Statement of Suzette Kimball
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before the
Senate Energy and Natural Resources Committee
on
S. 883
May 12, 2015

Good morning Chairman Murkowski, Ranking Member Cantwell, and Members of the Committee, and thank you for the opportunity to discuss S. 883, the American Mineral Security Act of 2015. The bill directs the Secretaries of the Interior and Energy to perform a large number of activities intended to support and enhance the Nation's critical mineral supply chain, beginning with developing a methodology to determine which minerals are critical to the Nation's economy. In this statement, I will address the provisions relevant to the Department of the Interior.

The Department of the Interior supports the goal of facilitating the development of critical minerals in an environmentally responsible manner. We note that many of the activities called for in S. 883 are within the scope of existing Department of the Interior authorities.

Background

The U.S. Geological Survey (USGS) is responsible for conducting research and collecting data on a wide variety of mineral resources. Research is conducted to understand the geologic processes that have concentrated known mineral resources at specific localities in the Earth's crust and to estimate (or assess) quantities, qualities, and areas of undiscovered mineral resources, or potential future supply. USGS scientists also conduct research on the interactions of mineral resources with the environment, both natural and as a result of resource extraction, to better predict the degree of impact that resource development may have on human and ecosystem health. USGS mineral commodity specialists collect, analyze, and disseminate data and information that document current production and consumption for about 100 mineral commodities, both domestically and internationally for 180 countries. This full spectrum of mineral resource science allows for a comprehensive understanding of the complete life cycle of mineral resources and materials—resource formation, discovery, production, consumption, use, recycling, and reuse—and allows for an understanding of environmental issues of concern throughout the life cycle.

Global demand for critical mineral commodities is on the rise with increasing applications in consumer products, computers, automobiles, aircraft, and other advanced technology products. Much of this demand growth is driven by new technologies that increase energy efficiency and decrease reliance on fossil fuels, such as clean energy technologies. To better understand potential sources of critical mineral commodities, the USGS has completed studies of known domestic and global critical mineral reserves, resources, and uses (Long and others, 2010; Tse, 2011; Wilburn, 2012). These studies summarize basic geologic facts and materials flow issues related to critical mineral resources. Other USGS studies analyze world trade and supply chains

for critical minerals including lithium, platinum-group metals, and tantalum (Goonan, 2011, 2012; Yager and others, 2012; Soto-Viruet and others, 2013).

The Bureau of Land Management (BLM) administers over 245 million surface acres of public land primarily located in the 12 Western states, including Alaska, as well as 700 million acres of sub-surface mineral estate throughout the nation. The BLM manages mineral development under a number of different authorities, including the Federal Land Policy and Management Act, the Mineral Leasing Act of 1920, the Materials Act of 1947, and the Mining Law of 1872. Each of these authorities, along with BLM regulations and guidance, provides a legal framework for the development of minerals, including critical minerals, on Federal and Indian lands.

Rare earth elements are currently of most concern to many domestic users, including the Department of Defense which funded several USGS studies. However, in 2014 the United States was 100 percent dependent on foreign suppliers for 19 mineral commodities and more than 50 percent dependent on foreign sources for an additional 24 mineral commodities. Import partners include Brazil, Canada, China, France, Germany, Japan, Mexico, Russia, and Venezuela. In 2008, a National Research Council committee, funded largely by the USGS, developed a "criticality matrix" that combines supply risk with importance of use as a first step toward determining which mineral commodities are essential to the Nation's economic and national security (National Research Council, 2008). This has been updated by subsequent studies and ongoing work by the Critical and Strategic Mineral Supply Chain Interagency sub-committee of the National Science and Technology Council, which is co-chaired by the USGS on behalf of the Department of the Interior. This work to define criticality and identify mineral resources of strategic importance is currently being carried out by the National Minerals Information Center (NMIC) at the USGS.

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S. 883, the American Mineral Security Act of 2015, directs the Secretary of the Interior, through the Director of the USGS, to perform a number of actions that build on current USGS activities and capabilities, including the recent rare earths inventory. The bill in Section 102 directs the USGS to develop a rigorous methodology for determining which minerals are critical and then to use that methodology to designate critical minerals and update that list every 2 years. Section 103 calls for a comprehensive national mineral resource assessment of both known and undiscovered resources within four years of the bill's enactment for each mineral designated as critical under Sec. 102, and it authorizes field work for the assessment, as well as technical and financial assistance for States and Indian tribes. It also calls for a report "describing the status of geological surveying of Federal Land" for mineral commodities more than 25% imported. No funding is authorized or appropriated for these Section 103 activities, which collectively are beyond the current budget capacity of the USGS.

Section 104 directs the BLM to improve the quality and timeliness of decisions regarding the environmentally responsible development of critical minerals on Federal lands, along with a report on permitting time required in the US and as compared to other countries. We note that the BLM is committed to implementing efficiencies for the environmentally-responsible development of critical minerals on Federal lands. For example, the BLM in Nevada has made

great strides under this Administration as a result of 2014 guidance that sets out specific information and process requirements for operators developing and submitting mine plans of operation to the BLM. In addition, under the Mining Law of 1872, the BLM does not collect royalties on minerals mined from Federal lands, and, therefore, does not collect the quantity, type, and estimated value of minerals produced on Federal Land.

Section 106 imposes a 45-day deadline for final publication of *Federal Register* notices associated with critical mineral exploration or a mine permit. The bill establishes in Section 107 a collaborative effort among DOE, other Federal Agencies, and academic institutions to analyze critical mineral production, processing, substitutions, and recycling patterns. Section 108 instructs the USGS Director, in consultation with the U.S. Energy Information Administration to add to the Annual Mineral Commodity Summaries information on: 1) critical mineral requirements to meet the national security, energy, economic, industrial, technological, and other needs of the United States and 2) projections of critical minerals to be produced, consumed, and recycled during 1-, 5-, and 10-year periods into the future. The USGS has concerns with Section 108 due to the difficulty of predicting future prices and we look forward to working with the Committee on this provision.

Conclusion

The Department maintains a workforce of geoscientists (geologists, geochemists, geophysicists, and resource specialists) with expertise in critical minerals and materials. The Department continuously collects, analyzes, and disseminates data and information on domestic and global rare-earth and other critical mineral reserves and resources, production, consumption, and use. This information is published annually in the USGS Mineral Commodity Summaries (USGS, 2015) and includes a description of current events, trends, and issues related to supply and demand.

The Department, through the USGS, stands ready to fulfill its role as the federal provider of unbiased research on known mineral resources, assessment of undiscovered mineral resources, and information on domestic and global production and consumption of mineral resources for use in global critical mineral supply chain analysis.

We note, however, that many of the activities called for in S. 883 are already authorized by existing authorities. Any activities conducted to fulfill the objectives of the bill would require substantial resources and would need to compete for funding with other priorities.

Thank you for the opportunity to present the views of the Department on S. 883. I will be happy to answer any questions.

For More Information

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