

## SETTING THE RECORD STRAIGHT: OREGON'S CLEAN FUELS PROGRAM

Opponents claim: The program will drive up fuel costs by as much as a dollar a gallon.

The reality: To the contrary, continued reliance on petroleum to fuel our cars and trucks is the surest way to increase fuel prices for Oregon's families and small businesses. Oil prices are expected to remain at \$100 per barrel and to reach as high as \$150 by 2020.<sup>1</sup> Diversifying our fuel supply will make consumers less vulnerable to a volatile petroleum market and will create more stable fuel prices. Even today, several of the fuels that will be used to meet the program requirements are actually cheaper than gasoline and diesel at today's prices:

- Electricity is 4-5 times cheaper than gasoline per mile driven.<sup>2</sup>
- Propane (autogas) has been over \$1.30 cheaper than gasoline over the last three years.<sup>3</sup>
- Biofuels have saved Oregonians \$2.7 million at the pump since 2007.<sup>4</sup>
- Natural Gas was \$2.00 cheaper than diesel per gallon equivalent in January 2013.<sup>5</sup>
- An independent economic analysis of the program by Jack Faucett Associates found that Oregon drivers could save between \$43 million and \$1.6 billion in fuel costs over the 10-year period of the program.<sup>6</sup>

As the Clean Fuels Program moves forward, economies of scale and competitive markets will bring the prices of these clean fuels down even further. We all know that continued reliance on a single fuel puts us at the mercy of price spikes way beyond Oregon's control. The legislature can save Oregon consumers money by fostering competitive markets for alternative fuels through the Clean Fuels Program.

In addition, the program includes consumer protections requiring DEQ to monitor Oregon's fuel prices relative to other states and make adjustments to protect against the highly unlikely scenario of fuel price spikes caused by the program.

Opponents claim: The program will increase fuel costs \$1,280 per year.

The reality: The opponents' math doesn't add up. Let's look at how much fuels would have to cost to increase prices \$1,280 per year: Oregonians use about 414 gallons of gasoline per capita. Divide 9,323 miles per capita by an average fleet efficiency of 22.5 miles per gallon. At today's price of \$3.65 per gallon that means they spend some \$1,519 on gasoline per capita per year. If the increase in cost for a 10% lower-carbon fuel blend (cellulosic) were \$1,280 per year

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<sup>1</sup> U.S. Energy Information Administration. Annual Energy Outlook 2013 Early Release. Available at: [http://www.eia.gov/forecasts/aeo/er/pdf/0383er\(2013\).pdf](http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2013).pdf)

<sup>2</sup> U.S. Department of Energy, Idaho National Laboratory. "Comparing Energy Costs per Mile for Electric and Gasoline-Powered Vehicles." Available at: <http://avt.inel.gov/pdf/fsev/costs.pdf>

<sup>3</sup> Alliance Autogas Propane to Gasoline Comparison, 2010-2013

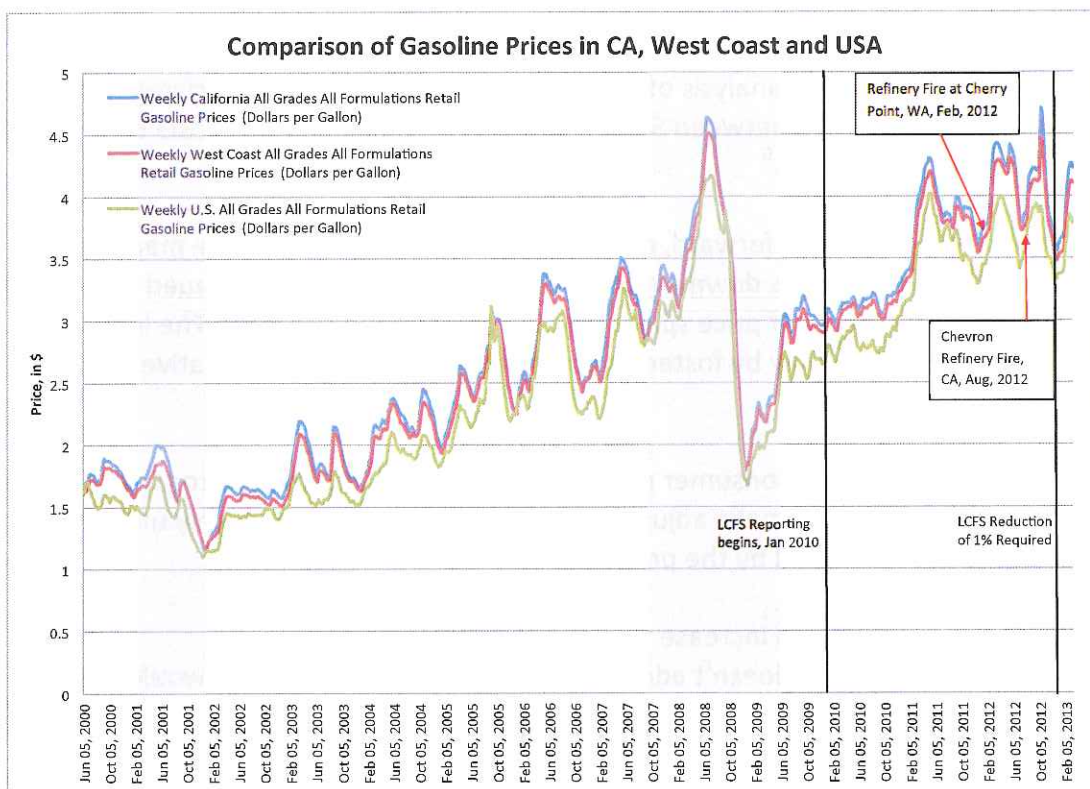
<sup>4</sup> Letter to Administrator Jackson from Governor Kitzhaber regarding the Renewable Fuel Standard, October 9, 2012.

