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Cory Ann Wind, Air Quality Planner
Oregon Department of Environmental Quality, Air Quality Division
Attn: Oregon Clean Fuels Program
811 S.W. Sixth Ave.
Portland, OR 97204-1390

Via e-mail: wind.cory@deq.state.or.us

RE: Proposed Phase 2 Regulation to Implement Oregon Clean Fuels Program/ Low Carbon Fuel Standard (LCFS)

Dear Ms. Wind:

The American Fuel & Petrochemical Manufacturers ("AFPM") submits these comments on behalf of its members in response to the Oregon Department of Environmental Quality's ("DEQ") Clean Fuels Program Phase 2 Rulemaking and the proposed rule changes to the Oregon Clean Fuels Program ("Oregon Program"). For the reasons described below, AFPM respectfully requests DEQ to not proceed to adopt the Oregon Program, which is contrary to governing federal law and raises serious constitutional concerns.

INTRODUCTION AND SUMMARY

AFPM is a trade association representing high-tech American manufacturers of virtually the entire U.S. supply of gasoline, diesel, jet fuel, other fuels and home heating oil, as well as the petrochemicals used as building blocks for thousands of vital products in daily life. AFPM members make modern life possible and keep America moving and growing as they meet the needs of our nation and local communities, strengthen economic and national security, and support nearly 2 million American jobs. A central objective of AFPM is to educate the public and policymakers about the vital role of the refining and petrochemical industries in the nation's economy and our members' contribution to improvements in the quality of life. AFPM participates, on behalf of its members, in regulatory or legal proceedings, with respect to a wide-variety of legal or policy issues that may affect the petroleum refining industry. AFPM regularly comments on and, where appropriate, challenges in Court regulations and policies that may affect our members.

In 2009, the Oregon Legislature sought to reduce greenhouse gas ("GHG") emissions by 10 percent over a 10-year period. 2009 Or. Laws ch. 754, § 6(2)(b)(A). The Legislature authorized DEQ to develop a program to achieve these reductions through reductions in GHG emissions of the "lifecycle[]" of the fuel, which includes the "emissions from the production, storage, transportation and combustion of the fuels and from changes in land use associated with the fuels." *Id.* § 6(2)(b)(B). DEQ has implemented Phase 1 of the Oregon Program by requiring

importers or producers of gasoline, diesel, ethanol, biodiesel or any other liquid transportation fuel (with some exceptions) in Oregon to report and register with DEQ. Phase 2 of the Oregon Program is the subject of DEQ's proposed rule, which seeks to achieve the mandated 10 percent reduction in GHG emissions by imposing annual average carbon intensity requirements for fuels sold in Oregon.

On August 15, 2014, DEQ published the proposed Phase 2 of the Oregon Program. The proposed rule reiterates the Oregon Legislature's finding that "climate change poses a serious threat to" Oregon and provides that the Oregon Program's purpose "is to reduce the amount of lifecycle greenhouse gas emissions per unit of energy by a minimum of 10 percent below 2010 levels over a 10-year period." Oregon Clean Fuels Program ("OCFP") Proposed Rule § 340-253-0000(1)–(2) (Aug. 15, 2014) ("Proposed Rule"). The Oregon Program attempts to achieve the 10 percent reduction by (1) discriminating against gasoline and diesel fuel providers (petroleum fuels produced out-of state) in order to promote the development of an in-state biofuels program and (2) imposing more stringent requirements on out-of-state ethanol producers (and in particular those located in the Midwest). For the reasons stated below, the Oregon Program is unconstitutional, infeasible through the life of the program and against the sound judgment of public policy.

First, AFPM submits that the Oregon Program is preempted by the federal Clean Air Act, 42 U.S.C. § 7401, *et seq*. The Clean Air Act provides that when the Environmental Protection Agency has exercised its authority, "no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine." *Id.* § 7545(c)(4)(A). The Ninth Circuit held that a low carbon fuel standard such as that proposed by DEQ establishes a "'control or prohibition'" on fuel and fuel additives "'for purposes of motor vehicle emission control.'" *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070, 1106 (9th Cir. 2013), *cert. denied*, 134 S. Ct. 2875 (2014). The Ninth Circuit noted that the Clean Air Act provides an exemption from this preemption provision specifically for *California's* low carbon fuel standard, 42 U.S.C. § 7545(c)(4)(B), but there is no exemption that would permit Oregon or any other state to establish a low carbon fuel standard. As the Ninth Circuit has explained, "California is the only state permitted by the Clean Air Act to 'prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.'" *Davis v. U.S. EPA*, 348 F.3d 772, 777 n.1 (9th Cir. 2003) (quoting 42 U.S.C. § 7545(c)(4)(B)).

The Oregon Program also is invalid because the Energy Independence and Security Act of 2007 ("EISA") Pub. L. No. 110-140, § 201 *et seq.*, 121 Stat. 1492, preempts Oregon's proposed regulations. EISA reflects a congressional purpose to ensure a continued nationwide market for ethanol from existing biorefineries, which Congress has deemed necessary to "stabilize the cost and availability of energy." EISA § 806(a)(4), 121 Stat. at 1722. The Oregon

Program penalizes the use of ethanol from existing out-of-state biorefineries and interferes with Congress's purpose to maintain these existing biorefineries.

Second, the Oregon Program violates the dormant Commerce Clause, U.S. Const. art. I, § 8, cl. 3, because it discriminates against gasoline and diesel that Oregon must import from outside Oregon in favor of biofuels that Oregon seeks to produce within the State. A state regulation violates the Commerce Clause if it provides differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter. *Granholm* v. *Heald*, 544 U.S. 460, 472 (2005). By burdening imported petroleum fuels with arbitrarily higher carbon-intensity scores in comparison to various alternative fuels, the Oregon Program is designed to favor local alternatives to imported gasoline.[1] Further, the Oregon Program violates the Commerce Clause because Oregon is engaged in extraterritorial regulation of commerce in other states and foreign countries. *Healy* v. *Beer Inst.*, 491 U.S. 324, 336 (1989). The Oregon Program seeks to impose Oregon's environmental standards on interstate and foreign commerce conducted entirely outside Oregon by erecting a barrier to imports produced and transported in a manner Oregon disfavors. As such, the proposed rule imposes burdens on out-of-state providers in violation of the Commerce Clause.

