

FINAL BILL REPORT

SHB 1897

C 20 L 15 E3
Synopsis as Enacted

Brief Description: Creating the joint center for deployment and research in earth-abundant materials.

Sponsors: House Committee on Technology & Economic Development (originally sponsored by Representatives Smith, Morris, Tarleton, Young, Hayes, Haler, Sells, Buys, Fagan and Short).

Technology & Economic Development: 2/10/15, 2/17/15 [DPS].

Appropriations: 2/26/15

Background:

In 2011 the United States Department of Energy (DOE) released a report examining the role of rare earth metals and other materials in clean energy technologies, such as wind turbines, electric vehicles, solar cells, and energy efficient lighting. The report found that several clean energy technologies are dependent on one of five rare earth elements that are at risk of supply disruptions in the short term. The DOE listed these materials as 'critical' materials. Two other elements, lithium and tellurium, were identified as being 'near critical' materials.

Rare earth elements (REEs) may be moderately abundant in the earth's crust, but are not concentrated enough to be easily exploited economically. The DOE found that China is the largest supplier of REEs and the United States is heavily import-dependent for a number of critical and near-critical materials. The DOE has recommended strategies to diversify and expand the supply chain, fund research to develop substitutes for critical materials, and reduce waste of critical materials through the development of more efficient manufacturing processes, recycling, and reuse.

The supply chain for critical materials includes processing, workforce development, and research and development. The federal government has started to award funding for projects that can enhance the ability of the United States to continue deploying clean technologies and other advanced technologies currently dependent on REEs and other critical materials. The Critical Materials Institute (CMI), facilitated by the Ames National Laboratory, is one example of a concerted local, national, and international effort to address critical materials supply chain issues.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.

Summary:

The Joint Center for Deployment and Research in Earth-Abundant Materials (JCDREAM) is created. The JCDREAM is a multi-institutional education and research center under the authority of the University of Washington (UW) and Washington State University (WSU). The JCDREAM’s purpose is to: (1) establish a transformative program in earth-abundant materials to accelerate the development of next generation clean energy and transportation technologies in Washington; (2) establish a coordinated framework to drive research and deployment of earth-abundant materials and the recycling of advanced materials used in clean technologies; and (3) promote environmentally responsible processes for the manufacturing and recycling of advanced materials.

The JCDREAM is governed by a board of directors (Board) appointed by the Governor, consisting of nine voting members and one chair, who may vote if necessary to break a tie. The Board must include as representatives the following: deans from WSU and the UW; one representative from a regional university; a representative from the Pacific Northwest National Laboratory (PNNL); a community college representative; representatives from large, medium, and small industry companies; one member with experience in national security and energy policy; and one member with experience in innovation and development of policy to address environmental challenges.

The Board must hire an executive director and may hire additional staff. The initial administrative offices must be west of the Cascades. The JCDREAM must make its facilities and resources available to all four-year institutions of higher education. The JCDREAM may solicit and receive gifts and grants from public and private sources, and such gifts are exempt from certain limitations established in the Ethics in Public Service Act.

The Board's duties include, for example, working with clean technology and transportation industry firms to identify research areas beneficial to Washington's industries, identifying entrepreneurial researchers, and developing internships and other opportunities for students. In addition, the Board must leverage its financial impact through joint support arrangements and development of non-state funding sources. The Board must allocate appropriated seed funds for collaboration on research, for product development and deployment, and as assistance to community colleges and trade schools for workforce training programs. The Board must develop an operating plan by December 1, 2015, that must include performance metrics to measure total research dollars leveraged, total researchers involved, total workforce trained, and total number of products or processes commercialized and deployed. The Board must, in coordination with the Office of the Governor and the Department of Commerce, submit a biennial report including these metrics to the Legislature and Governor assessing the impact of the JCDREAM on the state economy and the development of next generation clean energy and transportation technologies.

Votes on Final Passage:

Third Special Session

House	97	0
Senate	43	1

Effective: October 9, 2015