

**Australian Code for  
Reporting Geothermal  
Resources and Reserves**

# The need

To facilitate clear and consistent understanding in the market of the value contained within:

- Exploration results
- Resource assessments
- Reserve assessments

This is essentially an issue between companies and the market/ASX, but also with regulators

# The Geothermal Code Committee and Acknowledgements

- Adrian Larking – GreenRock Energy
- Graham Jeffress – ex Eden Energy
- Malcolm Ward – KUTh
- Peter Reid – Petratherm
- Rod Bresnehan – Clean Energy Australasia
- Adrian Williams (Chair) – Geodynamics
  
- Anthony Budd and Fiona Holgate – GA
- Barry Goldstein – PIRSA
  
- Graeme Beardsmore - Hot Dry Rocks P/L
- Jim Lawless – SKM (NZ)
  
- Secretariat function/mailbox by PIRSA/AGEG

# Scope

- Mandatory minimum requirements/rules for reporting exploration results, geothermal resources and reserves
- All forms of geothermal energy (hydrothermal and hot rock, natural and engineered systems)
- All end uses, incl electricity generation and direct heat applications

# Alignment with the JORC Code

- ✓ Scope
- ✓ Framework
- ✓ Key terminology (classification, competent persons)
- ✓ Style (formal elements and guidelines)

Details different to reflect geothermal industry and processes

# Consultation

- AGEG and AGEA
  - Organisations
  - Individual companies
- JORC
- ASX
- International organisations: IEA/GIA, IGA
- Consultants

## It is expected that:

- Australian companies will comply with the Geothermal Code as they report exploration results and their estimates of resources and reserves
- The Code will be refined to reflect learnings and experience
- AGEA (i.e. companies) will review experience with the Code in about 6 months

# How to find the Code?

See *AGEG* and *AGEA* websites

Code

Geothermal Lexicon

Brochures and limited hard copies

PIRSA stand

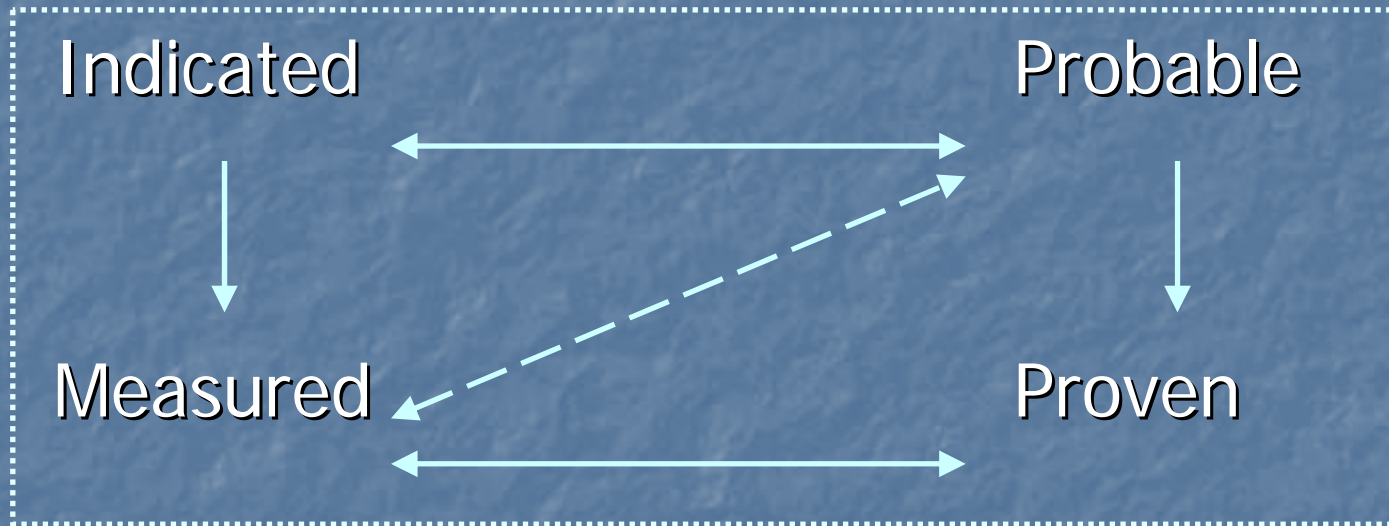
# Exploration results

## Geothermal Resources

## Geothermal Reserves

Inferred

Increasing geological knowledge and confidence



Consideration of energy recovery and conversion, economic, marketing, environmental, social, legal, and regulatory factors.

→ (the "modifying factors") →

# Minimum Requirements and Units

## Resources (Inferred Indicated Measured)

thermal energy in place (PJ)

optional: recoverable thermal energy (PJ)

electricity generation assumed (MW/GWh)

## Reserves (Probable Proven)

thermal energy in place, and  
recoverable thermal energy (PJ), and  
transformed energy GWh or MWe for x yrs

# Recommendations

- Joint Committee of AGEG and AGEA
- Terms of reference
  - Develop and maintain a Geothermal Reporting Code;
  - Monitors compliance with the Code;
  - Undertakes a process for managing instances of non-compliance;
  - Keep AGEA and AGEG aware of issues concerning the use of the Code and compliance with the Code.

# Code Committee & Compliance

- A min of 4, max of 6 from AGEA or AGEG;
- One person nominated by GA
- The immediate past Chair of the Committee;
- Between 1 and 3 persons invited to participate in an ex-officio basis, including one invited from the ASX and one invited from the auditing sector;
- Protocol for managing non-compliance