S-3290.2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**SENATE BILL 6350**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**State of Washington 65th Legislature 2018 Regular Session**

**By** Senators Brown and Honeyford

AN ACT Relating to promoting renewable energy by advancing the development of geothermal resources; amending RCW 78.60.180, 78.60.130, 78.60.110, 43.157.010, 43.157.020, 43.157.030, 28B.156.005, 28B.156.010, and 28B.156.030; reenacting and amending RCW 80.50.020; and creating a new section.

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

NEW SECTION. **Sec.**  The legislature finds that the development of geothermal resources in Washington should be encouraged. By this act, the legislature intends to advance the development of geothermal resources by improving policies relating to the publication of data on geothermal resources, geothermal resources exploration, permitting processes for geothermal power facilities, and research.

**Sec.**  RCW 78.60.180 and 1974 ex.s. c 43 s 18 are each amended to read as follows:

(1) The department shall have the authority to conduct or authorize investigations, research, experiments, and demonstrations, cooperate with other governmental and private agencies in making investigations, receive any federal funds, state funds, and other funds and expend them on research programs concerning geothermal resources and their potential development within the state, and to collect and disseminate information relating to geothermal resources in the state((~~: PROVIDED, That the department shall not construct or operate commercial geothermal facilities~~)).

(2) The department shall develop, periodically revise, and publish an inventory and map of state-owned lands suspected of having great potential for geothermal resource production.

(3) The department may not construct or operate commercial geothermal facilities.

**Sec.**  RCW 78.60.130 and 2007 c 338 s 3 are each amended to read as follows:

Every operator who engages in the drilling, redrilling, or deepening of any well or core hole on state-owned land shall file with the department a reasonable bond or bonds with good and sufficient surety, or the equivalent thereof, acceptable to the department, conditioned on compliance with the provisions of this chapter and all rules and permit conditions adopted pursuant to this chapter. This performance bond shall be executed in favor of and approved by the department.

In lieu of a bond filed under this section, the operator may file with the department a cash deposit, negotiable securities acceptable to the department, or an assignment of a savings account in a Washington bank on an assignment form prescribed by the department. The department, in its discretion, may accept a single surety or security arrangement covering more than one well or core hole.

**Sec.**  RCW 78.60.110 and 2013 c 23 s 254 are each amended to read as follows:

(1) The department may authorize the operator to suspend drilling operations, shut-in a completed well, or remove equipment from a well for the period stated in the department's written authorization. The period of suspension may be extended by the department upon the operator showing good cause for the granting of such extension.

(2) If drilling operations are not resumed by the operator, or the well is not put into production, upon expiration of the suspension or shut-in permit, an intention to unlawfully abandon shall be presumed.

(3) A well shall also be deemed unlawfully abandoned if, without written approval from the department, drilling equipment is removed.

(4) An unlawful abandonment under this chapter shall be entered in the department records and written notice thereof shall be mailed by registered mail both to such operator at his or her last known address as disclosed by records of the department and to the operator's surety, if applicable. The department may thereafter proceed against the operator and his or her surety.

**Sec.**  RCW 43.157.010 and 2017 c 288 s 2 are each amended to read as follows:

The definitions in this section apply throughout this chapter and RCW 28A.525.166, 43.21A.350, and 90.58.100, unless the context requires otherwise:

(1) "Applicant" means a person applying to the department for designation of a development project as a project of statewide significance.

(2) "Aviation biofuels production facility" means a facility primarily for the processing of nonfossil biogenic feedstocks to produce aviation fuels that meet the fuel quality technical standards of the American society for testing materials for aviation fuels and coproducts.

(3) "Department" means the department of commerce.

(4) "Manufacturing" shall have the meaning assigned it in RCW 82.62.010.

(5)(a) "Project of statewide significance" means:

(i) A border crossing project that involves both private and public investments carried out in conjunction with adjacent states or provinces;

(ii) A development project that will provide a net environmental benefit;

(iii) A development project in furtherance of the commercialization of innovations;

(iv) A private industrial development with private capital investment in manufacturing or research and development;

(v) An aviation biofuels production facility; ((~~or~~))

(vi) A geothermal power facility where the primary purpose is to produce and sell electricity; or

(vii) A project designated by the legislature and codified under this chapter.

