When we think of ways to reduce emissions from petroleum-based transportation fuels, electric vehicles get much of the headlines. Battery electric transportation certainly offers a viable, long-term alternative to petroleum fuels. But we're still a few years away from an affordable, mass-market electric vehicle, and battery technology may be decades away, if ever, from being suitable for uses like long-haul trucking and aviation.

So what do we do in the meantime, if we hope to achieve California's carbon reduction goals? Transportation, after all, is the single biggest source of greenhouse gas emissions in the state.

The response may in fact be growing all around us. Biofuels from agricultural sources like canola and corn, as well as algae, forest residue, and food waste, among others, can provide a low-carbon alternative to petroleum fuels, depending on its source and type. Certainly not all biofuels are environmentally beneficial, and one of the knocks on the federal Renewable Fuels Standard statute, with just-released new implementing rules from EPA announced on Monday, is that the law promotes biofuels that may actually be worse for the environment than petroleum fuels, given their production pathways and land use impacts.

But here in California, we have the opportunity to meet our climate goals while producing as much as half of our biofuels from low-carbon, in-state sources. To suggest policies that could boost this in-state production, UC Berkeley and UCLA Law are today releasing a new report "Planting Fuels: How California Can Boost Local, Low-Carbon Biofuel Production." The report is the 16th in the two law schools' Climate Change and Business Research Initiative, generously supported by Bank of America since 2009.

While California has a small but growing amount of biofuel production and consumption, federal and state leaders could do more to boost low-carbon, innovative biofuels. These leaders could:

- Provide greater support for in-state biofuel production, taking into account the full range of local biofuel carbon benefits and co-products, like biochar compost that can sequester carbon and thin-film plastic to bed strawberries and tomatoes;
- Offer financial incentives for automakers and gas stations to allow and sell greater amounts of low-carbon biofuels and higher blend rates; and
- Improve access to and financial support for in-state feedstock production, particularly on idled farmland and forest lands to reduce wildfire risks.

With these steps, California could power our cars, trucks and airplanes in a more environmentally beneficial manner, while boosting local economies in the process.

To learn more about the report and its recommendations, please join us for a webinar on December 14th from 11am to noon. Speakers will include:

- Tim Olsen, energy and fuels program manager at the California Energy Commission
- Lisa Mortenson, chief executive officer at Community Fuels
- Mary Solecki, western states advocate for Environmental Entrepreneurs

You can register via this site. We hope you can join for further discussion on this important topic.