

House Bill 3433

Sponsored by Representatives SMITH DB, BOSHART DAVIS, BONHAM, HELT, SMITH G, WITT, Senators GIROD, HANSELL, HEARD, LINTHICUM, ROBLAN, THOMSEN; Representatives BARRETO, BOLES, DRAZAN, FINDLEY, HAYDEN, LEIF, LEWIS, NOBLE, POST, RESCHKE, SPRENGER, STARK, WALLAN, WILSON, ZIKA, Senator KNOPP

SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure **as introduced**.

Requires certain state agencies and colleges at Oregon State University to conduct certain studies on opportunities for greenhouse gas sequestration by and emissions reductions from activities related to Oregon's natural and working lands and in Oregon's forest products, agricultural and building materials industries, transportation sector and electricity sector. Sunsets requirements for studies December 31, 2020.

Requires State Forestry Department and Department of State Lands to pursue agreements for shared stewardship of national forests between State of Oregon and United States Forest Service Pacific Northwest Region, with key purpose of reducing greenhouse gas emissions related to wildfire.

Increases, to two, number of reviews of clean fuels program required to be conducted by Department of Environmental Quality.

Directs State Department of Energy to complete second study on impact of Oregon renewable portfolio standards on jobs in this state no later than September 15, 2020.

Takes effect on 91st day following adjournment sine die.

A BILL FOR AN ACT

1
2 Relating to reducing atmospheric greenhouse gas concentrations; creating new provisions; amending
3 section 25, chapter 301, Oregon Laws 2007, and section 170, chapter 750, Oregon Laws 2017; and
4 prescribing an effective date.

5 Whereas Oregon produces 0.14 percent of global greenhouse gas emissions; and

6 Whereas Oregon's greenhouse gas emissions reduction goals were adopted by the Legislative
7 Assembly in 2007 and do not reflect complete, up-to-date data and analysis addressing the capacity
8 of Oregon's natural and working lands, forest products and agricultural industry to sequester or
9 reduce greenhouse gas emissions, or complete, up-to-date data and analysis addressing the role that
10 transportation electrification can play in greenhouse gas emissions reductions; and

11 Whereas over 60 percent of the greenhouse gas emissions from Oregon are sequestered in the
12 form of carbon stored within our forests; and

13 Whereas over 30 percent of the carbon stored within our forests is released in the form of
14 greenhouse gas emissions from wildfire and decay; and

15 Whereas burning timber and brush from wildfires expel fine particles into the air at a rate three
16 times as high as levels cited in emissions inventories by the United States Environmental Protection
17 Agency; and

18 Whereas emissions from Oregon forest fires in 2007 produced greenhouse gases equal to the
19 emissions of 11.1 million cars driven all year; and

20 Whereas wildfires on forestlands managed by the United States Forest Service resulted in the
21 majority of greenhouse gas emissions from wildfire in Oregon for the measurement period of
22 2001-2006 to 2011-2016, compared to all other forest ownerships; and

NOTE: Matter in **boldfaced** type in an amended section is new; matter [*italic and bracketed*] is existing law to be omitted. New sections are in **boldfaced** type.

1 Whereas protecting forests in Oregon includes responsible forest management that not only de-
2 creases fire risks and increases forest health but that also provides for a thriving forest sector
3 economy, abundant recreational opportunities and healthy forest ecosystems; and

4 Whereas comprehensive forestry treatment prescriptions designed to restore sustainable eco-
5 logical conditions, including but not limited to timber harvest, mechanical treatments and prescribed
6 fire, can move 90 percent of treated acres into a low-hazard condition; and

7 Whereas the thinning of forests can reduce wildfire severity by up to 60 percent and remove
8 up to 400 percent more carbon from the air than leaving forests alone; and

9 Whereas newly established and young forests sequester carbon at faster rates compared to older
10 forest age classes; and

