

Statement of Principles

between

The Department of Energy of the United States of America

and

The Ministry of Business, Innovation & Employment of New Zealand

for

Cooperation on Geothermal Research and Development

The Department of Energy of the United States of America (DOE) and the Ministry of Business, Innovation & Employment of New Zealand (MBIE), hereinafter referred to as the "Participants,"

Recognizing the critical need of both countries to develop all available energy resources in a way that is economic, environmentally acceptable and sustainable;

Recognizing the vast potential of geothermal resources in both countries;

Taking into account the differences in resources in both countries;

Desiring to collaborate on a mutually beneficial basis to advance the understanding of advanced geothermal technologies and accelerate their utilization and deployment;

Desiring to exchange technical information and expertise to improve efficiency, and reduce duplication in the research, development and deployment of advanced geothermal technologies;

Seeking through cooperative research and development to further the common objectives of both countries of energy security and market development for geothermal energy; and

Recognizing the successful collaboration between the Participants under the Charter for the International Partnership for Geothermal Technology;

Have reached the following understanding:

PARAGRAPH 1

Purpose

The purpose of this Statement of Principles is to establish a framework for mutually beneficial cooperation between the Participants in the development of advanced, cost-effective geothermal energy technologies; to accelerate the availability of these technologies internationally; and to identify and address wider issues relating to geothermal energy, thereby advancing the common interests of the Participants and industries in their respective countries.

PARAGRAPH 2

Areas of Cooperation

The areas of cooperation under this Statement of Principles may include, but are not limited to, the following:

1. Tracers;
2. Modelling tools;
3. Mineral recovery;
4. Direct use applications;
5. Supercritical systems;
6. Induced seismicity data; and

7. Additional areas of scientific collaboration as the Participants may decide in writing.

PARAGRAPH 3

Forms of Cooperation

The forms of cooperation under this Statement of Principles may include, but are not limited to, the following:

1. Exchange scientific and technical information, documentation and research results as a means of enhancing and accelerating advanced geothermal development in both Participants' countries;
2. Promote appropriate technical, financial and regulatory environments for the development and deployment of geothermal technologies;
3. Conduct joint projects on advanced geothermal technologies, including cooperative activities with members of the International Partnership for Geothermal Technology (IPGT);
4. Exchange expert reviewers for the Participants' geothermal technology programs;
5. Develop and use international geothermal test sites and facilities;
6. Conduct joint research projects, such as joint theoretical, experimental, developmental, demonstration, and project activities through collaborative activities between technical personnel and research centres of the Participants' countries;
7. Foster and promote collaborative research, development and deployment projects with all sectors of the international research community, including industry, academia, governmental and nongovernmental organizations, on geothermal technologies, which may include drilling, reservoir characterization, reservoir stimulation, power conversion, modelling, education and training, environmental impact assessment and monitoring and resource assessments;

8. Establish guidelines for collaboration and reporting of results;
9. Prioritize and evaluate collaborative research, development and deployment projects, and make recommendations on the direction of such projects;
10. Exchange best practices on accelerated geothermal deployment, for example, policies and financing;
11. Identify key obstacles to achieving improved technological capacity;
12. Develop a framework for sharing best technology applications, policies and financing mechanisms;
13. Identify interoperable codes and standards and work toward international standards where appropriate;
14. Exchange best practices on social and environmental issues, including community consultation and environmental assessment and monitoring;
15. Establish working groups to address specific issues and to plan and execute joint studies and tasks;
16. Conduct, and/or jointly participate in, meetings, seminars and conferences;
17. Exchange technical specialists;
18. Exchange students and academics to promote workforce development and education in the Participants' countries;
19. Conduct, and/or jointly participate in educational programs;
20. Facilitate access to each Participants' geothermal resources for research and development; and
21. Other forms of cooperation as the Participants may decide in writing.

