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## ALCOA & GREENEARTH ENERGY SIGN MEMORANDUM OF INTENT

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australia's aluminium

Alcoa of Australia Limited (Alcoa) and Greenearth Energy Limited (Greenearth Energy) have today signed a ground-breaking Memorandum of Intent (MOI) in a critical first step towards the establishment of base load renewable energy generation in Victoria.

Alcoa has operated a power station in Anglesea for over 40 years. Greenearth Energy's proposed Geelong Geothermal Power Project (GGPP) resource area is approximately 9km northwest of the Alcoa operation.

Informal discussions have been held between Alcoa and Greenearth Energy for nearly two years and the organisations recently agreed to commence formal discussions under the framework of this MOI.

Subject to a range of technical, commercial and legal parameters and dependent on the continuing operation of Alcoa's Anglesea facility, the areas of potential collaboration to be investigated via the MOI will include:

- Identification of a site sufficient for the GGPP Stage 1 (Proof of Resource/Concept) and Stage 2 (Demonstration 12MW<sub>e</sub>) on land currently leased by Alcoa
- Grid connection of the GGPP via Alcoa infrastructure assets
- Base load renewable energy off-take as a result of a successful GGPP Stage 2 Demonstration, 12MW<sub>e</sub> geothermal energy plant (PPA)
- Purchase of Renewable Energy Certificates (REC's) as a result of a successful GGPP Stage 2 Demonstration
- To work cooperatively towards evaluating and implementing other low-carbon technologies

Globally, Alcoa has achieved a 44% reduction in greenhouse gas emissions since 1990. Alcoa Anglesea Power Station Manager Ms Stephanie Pearce says Alcoa's Victorian Operations have reduced direct greenhouse gas emissions by over 60% in the same period and the MOI with Greenearth Energy is in line with Alcoa's 'big picture' response to climate change.

"In Australia, alongside our significant greenhouse gas reduction efforts, we have enabled the establishment of critical energy infrastructure and co-generation facilities, and successfully piloted and commercialised carbon capture and waste reduction technologies which significantly reduce greenhouse gas emissions in the ammonia, cement and brick industries.

“The Portland Smelter facilitated the grid connection of the Portland wind farm and our product, aluminium, is 100% recyclable. In Western Sydney, we operate Australia’s largest Aluminium recycling facility and in doing so, avoid the generation of over one million tonnes of carbon emissions each year.

“Our effort to be part of the solution to climate change has never stopped at the gates to our operations. We are a proud supporter of the greenhouse gas reductions and adaptation efforts of organisations like Greening Australia and Sustainability Victoria.”

Greenearth Energy Managing Director Mr Mark Miller says that the MOI with Alcoa may be the catalyst for overcoming some of the most significant hurdles still ahead for the GGPP. It represents a significant and substantial development for the GGPP and a potential pathway from the preliminary planning stage through Stage 1 exploration, Stage 2 demonstration and grid connection.

“Our two organisations have discussed a potential site within Alcoa’s mining lease area that has all the necessary characteristics for the GGPP exploration stage. This matter is now being progressed with good support from the Department of Primary Industries and in consultation with other government agencies.

“Geothermal energy is being increasingly recognised as having the potential to deliver zero emissions, reliable and importantly base load renewable energy generation.

“Alcoa have an exemplary record in energy efficiency and management and made it clear to us from the outset that they are very keen to see the development of base load renewable technology in Australia. We are delighted to have reached this stage in our discussions with Alcoa and look forward to a relationship that has the potential to deliver benefits to all Victorians.

“We view this MOI with Alcoa as a further endorsement of the potential that our project has in delivering zero emissions, base load renewable energy to our state. The support by Alcoa coupled with the Commonwealth and State Governments’ support of our flagship geothermal project can only further enhance our project.”

Ms Pearce and Mr Miller said Alcoa and Greenearth Energy will be undertaking a series of key stakeholder engagement activities and briefings as a result of signing the MOI but detailed discussions would remain confidential.

“It is still early days and there is much work ahead, but we want to thank those persons and organisations who have assisted and supported our organisations to this point. We look forward to sharing new information as it becomes available and as we approach and achieve major milestones.”

