

Requested by Representative SMITH DB

**PROPOSED AMENDMENTS TO  
HOUSE BILL 2020**

1 On page 1 of the printed bill, line 2, after “amending” delete the rest of  
2 the line and lines 3 and 4 and insert “section 25, chapter 301, Oregon Laws  
3 2007, and section 170, chapter 750, Oregon Laws 2017; and prescribing an ef-  
4 fective date.

5 “Whereas Oregon produces 0.14 percent of global greenhouse gas emis-  
6 sions; and

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

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

16 “Whereas over 30 percent of the carbon stored within our forests is re-  
17 leased in the form of greenhouse gas emissions from wildfire and decay; and

18 “Whereas burning timber and brush from wildfires expel fine particles  
19 into the air at a rate three times as high as levels cited in emissions inven-  
20 tories by the United States Environmental Protection Agency; and

21 “Whereas emissions from Oregon forest fires in 2007 produced greenhouse

1 gases equal to the emissions of 11.1 million cars driven all year; and

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

6 “Whereas protecting forests in Oregon includes responsible forest man-  
7 agement that not only decreases fire risks and increases forest health but  
8 that also provides for a thriving forest sector economy, abundant recre-  
9 ational opportunities and healthy forest ecosystems; and

10 “Whereas comprehensive forestry treatment prescriptions designed to re-  
11 store sustainable ecological conditions, including but not limited to timber  
12 harvest, mechanical treatments and prescribed fire, can move 90 percent of  
13 treated acres into a low-hazard condition; and

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

17 “Whereas newly established and young forests sequester carbon at faster  
18 rates compared to older forest age classes; and

19 “Whereas wood from sustainably managed forests is renewable, recyclable  
20 and the primary element in thousands of products that are used every day;  
21 and

22 “Whereas wood from Oregon forestland regulated by the state’s forest  
23 protection laws can count toward the United States Green Building Council’s  
24 Leadership in Energy and Environmental Design (LEED) certification for  
25 green building projects; and

26 “Whereas about half the dry weight of wood is carbon, which remains  
27 stored in wood products used to construct houses, apartments and office  
28 buildings, and helps offset carbon emissions that are contributing to chang-  
29 ing climate conditions; and

30 “Whereas one cubic meter of wood stores carbon equivalent to nearly a

1 metric ton, about 2,200 pounds, of carbon dioxide; and

2 “Whereas timber construction reduces the overall carbon footprint of a  
3 building project through carbon storage; and

4 “Whereas each one million board feet of timber harvested in Oregon cre-  
5 ates or retains about 11 jobs in the forest sector, which is the sector re-  
6 sponsible for nearly one-third of the economic base in some rural counties;  
7 and

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

13 “Whereas it is the intent of the Legislative Assembly that Oregon will  
14 participate in the natural and working lands initiative to identify opportu-  
15 nities to advance carbon sequestration and storage regarding natural and  
16 working lands and forest products; and

17 “Whereas the Oregon Forest Ecosystems Carbon Report and the study on  
18 the dynamics of carbon in harvested wood products and the consumption and  
19 production of energy at Oregon sawmills, currently being conducted through  
20 agreements with the State Forestry Department, will provide data and anal-  
21 ysis on the role that Oregon’s forests and forestry industry can play in  
22 sequestering carbon and reducing greenhouse gas emissions; and

23 “Whereas industry is reducing greenhouse gas emissions through compli-  
24 ance with Oregon’s renewable portfolio standards, through meeting the re-  
25 quirement for electric companies to eliminate, by January 1, 2030, coal-fired  
26 resources from their allocation of electricity and through improving carbon  
27 capture and sequestration efforts in accordance with the state’s existing  
28 greenhouse gas reduction goals; and

29 “Whereas additional, up-to-date data and analysis addressing the capacity  
30 of Oregon’s natural and working lands, forest products and agricultural in-

1 dustry to sequester carbon and addressing the role that transportation  
2 electrification can play in greenhouse gas emissions reductions will provide  
3 essential information necessary to update Oregon’s greenhouse gas emissions  
4 reduction goals, which include key elements of the Paris Agreement outlined  
5 on November 4, 2016; and

6 “Whereas key elements of the Paris Agreement that will be supported  
7 through implementation of this 2019 Act include:

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

9 “(2) Developing and utilizing natural and working lands and implementing  
10 systems for this state to reassess, upgrade and deepen emissions reductions  
11 and emissions reductions commitments over time;

12 “(3) Creating technological opportunities to assist and support other  
13 states and developing countries in building low-carbon and climate resilient  
14 economies by supporting innovations in research, science, technology and  
15 natural resource management for the reduction and sequestration of  
16 greenhouse gas emissions;

17 “(4) Ensuring data and research have a role in the open, public processes  
18 that support strong systems for ensuring transparency and accountability in  
19 actions to address reducing greenhouse gas emissions and sequestering car-  
20 bon;

21 “(5) Spurring other states and countries to take similar action by taking  
22 a state leadership role in actions to reduce greenhouse gas emissions and  
23 sequester carbon at all levels through partnerships with government and  
24 private industry; and