Third, notwithstanding the burdens that DEQ's proposal imposes, the Oregon program is further flawed because it does not serve the Legislature's goal of reducing GHGs. The Oregon Legislature authorized the DEQ to develop a standard that would seek to reduce the average amount of GHG emissions per unit of energy of transportation fuels in Oregon by 10 percent over a 10-year period. 2009 Or. Laws ch. 754, § 6(2)(b)(A). However, this proposal may, in fact, increase global GHG emissions because of biofuel's substantial carbon debt from land use change and by encouraging "fuel shuffling" that would result in greater GHG emissions, thereby undermining the Legislature's objectives.

AFPM respectfully requests that DEQ reconsider the Oregon Program and, at a minimum, revise it in an effort to eliminate these legal deficiencies.

BACKGROUND

In 2009, the Oregon Legislature authorized the Environmental Quality Commission to adopt a low carbon fuel standard that would seek to reduce the average amount of GHG emissions per unit of energy of transportation fuels in Oregon by 10 percent over a 10-year period. *Id.* DEQ based its standard on GHG emissions attributable to stages in the "lifecycle[]" of the fuel, including "emissions from the production, storage, transportation and combustion of the fuels and from changes in land use associated with the fuels." *Id.* § 6(2)(b)(B). After prior

[1] The Oregon Program also discriminates in its design against Midwest ethanol by assigning higher carbon intensity values to Midwest providers, and assigning lower carbon intensity values to providers in California and Oregon.

rounds of proposed rulemakings and comments, DEQ published the Oregon Program on August 15, 2014. The proposed rule provides that the purpose of the Oregon Program "is to reduce the amount of lifecycle greenhouse gas emissions per unit of energy by a minimum of 10 percent below 2010 levels over a 10 year period." Proposed Rule § 340-253-0000(2).

Oregon seeks to accomplish this goal by regulating the "carbon intensity" of transportation fuels used in Oregon. "Carbon intensity" is defined as the "amount of lifecycle greenhouse gas emissions per unit of energy of fuel expressed in grams of carbon dioxide equivalent per megajoule (gCO2e per MJ)." Proposed Rule § 340-253-0040(11). As DEQ's Advisory Committee explained, "[c]arbon intensity values" for fuels "are calculated using a life-cycle analysis," which "accounts for all greenhouse gas emissions associated with a fuel's production, distribution and use—as opposed to a simple measure of carbon emissions when a fuel is burned." DEQ, Final Report, *Oregon Low Carbon Fuels Standards: Advisory Committee Process and Program Design* 40 (Jan. 25, 2011) ("Advisory Final Report"). Thus, fuels that are physically and chemically identical may have different carbon intensity scores depending on variations in, among other things, the "emissions from extracting or growing the feedstock, refining, storage, transportation, and combustion." *Id.* at 122, 123.

The Oregon Program seeks to reduce the carbon intensity of Oregon's transportation fuels in two phases. During Phase 1, which began on January 1, 2013, regulated parties—defined as importers or producers of gasoline, diesel ethanol, biodiesel, or any other liquid transportation fuel in Oregon[2]—were required to register their fuels with Oregon and submit quarterly and annual reports regarding the volumes and carbon intensities of the fuels provided to Oregon. OCFP § 340-253-0100(1), (4)–(7). During Phase 2, under the proposed rule, regulated parties would be required to reduce the average lifecycle carbon intensity of the fuels that they provide in Oregon each year by complying with the substantive requirements of the regulation. Proposed Rule §§ 340-253-0100(6), -8010 tbl.1.

Phase 2 of the Oregon Program would impose annual average carbon intensity reductions for fuels sold in Oregon. These annual average reductions would become more stringent each year over a 10 year period (from 2016 to 2025), such that there would be a 10 percent reduction in the annual average carbon intensity of fuels at the end of that 10-year period. Proposed Rule §§ 340-253-0100(6), -8010 tbl.1 (listing Oregon Average Carbon Intensity Requirement for Gasoline and Gasoline Substitutes). Thus, for example, in 2015, the baseline carbon intensity of gasoline or gasoline substitutes would be 89.31; in 2016, it would be 89.08 (a 0.25% reduction); in 2020, it would be 87.08 (a 2.5% reduction); and in 2025 and beyond, it would be 80.36 (a 10% reduction). Proposed Rule § 340-253-8010 tbl.1

[2] The program has several exemptions, including small volume producers and fuels used for aircraft, locomotives, farm tractors, and trucks that transport logs.

Phase 2 of the Oregon Program would create a system of credits and deficits through which parties can establish compliance. Fuels provided to Oregon that are below the annual average carbon intensity requirement would generate credits, Proposed Rule § 340-253-1000(5); fuels that are above the annual average carbon intensity requirement would generate deficits, Proposed Rule § 340-253-0100(6); *see* Advisory Final Report at 84. Providers that accumulate deficits would then have to purchase credits from other regulated parties or generate them through the use of lower-carbon-intensity fuels during the compliance period. Proposed Rule § 340-253-1050; *see also* Proposed Rule § 340-253-0100(6).[3] In this way, the Oregon Program is designed to require providers of petroleum fuel – all of which is imported into Oregon – to make payments to obtain credits from the competing biofuel or other alternative fuel industry participants that DEQ seeks to develop and promote in Oregon. Oregon cannot subsidize an in-state industry at the expense of out-of-state competitors.

DEQ has performed a lifecycle analysis for various fuels and blendstocks to determine carbon intensity values for specific types of fuels or blendstocks. The Oregon Program would mandate that regulated parties must use these carbon intensity values, which are set out in Tables 3 and 4 of Regulation. Proposed Rule § 340-253-0400(1)-(2); Proposed Rule §§ 340-253-8030 to -8040 (tbls.3 & 4). Even though there are no petroleum products produced in Oregon, Advisory Final Report at 41, Oregon's proposal would set a "statewide" average carbon intensity for all gasoline of 89.40. Proposed Rule §§ 340-253-0400(1)(a), -8030. This average carbon intensity score is higher than the proposed average carbon intensity requirements for 2016-2025 and thus the use of imported gasoline would generate deficits for all providers or importers of this transportation fuel. Proposed Rule § 340-253-8030.

