surface area (thousand sq. km)	*0.3*	20,422	48,659
Population growth (%)	0.4	1.1	0.9
Urban population (% of total population)	31	79	75
GNI (Atlas method, US$ billions)	0.6	3,882	7,363
GNI per capita (Atlas method, US$)	5,580	6,856	7,415
GNI per capita (PPP, international $)	7,710	10,525	12,800
GDP growth (%)	-6.8	4.3	4.1
GDP per capita growth (%)	-7.1	3.2	3.2
(most recent estimate, 2003–2008)			
Poverty headcount ratio at $1.25 a day (PPP, %)	..	8	..
Poverty headcount ratio at $2.00 a day (PPP, %)	..	17	..
Life expectancy at birth (years)	75	73	71
Infant mortality (per 1,000 live births)	13	20	20
Child malnutrition (% of children under 5)	..	4	..
Adult literacy, male (% of ages 15 and older)	..	92	95
Adult literacy, female (% of ages 15 and older)	..	90	92
Gross primary enrollment, male (% of age group)	105	118	111
Gross primary enrollment, female (% of age group)	100	114	110
Access to an improved water source (% of population)	95	93	95
Access to improved sanitation facilities (% of population)	97	79	84





Net Aid Flows	1980	1990	2000	2009 [a]
(US$ millions)				
Net ODA and official aid	4	14	17	33
Top 3 donors (in 2007):				
European Commission	1	3	2	10
Canada	0	1	0	0
Japan	0	2	6	0
Aid (% of GNI)	*3.6*	6.6	4.2	5.2
Aid per capita (US$)	43	143	163	319
Long-Term Economic Trends				
Consumer prices (annual % change)	21.9	2.8	2.1	-2.4
GDP implicit deflator (annual % change)	7.2	-1.4	0.5	-0.9
Exchange rate (annual average, local per US$)	2.7	2.7	2.7	2.7
Terms of trade index (2000 = 100)	..	*66*	100	..



	1980–90	1990–2000	2000–09
	(average annual growth %)		
Population, mid-year (millions)	0.8	0.5	0.3
GDP (US$ millions)	6.1	3.7	1.8
	(% of GDP)		
Agriculture	-0.6	-1.4	-1.9
Industry	7.5	6.2	1.4
Manufacturing	12.1	5.7	-2.4
Services	6.6	4.0	2.3
Household final consumption expenditure	2.5	*3.1*	..
General gov't final consumption expenditure	6.9	*-1.2*	*8.3*
Gross capital formation	6.3	*3.9*	..
Exports of goods and services	6.4	*5.8*	..
Imports of goods and services	2.8	*4.8*	..
Gross savings			

Note: Figures in italics are for years other than those specified. 2009 data are preliminary. .. indicates data are not available.
a. Aid data are for 2008.

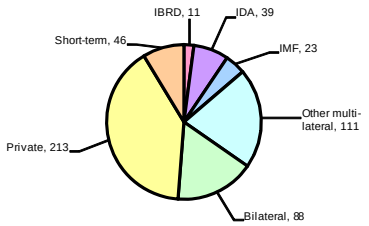
Development Economics, Development Data Group (DECDG).

Balance of Payments and Trade	2000	2009
(US$ millions)		
Total merchandise exports (fob)	76	*31*
Total merchandise imports (cif)	239	282
Net trade in goods and services	-74	-182
Current account balance	-88	-191
as a % of GDP	-20.5	-30.4
Workers' remittances and compensation of employees (receipts)	46	54
Reserves, including gold	59	..

Central Government Finance		
(% of GDP)		
Current revenue (including grants)	28.4	25.5
Tax revenue	22.1	22.5
Current expenditure	20.2	24.6
Overall surplus/deficit	-3.0	-6.1
Highest marginal tax rate (%)		
Individual	..	..
Corporate	..	..

External Debt and Resource Flows		
(US$ millions)		
Total debt outstanding and disbursed	201	531
Total debt service	14	20
Debt relief (HIPC, MDRI)	–	–
Total debt (% of GDP)	46.9	84.8
Total debt service (% of exports)	5.5	11.3
Foreign direct investment (net inflows)	37	91
Portfolio equity (net inflows)	0	0

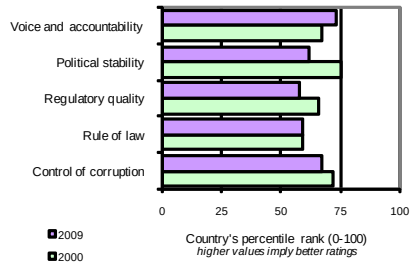
Composition of total external debt, 2009



US$ millions

Private Sector Development	2000	2009
Time required to start a business (days)	–	20
Cost to start a business (% of GNI per capita)	–	24.6
Time required to register property (days)	–	77
Ranked as a major constraint to business (% of managers surveyed who agreed)	2000	2009
n.a.	..	..
n.a.	..	..
Stock market capitalization (% of GDP)	..	..
Bank capital to asset ratio (%)	..	..

