



**Testimony of Roland J. Hwang,
Transportation Program Director of the Natural Resources Defense Council
at the
Senate Transportation and Housing Committee Informational Hearing on
California's Proposed Low-Carbon Fuel Standard
March 16, 2009
State Capitol, Room 112**

Thank you for the opportunity to testify today on California's proposed Low-Carbon Fuel Standard (LCFS). I am the transportation program director for the Natural Resources Defense Council, and I represent NRDC and its 1.2 million members and activists. NRDC strongly supports the proposed Low-Carbon Fuel Standard because it is such a critical component of the State's overall Plan to meet the pollution reduction targets set forth in the Global Warming Solutions Act of 2006 (AB32, Pavley). As with other groundbreaking California global warming pollution laws and regulations, California is once again poised to lead the nation and have its action serve as a model for similar national and state programs in the future. Support for the Low-Carbon Fuel Standard extends to the highest levels of our government: President Obama's Energy and Environmental Agenda includes the establishment of a *National* Low Carbon Fuel Standard.¹

While we strongly support adoption of the LCFS, NRDC, along with UCS and American Lung Association, believe there are three key areas where CARB must strengthen the proposed regulation. However, we also believe that CARB should not delay the adoption schedule beyond its April Board hearing. Staff has worked on the proposal for over two years, and its adoption has already been delayed at

least twice in response to industry's requests; any further delay risks fatally weakening the program.

The three critical areas where we believe the proposal must be strengthened are as follows:

- One, the proposed regulations should be amended to ensure “ultra low carbon fuels” will be part of the compliance mix in the early years;
- Two, the proposed regulations should be amended to include minimum protections against the LCFS acting as an incentive to extract biomass from sensitive lands and ecosystems;² and
- Three, the proposed regulations should be amended to ensure air quality and public health are not adversely impacted.

We are currently in discussion with CARB staff, and we hope to resolve these issues so that we can provide our strong support--without reservations--by the time of the hearing in April.

Next, I would like to make three points why we are so strongly supportive of the adoption of a Low Carbon Fuel Standard and why it is necessary for CARB to adopt this regulation without delay, assuming the above improvements are incorporated.

First, the Low Carbon Fuel Standard is absolutely necessary for the state to meet the 2020 emission targets established by AB32 and also ensures that the oil industry makes its fair share contribution to the overall reductions. The 15 million metric tons of CO₂ reduction expected from the LCFS in 2020 is 9 percent of the total reductions required (see Figure 1). The 10 percent CO₂ reduction goal for 2020 is the bare minimum needed to ensure that we are on the trajectory to decarbonize our fuel supply by 60 to 80 percent by 2050, which is our estimate of what is needed to meet long term targets, even with strong measures to address vehicles tailpipe emissions and reduce the demand for travel (see Figure 2). Failure to require the oil industry to invest in and bring to market low carbon fuels

means that other pollution sources --such as powerplants, natural gas providers, etc – will be forced to make up the difference in order to meet the requirements of AB32.

Second, the Low Carbon Fuel Standard is necessary to discourage investments in high carbon fuels, or what we at NRDC call “dirty fuels”. These fuels include tar sands from Canada, oil shale in the interior West, and liquid coal in various parts of the country. Reserves of these fuels are enormous and the global warming pollution and other environmental impacts are devastating. On a full fuel cycle basis, we estimate tar sands are about 20% more polluting and that oil shale and liquid coal can emit as much as twice the pollution as conventional gasoline (see Figure 3). Hence, the use of dirty fuels can literally turn a hybrid into Hummer. Large scale investments in these dirty fuels, some of which are already happening, will prevent California and this nation from being able to solve global warming. The LCFS will help discourage investments in dirty fuels by ensuring that refiners that choose to use this fuel are responsible for offsetting the increased carbon emissions.³

My third and final point is that, the LCFS with a lifecycle accounting that includes emissions from indirect land change and strong lands safeguards is needed to “get biofuels right”. California is in a position to take bold, critical leadership to help put this country’s biofuel policy on the right path. Unfortunately up to this point, our national biofuel policies have emphasized far too much the narrow interests of the corn ethanol industry over the public interest and are badly out of step with where we need to head to solve global warming.

Unfortunately for Big Ethanol, when it comes to global warming pollution, not all biofuels are created equal, some are clearly superior than others (see Figure 4). Under the LCFS, producers of these superior, advanced biofuels will thrive and grow. Despite the claim of the corn ethanol industry, the California LCFS will not damage their business because national law mandates a market for corn ethanol

that will grow 2.5 times over next six years to 15 billion gallons. Furthermore, the LCFS is a benefit to efficient producers of corn ethanol, including those in this state, because efficiently produced corn ethanol will provide significant GHG credits, unlike the average corn ethanol from the Midwest.

That concludes my testimony for today. Again, thank you for the opportunity to present NRDC's perspective on this critical element of California's plan to implement the requirements of AB32.