(b) To qualify for designation under RCW 43.157.030 as a project of statewide significance:

(i) The project must be completed after January 1, 2009;

(ii) The applicant must submit an application to the department for designation as a project of statewide significance ((~~to the department of commerce~~)); and

(iii) Except for an aviation biofuels production facility or geothermal power facility, the project must have:

(A) In counties with a population less than or equal to twenty thousand, a capital investment of five million dollars;

(B) In counties with a population greater than twenty thousand but no more than fifty thousand, a capital investment of ten million dollars;

(C) In counties with a population greater than fifty thousand but no more than one hundred thousand, a capital investment of fifteen million dollars;

(D) In counties with a population greater than one hundred thousand but no more than two hundred thousand, a capital investment of twenty million dollars;

(E) In counties with a population greater than two hundred thousand but no more than four hundred thousand, a capital investment of thirty million dollars;

(F) In counties with a population greater than four hundred thousand but no more than one million, a capital investment of forty million dollars;

(G) In counties with a population greater than one million, a capital investment of fifty million dollars;

(H) In rural counties as defined by RCW 82.14.370, projected full-time employment positions after completion of construction of fifty or greater;

(I) In counties other than rural counties as defined by RCW 82.14.370, projected full-time employment positions after completion of construction of one hundred or greater; or

(J) Been qualified by the director of the department as a project of statewide significance either because:

(I) The economic circumstances of the county merit the additional assistance such designation will bring;

(II) The impact on a region due to the size and complexity of the project merits such designation;

(III) The project resulted from or is in furtherance of innovation activities at a public research institution in the state or is in or resulted from innovation activities within an innovation partnership zone; or

(IV) The project will provide a net environmental benefit as evidenced by plans for design and construction under green building standards or for the creation of renewable energy technology or components or under other environmental criteria established by the director in consultation with the director of the department of ecology.

A project may be qualified under this subsection (5)(b)(iii)(J) only after consultation on the availability of staff resources of the office of regulatory assistance.

(6) "Research and development" shall have the meaning assigned it in RCW 82.62.010.

**Sec.**  RCW 43.157.020 and 2009 c 421 s 3 are each amended to read as follows:

Counties and cities with development projects designated as projects of statewide significance within their jurisdictions shall enter into an agreement with the office of regulatory assistance and the project managers of projects of statewide significance for expediting the completion of projects of statewide significance. The agreement shall require:

(1) Expedited permit processing for the design and construction of the project;

(2) Expedited environmental review processing;

(3) Expedited processing of requests for street, right-of-way, or easement vacations necessary for the construction of the project;

(4) Participation of local officials on the team assembled under the requirements of RCW 43.157.030((~~(2)~~))(3)(b); and

(5) Such other actions or items as are deemed necessary by the office of regulatory assistance for the design and construction of the project.

**Sec.**  RCW 43.157.030 and 2017 c 288 s 3 are each amended to read as follows:

(1) The department ((~~of commerce~~)) shall:

(a) Develop an application for designation of development projects as projects of statewide significance. The application must be accompanied by a letter of approval from the legislative authority of any jurisdiction that will have the proposed project of statewide significance within its boundaries. No designation of a project as a project of statewide significance shall be made without such letter of approval. The letter of approval must state that the jurisdiction joins in the request for the designation of the project as one of statewide significance and has or will hire the professional staff that will be required to expedite the processes necessary to the completion of a project of statewide significance. The development project proponents may provide the funding necessary for the jurisdiction to hire the professional staff that will be required to so expedite. The application shall contain information regarding the location of the project, the applicant's average employment in the state for the prior year, estimated new employment related to the project, estimated wages of employees related to the project, estimated time schedules for completion and operation, and other information required by the department; and

(b) Designate a development project as a project of statewide significance if the department determines:

(i) After review of the application under criteria adopted by rule, the development project will provide significant economic benefit to the local or state economy, or both, ((~~the project is aligned with the state's comprehensive plan for economic development under RCW 43.162.020,~~)) and, by its designation, the project will not prevent equal consideration of all categories of proposals under RCW 43.157.010; and

(ii) The development project meets or will meet the requirements of RCW 43.157.010 regarding designation as a project of statewide significance.

(2) Any project designated by the legislature and codified in this chapter is not subject to the application requirements set out in subsection (1) of this section.

(3) The office of regulatory assistance shall assign a project facilitator or coordinator to each project of statewide significance to:

(a) Assist in the scoping and coordinating functions provided for in chapter 43.42 RCW;

(b) Assemble a team of state and local government and private officials to help meet the planning, permitting, and development needs of each project, which team shall include those responsible for planning, permitting and licensing, infrastructure development, workforce development services including higher education, transportation services, and the provision of utilities; and

(c) Work with each team member to expedite their actions in furtherance of the project.

**Sec.**  RCW 80.50.020 and 2010 c 152 s 1 are each reenacted and amended to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

(1) "Alternative energy resource" includes energy facilities of the following types: (a) Wind; (b) solar energy; (c) ((~~geothermal energy; (d)~~)) landfill gas; ((~~(e)~~)) (d) wave or tidal action; or ((~~(f)~~)) (e) biomass energy based on solid organic fuels from wood, forest, or field residues, or dedicated energy crops that do not include wood pieces that have been treated with chemical preservatives such as creosote, pentachlorophenol, or copper-chrome-arsenic.

(2) "Applicant" means any person who makes application for a site certification pursuant to the provisions of this chapter.

(3) "Application" means any request for approval of a particular site or sites filed in accordance with the procedures established pursuant to this chapter, unless the context otherwise requires.

(4) "Associated facilities" means storage, transmission, handling, or other related and supporting facilities connecting an energy plant with the existing energy supply, processing, or distribution system, including, but not limited to, communications, controls, mobilizing or maintenance equipment, instrumentation, and other types of ancillary transmission equipment, off-line storage or venting required for efficient operation or safety of the transmission system and overhead, and surface or subsurface lines of physical access for the inspection, maintenance, and safe operations of the transmission facility and new transmission lines constructed to operate at nominal voltages of at least 115,000 volts to connect a thermal power plant or alternative energy facilities to the northwest power grid. However, common carrier railroads or motor vehicles shall not be included.

(5) "Biofuel" ((~~has the same meaning as defined in RCW 43.325.010~~)) includes, but is not limited to, biodiesel, ethanol, and ethanol blend fuels and renewable liquid natural gas or liquid compressed natural gas made from biogas.

(6) "Certification" means a binding agreement between an applicant and the state which shall embody compliance to the siting guidelines, in effect as of the date of certification, which have been adopted pursuant to RCW 80.50.040 as now or hereafter amended as conditions to be met prior to or concurrent with the construction or operation of any energy facility.

(7) "Construction" means on-site improvements, excluding exploratory work, which cost in excess of two hundred fifty thousand dollars.

(8) "Council" means the energy facility site evaluation council created by RCW 80.50.030.

(9) "Counsel for the environment" means an assistant attorney general or a special assistant attorney general who shall represent the public in accordance with RCW 80.50.080.

(10) "Electrical transmission facilities" means electrical power lines and related equipment.

(11) "Energy facility" means an energy plant or transmission facilities: PROVIDED, That the following are excluded from the provisions of this chapter:

(a) Facilities for the extraction, conversion, transmission or storage of water, other than water specifically consumed or discharged by energy production or conversion for energy purposes; and

(b) Facilities operated by and for the armed services for military purposes or by other federal authority for the national defense.

(12) "Energy plant" means the following facilities together with their associated facilities:

(a) Any nuclear power facility where the primary purpose is to produce and sell electricity;

(b) Any nonnuclear stationary thermal power plant, other than a geothermal power plant, with generating capacity of three hundred fifty thousand kilowatts or more, measured using maximum continuous electric generating capacity, less minimum auxiliary load, at average ambient temperature and pressure, and floating thermal power plants of one hundred thousand kilowatts or more suspended on the surface of water by means of a barge, vessel, or other floating platform;

(c) Facilities which will have the capacity to receive liquefied natural gas in the equivalent of more than one hundred million standard cubic feet of natural gas per day, which has been transported over marine waters;

(d) Facilities which will have the capacity to receive more than an average of fifty thousand barrels per day of crude or refined petroleum or liquefied petroleum gas which has been or will be transported over marine waters, except that the provisions of this chapter shall not apply to storage facilities unless occasioned by such new facility construction;

(e) Any underground reservoir for receipt and storage of natural gas as defined in RCW 80.40.010 capable of delivering an average of more than one hundred million standard cubic feet of natural gas per day; and

(f) Facilities capable of processing more than twenty-five thousand barrels per day of petroleum or biofuel into refined products except where such biofuel production is undertaken at existing industrial facilities.

(13) "Independent consultants" means those persons who have no financial interest in the applicant's proposals and who are retained by the council to evaluate the applicant's proposals, supporting studies, or to conduct additional studies.

(14) "Land use plan" means a comprehensive plan or land use element thereof adopted by a unit of local government pursuant to chapter 35.63, 35A.63, 36.70, or 36.70A RCW, or as otherwise designated by chapter 325, Laws of 2007.

(15) "Person" means an individual, partnership, joint venture, private or public corporation, association, firm, public service company, political subdivision, municipal corporation, government agency, public utility district, or any other entity, public or private, however organized.

(16) "Preapplicant" means a person considering applying for a site certificate agreement for any transmission facility.

(17) "Preapplication process" means the process which is initiated by written correspondence from the preapplicant to the council, and includes the process adopted by the council for consulting with the preapplicant and with cities, towns, and counties prior to accepting applications for all transmission facilities.

(18) "Secretary" means the secretary of the United States department of energy.

(19) "Site" means any proposed or approved location of an energy facility, alternative energy resource, or electrical transmission facility.

(20) "Thermal power plant" means, for the purpose of certification, any electrical generating facility using any fuel, other than geothermal resources, for distribution of electricity by electric utilities.

(21) "Transmission facility" means any of the following together with their associated facilities:

(a) Crude or refined petroleum or liquid petroleum product transmission pipeline of the following dimensions: A pipeline larger than six inches minimum inside diameter between valves for the transmission of these products with a total length of at least fifteen miles;

(b) Natural gas, synthetic fuel gas, or liquefied petroleum gas transmission pipeline of the following dimensions: A pipeline larger than fourteen inches minimum inside diameter between valves, for the transmission of these products, with a total length of at least fifteen miles for the purpose of delivering gas to a distribution facility, except an interstate natural gas pipeline regulated by the United States federal power commission.

(22) "Zoning ordinance" means an ordinance of a unit of local government regulating the use of land and adopted pursuant to chapter 35.63, 35A.63, 36.70, or 36.70A RCW or Article XI of the state Constitution, or as otherwise designated by chapter 325, Laws of 2007.

**Sec.**  RCW 28B.156.005 and 2015 3rd sp.s. c 20 s 1 are each amended to read as follows:

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

According to a 2012 environmental protection agency report (EPA/600/R-12/572), no rare earth element mining has been conducted in the United States since 1995, and a legacy of environmental destruction has been left in countries where rare earth elements are mined. The same environmental protection agency report notes that recovering rare earth elements from state-of-the-art recycling processes is far more efficient than smelting metals from ores, generates only a fraction of the carbon emissions, and has significant benefits compared to mining in terms of land use and hazardous emissions. The environmental protection report stresses the need for additional research in alternative materials to rare earth materials as well as recycling innovation.

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

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

The legislature recognizes the opportunity for Washington to lead in these areas of research and innovation, fostering true sustainability environmental stewardship, and providing supply reliability and resiliency in next generation technologies. Doing so will contribute to the preservation of national security by increasing energy independence. Therefore, the legislature intends to fund research of earth-abundant materials that can substitute effectively in manufacturing for rare earth elements or other critical materials, with great potential to increase efficiency or reduce emissions in the transportation or energy sector, ((~~and~~)) to fund research into the recycling of rare earth elements from existing consumer products, and to fund research of methods and technologies that will allow for the economical extraction of metals, minerals, and rare earth elements from underground fluids brought to the surface by geothermal power plants. The legislature intends to accomplish this by establishing the joint center for deployment and research in earth abundant materials, or JCDREAM, to attract academic talent and research funding to our state, and develop a workforce for manufacturing next generation earth-abundant technologies.

**Sec.**  RCW 28B.156.010 and 2015 3rd sp.s. c 20 s 2 are each amended to read as follows:

The joint center for deployment and research in earth-abundant materials is created 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 and deploy resources that can facilitate and promote multi-institution collaborations to drive research, development, and deployment efforts in the use of earth-abundant materials for manufactured clean technologies or recycling of advanced materials used in clean technologies; ((~~and~~))

(3) Promote environmentally responsible processes in the areas of manufacturing and recycling of advanced materials used in clean technologies; and

(4) Promote research of methods and technologies that will allow for the economical extraction of metals, minerals, and rare earth elements from underground fluids brought to the surface by geothermal power plants.

**Sec.**  RCW 28B.156.030 and 2015 3rd sp.s. c 20 s 4 are each amended to read as follows:

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

(b) Of the ten voting members, one member must be the dean of Washington State University, one member must be the dean of the University of Washington, one member must represent Pacific Northwest National Laboratory, one member must represent an energy institute at a regional university, one member must represent the community colleges engaged in training of the next generation workforce in the relevant areas, one member must represent large industry companies, one member must represent medium industry companies, one member must represent small industry companies, one member must have professional experience in the fields of national security and energy policy, and one member shall have professional experience in innovation and development of policy to address environmental challenges.

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

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

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

(3) The board shall:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(v) Collaboration on research of methods and technologies that will allow for the economical extraction of metals, minerals, and rare earth elements from underground fluids brought to the surface by geothermal power plants;

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

(ii) The operating plan must also include appropriate performance metrics to measure total research dollars leveraged, total researchers involved, total workforce trained, and total number of products or processes that have progressed to commercialization and private sector deployment; and

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

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

**--- END ---**