Governance indicators, 2000 and 2009



Source: Kaufmann-Kraay-Mastruzzi, World Bank

Technology and Infrastructure	2000	2008
Paved roads (% of total)	61.0	..
Fixed line and mobile phone subscribers (per 100 people)	35	86
High technology exports (% of manufactured exports)	30.1	10.9

Environment		
Agricultural land (% of land area)	35	*38*
Forest area (% of land area)	12.1	*12.1*
Terrestrial protected areas (% of surface area)	..	2.0
Freshwater resources per capita (cu. meters)	..	..
Freshwater withdrawal (billion cubic meters)	..	..
CO2 emissions per capita (mt)	2.0	*2.3*
GDP per unit of energy use (2005 PPP $ per kg of oil equivalent)	..	..
Energy use per capita (kg of oil equivalent)	..	..

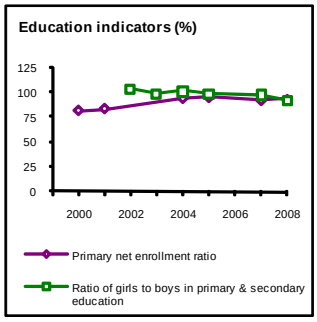
World Bank Group portfolio	2000	2009
(US$ millions)		
IBRD		
Total debt outstanding and disbursed	2	11
Disbursements	2	1
Principal repayments	0	1
Interest payments	0	0
IDA		
Total debt outstanding and disbursed	10	39
Disbursements	1	3
Total debt service	0	1
IFC *(fiscal year)*		
Total disbursed and outstanding portfolio	0	2
of which IFC own account	0	2
Disbursements for IFC own account	0	0
Portfolio sales, prepayments and repayments for IFC own account	0	0
MIGA		
Gross exposure	–	–
New guarantees	–	–

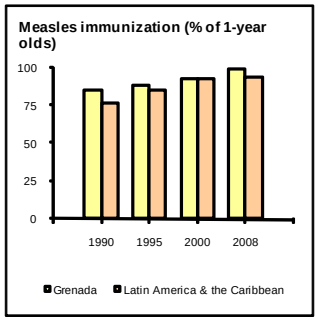
Note: Figures in italics are for years other than those specified. 2009 data are preliminary. 2/25/11
.. indicates data are not available. – indicates observation is not applicable.

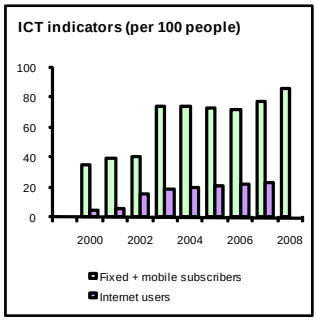
Development Economics, Development Data Group (DECDG).

With selected targets to achieve between 1990 and 2015
(estimate closest to date shown, +/- 2 years)

	Grenada			
Goal 1: halve the rates for extreme poverty and malnutrition	**1990**	**1995**	**2000**	**2008**
Poverty headcount ratio at $1.25 a day (PPP, % of population)	..	..	..	..
Poverty headcount ratio at national poverty line (% of population)	..	..	..	..
Share of income or consumption to the poorest quintile (%)	..	..	..	..
Prevalence of malnutrition (% of children under 5)	..	..	..	..
Goal 2: ensure that children are able to complete primary schooling				
Primary school enrollment (net, %)	..	..	82	93
Primary completion rate (% of relevant age group)	..	..	72	114
Secondary school enrollment (gross, %)	94	98	*109*	108
Youth literacy rate (% of people ages 15-24)	..	..	..	..
Goal 3: eliminate gender disparity in education and empower women				
Ratio of girls to boys in primary and secondary education (%)	102	*104*	*104*	93
Women employed in the nonagricultural sector (% of nonagricultural employment)	..	*43*	*43*	..
Proportion of seats held by women in national parliament (%)	..	*20*	*27*	13
Goal 4: reduce under-5 mortality by two-thirds				
Under-5 mortality rate (per 1,000)	40	27	20	15
Infant mortality rate (per 1,000 live births)	33	23	18	13
Measles immunization (proportion of one-year olds immunized, %)	85	88	92	99
Goal 5: reduce maternal mortality by three-fourths				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	..	..	..	..
Births attended by skilled health staff (% of total)	..	100	100	*99*
Contraceptive prevalence (% of women ages 15-49)	54	..	*54*	*54*
Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases				
Prevalence of HIV (% of population ages 15-49)	..	..	..	*0.4*
Incidence of tuberculosis (per 100,000 people)	5	4	4	4
Tuberculosis case detection rate (%, all forms)	0	89	0	120
Goal 7: halve the proportion of people without sustainable access to basic needs				
Access to an improved water source (% of population)	..	94	94	*95*
Access to improved sanitation facilities (% of population)	97	97	97	97
Forest area (% of total land area)	12.4	12.1	12.1	*12.1*
Terrestrial protected areas (% of surface area)	..	..	..	2.0
CO2 emissions (metric tons per capita)	1.3	1.7	2.0	*2.3*
GDP per unit of energy use (constant 2005 PPP $ per kg of oil equivalent)	..	..	..	..
Goal 8: develop a global partnership for development				
Telephone mainlines (per 100 people)	15.8	23.2	31.0	27.6
Mobile phone subscribers (per 100 people)	0.2	0.4	4.2	58.0
Internet users (per 100 people)	0.0	0.0	4.1	23.2
Personal computers (per 100 people)	..	..	11.9	*15.7*