PARAGRAPH 4

Management

The official offices responsible for coordinating and monitoring the cooperation contemplated under this Statement of Principles are the following:

1. For the Department of Energy of the United States of America: the Geothermal Technologies Office;

2. For the Ministry of Business, Innovation & Employment of New Zealand:
Labour, Science and Enterprise Group

The Participants intend that each official office should designate a contact point responsible for the development and implementation of cooperation contemplated under this Statement of Principles. The Participants may include representatives from government-affiliated or non-government bodies and organizations from their respective countries to participate in the activities under this Statement of Principles.

PARAGRAPH 5

Transfer of Information

Any information transmitted by one Participant to the other Participant under this Statement of Principles should be accurate to the best knowledge and belief of the transmitting Participant. The transmitting Participant is not expected to warrant the suitability of the information transmitted for any particular use or application by the receiving Participant or by any third party.

Information developed jointly by the Participants should be accurate to the best knowledge and belief of both Participants. Neither Participant is expected to warrant the accuracy of the jointly-developed information nor its suitability for any particular use or application by either Participant or by any third party.

PARAGRAPH 6

Exchanges of Personnel

Unless otherwise decided in writing, each Participant intends to apply the following provisions concerning exchanges of personnel under this Statement of Principles:

1. Whenever an exchange of personnel is contemplated, each Participant should ensure the selection of personnel with skills and competence necessary to conduct the activities contemplated under this Statement of Principles; each such exchange should be decided in advance by an exchange of letters between the Participants referencing this Statement of Principles;
2. Each Participant is responsible for the salaries, insurance, and allowances paid to its staff or its contractors;
3. Each Participant should pay for the travel and living expenses of its staff or contractors when on assignment to the host Participant unless otherwise decided in writing;
4. The sending Participant's staff and contractors should conform to the general rules of work and safety regulations in force at the host establishment;
5. DOE does not anticipate participation by Geothermal Technologies Office personnel in such exchanges, except as hosts for MBIE staff or contractors. Participation in such exchanges by DOE's participating national laboratories is contemplated.

PARAGRAPH 7

Contracts

In the event that a Participant awards contracts for the acquisition of articles and services to implement this Statement of Principles, such contracts should be awarded in accordance with the laws and regulations of that Participant.

PARAGRAPH 8

General Provisions

1. Unless otherwise decided in writing, all costs resulting from cooperation pursuant to this Statement of Principles are the responsibility of the Participant incurring the cost;

2. Cooperation under this Statement of Principles is subject to the availability of appropriated funds, personnel and other resources;
3. The Participants do not anticipate the generation of intellectual property or the exchange of business-confidential information arising from activities under this Statement of Principles; if either of the Participants decide that a particular activity may lead to the creation of intellectual property or the exchange of business-confidential information, they should engage in appropriate consultations and make appropriate written arrangements for the protection and allocation of such intellectual property and the protection of such business-confidential information;
4. This Statement of Principles does not grant any exclusive rights or benefits to the Participants of the cooperative activities under this Statement of Principles;
5. Each Participant should conduct cooperation contemplated under this Statement of Principles in accordance with the respective national laws and regulations and international agreements to which its Government is a party;
6. Any question concerning the interpretation or application of this Statement of Principles, or any disputes between the Participants, should be resolved by consultation between the Participants.

PARAGRAPH 9


Commencement, Modification, and Discontinuation

1. Cooperation under this Statement of Principles is to commence upon signature by both Participants;
2. This Statement of Principles may be modified by written decision of the Participants;
3. The Participants may discontinue their cooperation under this Statement of Principles at any time in writing by mutual arrangement. Alternatively, a Participant that wishes to discontinue its participation in this Statement of

Principles should endeavour to provide at least 90 days advance written notice to the other Participant.

SIGNED in duplicate.

**For the Department of Energy of
The United States of America**



*Ms Lauren Boyd
Enhanced Geothermal Systems
Programme Manager
Geothermal Technologies Office*

Date: JUNE 22, 2018

Place: TAUPO, NZ

**For the Ministry of Business, Innovation &
Employment of New Zealand**



*Dr Prue Williams
General Manager
Science System, Investments and
Performance*

Date: 22 June 2018

Place: Taupo