

ORGANISATION OF EASTERN CARIBBEAN STATES (OECS)



Geothermal Energy In the OECS

Gender and Geothermal Development Workshop for Small Island Developing States (SIDS)

March 25th to 27th, 2019
Guadeloupe, West Indies





The Organisation of Eastern Caribbean States

The Organisation of Eastern Caribbean States (OECS) is an inter-governmental grouping established to promote co-operation among the Member States (MS) and at the regional and international levels.

The Revised Treaty of Basseterre establishes a single financial and economic space within which goods, people and capital move freely, monetary and fiscal policies are harmonized.

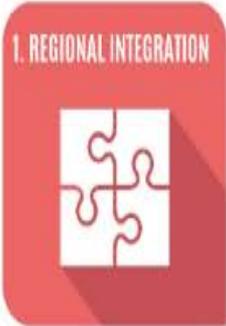
OECS Countries adopt a common approach to key policies and the development of critical sectors as **Agriculture, Tourism and Energy**.

Key OECS Organs include: Authority, Council of Ministers, Commission





OECS Commission Strategic Objectives



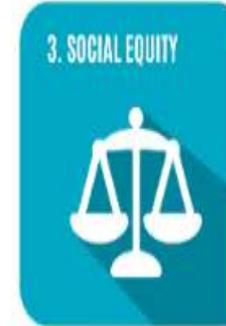
1. REGIONAL INTEGRATION

Advance, support and accelerate regional trade, economic and social integration



2. RESILIENCE

Mainstream climate, economic, environmental and social resilience



3. SOCIAL EQUITY

Promote and support equity and social inclusion; and leverage the cultural and linguistic diversity of the OECS



4. FOREIGN POLICY

Support alignment of foreign policy of Member States with the development needs of the OECS