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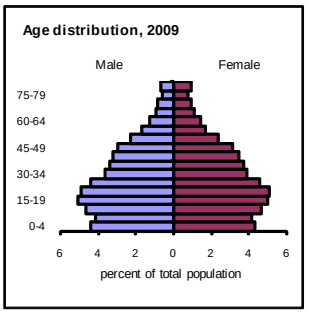
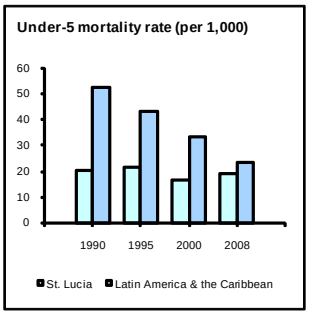
St. Lucia at a glance

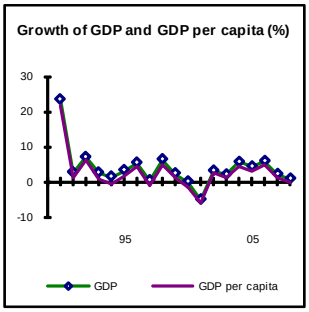
2/25/11

Key Development Indicators	St. Lucia	Latin America & Carib.	Upper middle income
(2009)			
Population, mid-year (millions)	0.17	566	993
Surface area (thousand sq. km)	*0.6*	20,422	48,659
Population growth (%)	1.1	1.1	0.9
Urban population (% of total population)	28	79	75
GNI (Atlas method, US$ billions)	0.9	3,882	7,363
GNI per capita (Atlas method, US$)	5,190	6,856	7,415
GNI per capita (PPP, international $)	8,860	10,525	12,800
GDP growth (%)	-3.8	4.3	4.1
GDP per capita growth (%)	-4.9	3.2	3.2
(most recent estimate, 2003–2008)			
Poverty headcount ratio at $1.25 a day (PPP, %)	21 [a]	8	..
Poverty headcount ratio at $2.00 a day (PPP, %)	41 [a]	17	..
Life expectancy at birth (years)	73	73	71
Infant mortality (per 1,000 live births)	19	20	20
Child malnutrition (% of children under 5)	..	4	..
Adult literacy, male (% of ages 15 and older)	..	92	95
Adult literacy, female (% of ages 15 and older)	..	90	92
Gross primary enrollment, male (% of age group)	99	118	111
Gross primary enrollment, female (% of age group)	97	114	110
Access to an improved water source (% of population)	98	93	95
Access to improved sanitation facilities (% of population)	89	79	84





Net Aid Flows	1980	1990	2000	2009 [b]
(US$ millions)				
Net ODA and official aid	9	12	11	19
Top 3 donors (in 2007):				
European Commission	4	2	2	15
Japan	0	0	7	1
Canada	0	2	0	0
Aid (% of GNI)	6.6	3.3	1.7	2.1
Aid per capita (US$)	75	92	70	112



