



AUSTRALIAN GEOTHERMAL ENERGY ASSOCIATION INC
ABN 70 831 562 598

**PO Box 1048
FLAGSTAFF HILL SA 5159
Phone: 08 8270 7227**

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resourcetax@treasury.gov.au

Re: AGEA submission on the Draft Legislation to effect the deductibility of geothermal energy exploration expenditure

The Australian Geothermal Energy Association (AGEA) represents the major explorers for and developers of Australia's geothermal energy resources and the suppliers of services and equipment to the industry.

AGEA fully supports the intent of the *Tax Laws Amendment (2012 Measures No. X) Bill 2012: Geothermal Energy* which is to:

amend the Income Tax Assessment Act 1997 (ITAA 1997) to extend the immediate deductibility of exploration expenditure provided to mining and petroleum explorers to geothermal energy explorers. Geothermal energy explorers will be entitled to equivalent treatment for their exploration or prospecting expenditure incurred on or after 1 July 2012 as that extended to mining and petroleum explorers.¹

Further, in order to:

bring deductions for geothermal energy exploration expenditure in line with those available for mining and petroleum exploration or prospecting expenditure, the amendments include geothermal exploration rights in the list of intangible assets that are defined as depreciating assets. It is important to note that geothermal extraction and production rights (or other related rights) have not been included as depreciating assets, only geothermal exploration rights.²

So that this aim can effectively be achieved, AGEA asserts that it is fundamentally important that the definition of exploration for geothermal energy is fully acknowledged and defined in the proposed legislative amendment.

¹ *Tax Laws Amendment (2012 Measures No. # #) Bill: Geothermal Energy, Explanatory Memorandum*, page 3.

² *Tax Laws Amendment (2012 Measures No. # #) Bill: Geothermal Energy, Explanatory Memorandum*, page 10.

The Draft Bill acknowledges that:

The first use of a geothermal exploration right for exploration or prospecting may include the conduct of something that has been described as a ‘proof-of-concept’ demonstration. Such a demonstration is said to involve the drilling of an initial well of sufficient depth to reach the pre-determined necessary temperature and to tap a pre-existing underground water reservoir. If an underground reservoir does not exist, fracturing of the rock is undertaken to allow fluid injection and passage and to create a reservoir and underground heat exchange. A second well is then drilled to intersect the reservoir, away from the first hole, and testing is undertaken to provide information on how much fluid can be circulated through the underground heat exchange, and at what temperature.³

AGEA asserts that exploration criteria will be different for each project site and that the above description does not take this account. AGEA acknowledges that this may be difficult to define in legislation but is concerned that an overly prescriptive definition may work against the overall objective of the Amendment Bill which is to support the development of geothermal energy as a clean energy source in Australia and unfairly exclude some exploration activity. Further, it misunderstands the proof of concept process and again must recognise that this process may be different at each project site.

AGEA identifies the following concerns with the above description:

- The first well or initial exploration well is drilled into the underground reservoir and the target depth is determined by a number of factors of which temperature is only one. Other factors may include the rock characteristics such as density and permeability including the search for naturally occurring fracture zones. Other influencing factors may be more economic or market orientated in nature and the exploration activity may be targeted at a geological site that is not optimum in terms of energy extraction but optimised to reduce the overall cost of the project and therefore of energy delivered into the market.
- It is incorrect to say “if an underground reservoir exists”. An underground reservoir will exist and the aim of the exploration activity is to determine whether the reservoir has the potential to support commercial exploitation.
- Rock fracturing may or may not need to be undertaken. While it is highly likely in the Australian context that some fracturing or stimulation activity may be required, an important part of the exploration objective will be to determine this particularly in less compacted geological structures such as sandstones or those with highly or suitably fractured zones.
- A second well may or may not be required to prove the concept. While it is expected that a second well may be required to achieve fluid circulation, it may not be required to prove the extent of the energy in the resource.

AGEA therefore proposes the following amended wording:

The first use of a geothermal exploration right for exploration or prospecting may include the conduct of something that has been described as a ‘proof-of-concept’ demonstration. Such a demonstration is said to involve the drilling of an initial well of sufficient depth to reach the

³ Tax Laws Amendment (2012 Measures No. # #) Bill: Geothermal Energy, Explanatory Memorandum, page 12.

pre-determined necessary temperature and to tap a pre-existing underground heat reservoir, from which the heat might be able to be brought to the surface for exploitation. Fracturing of the rock may need to be undertaken to allow fluid injection and passage and to create a fluid reservoir and underground heat exchange. A second well may then need to be drilled to intersect the reservoir, away from the first hole, and testing undertaken to provide information to determine if the heat can be brought to the surface economically.

Once again, AGEA expresses its full support for the policy intent and subsequent introduction of the *Tax Laws Amendment (2012 Measures No. X) Bill 2012: Geothermal Energy* and appreciates the opportunity to comment on the Draft Legislation.

For further information or clarification I can be contacted on 0419833556 or at susan@agea.org.au.

Yours sincerely

A handwritten signature in blue ink that reads "Susan Jeanes". The signature is fluid and cursive, with the first name "Susan" and the last name "Jeanes" clearly legible.

Susan Jeanes CEO