



Oral Testimony

Mark A. Smith
Chief Executive Officer, Molycorp Minerals, LLC

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Subcommittee on Investigations and Oversight

“Rare Earth Minerals and 21st Century Industry”

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Introduction

Chairman Miller, Ranking Member Broun, and Members of the Subcommittee, I want to thank you for the opportunity to share my experiences and insights on the subject of rare earths. This is the first Committee to hold a hearing specifically on this important topic, and I want to commend you for your leadership and forethought.

Rare earth-based technologies have become more and more essential over the past decade, and in that time, the U.S. has become almost entirely dependent on China for access to rare earths and, more specifically, the metals, alloys and magnets that derive from them.

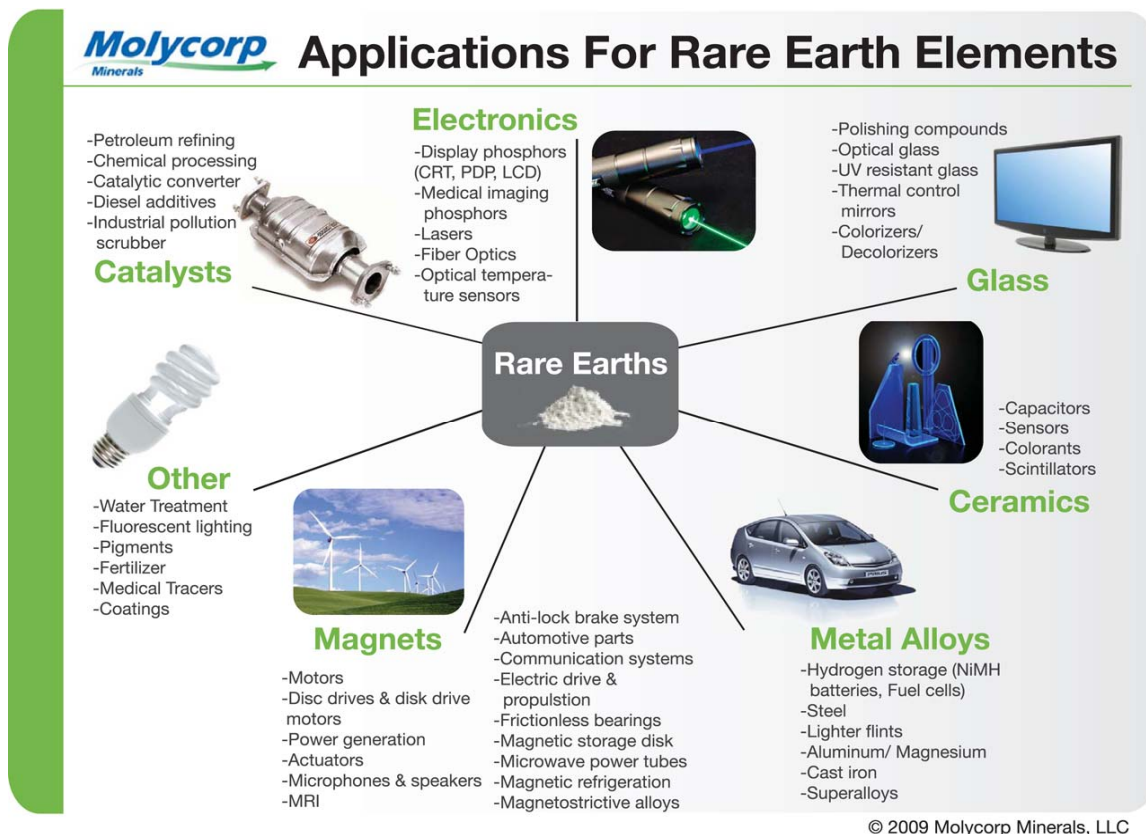
The combination of three key factors make this situation one of urgent concern to policymakers: 1) the indispensability of rare earths in key clean energy and defense technologies; 2) the dominance of rare earth production by one country, China, and 3) China’s accelerating consumption of their own rare earth resources, which could leave the rest of the world without a viable alternative source.

