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Representative Eric Swalwell (D-CA) introduced The Securing Energy Critical Elements and American Jobs Act of 2015 (H.R. 2687) on June 8 to support research on Energy Critical Elements (ECEs). The ECEs are a broad group of elements, including lithium, germanium, cobalt, and a dozen rare earth elements, that are increasingly important components of energy technologies such as thin-film solar cells, high-strength magnets for wind turbines and electric cars, and fluorescent lighting. However, limited supplies of ECEs and volatile global markets inhibit the financial viability of many of these emerging technologies.

The bill would authorize \$25 million per year through 2020 for ECE research and would authorize the creation of a Critical Materials Energy Innovation Hub within the Department of Energy. Research would focus on extracting, processing, and recycling ores, improving the engineered systems that use ECEs, and developing alternative materials for these systems.

Most ECEs are not naturally concentrated within the earth's crust, which makes them difficult and costly to mine. Many must therefore be refined as byproducts of more abundant ores. The U.S. imports the bulk of its ECEs from China, which is currently the world's top producer by a wide margin.

As of June 8, the bill had been referred to the House Committee on Science, Space, and Technology.

Sources: American Physical Society, E&E News