For ethanol, the Oregon Program would establish different carbon intensity scores based on various factors and would require providers to use the carbon intensity value in the table "that best matches" the fuel's production method. Proposed Rule § 340-253-0400(2). DEQ adopted a similar Table for ethanol production methods as the California Air Resources Board in the establishment of California's low carbon fuel standard. *See* Cal. Air Res. Bd., Cal. Low Carbon Fuel Standard Program, *Carbon Intensity Lookup Table for Gasoline and Fuels that Substitute for Gasoline* tbl.6 (Dec. 2012), *available at* http://www.arb.ca.gov/fuels/lcfs/lu_tables_11282012.pdf. The Oregon Table refers to different carbon intensity scores based on where the ethanol is produced, either in "California" or in the "Midwest."

[3] *See also* Advisory Final Report at 84 ("DEQ proposes that a fuel sold in Oregon by regulated or opt-in parties with a carbon intensity that is less (lower) than the required low carbon fuel standard for that year would generate credits. A fuel sold in Oregon with a carbon intensity that is higher than the low carbon fuel standard for that year would generate deficits. At the end of the year, a regulated party would reconcile credits and deficits to demonstrate compliance with the low carbon fuel standards.").

For instance, ethanol produced in "California" from corn using "Dry Mill; Wet [Distillers Grain with Solubles ("DGS")]; [Natural Gas ("NG")]" would have a carbon intensity value of 80.70. Proposed Rule § 340-253-8030 tbl.3 (ETHC003). But corn ethanol produced in the "Midwest" using the same procedure would have a carbon intensity value that is nearly 10 points higher of 90.10 (ETHC008). *Id*. (ETHC008). The same disparity between "California" and "Midwest" producers would be true for other forms of ethanol. Because the Oregon Program would require that providers use the carbon intensity score that "best matches" the production fuel method, it is most likely that Oregon providers of ethanol would adopt the "California" carbon intensity scores.

Regulated parties would not be able to use individual carbon intensity values for their fuels unless (1) DEQ specifically directs the regulated party to obtain an individual carbon intensity value because the fuel's intensity is not adequately represented on the tables or (2) a party elects to change the carbon intensity value of its fuel and obtains DEQ approval. Proposed Rule § 340-253-0400(3)(a)–(b). A party electing to obtain an individual carbon intensity value could only do so if it could show that the carbon intensity value for the fuel type would change by at least 5.0 gCO2e/MJ from the values listed in the tables and that it intends to provide more than one million gasoline gallon equivalents per year of fuel in Oregon. Proposed Rule § 340-253-0400(3)(b).

In assisting with the preparation of Oregon's proposed Program, an Advisory Committee within DEQ commissioned an economic analysis of the proposal. An analysis of Phase 2 done by ICF found that implementation of "a low carbon fuel policy would provide a net benefit to Oregon's economy in the form of increased job creation, gross state product and personal income and decreased fuel expenditures." Dep't of Envtl. Quality, ch. 340, *Statement of Need and Fiscal and Economic Impact* 2, *available at* http://www.oregon.gov/deq/RulesandRegulations/Documents/m3AgendaF3.pdf. Moreover, the DEQ stated that it was "reasonable to expect that the existence of . . . Oregon's low carbon fuel standards would be a significant incentive to increase the production capacity of Oregon's existing Biofuels facilities and attract new biofuels production." Advisory Final Report at 121. The DEQ noted that "[t]o achieve compliance, significant investment in infrastructure and fuel production capacity results in an influx of economic activity," and, as a result, "[e]mployment, income and gross state product all grow." *Id.* at 153.

Compliance costs are uncertain because feasible compliance pathways for gasoline and diesel for all ten years are not known. There has been an economic analysis on the California LCFS by the Boston Consulting Group which should be considered in Oregon.[4] California is now considering cost containment mechanisms to control the potential impacts of this

[4] *See* http://cafuelfacts.com/boston-consulting-group-responds-to-uc-davis-expert-review/.

uncertainty. DEQ should not dismiss the possibility of high costs associated with the proposed rule or proceed with Phase 2 without engaging in further analysis of these costs.

Governor John Kitzhaber has underscored the economic objective of Phase 2 of the Oregon Program. He has explained that Oregonians "sent more than $6 billion out of state to import gas and diesel," but the Oregon Program would counteract that out-flow of money by supporting our "home-grown, low carbon fuel producers."[5] Governor Kitzhaber underscored that Oregon Program would "keep more of those dollars here—in Oregon."[6] He noted that Oregon was faced with the choice "to invest in clean fuels here at home or continue to export fuel dollars out of state, out of the country and out of Oregon."[7] Indeed, Governor Kitzhaber has stated expressly that a purpose of OCFP is to "[d]evelop home-grown energy resources."[8]

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[5] Press Release, Or. Governor's Office, *Governor Kitzhaber Announces New Clean Fuels Initiative* (Feb. 13, 2014), *available at* http://www.oregon.gov/gov/media_room/pages/press_releases/press_021314.aspx.

[6] Gov. John Kitzhaber, Op-Ed., *Clean Fuels Program Will Help Oregon's Economy, Environment*, The Oregonian, Feb. 18, 2014, *available at* http://www.oregonlive.com/opinion/index.ssf/2014/02/clean_fuels_program_will_help.html.

[7] Yuxing Zheng, *Oregon Clean Fuels: Gov. John Kitzhaber Takes Action After Legislation Stalls*, The Oregonian, Feb. 13, 2014 (quoting Gov. John Kitzhaber), *available at* http://www.oregonlive.com/politics/index.ssf/2014/02/oregon_clean_fuels_gov_john_ki.html; *see also* Associated Press, *Kitzhaber: Low-carbon Fuel Mandate Will Go Forward*, (Feb. 13, 2014) ("'We're here today to try to spark this home-grown industry that can capture a portion of the billions of dollars that Oregonians send out of the state every year to purchase diesel and gasoline and keep those dollars circulating here in our own economy.'" (quoting Gov. John Kitzhaber)), *available at* http://newsok.com/kitzhaber-low-carbon-fuel-mandate-will-go-forward/article/feed/651053; Press Release, Or. Governor's Office, Press Release, *Governor Kitzhaber Announces New Clean Fuels Initiative* (Feb. 13, 2014) *supra* note 5 ("Delaying full implementation of the Clean Fuels Program has had real economic and environmental consequences. In 2012, Oregonians sent more than $6 billion out of state to import gas and diesel, while homegrown, low carbon fuel producers remain locked out of a promising market. There are no oil refineries in Oregon, but there are biofuel producers, feedstock growers, a burgeoning electric vehicle industry, and propane, natural gas, and other innovative fuel companies ready to invest in the state if they have regulatory certainty.").