I would like to submit my full written testimony for the Committee record and will focus my remarks on the factors I just mentioned; the implications; our company’s “mining to

magnets” strategy; and finally, the role the federal government can play to help address the challenges ahead.

Rare Earths’ Indispensability and Supply Concerns

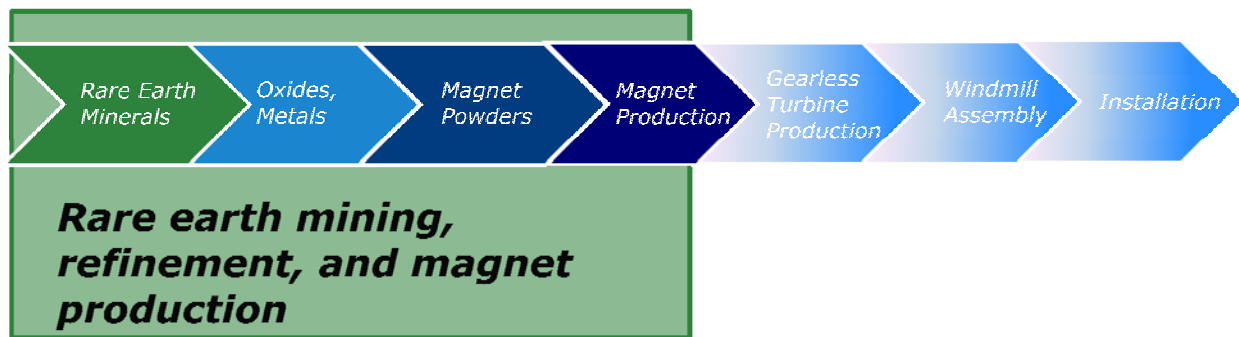
On the screen in front of you is a slide that provides a snapshot of the numerous applications for rare earths. Over the past 2 decades, rare earths have predominantly been used in consumer technologies like hard disk drives and cell phones, but it is their application in clean energy technologies and defense systems that has elevated the supply concerns.



On the clean energy side, rare earth metals are used in advanced batteries for hybrid and plug-in hybrid vehicles; neodymium (Nd) magnets power the highly efficient next generation of wind turbines, electric vehicle motors, hybrid vehicle motors and generators. Rare earth phosphors illuminate compact fluorescent light bulbs. On the defense side, missile guidance

systems need the rare earth metal alloys and magnets, and the electronics, communications and surveillance equipment all require rare earth phosphors. None of these technologies will work without rare earths, and each is tied closely to some of the nation's highest national priorities.

Rare earths are found so deep in the industrial supply chain that it is difficult to understand their applications in products that we see every day. On the screen before you, I've provided a simplified version of a wind turbine supply chain.



With the exception of the rare earth minerals at the very start and the ability to produce oxides, none of the capabilities in the green box exist in the U.S. As American manufacturing has eroded, we have ceded this technological ground to China, Japan and Germany. The result is a "capability gap" in the U.S. that has the potential to become a strategic and economic disadvantage.

The production of rare earths materials is overwhelmingly dominated by China. China produces 97% of the world's rare earths, 100% the associated metals, and 80% of the rare earth magnets. To date, China's massive rare earth production has been able to satisfy their internal needs and those of the rest of the world. However, Chinese demand will soon surpass its own internal supply. Previous forecasts concluded that this shortage would occur by 2012 (Kingsnorth, 2008), but China's recent commitment to be the world's largest producer of wind energy and electric vehicles will accelerate this timeline. As you can see on the screen, when you

plot the rest of the world's estimated demand for rare earths against the projected decline in Chinese supply, the result is a rare earth shortage that could occur as early as late this year:

Impact on Energy Security and American Competitiveness

Access to rare earth resources is obviously essential, but without rebuilding the manufacturing capacity to produce rare earth metals, alloys and magnets, the US could find itself dependent on China for these key technological building blocks in the supply chain. Given the current rare earth manufacturing gap in the US, if all we do at Molycorp Minerals is re-open our mine and simply produce oxides, as we have done historically, it is unfortunately more likely that we would become a raw material supplier to Chinese manufacturers. This is the reason for our "Mining to Magnets" strategy.