Long-Term Economic Trends	1980	1990	2000	2009	1980–90	1990–2000	2000–09
					(average annual growth %)		
Consumer prices (annual % change)	19.5	4.7	3.6	*2.5*			
GDP implicit deflator (annual % change)	*10.2*	3.2	2.2	-0.3			
Exchange rate (annual average, local per US$)	2.7	2.7	2.7	2.7			
Terms of trade index (2000 = 100)	100	114	100	*102*			
Population, mid-year (millions)	0.1	0.1	0.2	0.2	1.5	1.5	1.1
GDP (US$ millions)	133	397	708	946	6.8	3.3	2.7
		(% of GDP)					
Agriculture	14.4	14.5	7.1	4.9	7.6	-4.1	-4.9
Industry	23.6	18.1	19.0	18.2	9.2	3.5	0.4
Manufacturing	10.5	8.1	5.1	6.4	11.1	-0.4	3.5
Services	62.0	67.3	74.0	76.9	6.8	4.4	3.0
Household final consumption expenditure	75.4	71.1	65.6	74.7	..	..	..
General gov't final consumption expenditure	17.5	14.7	18.5	22.0	..	..	..
Gross capital formation	34.3	25.8	25.7	23.7	..	..	..
Exports of goods and services	67.0	72.6	53.3	49.0	..	..	..
Imports of goods and services	94.2	84.2	63.0	69.3	..	..	..
Gross savings	12.9	11.0	12.0	*283.5*			

Note: Figures in italics are for years other than those specified. 2009 data are preliminary. .. indicates data are not available.
a. Country poverty estimate is for earlier period. b. Aid data are for 2008.

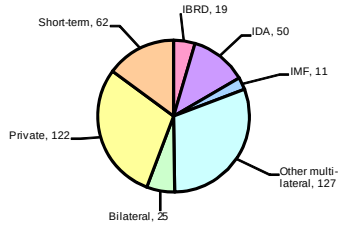
Development Economics, Development Data Group (DECDG).

Balance of Payments and Trade	2000	2009
(US$ millions)		
Total merchandise exports (fob)	53	*116*
Total merchandise imports (cif)	355	*524*
Net trade in goods and services	-122	-202
Current account balance	491	605
as a %of GDP	69.4	64.0
Workers' remittances and compensation of employees (receipts)	26	28
Reserves, including gold	77	..

Central Government Finance		
(%of GDP)		
Current revenue (including grants)	24.3	30.5
Tax revenue	21.9	28.4
Current expenditure	18.6	25.2
Overall surplus/deficit	-2.8	-2.5
Highest marginal tax rate (%)		
Individual	..	..
Corporate	..	..

External Debt and Resource Flows		
(US$ millions)		
Total debt outstanding and disbursed	221	416
Total debt service	30	44
Debt relief (HIPC, MDRI)	–	–
Total debt (%of GDP)	31.3	44.0
Total debt service (%of exports)	12	11
Foreign direct investment (net inflows)	54	156
Portfolio equity (net inflows)	0	0

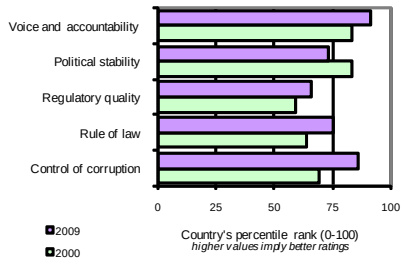
Composition of total external debt, 2009



US$ millions

Private Sector Development	2000	2009
Time required to start a business (days)	–	14
Cost to start a business (%of GNI per capita)	–	21.8
Time required to register property (days)	–	16
Ranked as a major constraint to business (%of managers surveyed who agreed)	2000	2009
n.a.	..	..
n.a.	..	..
Stock market capitalization (%of GDP)	..	..
Bank capital to asset ratio (%)	..	..

Governance indicators, 2000 and 2009



Source: Kaufmann-Kraay-Mastruzzi, World Bank

Technology and Infrastructure	2000	2008
Paved roads (%of total)	..	..
Fixed line and mobile phone subscribers (per 100 people)	33	124
High technology exports (%of manufactured exports)	8.1	19.6

Environment		
Agricultural land (%of land area)	28	*18*
Forest area (%of land area)	27.9	*27.9*
Terrestrial protected areas (%of surface area)	..	18.5
Freshwater resources per capita (cu. meters)	..	..
Freshwater withdrawal (billion cubic meters)	..	..
CO2 emissions per capita (mt)	2.1	*2.3*
GDP per unit of energy use (2005 PPP $ per kg of oil equivalent)	..	..
Energy use per capita (kg of oil equivalent)	..	..