[8] Letter from Gov. John Kitzhaber to Dick Pedersen, Director of DEQ 1 (Apr. 17, 2012), *available at* http://www.deq.state.or.us/aq/cleanFuel/docs/LowCarbonStandards041712.pdf. In OCFP Rulemaking proceedings, Richard Whitman, Gov. Kitzhaber's Natural Resources Policy Advisor, also stated that a purpose of OCFP is to "create jobs and economic incentives for Oregon." *Fiscal Advisory Committee Meeting Summary* 2 (Apr. 19, 2012), *available at* http://www.deq.state.or.us/aq/cleanFuel/docs/summary4_2012.pdf.

The Proposed Oregon Program is Preempted by the Clean Air Act.

The Supremacy Clause, U.S. Const. art. VI, cl. 2, "invalidates state laws that interfere with, or are contrary to, federal law." *Hillsborough Cnty. v. Automated Medical Labs., Inc.*, 471 U.S. 707, 712 (1985) (internal quotation marks omitted). Preemption of a state regulation "can be either express or implied." *Chicanos Por La Causa, Inc. v. Napolitano*, 558 F.3d 856, 863 (9th Cir. 2009), *aff'd sub nom.* 131 S. Ct. 1968 (2011). The Oregon Program is invalid because it is preempted by the Clean Air Act. The Oregon Program is preempted by the Clean Air Act's express preemption clause and with the objectives of the federal Renewable Fuel Standard and the Energy Independence and Security Act of 2007 ("EISA"), Pub. L. No. 110-140, § 201 *et seq.*, 121 Stat. 1492. AFPM respectfully requests that DEQ not implement an Oregon Program because it conflicts with the requirements of federal law.

The Clean Air Act Expressly Preempts the Proposed Oregon Program.

If adopted, the Oregon Clean Fuels Program would establish a fuel standard that is preempted by the Clean Air Act. The Clean Air Act authorizes the Environmental Protection Agency ("EPA") to "control or prohibit" any fuel or fuel additive that, when used in vehicles, "may reasonably be anticipated to endanger the public health or welfare." 42 U.S.C. § 7545(c)(1)(A). Under this section, state and local laws are expressly preempted, other than in limited defined circumstances, from enacting non-identical controls or prohibitions. *Id.* § 7545(c)(4)(A)(ii).

Where, as here, a federal statute "contains an express pre-emption clause, [the] task of statutory construction must in the first instance focus on the plain wording of the clause, which necessarily contains the best evidence of Congress' pre-emptive intent." *Sprietsma v. Mercury Marine*, 537 U.S. 51, 62-63 (2002) (internal quotation marks omitted) (quoting *CSX Transp., Inc. v. Easterwood*, 507 U.S. 658, 664 (1993)). The Clean Air Act provides:

> [N]o State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine . . . .

42 U.S.C. § 7545(c)(4)(A). This language "preempt[s] the field with regard to" state controls and prohibitions regarding fuels and fuel additives that are for purposes of motor vehicle emission control. *Washington v. Gen. Motors Corp.*, 406 U.S. 109, 114 (1972) (interpreting a similar Clean Air Act provision, which states that "[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions for new motor vehicles or new motor vehicle engines subject to this part." 42 U.S.C. § 7543(a)).

This express preemption of state law applies if the EPA has prescribed "a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the [EPA]." *Id.* § 7545(c)(4)(A)(ii). Here, the Oregon Program is preempted because EPA has "prescribe[d] regulations for the control and/or prohibition of fuels and additives for use in motor vehicles and motor vehicle engines." 40 C.F.R. § 80.1(a). Thus, the Oregon Program is preempted by the express language of the Clean Air Act if it qualifies as a "control or prohibition" within the meaning of Section 7545(c)(4)(A).[9]

On that specific point, the Ninth Circuit recently determined that an analogous California regulation qualified as a control or prohibition within the meaning of the Clean Air Act. *Rocky Mountain Farmers Union v. Corey* 730 F.3d 1070 (9th Cir. 2013). The Ninth Circuit ruled that California's low carbon fuel standard—which is analogous in relevant ways to the Oregon Program—is "'a control respecting a fuel or fuel additive and was enacted for the purpose of emissions control.'" *Id*. at 1106. Under the Clean Air Act, California is exempted from express preemption under this provision, but other states, including Oregon, are not. *Davis*, 348 F.3d at 777 n.1 ("California is the only state permitted by the Clean Air Act to 'prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.'" (quoting 42 U.S.C. § 7545(c)(4)(B)). For the same reasons, the Oregon law is subject to this preemption provision. But unlike California, Oregon's low carbon fuel standard would not be excluded from preemption.

Because the Oregon Program establishes controls and prohibitions on motor vehicle fuels that are not identical to those adopted by EPA, the Oregon Program would be preempted by the Clean Air Act. *Exxon Corp. v. City of New York*, 548 F.2d 1088, 1095-96 (2d Cir. 1977) (preempting local regulations regarding gasoline volatility that were not identical to EPA's regulations); *see also Am. Petroleum Inst. v. Jorling*, 710 F. Supp. 421, 429-31 (N.D.N.Y. 1989) (holding that, "absent EPA approval, it readily appears to the court that New York cannot enforce any portion of its [fuel volatility rule] consistent with the Supremacy Clause of the Constitution").

[9] As the Supreme Court has explained, federal agencies "have no special authority to pronounce on pre-emption absent delegation by Congress." *Wyeth v. Levine*, 555 U.S. 555, 576-77 (2009). Far from delegating to the agency, Congress stated in express terms that where the EPA proscribes a "control or prohibition" applicable to a fuel or fuel additive, "[n]o State . . . may prescribe or attempt to enforce" a "control or prohibition" that is not "identical to the prohibition or control prescribed by the [EPA]." 42 U.S.C. § 7545(c)(4)(A)(ii).

EISA Preempts the Proposed Oregon Program.

The Oregon Program is also invalid because it is preempted by the Energy Independence and Security Act of 2007 ("EISA"), Pub. L. No. 110-140, § 201 *et seq.*, 121 Stat. 1492. State law is preempted if it conflicts with federal law. *See Geier v. Am. Honda Motor Co.*, 529 U.S. 861 (2000). In turn, state law conflicts with federal law when "compliance with both federal and state regulations is a physical impossibility," *Fla. Lime & Avocado Growers, Inc. v. Paul*, 373 U.S. 132, 142-43 (1963), or where state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress." *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941).