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

26 “Whereas it is the intent of the Legislative Assembly to take actions for  
27 increasing carbon sequestration and reducing greenhouse gas emissions that  
28 are based on the best information available, that place Oregon in a leader-  
29 ship role among other states, the federal government and the international  
30 community in addressing carbon and greenhouse gas sequestration and re-

1 duction and that position Oregon’s economy, urban and rural areas, tech-  
2 nology centers, financial institutions, businesses and industries to benefit  
3 from these efforts, as well as national and international efforts, including  
4 efforts taken in furtherance of the Paris Agreement, to further reduce  
5 greenhouse gas emissions and sequester carbon; and

6 “Whereas Oregon can fulfill the intent of the Legislative Assembly only  
7 if additional data and analysis are available to support informed decision-  
8 making and ensure partnerships are in place to adequately steward our na-  
9 tural and working lands; now, therefore,”.

10 Delete lines 6 through 18 and delete pages 2 through 55 and insert:

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

12 **“(a) ‘Forest treatments’ includes timber harvest, mechanical treat-**  
13 **ments and burning by prescribed fire.**

14 **“(b) ‘Forest treatments’ does not include burning by unplanned or**  
15 **catastrophic wildfire.**

16 **“(2) The State Forestry Department and the Department of State**  
17 **Lands shall pursue agreements for shared stewardship of national**  
18 **forests between the State of Oregon and the United States Forest**  
19 **Service Pacific Northwest Region, with a key purpose of reducing**  
20 **greenhouse gas emissions related to wildfire through implementing**  
21 **targeted forest treatments on a meaningful landscape-scale of acres**  
22 **of:**

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

24 **“(b) National forestland identified for ongoing timber harvest under**  
25 **existing plans.**

26 **“(3) In implementing subsection (2) of this section, the departments**  
27 **shall pursue shared stewardship agreements that prioritize and imple-**  
28 **ment projects using Good Neighbor Authority and all other authorities**  
29 **and active management tools available to engage in stewardship and**  
30 **forest treatments that:**

1       “(a) Maximize the carbon sequestration of national forests, taking  
2 into account the carbon storage in harvested wood products manu-  
3 factured in Oregon; and

4       “(b) Result in the rehabilitation and replanting of federal lands af-  
5 fected by catastrophic wildfire and other catastrophic events.

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

11       “(a) Carbon emissions due to wildfire combustion;

12       “(b) Carbon emissions due to tree mortality and tree decomposition;

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

16       “(d) Effects of replanting rates on the carbon sequestration poten-  
17 tial of burned forestland and opportunities for maximizing carbon  
18 sequestration potential through replanting efforts.

19       “(2) The department shall submit a report on the study required by  
20 this section to an interim committee of the Legislative Assembly re-  
21 lated to climate or carbon reduction, in the manner provided by ORS  
22 192.245, no later than September 15, 2020. The report may include rec-  
23 ommendations for legislation.

24       “SECTION 3. (1) The appropriate college or colleges of Oregon State  
25 University shall coordinate to conduct the following studies related to  
26 greenhouse gas sequestration and emissions reductions from activities  
27 related to Oregon’s natural and working lands and in Oregon’s forest  
28 products, agricultural and building materials industries:

29       “(a) A study on the carbon sequestration potential of Oregon’s or-  
30 chards, vining and perennial crops, rangeland and agricultural crops.

1 In designing and implementing the study required by this paragraph,  
2 the appropriate college or colleges shall consult with the State De-  
3 partment of Agriculture and any other interested or appropriate  
4 agencies of state government, as defined in ORS 174.111.

5 “(b) A study on innovations and strategies available to increase  
6 greenhouse gas sequestration or decrease greenhouse gas emissions  
7 within Oregon’s aggregate, steel and cross-laminated timber indus-  
8 tries. In designing and implementing the study required by this para-  
9 graph, the appropriate college or colleges shall consult with the State  
10 Department of Geology and Mineral Industries, the State Forestry  
11 Department and any other interested or appropriate agencies of state  
12 government, as defined in ORS 174.111.

13 “(c) A study on the utilization of air curtain destructors or other  
14 similar techniques for reducing emissions from the fuel reduction of  
15 slash, wood and other burnable waste materials and for producing and  
16 utilizing biochar as a marketable commodity. In designing and imple-  
17 menting the study required by this paragraph, the appropriate college  
18 or colleges shall consider and make recommendations regarding:

19 “(A) Implementation of using emission reduction techniques by  
20 Oregon’s forestry and forest products industries as a method for re-  
21 ducing greenhouse gas emissions; and

22 “(B) The utility of biochar as a marketable soil amendment and  
23 alternative to nitrogen-based fertilizers in agricultural applications.

24 “(d) A study on the commercial development of seaweed production  
25 for livestock feed as a method for reducing methane emissions.