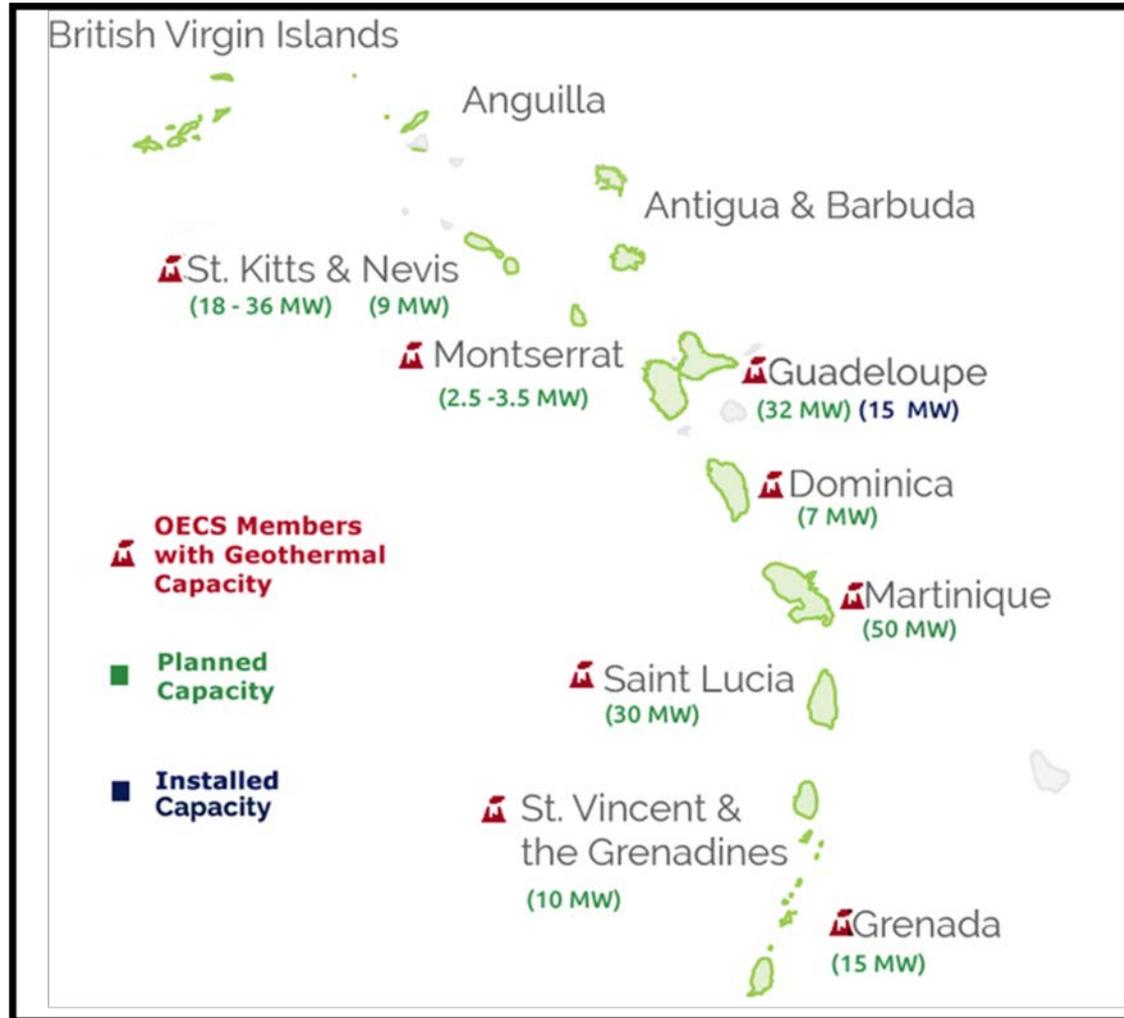
5. HIGH PERFORMING ORGANISATION

Align and strengthen the institutional systems of the Commission to effectively deliver its mandate





Geothermal Energy in OECS





Geothermal Energy in OECS

Preliminary Planned Plant Estimates

- Dominica 7 MW
- Grenada 15 MW
- Guadeloupe-15 MW (existing) 32 MW
- Martinique 50 MW
- Montserrat 2.5 – 3.5 MW
- Saint Kitts 18-36 MW and Nevis 9 MW
- Saint Lucia 30 MW
- Saint Vincent and the Grenadines 10 MW





Geothermal Energy in the OECS

Dominica



Montserrat



Nevis



St. Vincent





Key Features of Energy in the Caribbean

- Primarily gross importers of fossil fuels
- Cost of energy is comparatively high and accounts for high percentage of GDP
- Transportation and Tourism Sectors amongst largest consumers of energy
- Good potential for Renewable Energy sources include solar, wind, geothermal, hydro and biomass





Drivers for Geothermal Energy

- Reducing region's dependence on imports of oil products for electricity generation
- Stabilizing and reducing electricity prices, and contributing to the sub-region's energy security
- Provided predictable energy costs for economic development and added -value





Benefits of Geothermal

- Geothermal energy has the distinction of having high availability, and can be delivered 24 hours a day, 365 days a year.
- Geothermal energy plants can also operate continuously at up to 98% capacity because they have a constant source of “fuel” and require little downtime for maintenance.
- Provides baseload
- Electricity generation and direct use