## **Media Contacts**

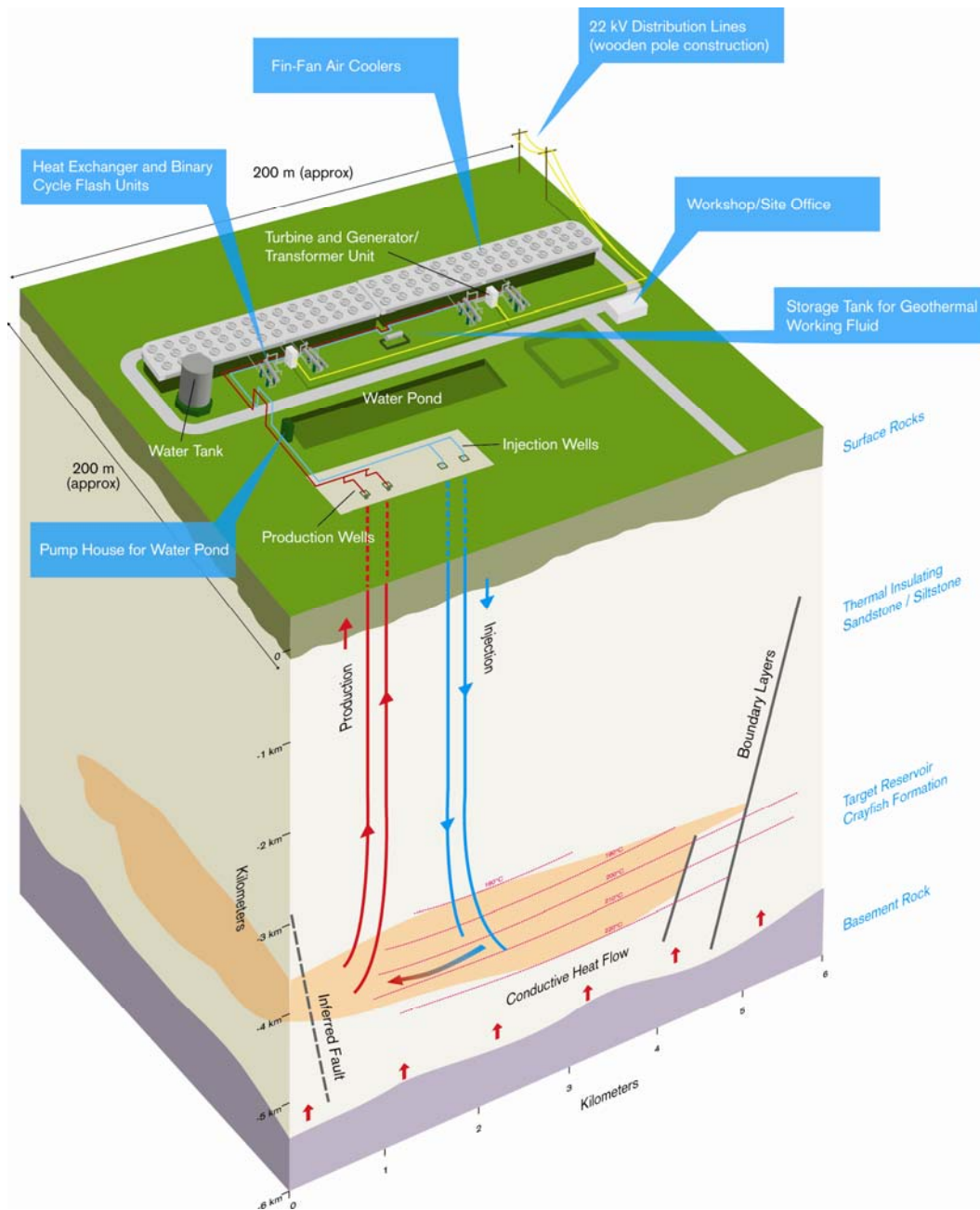
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## About the Geelong Geothermal Power Project (GGPP)

The Geelong Geothermal Power Project is a Hot Sedimentary Aquifer (HSA) geothermal project, which has the potential to produce approximately 140MW<sub>e</sub> for more than 30 years of production.



The project consists of 3 Stages:

### Stage 1 - Proof of Resource/Concept

Involves drilling of an initial deep geothermal well and short terms flow test. A second deep geothermal well will then be drilled followed by a more extensive flow test and an exploration assessment.

### Stage 2 - Demonstration

Upon successful completion of Stage 1, Stage 2 will see the drilling of an additional production and injection well and the establishment and operation of a geothermal energy demonstration plant of approximately 12 MW<sub>e</sub> (potentially capable of powering up to 8,000 homes).

### **Stage 3 - Commercialisation**

If Stage 1 and Stage 2 demonstrate that the generation of electricity from a 12 MW<sub>e</sub> geothermal energy plant is commercially viable, detailed planning and community engagement will commence to enable full commercialisation of the geothermal resource.

**Geelong Geothermal Power Project-** <http://www.greenearthenergy.com.au/projects>

### **About Greenearth Energy**

Greenearth Energy is a company listed on the Australian Securities Exchange (ASX: GER) which aims to explore for and develop conventional geothermal resources in Australia, Indonesia and the wider Pacific Rim. Greenearth Energy's primary domestic geothermal focus is hot sedimentary aquifer (HSA) systems which have been proven worldwide, utilise conventional binary power plant technology and have the potential to deliver lower development costs and more rapid project deployment.

**Greenearth Energy Ltd-** <http://www.greenearthenergy.com.au>

### **About Alcoa**

Alcoa of Australia operates the world's largest integrated bauxite mining, alumina refining, aluminium smelting and rolling system. We are part of the primary aluminium production business. In WA Alcoa mines bauxite from the Darling Range that is then refined into alumina. We export some alumina, and the remaining is sent to our two smelters in Victoria where it is made into aluminium. Alcoa also operates rolling mills in Victoria and NSW, as well as Australia's largest aluminium recycling facility.



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