
SUBSTITUTE HOUSE BILL 1897

State of Washington

64th Legislature

2015 Regular Session

By House Technology & Economic Development (originally sponsored by Representatives Smith, Morris, Tarleton, Young, Hayes, Haler, Sells, Buys, Fagan, and Short)

1 AN ACT Relating to the joint center for deployment and research
2 in earth-abundant materials; amending RCW 42.52.150; and adding a new
3 chapter to Title 28B RCW.

4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

5 NEW SECTION. **Sec. 1.** The legislature finds that to reach our
6 energy, environmental, and economic goals, it is important to
7 accelerate the development of next generation clean energy and
8 transportation technologies in Washington. Today, a large number of
9 clean and renewable energy technologies are dependent on rare earth
10 elements and other expensive and difficult-to-source earth
11 components. These technologies are critical to reducing carbon
12 emissions, such as wind turbines, solar panels, and electric and
13 hybrid car batteries.

14 According to a 2012 environmental protection agency report
15 (EPA/600/R-12/572), no rare earth element mining has been conducted
16 in the United States since 1995, and a legacy of environmental
17 destruction has been left in countries where rare earth elements are
18 mined. The same environmental protection agency report notes that
19 recovering rare earth elements from state-of-the-art recycling
20 processes is far more efficient than smelting metals from ores,
21 generates only a fraction of the carbon emissions, and has

1 significant benefits compared to mining in terms of land use and
2 hazardous emissions. The environmental protection report stresses the
3 need for additional research in alternative materials to rare earth
4 materials as well as recycling innovation.

5 The legislature acknowledges that the people of Washington desire
6 to leave behind a cleaner planet, and to lead the world in the
7 research and innovations to make that possible. Setting aggressive,
8 renewable energy and clean technology standards at home that result
9 in exporting the environmental harms of improper mineral extraction
10 to other nations is not an acceptable strategy. Fortunately,
11 Washington is home to some of the world's leading researchers who
12 have core competencies in developing material substitutes and
13 extracting rare earth elements for recycling.

14 Leading research institutions have indicated that a program to
15 accelerate the development of next generation clean energy and
16 transportation technologies using earth-abundant materials would fit
17 within their strategic vision and core mission to increase and
18 coordinate their efforts with the private industry and implement this
19 talent and research to work in accelerating the deployment of clean
20 energy and cleaner transportation solutions. The goal is to develop
21 materials to use in the manufacturing process that can be reliably
22 accessed and acquired in environmentally responsible processes. A
23 joint center established for this purpose can bridge the gap between
24 institutions, encourage private-public partnerships, and increase the
25 ability to compete for federal grants.

26 The legislature recognizes the opportunity for Washington to lead
27 in these areas of research and innovation, fostering true
28 sustainability environmental stewardship, and providing supply
29 reliability and resiliency in next generation technologies. Doing so
30 will contribute to the preservation of national security by
31 increasing energy independence. Therefore, the legislature intends to
32 fund research of earth-abundant materials that can substitute
33 effectively in manufacturing for rare earth elements or other
34 critical materials, with great potential to increase efficiency or
35 reduce emissions in the transportation or energy sector, and to fund
36 research into the recycling of rare earth elements from existing
37 consumer products. The legislature intends to accomplish this by
38 establishing the joint center for deployment and research in earth
39 abundant materials, or JCDREAM, to attract academic talent and

1 research funding to our state, and develop a workforce for
2 manufacturing next generation earth-abundant technologies.

3 NEW SECTION. **Sec. 2.** The joint center for deployment and
4 research in earth-abundant materials is created to:

5 (1) Establish a transformative program in earth-abundant
6 materials to accelerate the development of next generation clean
7 energy and transportation technologies in Washington;

8 (2) Establish a coordinated framework and deploy resources that
9 can facilitate and promote multi-institution collaborations to drive
10 research, development, and deployment efforts in the use of earth-
11 abundant materials for manufactured clean technologies or recycling
12 of advanced materials used in clean technologies; and

13 (3) Promote environmentally responsible processes in the areas of
14 manufacturing and recycling of advanced materials used in clean
15 technologies.

