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## **Hot Rock and Energy Development Corporation progressing Chile and Peru Joint Ventures**

Hot Rock Limited (**HRL**) is pleased to announce that Energy Development Corporation (**EDC**) has successfully completed its due diligence and both companies are progressing with finalising binding joint venture agreements in line with the Heads of Terms (**HOT**) announced on the 28 November 2011. EDC, the world's largest geothermal company is entering into the joint ventures with HRL to explore and develop the geothermal potential of the Calerías and Longavi projects in Chile and the Quellaapacheta and Chocopata projects in Peru.

We expect to finalise the documentation by mid-January 2012.

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### **About Energy Development Corporation**

EDC is the world's largest integrated geothermal company with a total of 1,130MWe of installed capacity with over 30 years of operational geothermal experience supplying the Philippines with geothermal power across five steam fields. EDC is a public company with a market capitalisation of around US\$2.5 billion. The World Bank-International Finance Corporation (WB-IFC), Government of Singapore Investment Corporation (GIC) and First Gen are key investors and continue to support the company. EDC has met all the WB-IFC and GIC operational, environmental and social impact performance standards.

EDC owns 8 drill rigs and has drilled more than 900 geothermal wells over the last 35 years. It has one of the most experienced geothermal operations team in the world and has embarked upon an aggressive growth strategy to build its geothermal business.

EDC recognised the importance of high quality under explored geothermal prospects in South America by setting up a Chile office in 2011.

## About the Projects

### Calerías Project - Chile

Calerías is located 100km south east of Santiago and covers three tenements (Galo, San Carlos and Calerías). The project lies immediately to the east of the El Teniente copper mine – the largest underground copper mine in the world - and is close to the large commercial electricity market in Santiago.

The prospect shows six groups of thermal springs with discharge temperatures averaging 50 to 60°C and ranging up to 75°C. The temperature of the deep geothermal reservoir at Calerías is assessed on present geochemical data to range between 160°C and 250°C, with a most likely temperature of 230°C.

A magneto-telluric (MT) geophysical survey, carried out early 2011, defined part of a large geothermal system and provides the basis for a geothermal resource estimate. The resource is estimated to be sufficient to allow for at least 185MWe of electrical power generation for 30 years. The boundary of the resource remains open to the north and it is expected that further MT work in this area will increase its size. Key assumptions underpinning the current resource estimate include: a reservoir recovery factor of 15%, a power plant thermal to electrical efficiency of 14% and a power plant operating capacity factor of 90%.

### Longavi Project – Chile

The Longavi project consists of four contiguous tenements, located 300km south of Santiago, on the southern and south-eastern slopes of a large basaltic-andesite strato-volcano named Nevado de Longavi.

A number of large flows of near boiling springs in the Banos Longavi area occur in the centre of the project. Spring temperatures range from 70°C to 81°C and a surface heat flow in the area of the springs of some 15MW/thermal has been assessed. The springs show good field evidence for having historically been depositing silica sinter from boiling spring waters, an excellent indication of high subsurface geothermal temperatures. The presence of these impressive thermal features over a large surface area and the close alignment of them with surface faults, indicate that the geothermal system at Longavi may be substantial. Based on present geochemical data, the “most likely” estimate of deep reservoir temperature is 180°C, with a “possible maximum” of 220°C.

A MT survey was completed over the project in early 2011 and identified a resource “upstream” from the Banos Longavi springs. A detailed resource assessment study indicates the Longavi resource is sufficiently large to allow for about 135MWe of electrical power generation over a period of 30 years, based on the key assumptions of: a reservoir recovery factor of 15%, a power plant thermal to electrical efficiency of 14% and power plant capacity factor of 90%. It is expected that further MT survey and future drilling will increase this estimate substantially.

### Quellaapacheta – Peru

The Quellaapacheta exploration tenement is located 120 km north of Tacna, near the town of Calacoa along the Putina River in the province of Moquegua in Southern Peru. The project is associated with the Ticsani Volcano in the Peruvian Southern Cordilleran Volcanic Zone.

Steaming ground and fumaroles have recently been discovered by Hot Rock on the upper flanks of the Ticsani volcano. At least fifteen hot springs occur at lower elevations along the Putina and Cuchumbaya rivers, tributaries of the Rio Tambo. These range in temperature from 54°C to 89°C with pH's ranging from 5.8 to 8.3. In geochemical terms the springs are described as mixed chloride-bicarbonate waters indicating the presence of a benign geothermal reservoir at depth. Carbonate and silica sinter deposition products occur around the thermal features.

The presence of chloride-rich water actively depositing silica sinter at low elevations and fumarolic activity at higher elevations confirm that Quellaapacheta is a classic steep terrain, high temperature geothermal volcanic system. Deep temperatures in this system are indicated from geochemical considerations to be at least 240°C.

### **Chocopata – Peru**

The Chocopata exploration tenement is located 120 km north-east of Arequipa and 100km North West of Puno. The tenement is flanked north, east and west by three 138 kV transmission lines, all located about 70 km from the centre of the tenement.

The main thermal area at Chocopata is called Pinaya and is located close to the southern edge of the tenement. This is characterized by numerous hot springs with temperatures ranging between 40 to 90° C and with pH's ranging from 5 to 6. The Pinaya hot springs have a substantial flow rate estimated at 10 l/s. Temperatures in an underlying geothermal reservoir of hot primary geothermal water are expected from geochemical considerations to be over 210°C.

Similar to Quellaapacehta, the occurrence of a primary chloride reservoir with indications for high reservoir temperatures suggest that Chocopata is a classic steep terrain, high temperature geothermal volcanic system.

Overall, the geological setting, the strong surface geothermal activity and the proximity of the projects to the national grid highlight the excellent prospectivity of the Chocopata project.

### **About Hot Rock Limited**

Hot Rock Limited is a geothermal energy company that offers investors an opportunity to participate in socially responsible and ethical investment choices through the development of sustainable, clean, base-load power generation.

Strategically, HRL has elected to focus on the commercially proven Volcanic Geothermal and Hot Sedimentary Aquifer (HSA) type projects in its quest to become a leading supplier of geothermal power.

In Australia, the company is focused on developing HSA projects in its large Otway Basin tenements in south-west Victoria. The flagship Koroit Project is ready to drill and test. The company is seeking funding from the Federal government under newly announced funding grants to drill and test the Koroit Project.

HRL has expanded internationally into South America and used its early mover advantage secure high quality geothermal resources in attractive regulatory and market environments. The Company established its Santiago office in 2008 and Lima office in 2009. Exploration tenement applications covering exciting volcanic prospects have been granted to Hot Rock in both countries and exploration is now well advanced on a number of these granted tenements.