<sup>5</sup> U.S. Department of Energy. Alternative Fuels Data Center. January 10 through January 25, 2013.

<sup>6</sup> Jack Faucett Associates. "Economic Impact Analysis of the Low-Carbon Fuel Standard Rule for the State of Oregon." Report number 11-AQ-004d. January 2011. Available at: <http://www.deq.state.or.us/aeq/committees/docs/lcfs/appendixDeconimpact.pdf>

as they claim, that would mean that 10% of the fuel, that is the blend stock (41.4 gallons), would have to cost \$30.91 per gallon ( $\$1,280 / 41.4 = \$30.91$ ). The reality is clean fuels are saving consumers money. In fact, Poet is selling cellulosic ethanol out of their Iowa plant at \$2.65 per gallon. And ethanol blending reduced gas costs for the average American household by \$0.07-\$0.28 per gallon.<sup>7</sup>

California's low carbon fuel standard has been in place for over two years and prices have not increased because of it. You can see in the graph below that California prices have mirrored price patterns along the West Coast. In fact, two price spikes within six months last year were caused by oil refineries, not the low carbon fuel standard. A UC Davis study of the California low carbon fuel standard found that if all costs were passed on to consumers. It would increase prices 0.1 cents per gallon – that's one-tenth of one cent per gallon.<sup>8</sup>



Note: Shading shows NBER designated recessions. Data from: US Energy Information Administration, State of California, National Bureau of Economic Research

**Opponents claim:** The program will make Oregon less competitive in attracting new businesses and cost Oregon up to 29,000 jobs.

<sup>7</sup> Hayes, Dermont and Xiaodong Du, "The impact of ethanol production on US and regional gasoline markets." Energy Policy. Vol. 37, Issue 8, 2009. Available at: <http://www.sciencedirect.com/science/article/pii/S0301421509002584>

<sup>8</sup> Yeh, Sonia and Julie Witcover. 2012 Status Review of California's Low Carbon Fuel Standard (LCFS) 2011-August 2012. (November 14, 2012). Available at SSRN: <http://ssrn.com/abstract=2174817>

The reality: The Clean Fuels Program will draw business to Oregon and create jobs. Business leaders, including the Oregon Business Association, Port of Portland, Port of Morrow and Portland Development Commission support the Clean Fuels Program.<sup>9</sup> Jim Imbler, President and CEO of ZeaChem has said, *"I believe the Clean Fuels Program will further enhance new business opportunities for companies like ZeaChem by providing long-term policy."*

An independent study by Jack Faucett Associates (JFA) found the clean fuels sector could add over \$900 million in new economic activity in Oregon.<sup>10</sup> Unlike oil, which Oregon neither produces nor refines, clean fuels can be produced in-state, drawing new investment to Oregon, creating jobs, stimulating economic development throughout the supply and distribution chain.

The JFA study found:

- The program will increase Oregon's gross state product as the result of an inflow of capital for the construction of new infrastructure from out-of-state investors, with scenarios ranging from an increase of \$70 million to \$2.1 billion over a ten-year period. The gains mainly correspond to plant construction expected in 2018, gains that would be lost if the program is allowed to sunset.
- Growth in employment will vary depending on which fuels producers decide to invest in, but all scenarios show net positive job growth, ranging from 863 to 29,290 new jobs created over a ten-year period.