EISA amended Section 211(o) to the Clean Air Act, which exempts biorefineries built before December 19, 2007 from reducing the lifecycle greenhouse gas emissions of their product. 42 U.S.C. § 7545(o)(2)(A)(i). The Oregon Program conflicts with CAA § 211(o) because it penalizes the use of ethanol from existing out-of-state biorefineries so severely that it will discourage and ultimately cripple Oregon's importation of these fuels from the Midwest, where the vast majority of existing domestic ethanol biorefineries are located.

Under principles of conflict preemption, a state law or regulation is preempted by federal law if "'under the circumstances of th[e] particular case, [the State's] law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'" *Jones v. Rath Packing Co.*, 430 U.S. 519, 525-26 (1977) (second alteration in original). Here, EISA's purposes include "reduc[ing] the dependence of the United States on energy imported from volatile regions of the world," and "stabiliz[ing] the cost and availability of energy." EISA § 806(a)(4), 121 Stat. at 1722. To achieve these goals, the EISA expressly exempts certain existing ethanol biorefineries (that were either in production or had completed construction by a specified date) from the EISA's requirements for reduced lifecycle GHG emissions. 42 U.S.C. § 7545(o)(2)(A)(i). These same biorefineries are not exempted from the requirements of the Oregon Program.

The Energy Policy Act of 2005 ("EPAct 2005") established the EPA's Renewable Fuel Standard ("RFS") program, which ensures that transportation fuel sold in the United States contains a minimum volume of renewable fuels. The RFS program "lays the foundation for achieving significant reductions of greenhouse gas emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector."[10] Through implementation of the program, EPA estimates that the "expanded use of renewable fuels is expected to reduce greenhouse emissions by 138 million

[10] *See* EPA, *Renewable Fuel Standard (RFS), available at* http://epa.gov/otaq/fuels/renewablefuels/index.htm (last updated Nov. 6, 2014).

metric tons when the program is fully implemented in 2022. The reductions would be equivalent to taking about 27 million vehicles off the road."[11] Through its extensive regulations of GHG emissions, EPA has sought to achieve reductions in GHG emissions. 40 C.F.R. § 80.1403.

The Oregon Program jeopardizes these federal objectives by establishing different—and conflicting—requirements. For instance, the Oregon Program's definition of biomass-based diesel is different from the EPA's definition. *Compare id.* § 80.1401 (defining biomass-based diesel as a fuel that meets EPA's requirements and is "a renewable fuel that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions"), *with* Proposed Rule § 340-253-0040(8) (defining biomass-based diesel as a "diesel substitute that complies with" industry standards in ASTM D6751and "is produced from non-petroleum renewable sources"). In addition, the Oregon Program would allow "small deficits" to be carried forward but would prohibit large deficits from being carried forward. Proposed Rule § 340-253-1030. As a result of this difference, the Oregon Program would take into account small deficits in GHG emissions but preclude consideration of large deficits, whereas the EPA's RFS regulations do not include any such restrictions based on the size of a compliance deficit. In effect, the Oregon Program would constrict and frustrate RFS compliance and hamper EPA's efforts to ensure the positive reduction of GHG emissions. Furthermore, EISA sought to ensure that pre-existing biorefineries would continue to be a source of biofuels, whereas the effect of the Oregon Program would limit the use of ethanol from these existing biorefineries.

In short, the Oregon Program is preempted by the Clean Air Act because it penalizes and discourages the sale of fuels in Oregon from existing biorefineries and adopts different and competing standards for fuels, thereby undermining the goals in Section 211(o)(2)(A)(i).

The Proposed Oregon Program Violates the Commerce Clause.

The Oregon Program also would violate the Commerce Clause. The Commerce Clause provides that "Congress shall have Power . . . [t]o regulate Commerce with foreign Nations, and among the several States." U.S. Const. art. I, § 8, cl. 3. Under the "negative" or "dormant" aspect of the Commerce Clause, "[n]o State may attempt to isolate itself from a problem common to several States by raising barriers to the free flow of interstate trade." *Chem. Waste Mgmt., Inc. v. Hunt*, 504 U.S. 334, 339–40 (1992); *C & A Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383, 394 (1994) ("State and local governments may not use their regulatory power to

[11] EPA, EPA-420-F-10-007, *EPA Finalizes Regulations for the National Renewable Fuel Standard Program for 2010 and Beyond* 7 (Feb. 2010), *available at* http://epa.gov/otaq/renewablefuels/420f10007.pdf.

favor local enterprises by prohibiting patronage of out-of-state competitors or their facilities."). The Oregon Program impermissibly discriminates against out-of-state fuels and regulates interstate and foreign commerce wholly outside of Oregon.

The Oregon Program discriminates against out-of-state and foreign commerce in violation of the Commerce Clause.

The Oregon Program violates the Commerce Clause by discriminating against imported petroleum fuels and imported ethanol. A state regulation violates the Commerce Clause if it provides differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter. *Heald*, 544 U.S. at 472; *Or. Waste Sys., Inc. v. Dep't of Envt'l Quality*, 511 U.S. 93, 99 (1994). A statute that discriminates against interstate commerce is invalid, unless the State can demonstrate, "under rigorous scrutiny, that it has no other means to advance a legitimate local interest." *C & A Carbone*, 511 U.S. at 392. The Oregon Program is designed to discriminate against out-of-state producers of ethanol, gasoline, and diesel.

First, the Oregon Program discriminates against imported petroleum-based transportation fuels and in favor of biofuels that Oregon seeks to promote. By burdening petroleum with higher carbon-intensity scores in comparison to various alternative fuels, the Oregon Program favors alternatives to gasoline and diesel as part of an effort to develop in-state biofuels at the expense of imported petroleum. DEQ's Advisory Committee acknowledged "that the existence of . . . Oregon's low carbon fuel standards would be a significant incentive to increase the production capacity of Oregon's existing Biofuels facilities and attract new biofuels production." Advisory Final Report at 121. Moreover, the Advisory Committee noted that the results of an economic analysis showed that "[t]o achieve compliance" with the Oregon Program, "significant investment in infrastructure and fuel production capacity results in an influx of economic activity," and, as a result, "[e]mployment, income and gross state product all grow." *Id.* at 153. According to the Advisory Committee's analysis, the Oregon Program "can promote new job growth, increase local money retained in Oregon (i.e. less local money lost to fuel exports means more money retained for use directly in Oregon's economy), and have other positive net benefits to the State's economy." *Id.* at 155. In short, the Advisory Committee concluded that the "[l]ow carbon fuel standards will . . . . produce significant economic benefits for Oregon, creating new jobs and personal income that stays and circulates within this state" and "help promote the development of in-state low carbon biofuels production." *Id.* at 8.

