

CALIFORNIA BIOFUELS CAP & TRADE INITIATIVE

Biofuels reduce greenhouse gases, provide jobs and lead to economic development throughout California.

- ✓ Transportation is the single largest source of greenhouse gas emissions.
- ✓ Since fuels became subject to AB 32 in 2015, now is the time to allocate cap & trade revenues for in-state biofuels, low carbon fuels that are immediately scalable.
- ✓ Biofuels are low carbon fuels available right now for all classes of vehicles, including heavy duty.
- ✓ To meet Governor Brown's goal of reducing petroleum use in CA by 50% by 2030, an aggressive biofuels program is a necessary component.
- ✓ To meet the climate change objectives of AB 32, production and use of low carbon intensity biofuels in California should be encouraged.
- ✓ To meet the objectives of SB 535 (to stimulate employment and economic improvement in disadvantaged communities as defined by CalEnviroScreen) biofuel production and infrastructure should be encouraged in disadvantaged communities.

PROPOSAL

Allocate \$210 million of Cap and Trade funds to be dedicated to support a Biofuel Initiative based upon stimulating (1) California based biofuel production; (2) the low carbon intensity of biofuels, and (3) the benefits to disadvantaged California communities.

Because each of the biofuel types have different characteristics and needs, silos for each biofuel type (diesel alternatives, gasoline alternative and biogas/syngas) will be established with an allocation of \$70 million and a program specifically tailored for that biofuel type.

BENEFITS

The Cap & Trade Biofuel Initiative will provide the following benefits:

- In-state production of biofuels will provide meaningful employment to thousands of Californians in disadvantaged communities; biofuels provide 2 to 6 times as many jobs as their fossil fuel equivalents.
- Petroleum fuel replacement and extender fuels such as biodiesel, biomethane, biogas and ethanol have the lowest Carbon Intensities (CI) under the Low Carbon Fuel Standard and there is already fully developed technology for expanding production in CA. The vehicles exist now for using these biofuels, and biofuels are the most cost-effective means of meeting petroleum and greenhouse gas reduction goals immediately.
- To meet Governor Brown's objectives, over 7 billion gallons of low CI biofuel will be needed annually by 2030. Many of these biofuels are already coming from out-of-state to meet the LCFS targets. The LCFS should not be limited to in-state producers, but CA produced biofuels are at a competitive disadvantage when other states and countries provide production incentives for which CA companies do not qualify. Increasing the production of biofuels in CA would stimulate economic development for the long-term benefit of all Californians.
- Substantial feedstocks exist in California for in-state biofuel production. These include agricultural, forest, livestock, wastewater and municipal waste, as well as purpose grown crops

such as algae, energy beets, camelina, canola, energy cane, mustard, sorghum and others that can be grown on fallow land, intercropped in orchards and vineyards, or cultivated as part of a sustainable crop rotation program.

- Increasing in-state production of biofuels will also help California to meet its waste diversion goals, including AB 1826 (Chesbro, 2014) which requires 75% diversion of commercial organic waste as of January 1, 2015.
- Increasing in-state biofuels will help to reduce wildfire impacts by converting forest biomass from high wildfire hazard zones to transportation fuels, as Southwest Airlines has contracted to do.
- In-state production of biofuels provides a diversified and secure source of biofuels to mitigate against market manipulation and shortages of all fuels.

BIOFUEL INITIATIVE COMPONENTS

The Biofuel Initiative will have two components, (1) Production Incentives and (2) Infrastructure/Capital Development.

1. Production Incentives: Production Incentives should be paid quarterly to biofuel producers based upon the volume of fuel production while factoring in the CalEnviroScreen score (disadvantaged communities) and the Carbon Intensity reductions for that biofuel as reported to the California Air Resources Board by biofuel producers under the Low Carbon Fuel Standard. All California producers will receive a pro rata payment so long as their CI is less than their fossil fuel equivalent within their biofuel silo.

$$\text{Volume of Biofuel} \times \text{Carbon Intensity Reduction} \times \text{CalEnviroScreen Score} = \text{Production Incentive}$$

2. Infrastructure Development and Production Facilities: Each biofuel type has different infrastructure and capital needs. The chains of distribution from feedstocks to biofuel production to the end user need improvements particular to each biofuel. Because of the silo structure, each biofuel can determine what percentage of funds should go towards infrastructure improvements, and provide advice as to what those improvements should be. Again, the priorities within each silo's infrastructure program should be determined by the volume of biofuel, Carbon Intensity and CalEnviroScreen ranking.

Administration: This program shall be administered jointly by CARB and CEC.

Biofuels: Biofuels shall include renewable and waste based substitutes for diesel, gasoline, and natural gas, including, but not limited to biodiesel, ethanol, biomethane (funding shall be used for projects that produce/generate transportation or pipeline quality "High Btu" biofuel), biogas, syngas and renewable diesel (excluding co-processing of biomass at petroleum refineries), used preferably for transportation, but also for generating heat and power.

Differences from AB118, LCFS and RFS: AB 118 funds are geared towards specific program grants and only a relatively small amount goes towards funding biofuels (typically 20% or less). CA's LCFS Program has faced legal challenges that delayed the realization of intended benefits. The program is scheduled for re-adoption in February 2015 with actual implementation at least one year later. The federal RFS program has been delayed for over one year and continues to be unpredictable. All of these programs are uncertain and the amount of funding inadequate. The biofuels industry in California needs support and a consistent market signal now.

SUPPORTERS

Aemetis (Keyes)

Altitude Fuel (Santa Monica)

Baker Commodities (Hanford, Kerman and Vernon)

Biodico Sustainable Biorefineries (Five Points, Port Hueneme and Santa Barbara)

Bioenergy Association of California (Statewide Association of more than 50 local governments, private companies and public agencies converting organic waste to energy)

Buster Biofuels (Escondido)

California Biodiesel Alliance (Statewide Association)

Calgren (Pixley)

Clean Energy

(Acton, