

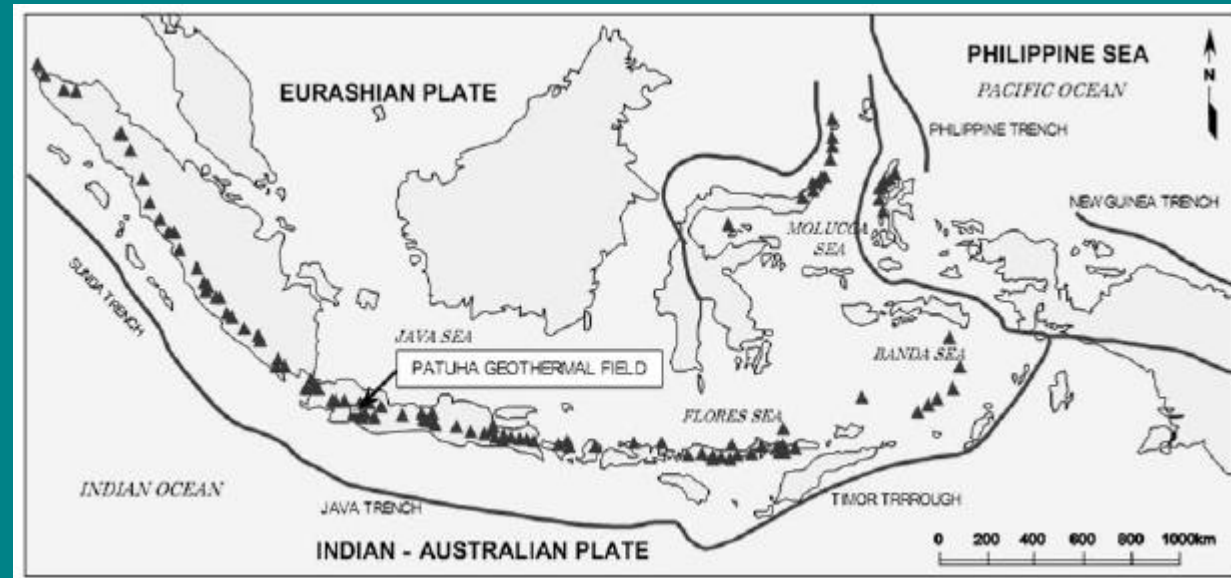
Interactive session

Challenges to geothermal energy

- Context
- Round I: identify
- Round II: solve
- Presentation & discussion

Interactive session – context

- Mission statement: Discover challenges & stakes of stakeholders in development of geothermal energy
- Setting:
 - Patuha site: interesting area for geothermal energy
 - Steam temperature 209-241°C @ 1091-2172 m depth!
 - Possibly 75 MWe from 9 wells
 - Ownership: Indonesia government
 - High investment costs
 - High risks
- Challenges:
 - Sustainability: 23% RES in 2025
 - Feasibility: minimize overall costs



Interactive session – Round I: Identify

- Different perspectives - 4 roles
 - GOVERNMENT
 - GEOTHERMAL DEVELOPER
 - MUNICIPALITY
 - BANK
- Identify challenges for the development of geothermal energy
 - ...for your role to reach this goal
 - ...posed on a role by other roles
- Per group – challenges for 1 role
- Output: top 2 challenges

Interactive session – Round I: Identify

- Practically
 - Gather with your roles – 1 table per role
 - Identify together the challenges for your role (10 min.)
 - Prioritize challenges (5 min.)
 - Output: 2 most important challenges
- Roles
 - Government (Ministry of Energy and Mineral Resources)
 - Geothermal developer
 - Bank (financial party)
 - Municipality

Interactive session – Round II: Solve

- New groups, each with all roles represented
- Group & prioritize challenges from Round 1
- High-level solution for top-challenges

Interactive session – Round II: Solve

- Practically
 - Re-group – at each table all roles present
 - Group & prioritize challenges (max 5 min.)
 - Solve top challenge(s) (10 min.)
- Output:
 - Main challenges & solution(s)
 - Flip-over

Wrap-up – Short presentations

- Present per group (2 min.)
 - Main challenge(s) & solutions
- Judge
 - Most economic/feasible (blue)
 - Most sustainable (green)