The discrimination against out-of-state providers in favor of in-state biofuel alternatives is confirmed by Oregon officials. Governor Kitzhaber has supported the Oregon Program as a means of creating jobs in Oregon.[12] As he explained, Oregonians "sent more than $6 billion out of state to import gas and diesel," but the Oregon Program would counteract that trade deficit by

[12] Gov. John Kitzhaber, *supra* note 6.

supporting "our home-grown, low carbon fuel procedures."[13] Governor Kitzhaber underscored that the Oregon Program would "keep more of those dollars here—in Oregon."[14] Indeed, Governor Kitzhaber has stated expressly to DEQ that a purpose of OCFP is to "[d]evelop home-grown energy resources."[15] According to the Governor, the Oregon Program will favor Oregon because "we've got feedstock growers, we've got a burgeoning group of electric vehicle producers. We've also got propane, natural gas and other innovative fuel companies that are ready to invest as long as they have regulatory certainty."[16]

In contrast, under Oregon Program, "[p]roviders of conventional petroleum fuels . . . would likely experience some negative compliance costs under a low carbon fuel standards program, as well as potentially some loss in revenue growth as less petroleum fuel is consumed in favor of alternatives." Advisory Final Report at 155. Under the Oregon Program, this in-state growth in biofuel production would be subsidized by the purchase of credits by providers of imported gasoline and diesel fuel who would be obligated to purchase credits because the imported gasoline and diesel that they sell in Oregon have been assigned carbon intensities that are greater than the average carbon intensity requirement. In this manner, the Oregon program systematically would benefit Oregon biofuels industry at the expense of imported gasoline and diesel.

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[13] *Id.*

[14] *Id.*; *see also* Yuxing Zheng, *supra* note7 (quoting Gov. John Kitzhaber); *see also* Associated Press, *supra* note 7 ("'We're here today to try to spark this home-grown industry that can capture a portion of the billions of dollars that Oregonians send out of the state every year to purchase diesel and gasoline and keep those dollars circulating here in our own economy.'" (quoting Gov. John Kitzhaber)); Press Release, Or. Governor's Office, *supra* note 5 ("Delaying full implementation of the Clean Fuels Program has had real economic and environmental consequences. In 2012, Oregonians sent more than $6 billion out of state to import gas and diesel, while homegrown, low carbon fuel producers remain locked out of a promising market. There are no oil refineries in Oregon, but there are biofuel producers, feedstock growers, a burgeoning electric vehicle industry, and propane, natural gas, and other innovative fuel companies ready to invest in the state if they have regulatory certainty.").

[15] Letter from Gov. John Kitzhaber to Dick Pedersen, *supra* note 8, at 1. In OCFP Rulemaking proceedings, Richard Whitman, Gov. Kitzhaber's Natural Resources Policy Advisor, also stated that a purpose of OCFP is to "create jobs and economic incentives for Oregon." *Fiscal Advisory Committee Meeting Summary*, *supra* note 8, at 2.

[16] *Kitzhaber Pushes Ahead on Clean Fuel Standard*, EarthFIX (Feb. 13, 2014) (quoting Gov. John Kitzhaber), *available at* http://earthfix.idahoptv.org/energy/article/kitzhaber-pushes-ahead-on-clean-fuels-standard/.

Such programs are unconstitutional. In *West Lynn Creamery, Inc. v. Healy*, the Supreme Court held that the Commerce Clause prohibits a State from imposing an assessment on both in-state and out-of-state producers, and then using the proceeds of that assessment to benefit only in-state industry. 512 U.S. 186, 194-97 (1994). There, Massachusetts imposed an assessment on all milk sold by dealers to Massachusetts retailers, two-thirds of which was produced out-of-state, and then used the funds to make distributions only to in-state milk farmers. *Id.* at 190-91. The State's decision to finance the subsidy through an assessment that fell largely on out-of-state producers "violate[d] the cardinal principle that a State may not benefit in-state economic interests by burdening out-of-state competitors." *Id.* at 199 (internal quotation marks omitted).

The Oregon Program is unconstitutional for the same reasons. As the Massachusetts program did in *West Lynn*, Oregon imposes a burden on out-of-state entities (the need to purchase credits) in favor of an in-state interest (the Oregon biofuels industry which would be subsidized through the sale of credits). Here, the Advisory Committee supports the view that Oregon anticipates that the subsidy generated by out-of-state gasoline and diesel producers would benefit local Oregon industry. *See* Advisory Final Report at 155 ("petroleum fuels . . . would likely experience some negative compliance costs under a low carbon fuel standards program"); *id.* ("less local money lost to fuel exports means more money retained for use directly in Oregon's economy"); *id.* at 154 ("Positive economic impacts in Oregon stem from the importation of less petroleum fuel and its replacement with Oregon produced products, as well as from the investment in new infrastructure."). As in *West Lynn*, the gasoline and diesel fuel providers upon whom the Oregon Program imposes a burden are outside of Oregon. *West Lynn*, 511 U.S. at 202 ("[T]he imposition of a differential burden on any part of the stream of commerce . . . is invalid . . . .").[17] Further, as in *West Lynn*, the benefit from that regulation is designed to benefit in-state economic interests through the construction of an in-state biofuels industry.

Second, the Oregon Program discriminates in its design against out-of-state ethanol. The Table originally submitted by the Advisory Committee specifically differentiated between corn ethanol from the Midwest and corn ethanol from the Northwest, including Oregon.[18] Advisory Final Report at 78 tbl.7. The Table assigned Midwest ethanol a carbon intensity score over 10 points higher than Northwest ethanol. *See id.* (64.82 for Midwest corn ethanol and 53.79 for Northwest corn ethanol). In an attempt to mask such differences, the proposal now adopts virtually the same Lookup Table for the California Low Carbon Fuel Standard, which only references "California" procedures. Such collaboration between two states to discriminate

[17] In contrast, California, which itself has adopted an analogous Low Carbon Fuel Standard that is being challenged on similar grounds, is a producer of petroleum fuel with refineries, whereas in Oregon, the discriminatory burdens imposed on petroleum-based fuels would fall entirely on imported products.

[18] Currently, there are two ethanol producers in Oregon and seven biodiesel producers. Advisory Final Report at 58.

against others is just as discriminatory towards the Midwest states and in violation of the Commerce Clause.

