

SAINT LUCIA GEOTHERMAL DEVELOPMENT PROJECT

COUNTRY UPDATE

WORLD BANK GLOBAL GEOTHERMAL DEVELOPMENT PLAN SESSION

IGC APRIL 2018



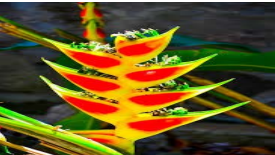
PRESENTED BY: CHARLIN BODLEY

MINISTRY OF INFRASTRUCTURE, PORTS, ENERGY AND LABOUR

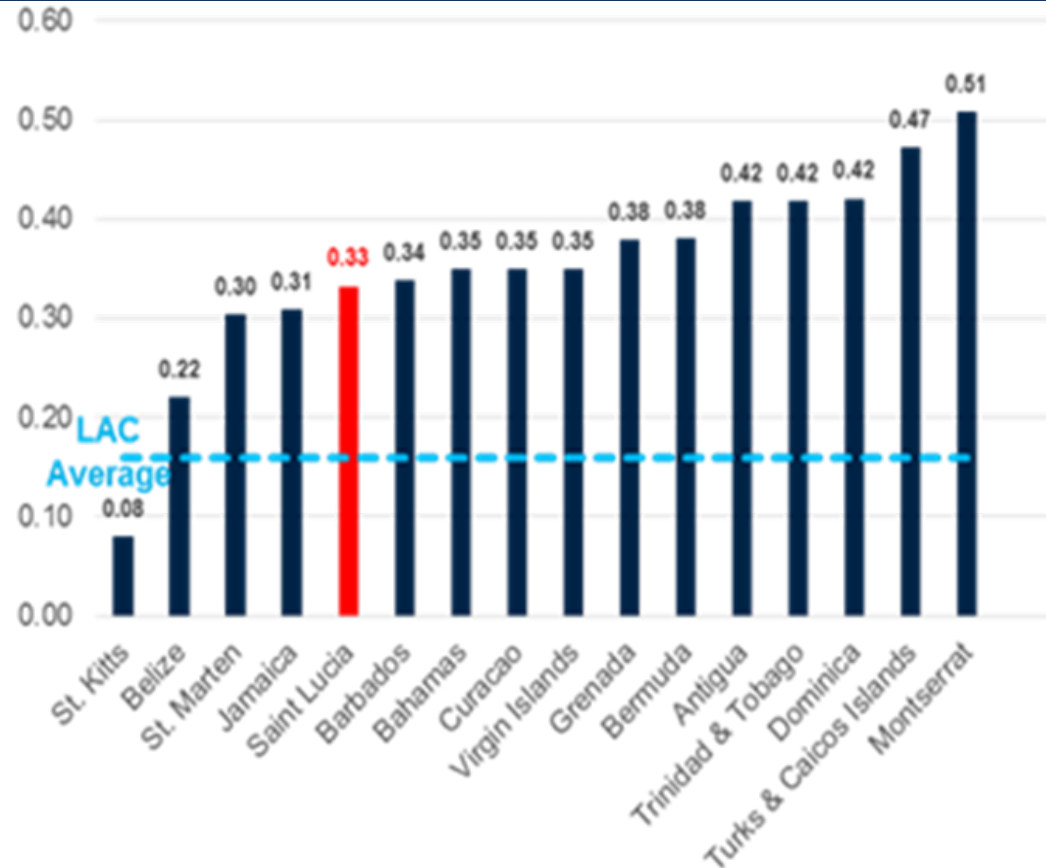
SAINT LUCIA

COUNTRY CONTEXT

- 617 km²
- Population: ~185,000
- GDP: USD 1.379 Billion USD (2016)
- 88.6 MW Installed Capacity
- Almost 100 % Dependent on Imported Fossil Fuels
- Peak Demand: 61.7 MW (2017)
- 660 kW Distributed Solar PV (2018)
- 3 MW Solar Farm (2018)
- RE Target: 35% by 2025, 50% by 2030 for Electricity Generation



OPPORTUNITY FOR DIVERSIFICATION OF ENERGY SECTOR



High dependence on fossil fuels leads to highly volatile electricity prices



High potential for indigenous RE energy including wind, solar and geothermal energy