16 NEW SECTION. **Sec. 3.** The joint center for deployment and
17 research in earth-abundant materials must be operated and
18 administered as a multi-institutional education and research center,
19 conducting research and development programs in various locations
20 within Washington under the joint authority of the University of
21 Washington and Washington State University. The initial
22 administrative offices of the center shall be west of the crest of
23 the Cascade mountains. In order to meet industry needs, the
24 facilities and resources of the center must be made available to all
25 four-year institutions of higher education. Resources include
26 internships, on-the-job training, and research opportunities for
27 undergraduate and graduate students and faculty.

28 NEW SECTION. **Sec. 4.** (1)(a) The powers of the joint center for
29 deployment and research in earth-abundant materials are vested in and
30 shall be exercised by a board of directors consisting of ten voting
31 members and a chair, appointed by the governor, who shall not vote,
32 except as provided in (c) of this subsection.

33 (b) Of the ten voting members, one member must be the dean of
34 Washington State University, one member must be the dean of the
35 University of Washington, one member must represent Pacific Northwest
36 National Laboratory, one member must represent an energy institute at
37 a regional university, one member must represent the community

1 colleges engaged in training of the next generation workforce in the
2 relevant areas, one member must represent large industry companies,
3 one member must represent medium industry companies, one member must
4 represent small industry companies, one member must have professional
5 experience in the fields of national security and energy policy, and
6 one member shall have professional experience in innovation and
7 development of policy to address environmental challenges.

8 (c) In the event of a tie vote among the voting members, the
9 chair may vote to break the tie.

10 (d) The terms of the initial members must be staggered.

11 (2) The board shall hire an executive director. The executive
12 director shall hire such staff as the board deems necessary to
13 operate the joint center for deployment and research in earth-
14 abundant materials. Staff support may be provided from among the
15 cooperating institutions through cooperative agreements to the extent
16 funds are available. The executive director may enter into
17 cooperative agreements for programs and research with public and
18 private organizations including state and nonstate agencies
19 consistent with policies of the participating institutions.

20 (3) The board shall:

21 (a) Work with the clean technology and transportation industry
22 associations and firms of all sizes to identify the research areas
23 that will benefit the intermediate and long-term economic vitality of
24 Washington's clean technology and transportation industries;

25 (b) Identify entrepreneurial researchers to join or lead research
26 teams in the research areas specified in (a) of this subsection and
27 the steps the University of Washington and Washington State
28 University will take to recruit and retain such researchers;

29 (c) Assist firms to integrate existing technologies into their
30 operations and align the activities of the joint center for
31 deployment and research in earth-abundant materials with those of
32 impact Washington to enhance services available to clean technology
33 and transportation firms;

34 (d) Develop internships, on-the-job training, research, and other
35 opportunities and ensure that all undergraduate and graduate students
36 enrolled in programs for clean technology and earth-abundant research
37 and deployment-related curriculum have direct experience with the
38 industry;

39 (e) Assist researchers and firms in safeguarding intellectual
40 property while advancing industry innovation;

1 (f) Develop and strengthen university-industry relationships
2 through promotion of faculty collaboration with industry and sponsor
3 at least one annual symposium focusing on clean energy earth-abundant
4 research and deployment in the state of Washington;

5 (g) Encourage a full range of projects from small research
6 projects that meet the specific needs of a smaller company to large
7 scale, multipartner projects;

8 (h) Develop nonstate support of the center's research activities
9 through leveraging dollars from federal and private for-profit and
10 nonprofit sources;

11 (i) Leverage its financial impact through joint support
12 arrangements on a project-by-project basis as appropriate;

13 (j) Establish mechanisms for soliciting and evaluating proposals
14 and for making awards and reporting on technological progress,
15 financial leverage, and other measures of impact;

16 (k) Allocate appropriated seed funds for at least one of the
17 following purposes:

18 (i) Collaboration on research and product development that would
19 further the commercialization of renewable energy and battery storage
20 technologies that use earth-abundant materials in place of critical
21 materials or rare earth elements;

22 (ii) Collaboration on research for joining dissimilar materials
23 in a way that minimizes titanium content by employing earth-abundant
24 materials for advanced manufacturing commercialization;

25 (iii) Collaboration on research and deployment of technologies
26 and processes that facilitate reclamation and recycling of rare-earth
27 elements from existing products; and

28 (iv) Providing assistance to community colleges and trade schools
29 in program development and equipment for training the skilled
30 workforce necessary for the successful commercialization and
31 integration of earth-abundant technologies, as the workforce training
32 needs are defined by forthcoming deployment opportunities;

33 (l)(i) By December 1, 2015, develop an operating plan that
34 includes the specific processes, methods, or mechanisms the center
35 will use to accomplish each of its duties as set out in this
36 subsection (3);

37 (ii) The operating plan must also include appropriate performance
38 metrics to measure total research dollars leveraged, total
39 researchers involved, total workforce trained, and total number of

1 products or processes that have progressed to commercialization and
2 private sector deployment; and

3 (m)(i) Report biennially to the legislature and the governor
4 about the impact of the center's work on the state's economy and the
5 development of next generation clean energy and transportation
6 technologies in Washington using earth-abundant materials. The report
7 must include performance metrics results, projections of future
8 impact, indicators of its current impact, and ideas for enhancing
9 benefits to the state.

10 (ii) The report must be coordinated with the governor's office
11 and the department of commerce.

12 NEW SECTION. **Sec. 5.** The joint center for deployment and
13 research in earth-abundant materials may solicit and receive gifts,
14 grants, donations, sponsorships, or contributions from any federal,
15 state, or local governmental agency or program or any private source
16 and expend the same for any purpose consistent with this chapter.
17 Members and employees associated with the joint center for deployment
18 and research in earth-abundant materials are presumed not to be in
19 violation of solicitation and receipt of gift provisions in RCW
20 42.52.150.

21 NEW SECTION. **Sec. 6.** This chapter may be known and cited as the
22 JCDREAM act.

23 **Sec. 7.** RCW 42.52.150 and 2011 c 60 s 29 are each amended to
24 read as follows:

25 (1) No state officer or state employee may accept gifts, other
26 than those specified in subsections (2) and (5) of this section, with
27 an aggregate value in excess of fifty dollars from a single source in
28 a calendar year or a single gift from multiple sources with a value
29 in excess of fifty dollars. For purposes of this section, "single
30 source" means any person, as defined in RCW 42.52.010, whether acting
31 directly or through any agent or other intermediary, and "single
32 gift" includes any event, item, or group of items used in conjunction
33 with each other or any trip including transportation, lodging, and
34 attendant costs, not excluded from the definition of gift under RCW
35 42.52.010. The value of gifts given to an officer's or employee's
36 family member or guest shall be attributed to the official or
37 employee for the purpose of determining whether the limit has been

1 exceeded, unless an independent business, family, or social
2 relationship exists between the donor and the family member or guest.

3 (2) Except as provided in subsection (4) of this section, the
4 following items are presumed not to influence under RCW 42.52.140,
5 and may be accepted without regard to the limit established by
6 subsection (1) of this section:

7 (a) Unsolicited flowers, plants, and floral arrangements;

8 (b) Unsolicited advertising or promotional items of nominal
9 value, such as pens and note pads;

10 (c) Unsolicited tokens or awards of appreciation in the form of a
11 plaque, trophy, desk item, wall memento, or similar item;

12 (d) Unsolicited items received by a state officer or state
13 employee for the purpose of evaluation or review, if the officer or
14 employee has no personal beneficial interest in the eventual use or
15 acquisition of the item by the officer's or employee's agency;

16 (e) Informational material, publications, or subscriptions
17 related to the recipient's performance of official duties;

18 (f) Food and beverages consumed at hosted receptions where
19 attendance is related to the state officer's or state employee's
20 official duties;