The domestic development of rare earth resources and manufacturing capabilities is not only a strategic necessity but also a catalyst for job growth in the clean energy and advanced

technology manufacturing sectors. If we build up rare earth metal and magnet production capabilities, it can have a multiplier effect on downstream, value added manufacturing.

Consider China's experience. It has repeatedly convinced high-tech manufacturers to move to its shores in exchange for access to rare earths among other enticements. The U.S. could experience a similar jobs boost by committing to rebuild the clean energy supply chain within its borders beginning with rare earths.

Our Work at Mountain Pass and Our Mining to Magnets Strategy

This situation is difficult but not insurmountable. Molycorp Minerals has 57 years of experience in the rare earths industry, and our rare earth mine at Mountain Pass, California, is, according to the U.S. Geological Survey, "the greatest concentration of rare earth minerals now known." We are combining this world-class deposit and the company's deep experience with a "mining to magnets" strategy that will reestablish the full, value-added rare earth supply chain in the U.S.

We have invested \$20 million in process improvements in advance of our mine restart. Through new advances in our production process, we will use half the ore required to produce the same amount of rare earth oxides; we've reduced fresh water usage by 96% and reagent materials by up to 30%. These resource efficiencies improve our overall cost-competitiveness as well as enhance our environmental stewardship.

We have obtained the necessary 30-year mine plan permit and the required Environmental Impact Report. Our increased production and new capabilities will create 900 direct jobs as well as 700 temporary construction jobs primarily in the hard hit San Bernardino-Riverside and Henderson-Las Vegas regions of California and Nevada. Molycorp is the only rare

earth provider outside of China that stands “shovel-ready” to meet customer-specific product demands, and we are uniquely well-positioned to rebuild the rare earth supply chain in the shortest possible timeframe.

Federal Leadership

The private market is fueling a solution to this challenge, but the federal government does have a role to play. There are 4 areas where it can have the greatest near- and long-term impact:

1) Financing and/or loan guarantee support: For highly capital intensive projects like ours, the credit markets are still not viable. Rates remain near double-digits and they require repayment within 5 years. Federal loan guarantees provide more reasonable rates and longer, repayment terms, and it would allow us to accelerate development of this project. With private financing, the onerous terms will extend the development timeline. We applied for the DOE’s Loan Guarantee Program in the fall and our application was recently rejected. The DOE contends that this project goes “too far upstream” and that the program was not intended to cover “mining projects.” Given the necessity of rare earths in so many clean energy technologies, Congress may need to provide legislative direction or possibly new legislative language clarifying the use of loan guarantees for strategically vital projects like this.

2) Rebuilding the rare earth knowledge infrastructure: The United States used to be the world’s preeminent source of rare earth information and expertise, but it has ceded that advantage over the past decade. The federal government and this Committee, in particular, can play a pivotal role in reestablishing our preeminent rare earth knowledge and expertise.

3) Interagency cooperation and urgency: Several agencies are examining rare earths, including the Departments of Defense, Commerce, and State, as well as the White House Office

of Science and Technology Policy (OSTP). In fact, OSTP is working with Commerce to lead a collaborative interagency effort on this issue. We are encouraged by these efforts, but the global supply-demand challenges are becoming increasingly more difficult and the Administration's efforts need to reflect a similar sense of urgency.

4) Funding support for rare earth research: Part of China's dominance of the rare earth market can be attributed to their efforts to find and commercialize new applications for rare earth materials. Federal funding support for competitive grants specifically directed at rare earth research and technology will help to expand the U.S.'s ability to do the same.

Thank you once again for the opportunity to share my perspective on rare earths, and I look forward to answering your questions.