Figure 1. LCFS Key Part of AB32 2020 Scoping Plan Reductions

Source: California Air Resources Board, *AB 32 Scoping Plan*, December 2008

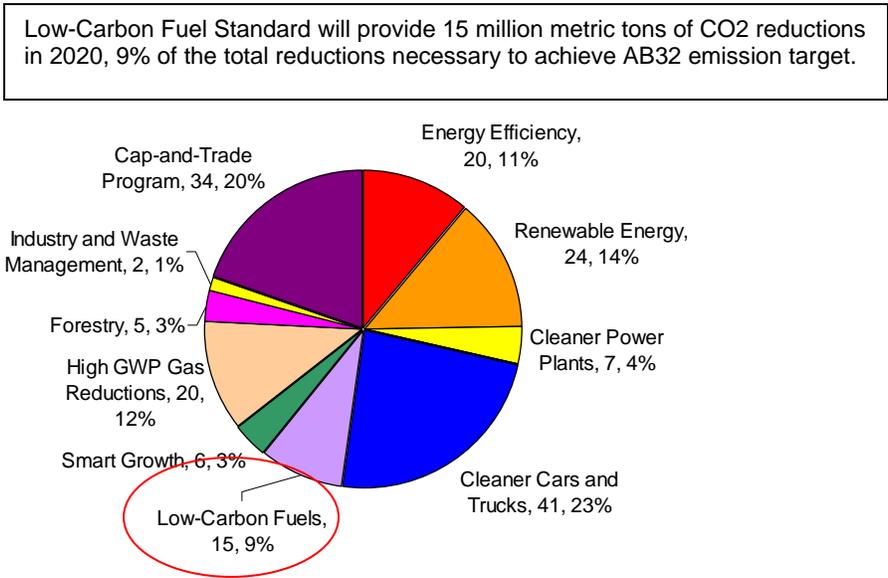


Figure 2. Meeting 2050 Target of 80% GHG Reduction Requires LCFS

Source: NRDC analysis.

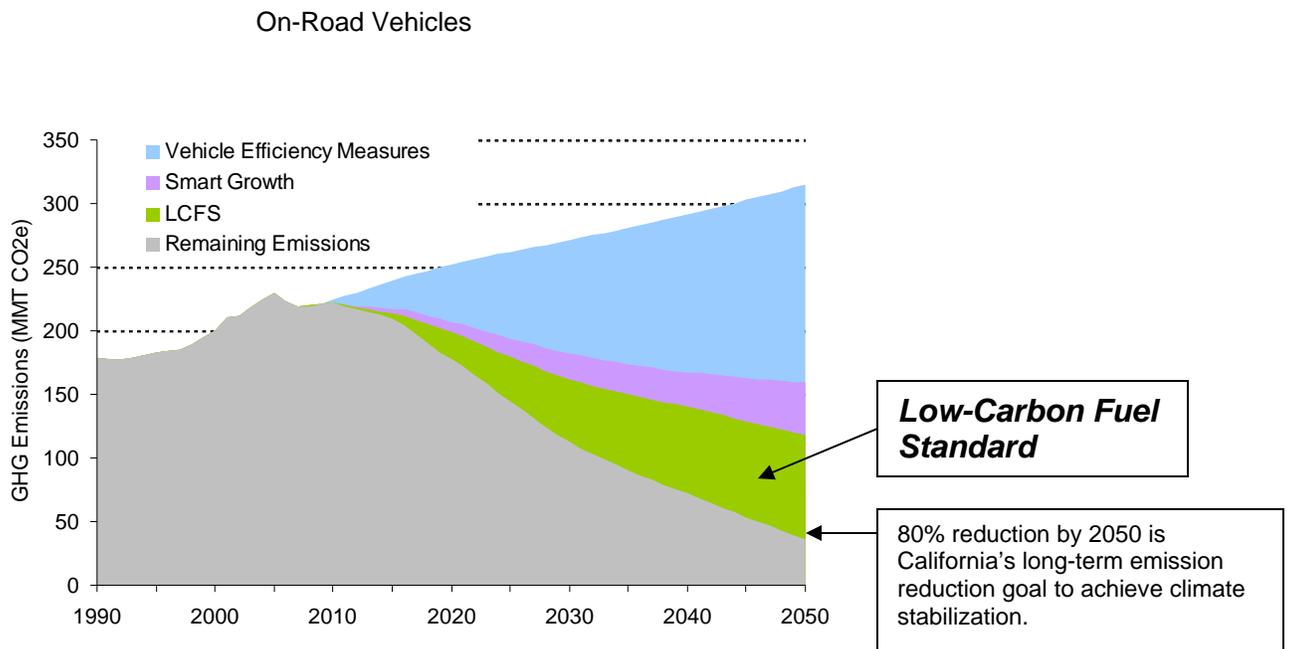
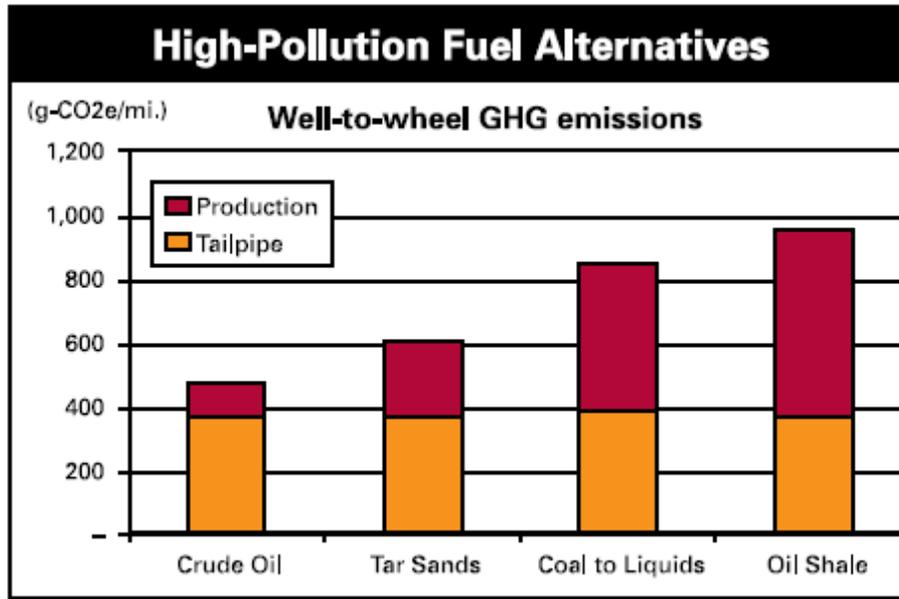