Oregon is not going-it-alone. California and British Columbia already have programs and Governor Inslee in Washington State has indicated interest in pursuing a similar program.<sup>11</sup> Oregon is working with Western jurisdictions under the Pacific Coast Collaborative to ensure a West Coast clean highway and harmonize policies throughout the region.<sup>12</sup>

Opponents claim: Oregon should not move forward when there's a lawsuit against California's low-carbon fuel standard.

The reality: The petroleum industry is doing all it can to stop our nation from moving forward to create a more energy secure future that protects consumers and the environment. One of their delay tactics is a lawsuit against California, which temporarily halted implementation of that state's low-carbon fuel standard. That legal injunction has been lifted, however, and California is proceeding with its low-carbon fuel standard while the litigation moves through the courts. If there are changes to the California program as a result of the litigation decision, such as how lifecycle analysis is conducted, Oregon has sufficient time to implement these changes in its own program before beginning emissions reductions in 2015.

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<sup>9</sup> <http://www.CleanFuelsNow.com/supporters>

<sup>10</sup> Jack Faucett Associates. "Economic Impact Analysis of the Low-Carbon Fuel Standard Rule for the State of Oregon." Report number: 11-AQ-004d. January 2011. Available at: <http://www.deq.state.or.us/daq/committees/docs/lcfs/appendixDeconimpact.pdf>

<sup>11</sup> Governor-Elect Jay Inslee. "The Economics of Clean Energy." *Publicola*, Seattle Met. December 11, 2012. Available at: <http://www.seattlemet.com/news-and-profiles/publicola/articles/the-economics-of-clean-energy>

<sup>12</sup> Pacific Coast Collaborative. "2012 West Coast Action Plan on Jobs." Available at: [http://www.pacificcoastcollaborative.org/Documents/Reports%20and%20Action%20Items/WestCoast\\_ActionPlan\\_onJobs\\_MOU\\_WEB.pdf](http://www.pacificcoastcollaborative.org/Documents/Reports%20and%20Action%20Items/WestCoast_ActionPlan_onJobs_MOU_WEB.pdf)

Opponents claim: Implementation has been delayed and rules are confusing and incomplete.

The reality: The Oregon Department of Environmental Quality (DEQ) was very deliberate in the rulemaking process, fully engaging stakeholders and seeking public input, which took time. The rules (both Phase 1 rules, which have been adopted, and Phase 2 rules, which have been drafted) address the needs of stakeholders and are not overly complicated. The agency decided on a phased-in approach because of the looming sunset. The phase-in also allows for resolution of the California lawsuit and gives the agency the ability to make any needed program adjustments as new information is acquired during Phase 1.

Opponents claim: The legislature will lose oversight of the program if the sunset is lifted.

The reality: The legislature always maintains oversight of state programs through budgetary processes and its ability to pass or repeal laws.

Opponents claim: The study commissioned by DEQ is built on faulty research and assumptions.

The reality: The assumptions utilized by Jack Faucett Associates were based input from the Low Carbon Fuel Advisory Committee as part of a full public process that included members of the Oregon Trucking Association, Western States Petroleum Association, and other market players who are now contesting the assumptions, which they helped provide. No special interest dollars were used to pay for the Jack Faucett Associates study, unlike studies the opponents cite, discussed further below.

Opponents claim: The program will hurt Oregon's small businesses.

The reality: As part of rulemaking, DEQ convened a fiscal advisory committee to assess impacts on small businesses and found no adverse effects.<sup>13</sup> Small-sized fuel distributors (those who import less than 250,000 gallons) are exempt from the program.<sup>14</sup> The program is supported by the Main Street Alliance, a network of small business associations.<sup>15</sup>

Opponents claim: The program is redundant to the federal and state renewable fuel standards.

The reality: The purpose of renewable fuel standards is to ensure a minimum blend of ethanol in gasoline and a minimum blend of biodiesel in diesel, which helps, but does not fully meet our need to reduce carbon emissions from transportation fuels; the purpose of the Clean Fuels Program is to *ensure* the carbon content of Oregon's fuel mix is ratcheted down over time, which can be achieved in part by blending biofuels (particularly advanced biofuels which are less carbon intensive than conventional biofuels), but also through the use of other cleaner fuels. The federal Renewable Fuel Standard has been updated to push toward advanced biofuels, but, being federal, does not guarantee that those biofuels will be used in Oregon (thus removing the incentive for advanced biofuels facilities to locate in Oregon as opposed to a larger advanced biofuels market, like California).

