Sustainable Energy:
Cost Effective Climate Change Opportunities
St. Lucia Experience

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Map of the Caribbean
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Bahamas
Atlantic Ocean
Turks & Caicos
Cuba
Puerto Rico
Virgin Islands
Barbuda
Antigua
St. Kitts & Nevis
Montserrat
Haiti
Dominican Republic
Jamaica
St. Lucia
Caribbean Sea
St. Vincent
The Grenadines
Grenada
Margarita
Tobago
SMMA 1998

General Background

- Small size (616 sq km)
- Low population (150,000)
- Demand for Economic Growth
- Linkage between economic activity and energy consumption
- Low Greenhouse Gas emissions
- Most vulnerable to Climate Change

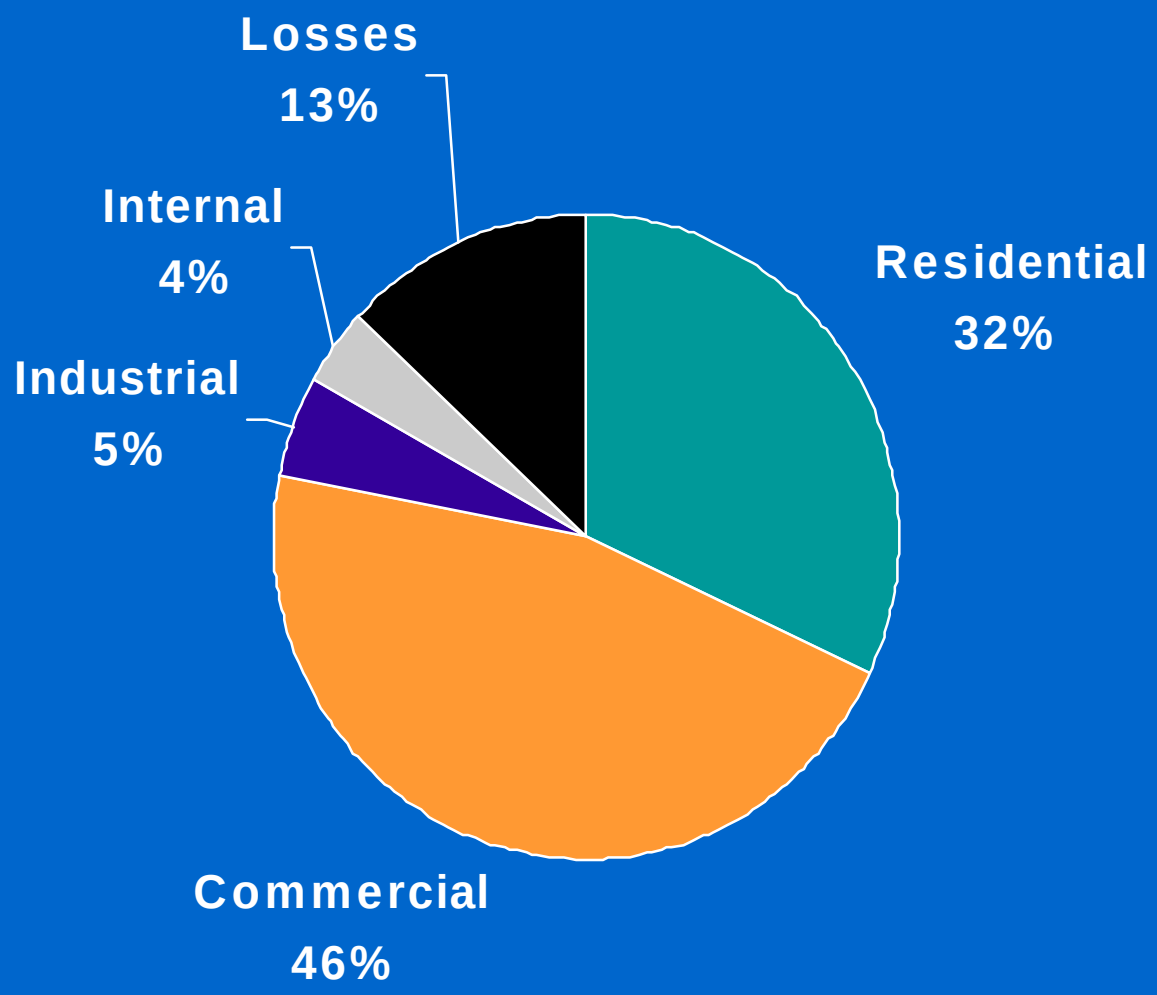
General Background (cont)

