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Renewable Transportation Fuels Are the Most Cost Effective Way to Reduce the Greatest Amount of GHG in the Shortest Amount of Time

Joanne Ivancic, Executive Director

Introduction

My name is Joanne Ivancic. I am the executive director of Advanced Biofuels USA, a nonprofit educational organization headquartered in Frederick dedicated to promoting the understanding, development and use of advanced biofuels in the US and around the world. I also serve on the Maryland Clean Energy Center advisory board.

We need to do something about our transportation emissions now, while we wait for EVs to be available, affordable and powered by renewables using "fair trade" batteries.

Maryland should make sure that every vehicle in the state can be fueled with renewables ASAP.

This is the as the most cost effective way to reduce the greatest amount of GHG in the shortest amount of time AND it will bring investments and jobs.

Renewable fuels must be included in Maryland's GHG Reduction Plan and in the Regional Transportation and Climate Initiative.

How?

If low income and poor air quality areas are given priority for upgraded fuel pumps that offer more renewable fuels, then cleaner, less-polluting and less expensive options will benefit those most in need of these benefits of renewable fuels.

Cities, counties and businesses should use renewables as much as possible in existing vehicles and equipment. https://advancedbiofuelsusa.info/how-to-de-fossilize-your-fleet/

For people who will be driving liquid-fueled vehicles now and for many years to come, this will mean cleaner fuel at lower prices and immediate improvement of emissions from older vehicles.
When I say cheaper, here are real prices on October 11, in the US. Fossil gasoline with no ethanol was nearly $3.00/gallon; with E15 at more than 50 cents less ($2.45) and E85 at about 85 cents less ($2.14) (https://e85prices.com/).

Benefits

I want to tell you about some benefits of renewable fuels to achieve international goals, contribute to environmental justice and prevent dead zones and toxic algae blooms.

Achieve International Goals

Sustainable renewable fuels include renewable natural gas (RNG), biodiesel and renewable diesel, ethanol and cellulosic ethanol, sustainable aviation fuel, and others which have been identified by US and international studies as essential to achieving GHG reduction goals. https://advancedbiofuelsusa.info/ipcc-report-says-biofuel-necessary-to-keep-climate-change-under-control/

Research shows they can be made sustainably from many feedstocks including municipal solid waste, algae, food waste, agricultural and forest waste and residues as well as energy crops. www.AdvancedBiofuelsUSA.org

Environmental Justice and Other Benefits of Switching to Renewable Fuels

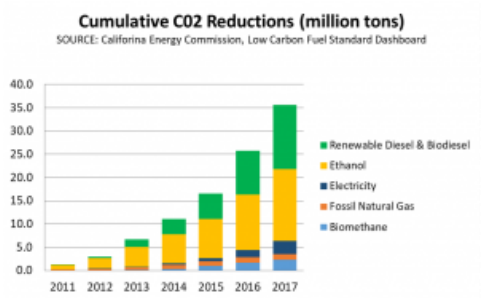
The Urban Air Initiative's studies show using ethanol fuel decreases carcinogens such as benzene and toluene and lowers particulate pollution. https://fixourfuel.com/white-papers/

The Diesel Technology Forum, based in Frederick, highlights places such as Oakland, CA, that have converted municipal fleets and equipment to renewable fuels. They noticed not only GHG benefits, but less maintenance and wear-and-tear. https://advancedbiofuelsusa.info/?s=Oakland

San Francisco has had biodiesel-electric hybrid buses for many years. https://advancedbiofuelsusa.info/san-francisco-gets-new-biodiesel-electric-bus-many-more-to-come/

New York requires 5% biodiesel in heating fuel. http://www.biodieselmagazine.com/articles/2516143/new-york-governor-signs-bill-requiring-biodiesel-in-heating-oil

Renewable diesel has 80% lower emissions compared to conventional diesel, and one third lower fine particulates and one third lower hydrocarbons , a quarter lower carbon monoxide, 9% lower nitrogen oxides and reduced toxic aromatics. https://www.neste.us/neste-my/serious-sustainability



On a net basis (accounting for all production, transportation, all the way to combustion) even corn ethanol E85 reduces GHG emissions by 43% according to a 10 year comprehensive study by the USDA. By 2022 that will be a 50% reduction. https://www.usda.gov/media/press-releases/2017/01/12/usda-releases-new-report-lifecycle-greenhouse-gas-balance-ethanol

Nutrient Management

Two biofuel projects in Maryland even have nutrient management potential to prevent toxic algae blooms and dead zones in the Chesapeake Bay and elsewhere. Manta Biofuels is taking technology developed at University of Maryland College Park and is developing an agricultural algae-to-heating fuel or biocrude system. (The heating oil market in Maryland accounts for 22% of all of the diesel fuel based emissions according to the EIA.)

An energy beet project with elements developed at the University of Maryland Eastern Shore, Hood College and UMBC might have discovered a way to take up legacy phosphorus from years of use of poultry manure for fertilizer. The final product could include chicken feed and aviation biofuel.

These are just a few examples of the social, economic and environmental BENEFITS that could come from expanded development and use of biofuels in Maryland.

Summary

Increasing use of renewable fuels is the most cost effective way to reduce the greatest amount of GHG in the shortest amount of time, that could also incentivize investment in environmentally beneficial Maryland businesses and jobs.

At Morgan State, the recent half million dollar grant from DOE to Dr. Sitther and her team for studying the role of nanoparticles in blue-green algae for enhanced biofuel production could be just the beginning of the prestigious GHG reducing research, development and deployment this Plan should include for Maryland.

Investment in the work of Manta Biofuel and the energy beet project could also bring locally-made renewable fuel and jobs to Maryland. Renewable transportation fuels must be a key part of Maryland GHG reduction, economic development and transportation plans.

Advanced Biofuels USA is a nonprofit educational organization that promotes the understanding, development and use of advanced biofuels as an energy security, economic development, military flexibility, climate change mitigation and pollution control solution.