Figure 3. Global Warming Pollution Impacts of “Dirty Fuels”

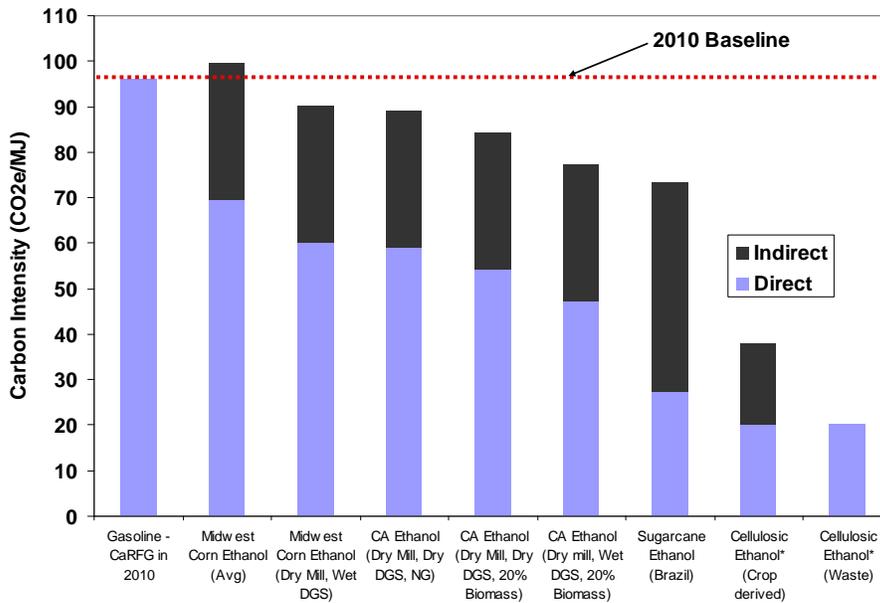
Source: NRDC et al, *Driving it Home: Choosing the Right Path for Fueling North America’s Transportation Future*, June 2007.



Note: Values shown are averages and ignore considerable uncertainties in some cases.

Figure 4. Not All Biofuels Are Created Equal

Source: CARB LCFS ISOR, March 5, 2009 and CARB LCFS Supporting Document, October 2008.



¹ See the President's energy and environmental platform on the White House website:

http://www.whitehouse.gov/agenda/energy_and_environment/

² As I mentioned earlier, we are currently not in agreement with the CARB on the need for minimal lands safeguards as part of the policy package to "get biofuels right". NRDC is simply advocating for the same minimal lands safeguards for our public lands and sensitive ecosystems that are in national law. We believe California should send a strong signal that as we move forward with the right biofuels that we intend to ensure that we do not inadvertently incentivize harming our most sensitive natural lands. Our position is firm on the need for these safeguards. We will continue to work with CARB staff and the board towards a resolution. We will also work with CARB staff towards a better resolution on air quality concerns which we share with the American Lung Association. I believe Ms. Holmes-Gen will be presenting on this issue so I will defer to her to provide this committee with more information.

³ Once this Pandora's box of dirty fuel investments are opened, it will be very difficult to stop or reverse future investments. By effectively putting a carbon price on the use of dirty fuels, the LCFS can serve the same function as another groundbreaking California bill, SB1368 (Perata 2006), which prohibits purchasing of dirty coal electricity, but clearly provides a route for coal providers to meet California's pollution standard through carbon capture and storage technology. Likewise, the LCFS is not a "just say no" to dirty fuels but rather provides a clear signal to the market that dirty fuels will at least require control technologies (such as carbon capture and storage) to minimize carbon liabilities.