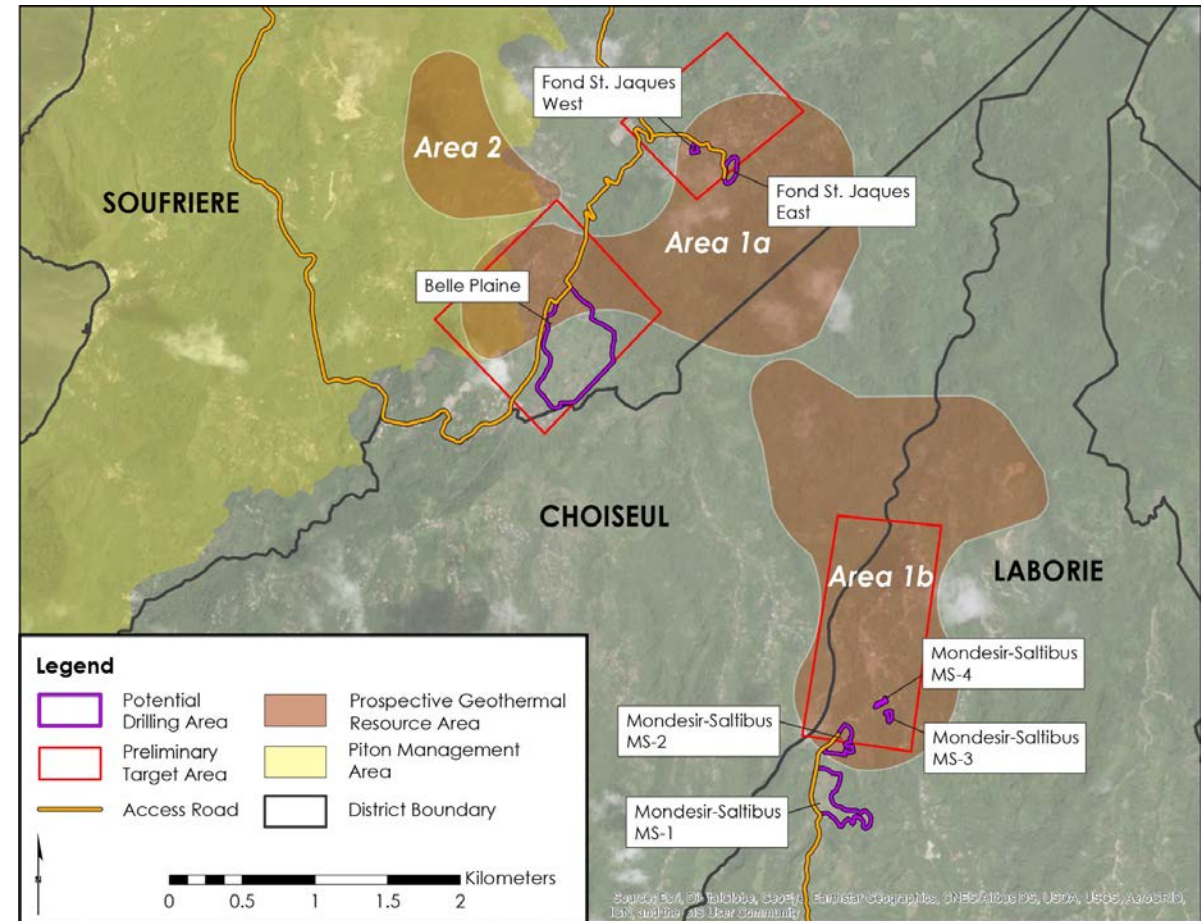
WHY GEOTHERMAL ENERGY?

- Energy Independence
- Energy Security
- Energy Reliability
- Lower Electricity Costs
- Relatively small footprint
- RESILIENCE



GEOHERMAL PROJECT

- Previous drilling activities (from 1951-1980s) unable to confirm commercial viability
- Surface exploration complete
- ESIA and Prefeasibility Studies for Exploration Drilling complete
- Public funding to de-risk upstream development
- Area 2:
 - 12 MW within a World Heritage Site
- Area 1a and 1b:
 - Indicative 60 MW
 - Resource at greater depths (2000m)



FINANCING SAINT LUCIA'S GEOTHERMAL DEVELOPMENT

Stage I: Early Prep & Reconnaissance (GOSL)



- *World Bank Project Management & Advisory Support*
- *NZ technical support*
- *Grant funding support*



Stage II – Exploration (GOSL)



- *World Bank Project Management and Advisory Support*
- *Grant funding support*
- *Financing towards risk capital*



Stage III: Development (IPP)



- *Potential private financing*

LESSONS LEARNT & NEXT STEPS

Lessons Learned

- Time and due diligence in the upstream development stage is essential
- Institutional strengthening necessary

Next Steps

- Establish necessary policy, legal, and regulatory framework for commercial geothermal development
- Establish necessary commercial agreements for geothermal project development
- Exploratory drilling followed by delineation/production well drilling and power plant development
- Lower cost, reliable baseload power



THANK YOU FOR YOUR ATTENTION