- Small, limited financial reserves
- Inadequate infrastructural base
- Rapidly growing tourism industry
- Dependence on agriculture (bananas) and fisheries
- 90% of households have electricity access
- US$0.16/KWh for residential and $0.20/KWh for commercial

Energy Use

- Limited commercial energy resources
- Difficulties in securing energy supplies
- Shortage of trained human resources
- Dependence on petroleum imports (95,000 TOE – US$ 25m or 20% Export earnings)
- Transport industry main end user of petroleum
- Industrial energy consumption relatively small
- 69 MW Installed Diesel Capacity

Energy Use (cont)



Energy Use (cont)

- Increasing importance of energy use to Tourism sector
- Increasing energy demand
- Total energy generated of 200,000 kWh
- Gradual increase in the use of RETs
- Potential for Energy efficiency initiatives
- Potential for use of RETs – Geothermal, wind, solar and biomass

Barriers

- Poor experience with earlier projects
- Lack of access to appropriate credit and financing mechanisms
- Lack of specialists in sustainable energy
- Limited public and government awareness of energy efficiency
- Lack of energy efficient appliances on the market
- High costs for high efficiency appliances and retrofitting buildings
- Use as “dumping ground” for energy inefficient and reconditioned appliances

Barriers (cont)

- Regulatory and policy environments not beneficial – e.g. testing of appliances
- Lack of appropriate feasibility studies
- Small populations – lack of critical mass
- Lack of business opportunities
- Instititutional capacity weakness
- Lack of support by utilities

Existing Projects

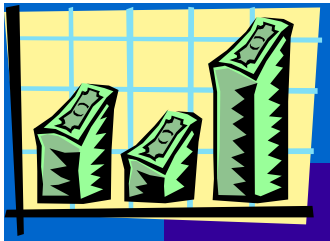
- Comprehensive assessments of wind and geothermal energy
- Viability of wind energy (13.5 MW) – commitment by utility company lacking
- Pilot demonstration of PV lighting systems on storm shelters
- Development of Sustainable Energy Plan
- Development of Energy policy
- Commercialization and transfer of sustainable energy technologies – Energy and Climate Change
- Obligations under UNFCC

Lessons Learnt

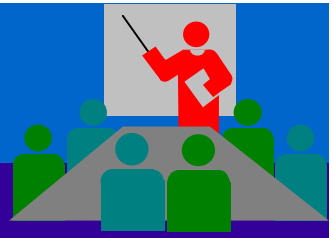
- Need to develop bankable business plans
- Recognition of the importance of energy to all sectors – Renewable and Non renewable
- Recognition of cost competitive renewable energy technology – Tourism and Industrial Development
- Need to develop comprehensive energy policy framework
- Fiscal incentives provided to increase use of RETs
- Removal of duties and consumption taxes on all RETs
- Commitment by Utility company (Legislative reform)

Future Outlook

- Integrated Energy Policy – Price Stability; Quality and Security of supplies; Consumption, Generation and Distribution; Utility regulations;
- Training, Education and Capacity Building
- Increased Renewable Energy usage
- Development of Standards
- Public Awareness – Energy Conservation
- Regional/International Cooperation - NGOs
- Economic viability/incentives
- Independent power producers and co-generation







Role of Donors

- Consolidating administrative structures to create enabling environment
- Recognition of requirements at the national level to facilitate effective project implementation
- Programmes must be needs driven and have built in flexibility
- Donor coordination and exchange of information and experiences
- Effective monitoring and evaluation
- Facilitate transfer and sharing of technology and development of indigenous technology

THANK YOU FOR YOUR ATTENTION!