

# Rare Element Resources expects to be able to challenge China's hold on the rare earth market

**Rare Element Resources delivers promised improvements in Pre-Feasibility Study** – Rare Element Resources ('RER', TSX: RES | NYSE MKT: REE) has integrated the series of improvements at the Bear Lodge Project in Wyoming, promised throughout the past months, in its 2014 Pre-Feasibility Study (PFS), which was published on August 26. Highlights from the PFS include a low initial CAPEX of USD\$ 290 million; increased cash flow and a 2.9-year payback from the start of production; a 45-year Project life based on an expanded Measured and Indicated mineral resource with the potential for an additional high-grade and heavy rare earth (HREE) resource exploration targets. RER has also developed and refined a proprietary recovery process that can deliver 97% (or higher) purity total rare earth oxide (TREO) concentrate. The PFS also states that average annual production will exceed 7,500 tons of TREO concentrate. The PFS activities have also aimed to advance the various permits, including the preparation of a draft Environmental Impact Statement (EIS). RER has also received favorable feedback for some of its concentrate material sent to potential customers for evaluation.

The Bear Lodge project, located in the Black Hills, Wyoming, near Sundance, contains one of the richest REE deposits in North America. It has heavy rare earth elements (HREE) as well as critical rare earth oxides (REE oxides with the greatest value) in all deposits. The drilling results, moreover, suggest that all resource could see additional expansion both in the current deposit and in surrounding target areas. During the test phase in 2012, RER worked with the Australian Nuclear

Science and Technology Organization (ANSTO) to improve the purification process, which will enable the Company to deliver 'mid-weight' REEs such as samarium, gadolinium, terbium, dysprosium and europium as well as neodymium-praseodymium (aka: didymium), cerium and lanthanum. RER expects to be able to challenge China's hold on the REE market. The changing nature of the Chinese REE industry, now experiencing a period of 'introspection' as more controls and environmental regulations, should allow RER to reach success sooner. The Black Hills near Sundance, where RER has its Bear Lodge property contain one of the richest REE deposits in North America.

The State of Wyoming is also an ideal location, given this State's favorable mining regulatory climate. Indeed, the State and the University of Wyoming have been promoting the identification and study of REE mining prospects. The State itself is considering REE's as a strategic asset for economic growth and rather than discouraging – as some have over environmental concerns – is encouraging the establishment of REE processing facilities within its jurisdiction. The strong regulatory regime, which puts an emphasis on responsible and clean practices, suggests that Wyoming could attract processing contracts from beyond the State and beyond the United States themselves. Wyoming is also rich in energy resources, which makes it cheaper to mine and process the minerals. RER believes that its Black Hills deposit is one of the very best in the world and that the combination of geology, existing infrastructure and favorable regulations make it more appealing than some geologically superior but more remote deposits in Canada's Northwest Territories.

RER is evidently very well placed to take advantage of this favorable context and its project, while also aimed at uncovering potential gold resources, is mainly interested in the rare earths. While, RER is not at production stage – therefore it has no revenue yet – it has a solid cash position

and no debts. The PFS suggests that RER has one of the most auspicious REE mining propositions in North America as it heads toward a targeted production date in 2016. Meanwhile, as the Bear Lodge Project advances through the next phase, the rare earth market has started to show some signs of improvement. The Chinese government has started to stockpile rare earths again, building the necessary pressure to lift prices. China's major REE companies have been asked to rationalize production and apply greater environmental controls, which has impacted – that is raised – their cost structure. Labor costs are also increasing as China's economic growth gradually spurs changes at all levels of society. In other words, prices of REE's will have to be increased just so the Chinese can absorb the new environmental rules and related costs.

Chinese producers, which account for some 85-90% of global rare earth production and 65% of consumption, will inevitably have a great impact on the overall market even as the miniaturization trend can only intensify, increasing the needs for smaller and ever more powerful electric motors, which require neodymium, dysprosium, terbium and praseodymium. Even the 'ho-hum' lanthanum could experience a 'second wind' thanks to the automotive market in China, where catalysts will see rising demand, especially in response to the use of heavier crude oils to refine gasoline and other fuels. And then there is that old human drive toward innovation, which will generate an entirely fresh set of applications and technology, which may well require more rare earths for magnets and beyond, changing the entire market dynamic, now dominated by demand to one driven by supply where magnets and related materials are concerned.