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<sup>13</sup> Oregon Department of Environmental Quality. "Statement Of Need And Fiscal And Economic Impact." Available at <http://www.deq.state.or.us/aq/cleanFuel/docs/5-30/StmtNeedFiscal--05-30-2012.pdf>

<sup>14</sup> Oregon Department of Environmental Quality. Phase One Rules. Clean Fuels Program. Available at: <http://www.deq.state.or.us/aq/cleanFuel/docs/FinalAdoptedRules.pdf>

<sup>15</sup> <http://www.CleanFuelsNow.com/supporters>

Opponents claim: Limited biofuels availability will trigger fuel shortages and spikes in fuel-production costs, and Oregon will be forced to rely on only imported Brazilian ethanol.

The reality: A recent report by Environmental Entrepreneurs (E2) found that the U.S. production of advanced biofuels increased from 437 million gallons in 2011 to more than 685 million gallons this year, and continued growth in the industry will more than meet the needs of the program. Between 1.6-2.6 billion gallons of fuel is expected by 2015.<sup>16</sup> And that's biofuels alone: other lower-carbon fuels can be used to meet program goals, including electricity (powering electric cars), biogas, propane (also known as liquefied petroleum gas), compressed natural gas, certain liquid natural gas, biogas and even hydrogen or other fuels that will be developed in the future. Because a low-carbon fuel standard is a performance standard, not a technology requirement, it allows fuel providers to choose the cheapest way to comply with the program.

Investment in advanced biofuels capacity will largely be based on the regulatory certainty associated with state standards in Oregon and California and the federal Renewable Fuels Standard. The report also found that these clean fuel standards are expected to drive the creation of at least 27 new advanced biofuels refineries across the U.S by 2015. Currently, there are 165 advanced biofuel producers in the U.S., including several in Oregon.

The U.S Energy Information Administration's 2013 Energy Outlook states that "Renewable fuel use grows at a much faster rate than fossil fuel use" through 2040.<sup>17</sup>

Opponents claim: The program mandates increased biofuels usage.

There is nothing in the Clean Fuels Program that mandates specific blending rates. In addition, the carbon reductions required by the program apply to the total amount of fuel sold by a fuel importer, not to every gallon sold, so conventional gasoline (which is already blended with 10% ethanol) and conventional diesel (which is already blended with 5% biodiesel) and premium (unblended) gasoline will still be sold. This is not an additional requirement to fuel distributors because they are already required to sell blended fuels under the current state renewable fuel standards.

Opponents claim: Increased biofuel-blend gasoline performs worse in cold weather, worse in mileage and may cause engine damage.

The reality: All fuels have to meet quality standards in order to be sold into the fuel market. All ethanol and biodiesel meets these standards. Fuel management does differ by season—even gasoline has summer and winter fuel blends. Ethanol is an affordable source of octane that improves engine performance and allows fuels to burn more cleanly.

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<sup>16</sup> Solecki, Dogherty, and Epstein. "Advanced Biofuel Market Report 2012." Environmental Entrepreneurs. 2012. Available at:

<http://www.e2.org/ext/doc/E2AdvancedBiofuelMarketReport2012.pdf;jsessionid=9E236C3B78EB4C78A46C3EB1CC37A5A3>

<sup>17</sup> U.S. Energy Information Administration. Annual Energy Outlook 2013 Early Release. Available at: [http://www.eia.gov/forecasts/aeo/er/pdf/0383er\(2013\).pdf](http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2013).pdf)

All gasoline car engines are certified to run on 10% ethanol; vehicles 2001 and newer can run on 15% ethanol and flex fuel vehicles can run on up to 85% ethanol. Many engine types that cannot run on blended fuels have been exempted from this program

Opponents claim: The program will have no measurable impact on global warming and the program is unnecessary.

The reality: Every act to reduce carbon pollution matters. Greenhouse gases reduced anywhere benefits everyone. However, we need collective, scaled action to truly slow the warming of the planet. To reduce Oregon's contribution to this worldwide problem, we must meet our energy needs with clean and low-carbon energy sources, and with energy-efficient buildings and transportation systems that reduce our energy requirements. The Clean Fuels Program is core to this safer, more secure energy future. It is part of Oregon's comprehensive approach to reduce greenhouse gases and reach energy independence.