26 “(2) The colleges shall submit a report on the studies required by  
27 this section to an interim committee of the Legislative Assembly re-  
28 lated to climate or carbon reduction, in the manner provided by ORS  
29 192.245, no later than September 15, 2020. The report may include rec-  
30 ommendations for legislation.

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

2       **“(a) ‘Electric company’ has the meaning given that term in ORS**  
3 **757.600.**

4       **“(b) ‘TriMet’ means the Tri-County Metropolitan Transportation**  
5 **District of Oregon, a mass transit district created under ORS chapter**  
6 **267.**

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

14       **“(3) In designing and implementing the study required by this sec-**  
15 **tion, the department shall consult with the Department of Transpor-**  
16 **tation, the Public Utility Commission, TriMet, electric companies and**  
17 **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**  
20 **study required by this section to an interim committee of the Legis-**  
21 **lative Assembly related to climate or carbon reduction, in the manner**  
22 **provided by ORS 192.245, no later than September 15, 2020. The report**  
23 **may include recommendations for legislation.**

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

28       **“(2) The study shall, at a minimum, address:**

29       **“(a) The potential greenhouse gas emissions avoided through re-**  
30 **placing fossil fuel-powered electric power generating plants with small**



1 **modular nuclear reactor power plants for producing baseload electric-**  
2 **ity;**

3 **“(b) Considerations related to the potential technological and eco-**  
4 **nomics viability of small modular nuclear reactor power plants; and**

5 **“(c) Barriers to the siting, permitting and regulation of small**  
6 **modular nuclear reactor power plants in Oregon and recommendations**  
7 **for addressing any identified barriers, including but not limited to**  
8 **recommendations for legislation.**

9 **“(3) The department shall submit a report on the study required by**  
10 **this section to an interim committee of the Legislative Assembly re-**  
11 **lated to climate or carbon reduction, in the manner provided by ORS**  
12 **192.245, no later than September 15, 2020. The report may include rec-**  
13 **ommendations for legislation.**

14 **“SECTION 6. Sections 2 to 5 of this 2019 Act are repealed on De-**  
15 **cember 31, 2020.**

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

18 **“Sec. 170.** (1) The Department of Environmental Quality shall[, *no later*  
19 *than February 1, 2022, complete a review of*] **complete two reviews of** the  
20 **clean fuels program and [submit a] report on the department’s [review] re-**  
21 **views to the interim committees of the Legislative Assembly related to en-**  
22 **vironment and natural resources [in the manner provided by ORS 192.245].**  
23 **The department shall, in the manner provided by ORS 192.245, submit:**

24 **“(a) The first report required by this section no later than Septem-**  
25 **ber 15, 2020; and**

26 **“(b) The second report required by this section no later than Feb-**  
27 **ruary 1, 2022.**

28 **“(2) The [review] reviews required by this section must consider all pro-**  
29 **gram compliance data available and must each include, but need not be**  
30 **limited to, a review of the following:**

1       “(a) The progress of this state, through implementation of [*sections 159 to*  
2 *167 of this 2017 Act*] **ORS 468A.265 to 468A.277** and rules adopted pursuant  
3 to [*sections 159 to 167 of this 2017 Act*] **ORS 468A.265 to 468A.277**, toward  
4 achieving the goal of reducing the average amount of greenhouse gas emis-  
5 sions per unit of fuel energy of the fuels by 10 percent below 2010 levels by  
6 the year 2025.

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

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

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

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

22       “(f) The effects of the maximum price for credits in the credit clearance  
23 market, as provided for in [*section 166 of this 2017 Act*] **ORS 468A.276**, on  
24 implementation of [*sections 159 to 167 of this 2017 Act*] **ORS 468A.265 to**  
25 **468A.277**.

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

30       “(3) The [*review*] **reviews** conducted by the department under this section

1 must take into consideration the fuel supply forecast required by [*section 163*  
2 *of this 2017 Act*] **ORS 468A.272** and may be conducted in coordination with  
3 the division of the Oregon Department of Administrative Services that serves  
4 as office of economic analysis.

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

7 **“Sec. 25.** (1) The State Department of Energy shall periodically conduct  
8 a study to evaluate the impact of [*sections 1 to 24 of this 2007 Act*] **ORS**  
9 **469A.005 to 469A.210** on jobs in this state. The study shall assess the number  
10 of new jobs created in the renewable energy sector in this state and the av-  
11 erage wage rates and the provision of health care and other benefits for  
12 those jobs. In addition, the study shall investigate the extent to which  
13 workforce training opportunities are being provided to employees to prepare  
14 the employees for jobs in the renewable energy sector.

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

17 **“(3) The department shall complete the second study under this**  
18 **section, and submit a report on the results of the study to an interim**  
19 **committee of the Legislative Assembly related to climate or carbon**  
20 **reduction, in the manner provided by ORS 192.245, no later than Sep-**  
21 **tember 15, 2020.**

22 **“SECTION 9.** This 2019 Act takes effect on the 91st day after the  
23 **date on which the 2019 regular session of the Eightieth Legislative**  
24 **Assembly adjourns sine die.”.**

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