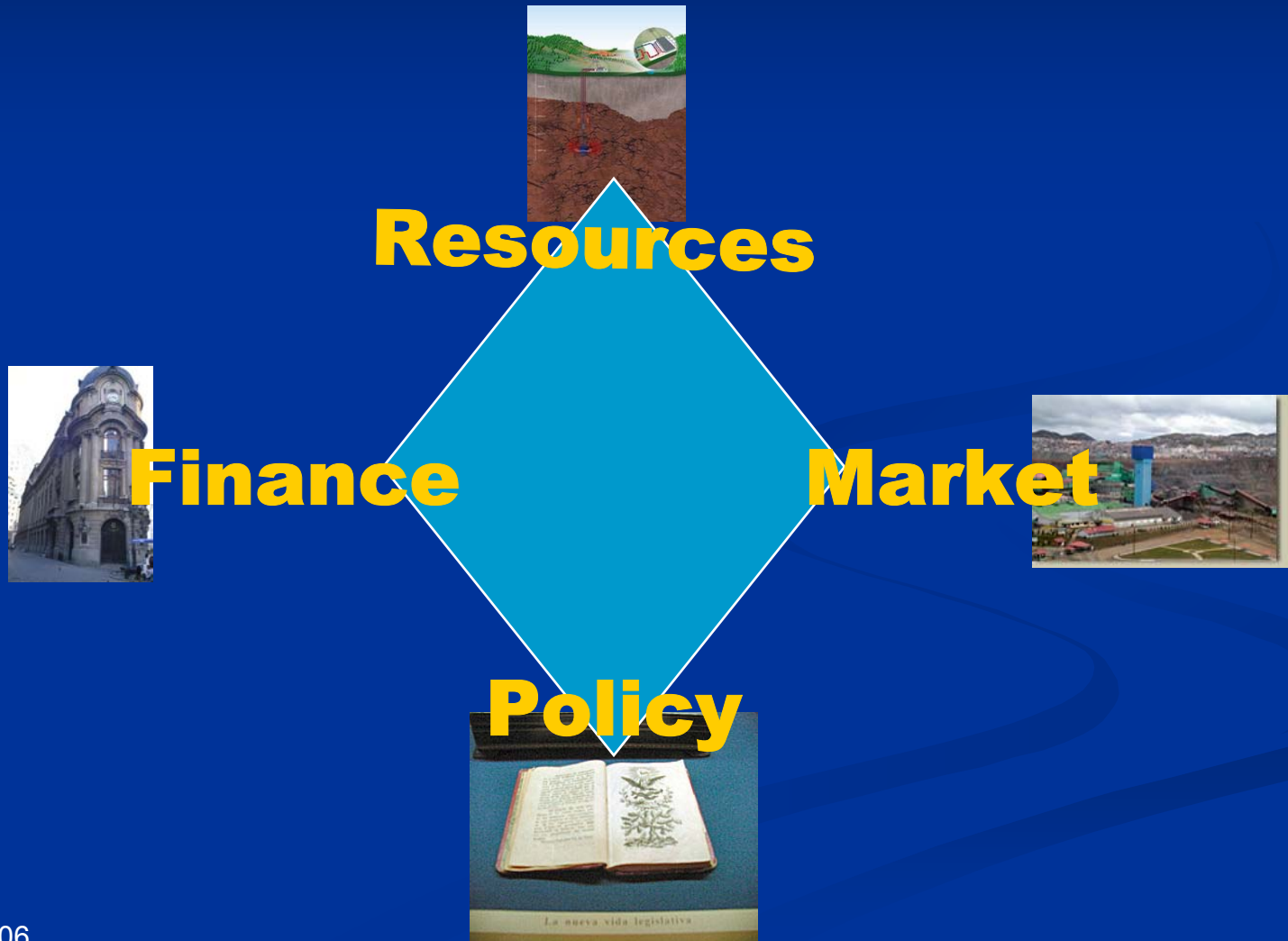


# **Eastern Caribbean Geothermal Development Project**

**A. John Armstrong**  
**Policy & Legal Consultant**  
**Geo-Caraibes Project**

# Cornerstones of Geothermal Development



# Private Investment Prerequisites

- Prerequisites for private investment –
  - a stable **political environment**
  - a reliable **legal environment**
  - an effective **regulatory framework**
- Clear & reliable off-take rules stipulated in **PPAs**  
*crucial*