World Bank Group portfolio	2000	2009
(US$ millions)		
IBRD		
Total debt outstanding and disbursed	6	19
Disbursements	1	4
Principal repayments	1	3
Interest payments	0	1
IDA		
Total debt outstanding and disbursed	12	50
Disbursements	1	1
Total debt service	0	1
IFC *(fiscal year)*		
Total disbursed and outstanding portfolio	0	18
of which IFC own account	0	18
Disbursements for IFC own account	0	15
Portfolio sales, prepayments and repayments for IFC own account	0	0
MIGA		
Gross exposure	–	–
New guarantees	–	–

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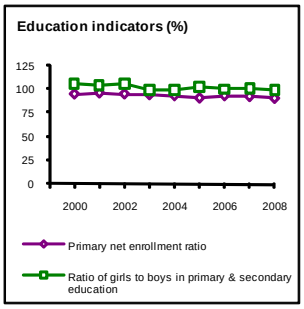
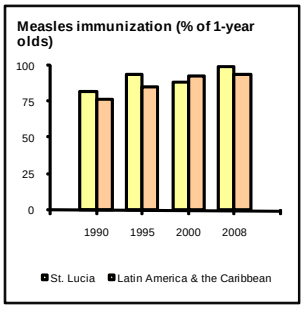
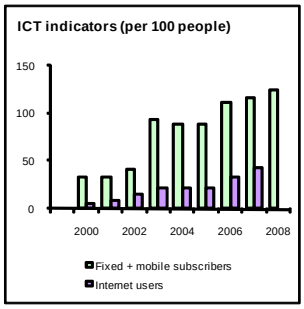
Development Economics, Development Data Group (DECDG).

With selected targets to achieve between 1990 and 2015
(estimate closest to date shown, +/- 2 years)

	St. Lucia			
Goal 1: halve the rates for extreme poverty and malnutrition	**1990**	**1995**	**2000**	**2008**
Poverty headcount ratio at $1.25 a day (PPP, % of population)	..	20.9	..	..
Poverty headcount ratio at national poverty line (% of population)	..	..	..	..
Share of income or consumption to the poorest quintile (%)	..	5.1	..	..
Prevalence of malnutrition (% of children under 5)	..	..	..	..
Goal 2: ensure that children are able to complete primary schooling				
Primary school enrollment (net, %)	96	..	96	91
Primary completion rate (% of relevant age group)	124	*120*	96	98
Secondary school enrollment (gross, %)	50	72	74	93
Youth literacy rate (% of people ages 15-24)	..	..	..	..
Goal 3: eliminate gender disparity in education and empower women				
Ratio of girls to boys in primary and secondary education (%)	103	*101*	107	100
Women employed in the nonagricultural sector (% of nonagricultural employment)	..	47	49	*48*
Proportion of seats held by women in national parliament (%)	0	*0*	11	11
Goal 4: reduce under-5 mortality by two-thirds				
Under-5 mortality rate (per 1,000)	20	22	17	19
Infant mortality rate (per 1,000 live births)	16	17	14	18
Measles immunization (proportion of one-year olds immunized, %)	82	94	88	99
Goal 5: reduce maternal mortality by three-fourths				
Maternal mortality ratio (modeled estimate, per 100,000 live births)	..	..	..	..
Births attended by skilled health staff (% of total)	..	100	100	*100*
Contraceptive prevalence (% of women ages 15-49)	*47*	..	*47*	..
Goal 6: halt and begin to reverse the spread of HIV/AIDS and other major diseases				
Prevalence of HIV (% of population ages 15-49)	..	..	..	*0.6*
Incidence of tuberculosis (per 100,000 people)	16	15	15	14
Tuberculosis case detection rate (%, all forms)	59	49	38	87
Goal 7: halve the proportion of people without sustainable access to basic needs				
Access to an improved water source (% of population)	98	98	98	98
Access to improved sanitation facilities (% of population)	..	89	89	*89*
Forest area (% of total land area)	27.9	27.9	27.9	*27.9*
Terrestrial protected areas (% of surface area)	..	..	..	18.5
CO2 emissions (metric tons per capita)	1.2	2.1	2.1	*2.3*
GDP per unit of energy use (constant 2005 PPP $ per kg of oil equivalent)	..	..	..	..
Goal 8: develop a global partnership for development				
Telephone mainlines (per 100 people)	12.7	21.0	31.3	24.1
Mobile phone subscribers (per 100 people)	0.0	0.7	16	99.6
Internet users (per 100 people)	0.0	0.3	5.1	58.8
Personal computers (per 100 people)	..	*0.1*	14.1	*16.0*







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THE CARIBBEAN AREA
ORGANIZATION OF EASTERN CARIBBEAN STATES

OECS PARTICIPATING MEMBERS

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Virgin Islands (US)
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ANTIGUA AND BARBUDA
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BARBADOS
ST. VINCENT and the GRENADINES
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ATLANTIC OCEAN

Caribbean Sea

0 50 100 150
MILES

AUGUST 2004