A new Statewide Transportation Strategy outlines how the state can meet 2050 carbon-reduction goals for the transportation sector.<sup>18</sup> Measures include encouraging more efficient travel, supporting transportation options, making vehicles more fuel-efficient, and ensuring a more diverse, lower-carbon, cleaner mix of transportation fuels. ODOT's modeling shows that in combination with these other measures, Oregon's fuel mix will need to be *at least* 20% lower-carbon than today.

We cannot afford to delay action on investing in lower-carbon fuels that will wean us off oil. We can and should be leading the nation and world in manufacturing the safe, clean energies of the 21<sup>st</sup> century. Let's put Oregon ingenuity to work creating a cleaner, healthier world for us all.

Opponents claim: We can't afford this program.

The reality: We can't afford to remain reliant on oil. In 2010 and 2011, while Oregonians were dealing with high unemployment, oil companies were posting record profits. CNN Money ranked Exxon Mobile the most profitable company in 2010, raking in \$30 billion that year alone.<sup>19</sup> Since 2009, when the program was authorized, gas prices have doubled.<sup>20</sup> The U.S. Energy Information Administration anticipates crude oil prices will top \$150 per barrel and could be as high as \$230 by 2040.<sup>21</sup> We need alternatives to oil, and we need programs, like the Clean Fuels Program, to accelerate their development in Oregon.

#### ABOUT THE OPPONENTS' STUDIES

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<sup>18</sup> Statewide Transportation Strategy. Oregon Department of Transportation. December 2012. Available at: [http://www.oregon.gov/ODOT/TD/OSTI/docs/sts/STS\\_ReportForAdoption.pdf](http://www.oregon.gov/ODOT/TD/OSTI/docs/sts/STS_ReportForAdoption.pdf)

<sup>19</sup> Cendrowsk, Scott. "20 Most Profitable Companies." CNN Money. Available at: [http://money.cnn.com/galleries/2011/fortune/1104/gallery.fortune500\\_most\\_profitable.fortune/index.html](http://money.cnn.com/galleries/2011/fortune/1104/gallery.fortune500_most_profitable.fortune/index.html)

<sup>20</sup> <http://www.consumerreports.org/cro/2012/11/average-gas-prices/index.htm>

<sup>21</sup> U.S. Energy Information Administration. Annual Energy Outlook 2013 Early Release. Available at: [http://www.eia.gov/forecasts/aeo/er/pdf/0383er\(2013\).pdf](http://www.eia.gov/forecasts/aeo/er/pdf/0383er(2013).pdf)

In making the above claims, opponents are relying on studies whose assumptions are deeply flawed—the Charles River Associates report commissioned by the “Consumer Energy Alliance,” an oil industry front-group; the Boston Consulting Group report commissioned by the Western States Petroleum Association; and the Stonebridge Associates report commissioned by the California Trucking Association. It’s easier for vested oil company interests to distort the debate using flawed models. We need serious, credible analyses—not junk science—in order to understand the economic effects of new policy proposals.

#### Flaws in the Boston Consulting Group Report

An independent third-party evaluation by TIAX found among other things that the BCG report:

- Does not include a baseline scenario, and thus all projected changes in California fuel production and prices are attributed to California’s climate change law AB32, regardless of whether these changes would have happened in the absence of the regulation.
- Assumes that imported sugarcane ethanol would be the only alternative fuel used for LCFS compliance credits, omitting roles for electricity, natural gas, and hydrogen.
- Neglects benefits to the California economy from the in-state alternative fuels industry, including fuel production, infrastructure upgrades and development, and vehicle manufacture.
- Adds fuel cost of \$0.33 to \$1.06 per gallon due to the LCFS, implying credit prices of \$275 to \$883 per ton in 2020. This is significantly more expensive than the estimated cost of \$25 per ton for LCFS allowances, or \$0.03 per gallon. (To date, credits have averaged \$13/ton.)

