



Progress Report #11

April 22nd, 2015

I am pleased to bring you up to date on the Federal Government's Budget item related to CREEN's on-going information sharing consultations, since our last Progress Report, #10 (Mar 31st). The following excerpts are from page 217 of the 528-page budget tabled in the House of Commons by the Minister of Finance Joe Oliver yesterday afternoon. I am extremely pleased to report that within the document \$23 million has been pledged, over 5 years, to rare earth and chromite technological development via Natural Resources Canada.

Unlocking Rare Earth Elements and Chromite Production in Canada

Economic Action Plan 2015 proposes to allocate \$23 million over five years, starting in 2015–16, from Natural Resources Canada to stimulate the technological innovation needed to separate and develop rare earth elements and chromite.

The commercial production of rare earth elements and chromite in Canada represents a significant economic opportunity. Realizing this opportunity will require advances in science and technology.

Rare earth elements have specific properties that make them critical inputs to the defence, aerospace, automotive, energy and consumer electronics industries. Canada also has significant unexploited deposits of chromite, which is used to manufacture steel and other alloys.

Rare earth elements are critical minerals that represent an opportunity for Canada to enter an emerging and globally strategic market. The metallurgy for Canadian ores containing rare earth elements involves a complex sequence of individual separation, refinement, alloying and formation stages before they can be used in the production of permanent magnets, consumer electronics and other high value-added high-tech products. Canada does not currently produce any rare earth elements, but has deposits with significant potential. According to the Technology Metal Research Group, there are currently 51 advanced rare earth elements exploration projects in the world; 21 are located across Canada. Canada has the possibility to play a leading role in supplying rare earth elements by potentially fulfilling 20 per cent of global demand.

Chromite deposits located in Ontario's Ring of Fire have production potential that could make Canada a significant global producer, processor and supplier of products that contain the critical metal chromium. Over 90 per cent of global chromite production is used to manufacture stainless steel and other alloys. There is no substitute for this mineral in the production of stainless steel, which has unique corrosion resistance properties. Chromium-based alloys are also used in gas turbines, aircraft engines and other high temperature applications. There are currently six chromite projects at the exploration phase in Canada. Although major steel mills exist in North America, there is currently no chromite production in North America. This presents an opportunity for Canada to develop its abundant deposits and become a global supplier.

Economic Action Plan 2015 proposes to allocate \$23 million over five years, starting in 2015–16, from Natural Resource Canada to address the technical challenges of separating and processing rare earth elements for use in advanced manufacturing applications and products. Funding will also support the development of efficient and green processing technologies to reduce the environmental impacts of chromite production.

The full pdf Budget document is available at: <http://www.budget.gc.ca/2015/docs/plan/budget2015-eng.pdf>

I have also taken the liberty of attaching a copy of a Press Release issued by CREEN in response to the Budget announcement.

I will keep you informed as we learn more and lay-out specific initiatives that will help Canada realize its REE industry/economic potential.

As always, I hope you find these progress reports helpful. Please feel free to contact CREEN with any suggestions you may have.



Ian M London P.Eng, MBA

www.ree-etr.ca

1 647 242 1872