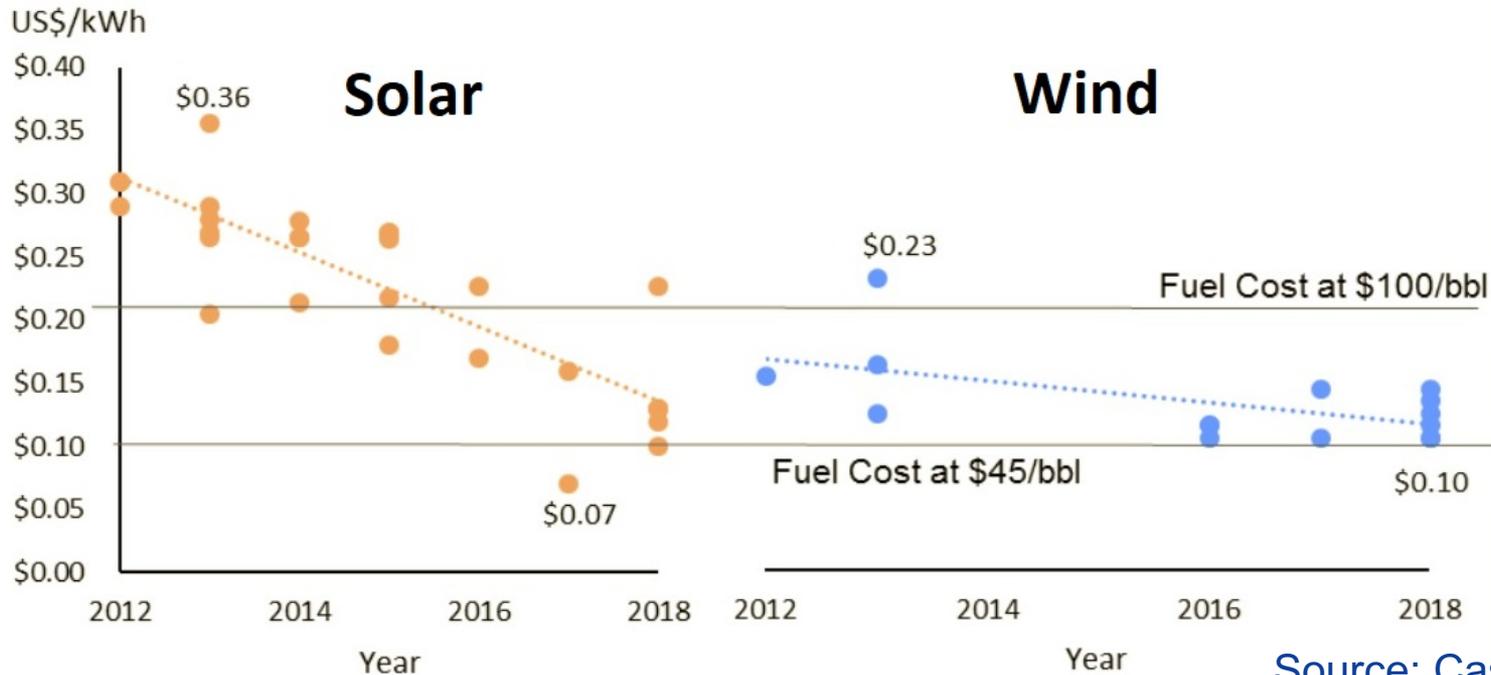
Benefits Geothermal Energy

- Small land foot print
- Modular
- Although geothermal projects are relatively capital intensive, a geothermal power plant has low and predictable operating costs.
- Resilience





Prices for Solar, Wind & Geothermal in the Caribbean



Source: Castalia 2017

Geothermal: 0.13–0.19 US\$/kWh
(current planned projects)





OECS Commission-Enabling Environment Survey

- In 2016 conducted stakeholder analysis to identify the main challenges to geothermal energy in the region.
- Surveyed geothermal stakeholders :governments, utility companies and private sector experts pursuing geothermal energy initiatives.
- The survey results:
 - ❖ **Finance** and **Government Policy** are the main challenges to geothermal energy development in the region.
 - ❖ These were followed closely by competition from other energy sources, and technological issues.





Financing of Geothermal Energy

- High cost of exploration
- Countries keen on securing national interest but not in position to take on additional debt
- Various business models in the region
- Critical role for private sector including international investors
- Challenge of negotiating Agreements





Geothermal Energy in the OECS

Needs and Gaps:

- Energy Policy and regulatory environment
- Alignment of other national policies to support geothermal
- Capacity building-specialised skills (technical, legal etc)
- Land use issues (land acquisition, land use)
- Transaction Negotiations and Business models





OECS Geothermal Energy Roundtable

- 5th December 2018, Saint Lucia
- Joint initiative with OECS Commission, CDB, IGA, IRENA
- Approximately 60 participants
- The discussions focused status of the OECS geothermal projects and the opportunities, challenges and underlying risks
- Key recommendations towards advancing a regional geothermal strategy





UNFC Training

- Regional geothermal energy actors trained in UN Framework Classification for geothermal energy
- Data gathering process started to assist with IRENA Global Atlas for Renewables
- Facilitated sharing and networking amongst developers, government, utilities, regulators, CSOs





OECS Commission and Gender

- Working towards empowering women and bridging the gender gap across the work areas.
- Consistent with the OECS Member States' efforts to infuse gender equality commitments in Articles e.g. 22.2, 22.4, 22.5 and 23.1 of the “Protocol of OECS Economic Union” of the Revised Treaty of Basseterre.
- The gender pledges contained in the Protocol are consistent with the obligations ratified under international conventions on women's rights and gender equality, and are carried over from the OECS Development Strategy 2000, the OECS Development Charter 2002, and the initial gender analysis contained in the OECS Human Development Report 2002.





Gender Equality Mainstreaming Policy and Action Plan (GEM Policy)

- Provides the framework through which gender analysis and planning will be integrated in a coherent manner at all levels of the institution's programming to support the developmental goals for the people (**men and women, and boys and girls**) of the OECS Region.
- Supports the increase consideration of gender equality in the daily operations and staff management at the Commission
- Requires commission's staff to systematically and explicitly use a gender equality approach in the design and implementation of regional programmes.
- **5th Council of Ministers of Environmental Sustainability –Gave mandate to incorporate gender issues into sustainable energy**





Regional Geothermal Energy Coordination

- Repeated calls for closer regional collaboration on geothermal energy
- OECS Commission views this as supportive of the single economic union and greater regional integration
- Benefits to be derived from inter-connection and regional energy interdependence
- Shared circumstances and challenges in OECS so geothermal energy is a priority for the OECS Commission





Immediate Next Steps

- Establishment of the Geothermal Development Mechanism
- Advancing the recommendations of OECS Dialogue
- OECS Ministerial meeting for Geothermal Energy 2019
- Direct Use Study for the OECS
- Continued engagement with Member States and Partners





The Vision



More Operating Geothermal Plants





Thank you

JUDITH EPHRAIM

Programme Coordinator, Sustainable Energy Unit

Organisation of Eastern Caribbean States (OECS) Commission

Morne Fortune, P.O.Box 179, Castries, Saint Lucia

W: 758-455-6350 | F: 758-453-1628 | E: judith.ephraim@oecs.int