#### Flaws in the Stonebridge Associates Report

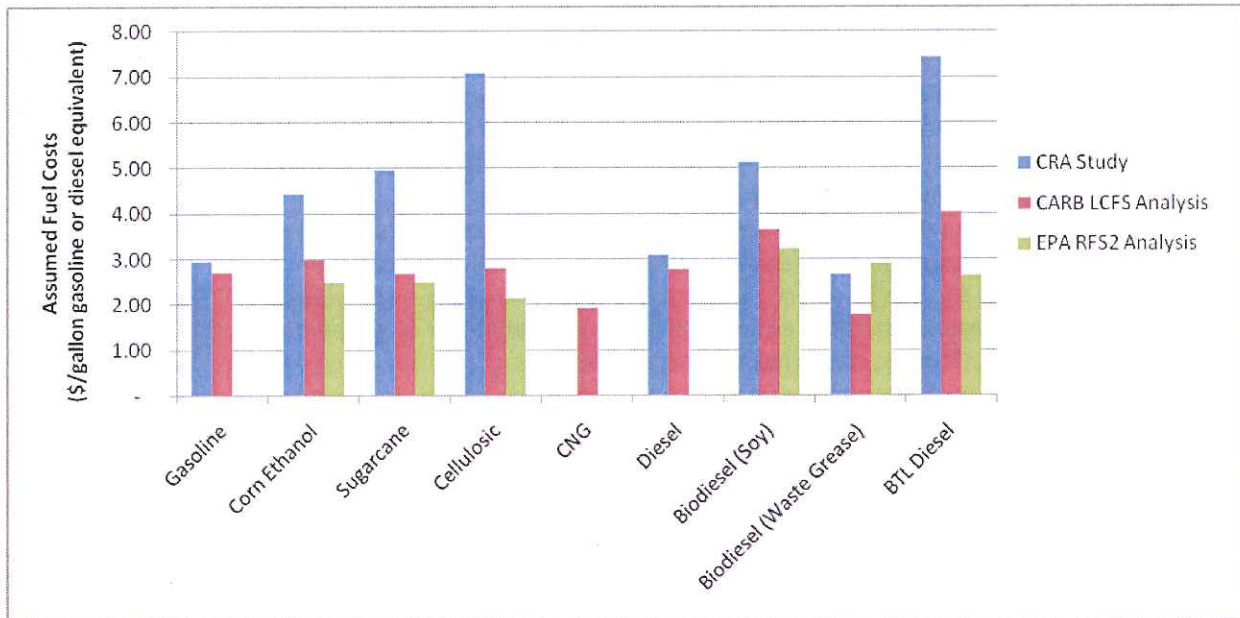
- The study does not use peer-reviewed cost estimates. It does not rely on published numbers from renewable fuel companies, or those from the U.S. Department of Energy (DOE), the International Energy Agency (IEA), the U.S. Environmental Protection Agency (EPA), or the California Air Resources Board (CARB).
- Instead, Stonebridge pulled numbers from an unpublished scenario from a workshop that was then redacted.
- Stonebridge shows increasing costs for renewable fuels over time, whereas the majority of published studies show decreasing costs as technologies improve and economies of scale are reached.
- In an emailed response, David Clegern, Public Information Officer for the California Air Resources Board, said, "Numerous peer-reviewed studies have shown that greater use of biofuels/alt fuels have led to lower fuel prices than otherwise would have been the case. The recently-released study claiming large diesel price increases relies on a single, heavily-redacted analysis that was never published, and had no review whatsoever."

#### Flaws in the Charles River Associates Report

- The Charles River Associates (CRA) report was prepared for the “Consumer Energy Alliance,” an oil industry front-group. This fake grassroots group is sinking millions into a nationwide campaign to discredit Low Carbon Fuel Standards throughout the country.
- It analyzes a fictional national low carbon fuel standard, not the one proposed in legislation or specific to any state program.
- The analysts, a priori, assume that the standard will not be met through producing low-carbon fuels but instead by reducing “the demand for motor fuels in total.” The only way the demand is reduced is either through raising the price of fuels (and having less driving) or forcing improvements in fuel economy of vehicles. It makes the ridiculous assertion that the main compliance pathway is through gasoline rationing.
- The study goes on to assume very costly plug-in vehicles are used to achieve those fuel economy benefits as opposed to conventional vehicle technologies. It is unclear what the CRA models assume regarding vehicle technology costs and potential.



- The study is not specific to Oregon. It does not take into account Oregon’s extremely low-carbon clean fuel producers, like SeQuential Pacific Biodiesel or ZeaChem, or special program designs, like investment credit banking into the future or the consumer protection measures.
- Unlike peer-reviewed or state-sponsored analysis, the CRA study was done behind closed doors with a black box model. It appears that the biofuel costs assumed by the CRA study are significantly higher than those used by either CARB or EPA, but it is unclear why.



Source: Natural Resources Defense Council

Information above provided by the Oregon Environmental Council.

See [www.CleanFuelsNow.com](http://www.CleanFuelsNow.com) for more information and a list of over 100 business, investor, labor, health, consumer, motorist, local government and environmental stakeholders that support the Clean Fuels Program.