**Policy**



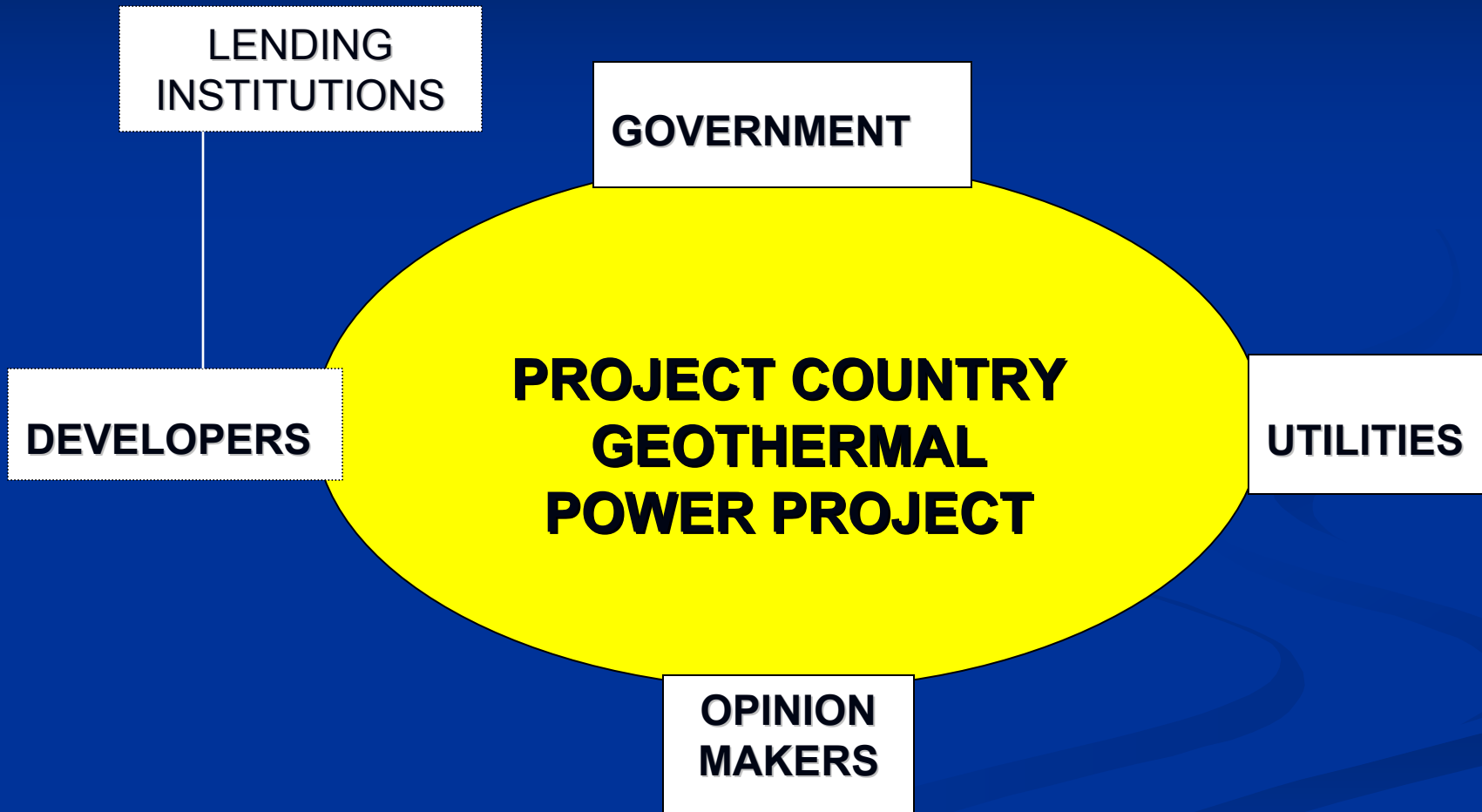
# Reforming the Energy-Sector Framework

Develop & institute

- policy reforms
  - institutional reforms
  - capacity reforms &
  - legislative & regulatory counsel
- to overcome barriers that prevent private-sector development of geothermal energy.

*Subcomponent One:* **Policy Reforms**

# **ORGANIZATION**



## **Geothermal Advisory Groups**

Consistent with the Project objective of **capacity building** in each of the Geo-Caraïbes countries, the Project established/worked with :

- **Regional Geothermal Advisory Task Force;**
- **Policy and Legal Team; &**
- **Project Country  
Geothermal Consultative Groups.**