Unlike prior versions of the Table in the proposed rule, it no longer differentiates between "Midwest" and "Northwest" ethanol, and it no longer states expressly that the carbon intensity value is "adjusted for transport to Oregon." OCFP § 340-253-8030 tbl.1 (Pre-Proposal Rule). Rather, the proposal now distinguishes between "Midwest," "California," and other, unspecified categories. However, because the Oregon Program requires providers to use the fuel production process that "best matches" their fuel, Proposed Rule § 340-253-0400(2), the Oregon Program strongly favors Northwest ethanol, which most likely use the "California" procedures and will obtain the lowest ethanol carbon-intensity scores, over Midwest ethanol.

This difference in carbon-intensity scores that favors these two states' ethanol is discrimination because fuels with higher carbon-intensity scores are disadvantaged under the Oregon Program. Discrimination by means of a different label—"California" as opposed to "Northwest"—is discrimination nonetheless. The fact that some out-of-state ethanol producers might be able to take advantage of the lower carbon-intensity scores does not diminish the actual discrimination. The Supreme Court has held that "where discrimination is patent, . . . neither a widespread advantage to in-state interests nor a widespread disadvantage to out-of-state competitors need be shown." *New Energy Co. of Ind. v. Limbach*, 486 U.S. 269, 276 (1988); *see id.* at 274 (noting that "some out-of-state manufacturers" were afforded beneficial treatment).[19]

The Oregon Clean Fuels Program is an impermissible extraterritorial regulation in violation of the Commerce Clause.

The requirements of the Oregon Program are extraterritorial regulation of commerce in other states and foreign countries in violation of the Commerce Clause. The "critical inquiry is whether the practical effect of" the Oregon Program "is to control conduct beyond the boundaries of the State." *Healy*, 491 U.S. at 336. Thus, the substantive aspects of the Oregon Program violate the Commerce Clause by regulating conduct wholly outside the boundaries of Oregon and transgressing long-established Supreme Court precedent.

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[19] A carbon intensity study commissioned by the Oregon Department of Environmental Quality reveals the disparity in treatment. ICF Int'l, *Task 3 – Updated Compliance Scenarios: Final Report* (Aug. 2014). The report examines the carbon impact from ethanol produced in the Midwest versus ethanol produced at the Boardman, Oregon facility. The estimated carbon intensity score for the Oregon facility was approximately 8 points less than ethanol produced in the Midwest. *Id.* at 11-12 & tbl.5. And out of the options that the report studied, Oregon-produced ethanol from cellulosic received the lowest carbon impact score of 20.72. *Id.* The Oregon Program stands to greatly benefit these in-state producers at the expense of out-of-state, and in particular Midwest, ethanol producers.

The "Commerce Clause precludes the application of a state statute to commerce that takes place wholly outside of the State's borders, whether or not the commerce has effects within the State." *Id.* (internal quotation marks and omission omitted). "[A] statute that directly controls commerce occurring wholly outside the boundaries of a State exceeds the inherent limits of the enacting State's authority and is invalid regardless of whether the statute's extraterritorial reach was intended by the legislature." *Id.*; *accord Brown-Forman Distillers Corp.* v. *N.Y. State Liquor Auth.*, 476 U.S. 573, 579–84 (1986); *Edgar* v. *Mite Corp.*, 457 U.S. 624, 641–43 (1982) (plurality). If a statute regulates extraterritorial commerce, "it violates the Commerce Clause per se, and [the Court] must strike it down without further inquiry." *NCAA* v. *Miller*, 10 F.3d 633, 638 (9th Cir. 1993).

The Commerce Clause prohibits extraterritorial regulation by States because it could lead to the "'economic Balkanization that had plagued relations among the Colonies and later among the States under the Articles of Confederation.'" *Oregon Waste*, 511 U.S. at 98; *Heald*, 544 U.S. at 472. As such, the Commerce Clause is concerned with the "maintenance of a national economic union unfettered by state-imposed limitations on interstate commerce and with the autonomy of the individual States within their respective spheres." *Healy*, 491 U.S. at 335–36 (footnote omitted). Thus, in determining whether a state law impermissibly regulates extraterritorial commerce, the "critical inquiry is whether the practical effect of the regulation is to control conduct beyond the boundaries of the State." *Id.* at 336.

Under this "practical effect" test, a state may not condition the importation of goods upon compliance with the state's requirements concerning extraterritorial commerce. As the Supreme Court has held, a state "may not attach restrictions to exports or imports in order to control commerce in other States," because "[t]o do so would extend the [State's] police power beyond its jurisdictional bounds." *C & A Carbone*, 511 U.S. at 393; *accord Baldwin* v. *G.A.F. Seelig, Inc.*, 294 U.S. 511 (1935) (striking down a New York law that prohibited the resale of milk imported into New York unless the price paid to the out-of-state milk producer equaled New York's minimum price).

The bar on extraterritorial regulation applies regardless of whether the state law discriminates against interstate commerce or involves economic protectionism. *Miller*, 10 F.3d at 638 ("discrimination and economic protectionism are not the sole tests"); *accord Midwest Title Loans, Inc.* v. *Mills*, 593 F.3d 660, 665 (7th Cir. 2010). In this respect, the Commerce Clause not only ensures the free flow of goods and services across state lines, but also enforces the territorial limitations on state power inherent in a federal system composed of 50 separate sovereigns, by preventing any one state from "project[ing] its legislation" into other states. *Baldwin*, 294 U.S. at 521.

The purpose and likely effect of the Oregon Program is to control commerce that occurs wholly outside of Oregon. The Oregon Program penalizes transportation fuels and feedstocks based entirely on how they are produced and transported in other states and countries. Through the Oregon Program's use of a lifecycle analysis, a fuel's carbon intensity is determined by

commercial activities that occur entirely outside of Oregon, including activities associated with "extracting or growing the feedstock, refining, storage, [or] transportation" of the fuel or feedstock. Advisory Final Report at 122; *see also id.* at 123. After assigning carbon intensity values based on these out-of-state activities, the Program is then designed to reduce the carbon intensity of fuels—that is, it seeks to alter the practices that produce GHG emissions in order to reduce the carbon intensities of fuels. Thus, to compete in the Oregon market, producers of higher-carbon-intensity fuels will seek to change the manner in which they produce and transport fuels to obtain lower carbon-intensity scores and avoid the substantial commercial disadvantage placed on their higher-carbon-intensity fuels. In this way, the Oregon Program impermissibly "attach[es] restrictions to . . . imports in order to control [interstate and foreign] commerce" and thereby "extend[s] [Oregon's] police power beyond its jurisdictional bounds." *C&A Carbone*, 511 U.S. at 393.

