Deploying Geothermal: Background Paper

First Geothermal Dialogue 24th October 2014 Copenhagen

Valerio Micale



BRAZIL CHINA EUROPE INDIA INDONESIA UNITED STATES

Island of San Giorgio Maggiore 8 30126 Venice Italy <u>climatepolicyinitiative.org</u>

Constant growth, below potential

CUMULATIVE GEOTHERMAL CAPACITY GROWTH

15 GWe



- Ability to provide power **reliably** and **flexibly**.
- Rate of geothermal deployment steady, lower than deployment needs and other renewables.

Timeline longer than other investment alternatives



- Development of a geothermal project requires **5.5 years** on average.
- Most of the time dedicated to resource identification and exploratory drilling

Resource risks high during the exploration phase



- High risk during the phase of resource identification and exploratory drilling
- Risk still relevant during production drilling.

♥ CLIMATE POLICY INITIATIVE

Public sector plays key role in investment







• 37% of projects are purely public.

Public sector plays a role in 76-90%
of investments

• Little appetite for **private sector** where resource risk is high.

• Financing structures are highly dependent on the location

Questions

Policy support mechanisms for geothermal are increasingly focusing on resource availability, but much of the current support focuses on the operational phase of the project

- How effective are the different policy and public investment tools?
- How can **international public finance** support policies in developing countries?
- How can public support be reduced, shifting to a higher private contribution?
- How can risks be addressed across the project development chain?
- What are the characteristics, pros and cons of available financial structures and project development models?

Thank you