11 Whereas wood from sustainably managed forests is renewable, recyclable and the primary ele-
12 ment in thousands of products that are used every day; and

13 Whereas wood from Oregon forestland regulated by the state's forest protection laws can count
14 toward the United States Green Building Council's Leadership in Energy and Environmental Design
15 (LEED) certification for green building projects; and

16 Whereas about half the dry weight of wood is carbon, which remains stored in wood products
17 used to construct houses, apartments and office buildings, and helps offset carbon emissions that are
18 contributing to changing climate conditions; and

19 Whereas one cubic meter of wood stores carbon equivalent to nearly a metric ton, about 2,200
20 pounds, of carbon dioxide; and

21 Whereas timber construction reduces the overall carbon footprint of a building project through
22 carbon storage; and

23 Whereas each one million board feet of timber harvested in Oregon creates or retains about 11
24 jobs in the forest sector, which is the sector responsible for nearly one-third of the economic base
25 in some rural counties; and

26 Whereas Oregon is one of 23 states that have formed the United States Climate Alliance, as part
27 of which a natural and working lands initiative was created to identify best practices and policy
28 pathways for protecting and enhancing resilient carbon sinks on natural and working lands and in
29 forest products; and

30 Whereas it is the intent of the Legislative Assembly that Oregon will participate in the natural
31 and working lands initiative to identify opportunities to advance carbon sequestration and storage
32 regarding natural and working lands and forest products; and

33 Whereas the Oregon Forest Ecosystems Carbon Report and the study on the dynamics of carbon
34 in harvested wood products and the consumption and production of energy at Oregon sawmills,
35 currently being conducted through agreements with the State Forestry Department, will provide
36 data and analysis on the role that Oregon's forests and forestry industry can play in sequestering
37 carbon and reducing greenhouse gas emissions; and

38 Whereas industry is reducing greenhouse gas emissions through compliance with Oregon's
39 renewable portfolio standards, through meeting the requirement for electric companies to eliminate,
40 by January 1, 2030, coal-fired resources from their allocation of electricity and through improving
41 carbon capture and sequestration efforts in accordance with the state's existing greenhouse gas re-
42 duction goals; and

43 Whereas additional, up-to-date data and analysis addressing the capacity of Oregon's natural and
44 working lands, forest products and agricultural industry to sequester carbon and addressing the role
45 that transportation electrification can play in greenhouse gas emissions reductions will provide es-

1 sential information necessary to update Oregon’s greenhouse gas emissions reduction goals, which
 2 include key elements of the Paris Agreement outlined on November 4, 2016; and

3 Whereas key elements of the Paris Agreement that will be supported through implementation
 4 of this 2019 Act include:

5 (1) Basing actions on accurate data to derive emission reduction targets;

6 (2) Developing and utilizing natural and working lands and implementing systems for this state
 7 to reassess, upgrade and deepen emissions reductions and emissions reductions commitments over
 8 time;

9 (3) Creating technological opportunities to assist and support other states and developing
 10 countries in building low-carbon and climate resilient economies by supporting innovations in re-
 11 search, science, technology and natural resource management for the reduction and sequestration
 12 of greenhouse gas emissions;

13 (4) Ensuring data and research have a role in the open, public processes that support strong
 14 systems for ensuring transparency and accountability in actions to address reducing greenhouse gas
 15 emissions and sequestering carbon;

16 (5) Spurring other states and countries to take similar action by taking a state leadership role
 17 in actions to reduce greenhouse gas emissions and sequester carbon at all levels through partner-
 18 ships with government and private industry; and

19 (6) Creating a path to even greater action in the years to come; and

20 Whereas it is the intent of the Legislative Assembly to take actions for increasing carbon
 21 sequestration and reducing greenhouse gas emissions that are based on the best information avail-
 22 able, that place Oregon in a leadership role among other states, the federal government and the
 23 international community in addressing carbon and greenhouse gas sequestration and reduction and
 24 that position Oregon’s economy, urban and rural areas, technology centers, financial institutions,
 25 businesses and industries to benefit from these efforts, as well as national and international efforts,
 26 including efforts taken in furtherance of the Paris Agreement, to further reduce greenhouse gas
 27 emissions and sequester carbon; and

28 Whereas Oregon can fulfill the intent of the Legislative Assembly only if additional data and
 29 analysis are available to support informed decision-making and ensure partnerships are in place to
 30 adequately steward our natural and working lands; now, therefore,

31 **Be It Enacted by the People of the State of Oregon:**

32 **SECTION 1. (1) As used in this section:**

33 **(a) “Forest treatments” includes timber harvest, mechanical treatments and burning by**
 34 **prescribed fire.**

35 **(b) “Forest treatments” does not include burning by unplanned or catastrophic wildfire.**

36 **(2) The State Forestry Department and the Department of State Lands shall pursue**
 37 **agreements for shared stewardship of national forests between the State of Oregon and the**
 38 **United States Forest Service Pacific Northwest Region, with a key purpose of reducing**
 39 **greenhouse gas emissions related to wildfire through implementing targeted forest treat-**
 40 **ments on a meaningful landscape-scale of acres of:**

41 **(a) National forestland at risk of catastrophic wildfire; and**

42 **(b) National forestland identified for ongoing timber harvest under existing plans.**

43 **(3) In implementing subsection (2) of this section, the departments shall pursue shared**
 44 **stewardship agreements that prioritize and implement projects using Good Neighbor Au-**
 45 **thority and all other authorities and active management tools available to engage in**

1 **stewardship and forest treatments that:**

2 (a) **Maximize the carbon sequestration of national forests, taking into account the carbon**
 3 **storage in harvested wood products manufactured in Oregon; and**

4 (b) **Result in the rehabilitation and replanting of federal lands affected by catastrophic**
 5 **wildfire and other catastrophic events.**

6 **SECTION 2. (1) The State Forestry Department shall coordinate with the United States**
 7 **Forest Service Pacific Northwest Region to conduct a study on the forest carbon flux asso-**
 8 **ciated with wildfire on national forestland in Oregon. The study shall, at a minimum, address**
 9 **carbon flux related to:**

10 (a) **Carbon emissions due to wildfire combustion;**

11 (b) **Carbon emissions due to tree mortality and tree decomposition;**

12 (c) **Effects of wildfire on opportunities for greenhouse gas sequestration in harvested**
 13 **wood products manufactured in Oregon; and**

14 (d) **Effects of replanting rates on the carbon sequestration potential of burned forestland**
 15 **and opportunities for maximizing carbon sequestration potential through replanting efforts.**

16 (2) **The department shall submit a report on the study required by this section to an in-**
 17 **terim committee of the Legislative Assembly related to climate or carbon reduction, in the**
 18 **manner provided by ORS 192.245, no later than September 15, 2020. The report may include**
 19 **recommendations for legislation.**

20 **SECTION 3. (1) The appropriate college or colleges of Oregon State University shall co-**
 21 **ordinate to conduct the following studies related to greenhouse gas sequestration and emis-**
 22 **sions reductions from activities related to Oregon’s natural and working lands and in**
 23 **Oregon’s forest products, agricultural and building materials industries:**

24 (a) **A study on the carbon sequestration potential of Oregon’s orchards, vining and per-**
 25 **ennial crops, rangeland and agricultural crops. In designing and implementing the study re-**
 26 **quired by this paragraph, the appropriate college or colleges shall consult with the State**
 27 **Department of Agriculture and any other interested or appropriate agencies of state gov-**
 28 **ernment, as defined in ORS 174.111.**

29 (b) **A study on innovations and strategies available to increase greenhouse gas**
 30 **sequestration or decrease greenhouse gas emissions within Oregon’s aggregate, steel and**
 31 **cross-laminated timber industries. In designing and implementing the study required by this**
 32 **paragraph, the appropriate college or colleges shall consult with the State Department of**
 33 **Geology and Mineral Industries, the State Forestry Department and any other interested or**
 34 **appropriate agencies of state government, as defined in ORS 174.111.**

35 (c) **A study on the utilization of air curtain destructors or other similar techniques for**
 36 **reducing emissions from the fuel reduction of slash, wood and other burnable waste materi-**
 37 **als and for producing and utilizing biochar as a marketable commodity. In designing and**
 38 **implementing the study required by this paragraph, the appropriate college or colleges shall**
 39 **consider and make recommendations regarding:**

40 (A) **Implementation of using emission reduction techniques by Oregon’s forestry and**
 41 **forest products industries as a method for reducing greenhouse gas emissions; and**

42 (B) **The utility of biochar as a marketable soil amendment and alternative to nitrogen-**
 43 **based fertilizers in agricultural applications.**

44 (d) **A study on the commercial development of seaweed production for livestock feed as**
 45 **a method for reducing methane emissions.**

1 (2) The colleges shall submit a report on the studies required by this section to an in-
2 terim committee of the Legislative Assembly related to climate or carbon reduction, in the
3 manner provided by ORS 192.245, no later than September 15, 2020. The report may include
4 recommendations for legislation.

5 **SECTION 4.** (1) As used in this section:

6 (a) "Electric company" has the meaning given that term in ORS 757.600.

7 (b) "TriMet" means the Tri-County Metropolitan Transportation District of Oregon, a
8 mass transit district created under ORS chapter 267.

9 (2) The State Department of Energy shall study and develop recommendations on the
10 electricity grid modernization, capacity and infrastructure changes necessary to provide ur-
11 ban areas in the State of Oregon with adequate access to electric vehicle charging stations
12 to support the transition to the use of light-duty electric vehicles and buses necessary to
13 meet state and regional goals for reducing greenhouse gas emissions from the transportation
14 sector.

15 (3) In designing and implementing the study required by this section, the department
16 shall consult with the Department of Transportation, the Public Utility Commission, TriMet,
17 electric companies and any other interested or appropriate agencies of state government, as
18 defined in ORS 174.111.

19 (4) The State Department of Energy shall submit a report on the study required by this
20 section to an interim committee of the Legislative Assembly related to climate or carbon
21 reduction, in the manner provided by ORS 192.245, no later than September 15, 2020. The
22 report may include recommendations for legislation.

23 **SECTION 5.** (1) The State Department of Energy shall conduct a study on the potential
24 role for small modular nuclear reactor power plants in reducing greenhouse gas emissions
25 related to the generation of electric power to serve electricity customers in this state.

26 (2) The study shall, at a minimum, address:

27 (a) The potential greenhouse gas emissions avoided through replacing fossil fuel-powered
28 electric power generating plants with small modular nuclear reactor power plants for
29 producing baseload electricity;

30 (b) Considerations related to the potential technological and economic viability of small
31 modular nuclear reactor power plants; and

32 (c) Barriers to the siting, permitting and regulation of small modular nuclear reactor
33 power plants in Oregon and recommendations for addressing any identified barriers, includ-
34 ing but not limited to recommendations for legislation.

35 (3) The department shall submit a report on the study required by this section to an in-
36 terim committee of the Legislative Assembly related to climate or carbon reduction, in the
37 manner provided by ORS 192.245, no later than September 15, 2020. The report may include
38 recommendations for legislation.

39 **SECTION 6.** Sections 2 to 5 of this 2019 Act are repealed on December 31, 2020.

40 **SECTION 7.** Section 170, chapter 750, Oregon Laws 2017, is amended to read:

41 **Sec. 170.** (1) The Department of Environmental Quality shall, *no later than February 1, 2022,*
42 *complete a review of* **complete two reviews of** the clean fuels program and [*submit a*] report on the
43 department's [*review*] **reviews** to the interim committees of the Legislative Assembly related to en-
44 vironment and natural resources [*in the manner provided by ORS 192.245*]. **The department shall,**
45 **in the manner provided by ORS 192.245, submit:**

1 (a) **The first report required by this section no later than September 15, 2020; and**

2 (b) **The second report required by this section no later than February 1, 2022.**

3 (2) The *[review]* **reviews** required by this section must consider all program compliance data
4 available and must **each** include, but need not be limited to, a review of the following:

5 (a) The progress of this state, through implementation of *[sections 159 to 167 of this 2017 Act]*
6 **ORS 468A.265 to 468A.277** and rules adopted pursuant to *[sections 159 to 167 of this 2017 Act]* **ORS**
7 **468A.265 to 468A.277**, toward achieving the goal of reducing the average amount of greenhouse gas
8 emissions per unit of fuel energy of the fuels by 10 percent below 2010 levels by the year 2025.

9 (b) The environmental, economic, health and other benefits realized through the implementation
10 of *[sections 159 to 167 of this 2017 Act]* **ORS 468A.265 to 468A.277** and rules adopted pursuant to
11 *[sections 159 to 167 of this 2017 Act]* **ORS 468A.265 to 468A.277**, including but not limited to the
12 economic benefits of supplying low carbon fuels or electric vehicle charging and related
13 infrastructure.

14 (c) The projected availability of low carbon fuels and credits through the year 2025, using the
15 methodology described in *[section 163 (2) of this 2017 Act]* **ORS 468A.272 (2)**.

16 (d) Additional mechanisms that may be necessary to manage and contain the costs of compliance
17 with the low carbon fuel standards.

18 (e) Whether adjustments to the low carbon fuel standards or the clean fuels program are nec-
19 essary, including for purposes of achieving regional harmonization and consistency with the strategy
20 described in ORS 184.617 (1)(j).

21 (f) The effects of the maximum price for credits in the credit clearance market, as provided for
22 in *[section 166 of this 2017 Act]* **ORS 468A.276**, on implementation of *[sections 159 to 167 of this 2017*
23 *Act]* **ORS 468A.265 to 468A.277**.

24 (g) Adjustments that could serve to strengthen and enhance the low carbon fuel standards or
25 the clean fuels program in terms of increased emissions reductions or other net benefits attributable
26 to the standards or program.

27 (3) The *[review]* **reviews** conducted by the department under this section must take into con-
28 sideration the fuel supply forecast required by *[section 163 of this 2017 Act]* **ORS 468A.272** and may
29 be conducted in coordination with the division of the Oregon Department of Administrative Services
30 that serves as office of economic analysis.

31 **SECTION 8.** Section 25, chapter 301, Oregon Laws 2007, is amended to read:

32 **Sec. 25.** (1) The State Department of Energy shall periodically conduct a study to evaluate the
33 impact of *[sections 1 to 24 of this 2007 Act]* **ORS 469A.005 to 469A.210** on jobs in this state. The
34 study shall assess the number of new jobs created in the renewable energy sector in this state and
35 the average wage rates and the provision of health care and other benefits for those jobs. In addi-
36 tion, the study shall investigate the extent to which workforce training opportunities are being
37 provided to employees to prepare the employees for jobs in the renewable energy sector.

38 (2) The department shall conduct the first study under this section not later than two years after
39 *[the effective date of this 2007 Act]* **June 6, 2007**.

40 (3) **The department shall complete the second study under this section, and submit a**
41 **report on the results of the study to an interim committee of the Legislative Assembly re-**
42 **lated to climate or carbon reduction, in the manner provided by ORS 192.245, no later than**
43 **September 15, 2020.**

44 **SECTION 9.** This 2019 Act takes effect on the 91st day after the date on which the 2019
45 regular session of the Eightieth Legislative Assembly adjourns sine die.