Under Supreme Court precedent, the Oregon Program would impose Oregon's environmental standards on interstate and foreign commerce conducted entirely outside Oregon by erecting a barrier to imports produced and transported in a manner Oregon disfavors. *See id.* Whether a law bans "all transport of the subject product" or simply places the product at a "substantial commercial disadvantage" "makes no difference for purposes of Commerce Clause analysis." *New Energy*, 486 U.S. at 275.

The Proposed Oregon Clean Fuels Program Raises Serious Policy Questions that DEQ has not Addressed and that Undermine the Legislature's Objectives.

The Oregon Legislature authorized the DEQ to develop a standard that would reduce the average amount of GHG emissions per unit of energy of transportation fuels in Oregon by 10 percent over a 10-year period. 2009 Or. Laws ch. 754, § 6(2)(b)(A). However, the Oregon Program proposed by DEQ will not reduce GHGs.

Policymakers should carefully consider the potential impact of policies on the environment, energy security, and consumers. An example of negative consequences can be seen with biofuels mandates that are being rethought across the globe amid serious economic and environmental concerns. Biofuels must be sustainable. As the use of biofuels has increased dramatically, so have concerns about the potential consequences of that increased biofuel use.

Ethanol and biodiesel are hydrocarbons – they are not carbon-free. Biofuels are often perceived as carbon-neutral because the carbon released when combusted is recycled as the biomass feedstock is grown for later use in the production of the crop-based biofuel. However, many scientists are concerned that the GHG emissions resulting from biofuel production and associated agricultural practices could negate or even reverse any reduction in emissions that

could be achieved by significantly expanding the use of ethanol as a transportation fuel. Nobel Prize winner Paul Crutzen concluded that increased biofuels production is accompanied with a dramatic increase of N_2O emissions, which has nearly 300 times greater warming potential than CO_2.[20] This would offset all GHG emissions reductions from the displaced petroleum fuels and actually result in a net increase in total GHGs. In fact, the European Union passed a law that may essentially ban certain biofuels due to environmental impacts.[21] It would be arbitrary and capricious for DEQ to fail to address these issues or to proceed without ensuring that the Oregon Program will not frustrate the goals of the Oregon Legislature.

A large increase in the production of biofuels could lead to further deforestation and release of soil carbon. Clearing land to grow crops as a feedstock for biofuels also could increase GHG emissions. Carbon in the soil and plants is released when land use is changed and can be higher than the reduction in carbon releases by replacing fossil fuel combustion with biofuel combustion. It would take many years for the increased GHG emissions from land use change for biofuel production to be offset by the decreased GHG emissions from the replacement of fossil fuel with biofuel combustion—a biofuel carbon debt. This biofuel carbon debt is substantial and is projected to take decades or centuries from which to recover.

Several analyses outline the land-use impacts from biofuels production. The following are excerpts from two studies published in 2008:

- Ethanol from corn produced on newly converted U.S. central grasslands results in a biofuel carbon debt repayment time of ~93 years. . . . At least for current or developing biofuel technologies, any strategy to reduce GHG emissions that causes land conversion from native ecosystems to cropland is likely to be counterproductive. . . . Our results demonstrate that the net effect of biofuel production via clearing of carbon rich habitats is to increase CO_2 emissions for decades or centuries relative to the emissions caused by fossil fuel use.[22]

- [The] GHG savings calculated savings from corn ethanol would equalize and therefore "pay back" carbon emissions from land-use change in 167 years, meaning GHGs increase until the end of that period. Over a 30-year period, counting land-use change, GHG

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[20] P. J. Crutzen, A. R. Mosier, K. A. Smith & W. Winiwarter, *N_2O Release from Agro-Biofuel Production Negates Global Warming Reduction by Replacing Fossil Fuels*, 7 Atmos. Chem. Phys. Discus. 11191 (2007).

[21] John W. Miller, *EU is Planning Measures to Protect Biofuels Industry*, Wall St. J., Jan. 23, 2008, at A11.

[22] Joseph Fargione et al., *Land Clearing and the Biofuel Carbon Debt*, 319 Science 1235, 1237 (2008) (DOI: 10.1126/science.1152747).

> emissions from corn ethanol nearly double those from gasoline for each km driven. . . . As part of our sensitivity analysis, we found that, even if corn ethanol caused no emissions except those from land-use change, overall GHGs would still increase over a 30-year period.[23]

In addition, a University of California, Berkeley memo to the California Air Resources Board affirms these earlier studies, explaining that estimates of GHG emissions from direct land use changes are very large and are much larger than the emissions associated with the fuel itself because there are large amounts of carbon stored in ecosystems of all sorts.[24] The biofuel carbon debt identified in these studies refutes the perception that biofuels are part of the solution to quickly reduce lifecycle greenhouse gas emissions.

Finally, DEQ failed to analyze the potential for an increase in GHG emissions from "fuel shuffling." The Oregon Program will promote "fuel shuffling" by requiring that fuels with carbon intensity scores higher than the annual Oregon Standard (*e.g.*, ethanol from the Midwest) be transported elsewhere, including exports to foreign countries. *Compare* OCFP § 340-253-8010 (setting forth Oregon Standard from 2016 through 2025 and thereafter) *with id.* § 340-253-8030 (setting forth carbon intensity scores for Midwest ethanol). The GHGs associated with the export of fuels shut out from the Oregon market would offset or eliminate any anticipated GHG reductions from the Oregon Program. Therefore, if this avenue is pursued as a compliance strategy, there likely would be a concomitant increase in GHG emissions because of changes in global ethanol distribution.

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For the reasons stated above, AFPM respectfully requests that DEQ reconsider the Oregon Program Phase 2 Rulemaking and revise the Oregon Program to eliminate these constitutional and policy concerns before the rule is finalized.

Respectfully submitted,

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[23] Timothy Searchinger et al., *Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change*, 319 Science 1238, 1239 (2008) (DOI: 10.1126/science.1151861).

[24] Alex Farrell & Michael O'Hare (U. of California Berkeley professors), Memorandum, *Greenhouse gas (GHG) emissions from indirect land use change (LUC)*, California Air Resources Board (Jan. 12, 2008).