

# SENATE BILL REPORT

## SHB 1897

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As of Second Reading

**Title:** An act relating to the joint center for deployment and research in earth-abundant materials.

**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).

**Brief History:** Passed House: 6/28/15, 97-0.

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**Staff:** Jeff Olsen (786-7428)

**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. 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 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.

**Summary of Bill:** 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 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

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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. 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; 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, and the initial administrative offices must be west of the Cascades. The JCDREAM may solicit and receive gifts and grants from public and private sources.

The Board's duties include 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 nonstate funding sources. The Board must allocate appropriated seed funds for collaboration on research, 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, which 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 JCDREAM on the state economy and the development of next generation clean energy and transportation technologies.

**Appropriation:** None.

**Fiscal Note:** Available.

**Committee/Commission/Task Force Created:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.