## *Subcomponent One: Policy Reforms* ORGANIZATION

# Regional Geothermal Advisory Task Force

- **Hon. Reginald Austrie** Minister of Communications, Works & Housing
  - **Marcella Powell** Permanent Secretary, Ministry of Communications, Works & Housing
  - **Rawlins Bruney** Manager, Dominica Electricity Services Ltd. (DOMLEC)
  - **Sylvester Vital** Senior Engineer, Ministry of Communications, Works & Housing
  - **Alick C. Lawrence** Legal Consultant to Office of Prime Minister
- Commonwealth of Dominica**
- 
- **Hon. Ferguson John** Minister of Physical Development, Housing & Environment
  - **Martin Satney** Permanent Secretary, Ministry of Physical Development, Environment & Housing
  - **Judith Ephraim** Unit of Sustainable Development & Environment, Ministry of Physical Development, Housing & Environment
  - **Trevor Louisy** Managing Director, St. Lucia Electricity Services Ltd. (LUCELEC)
  - **Georgis Taylor-Alexander** Crown Counsel
- St. Lucia**
- 
- **Hon. Michael A. Perkins** Minister Physical Planning & Infrastructural Development, Nat. Resources & Env.
  - **John Channor** Chief Engineer/Manager, St. Kitts Electricity Department
  - **Shirley Skerrit** Senior Project Analyst, Planning Unit, Ministry of Sustainable Development (Ministry of Finance)
  - **Stephen Hector** Office of Attorney General
  - **Israel Mukasa** Office of Attorney General
- St. Kitts & Nevis**

## *Subcomponent One:* **Policy Reforms**

- Need regional approach
  - Re-evaluate & refine regional starting goal & individual country's policy guidance.
  - Develop sharing of regional institutional resources.
- Long-term purchases of IPP electricity.
  - Establish authority for IPPs to generate electricity.
  - Enact exceptions for geothermal IPPs.
- Need effective capacity to enable power sales.
  - Streamline & standardize legal & regulatory procedures for PPAs.
  - Assist utilities draft model PPAs.

## *Subcomponent One:* **Policy Declaration**

It is hereby declared that all the Geothermal Resources in, or under any Land of whatsoever **ownership** or tenure are **vested** in and are subject to the control of the **State**.

It is the **duty of the State** to promote the exploration for, and development of, its Geothermal Resources in such a manner as to assure the supply of energy necessary for the economic growth and general welfare of the people the country and to decrease the dependency of the country on non-renewable resources.

It is hereby declared to be in the **public interest** to foster, encourage and promote the discovery, development, production and disposal of Geothermal Resources in the country in such manner as will safeguard the natural environment and the public welfare and at the same time will **encourage private enterprise** to provide the necessary services, financing and technology.

## *Subcomponent Two:* **Institution Building**

- Need legal framework adequate for successful geothermal development.
- Need mechanism for memorializing regional policy reform consensus.
  - **Review & enact Geothermal Resources Development Law -- adjust for Martinique & Guadeloupe transmission**
  - **Resolve local transmission hurdles.**
  - **Legislate competitive advantages.**
- Need institutional organization for managing resources.
  - **Institute standing policy & technical body.**
  - **Provide complimentary regulations.**
  - **Provide capacity to manage geothermal resource areas; permits/licenses/concessions; contracts.**

## *Subcomponent Two: Institution Building (continued)*

- Need legal & institutional framework establishing conditions for commercial geothermal power plants & for selecting developers.
  - Institutionalize “one-stop shop”.
  - Establish critical path for negotiated licenses & public bidding.
  - Institute mechanisms allowing both development promotion to co-function with compliance.
- Need capacity to regulate technical aspects of geothermal development -- meaningful regulatory structure.
  - Provide regulations – model contracts, bond & royalty schedules, & field rules.
  - Establish means for legislating fees, royalties & taxes.
  - Establish fees, royalties & taxes that balance government’s return with allowing resource development.
- Need due diligence mechanisms.
  - Provide clear, mandatory, due diligence guidelines for evaluating prospective geothermal developers.

## *Subcomponent Three:* **Capacity Building**

- Need capacity for promoting commercial development.
  - Obtain input on proposed legislation & regulations from Stakeholders, international private-sector developer & lending communities.
- Need capacity for promulgating information re geothermal development.
  - Establish Regional public outreach geothermal educational program.
  - Develop related shareable materials.
  - Tailor Regional program to meet country-specific circumstances.
- Need local human resources trained in geothermal resource development.
  - Formulate educational program to assist governments to staff regulatory institutions.
  - Establish repository libraries, geothermal web site, & cross-training.
  - Institutionalize safety & environment bonding & other enforcement tools.

## *Subcomponent Four:* **Legislative & Regulatory Counsel**

- Need internal capacity to monitor or regulate licenses.
  - **Establish permit, license & concession criteria.**
- Need clear policy with respect to using private lands for geothermal development purposes.
  - **Assist national political leadership in determining best way to obtain geothermal resource lands through liaison with municipal authorities.**
- Ministries need technical expertise.
  - **Provide legislative advice, & counsel at Ministerial, Cabinet & Parliamentary levels -- counsel only, not actual testimony.**

# *Next Steps* (Legislation & Regulation)

- Feedback from policy makers (formalize)
- Redraft 1
- Ministerial or Cabinet clearance on Redraft 1
  - Present draft(s) for Geothermal Community comment
  - Present draft(s) for Financial Community Comment
- Redraft 2
- Regional Review
- Cabinet Clearance on Redraft 2
- Introduce Bill
- Enact



# Geo-Caraïbes Policy Summary



Thank You & Merci