21 (g) Gifts, grants, conveyances, bequests, and devises of real or
22 personal property, or both, in trust or otherwise accepted and
23 solicited for deposit in the legislative international trade account
24 created in RCW 43.15.050;

25 (h) Gifts, grants, conveyances, bequests, and devises of real or
26 personal property, or both, in trust or otherwise accepted and
27 solicited for the purpose of promoting the expansion of tourism as
28 provided for in RCW 43.330.090;

29 (i) Gifts, grants, conveyances, bequests, and devises of real or
30 personal property, or both, solicited on behalf of a national
31 legislative association, 2006 official conference of the national
32 lieutenant governors' association, or host committee for the purpose
33 of hosting an official conference under the circumstances specified
34 in RCW 42.52.820 and section 2, chapter 5, Laws of 2006. Anything
35 solicited or accepted may only be received by the national
36 association or host committee and may not be commingled with any
37 funds or accounts that are the property of any person;

38 (j) Admission to, and the cost of food and beverages consumed at,
39 events sponsored by or in conjunction with a civic, charitable,
40 governmental, or community organization; (~~and~~)

1 (k) Unsolicited gifts from dignitaries from another state or a
2 foreign country that are intended to be personal in nature; and

3 (l) Gifts, grants, donations, sponsorships, or contributions from
4 any agency or federal or local government agency or program or
5 private source for the purposes of chapter 28B.--- RCW (the new
6 chapter created in section 8 of this act).

7 (3) The presumption in subsection (2) of this section is
8 rebuttable and may be overcome based on the circumstances surrounding
9 the giving and acceptance of the item.

10 (4) Notwithstanding subsections (2) and (5) of this section, a
11 state officer or state employee of a regulatory agency or of an
12 agency that seeks to acquire goods or services who participates in
13 those regulatory or contractual matters may receive, accept, take, or
14 seek, directly or indirectly, only the following items from a person
15 regulated by the agency or from a person who seeks to provide goods
16 or services to the agency:

17 (a) Unsolicited advertising or promotional items of nominal
18 value, such as pens and note pads;

19 (b) Unsolicited tokens or awards of appreciation in the form of a
20 plaque, trophy, desk item, wall memento, or similar item;

21 (c) Unsolicited items received by a state officer or state
22 employee for the purpose of evaluation or review, if the officer or
23 employee has no personal beneficial interest in the eventual use or
24 acquisition of the item by the officer's or employee's agency;

25 (d) Informational material, publications, or subscriptions
26 related to the recipient's performance of official duties;

27 (e) Food and beverages consumed at hosted receptions where
28 attendance is related to the state officer's or state employee's
29 official duties;

30 (f) Admission to, and the cost of food and beverages consumed at,
31 events sponsored by or in conjunction with a civic, charitable,
32 governmental, or community organization; and

33 (g) Those items excluded from the definition of gift in RCW
34 42.52.010 except:

35 (i) Payments by a governmental or nongovernmental entity of
36 reasonable expenses incurred in connection with a speech,
37 presentation, appearance, or trade mission made in an official
38 capacity;

1 (ii) Payments for seminars and educational programs sponsored by
2 a bona fide governmental or nonprofit professional, educational,
3 trade, or charitable association or institution; and
4 (iii) Flowers, plants, and floral arrangements.
5 (5) A state officer or state employee may accept gifts in the
6 form of food and beverage on infrequent occasions in the ordinary
7 course of meals where attendance by the officer or employee is
8 related to the performance of official duties. Gifts in the form of
9 food and beverage that exceed fifty dollars on a single occasion
10 shall be reported as provided in chapter 42.17A RCW.

11 NEW SECTION. **Sec. 8.** Sections 1 through 6 of this act
12 constitute a new chapter in Title 28B RCW.

13 NEW SECTION. **Sec. 9.** If any provision of this act or its
14 application to any person or circumstance is held invalid, the
15 remainder of the act or the application of the provision to other
16 persons or circumstances is not affected.

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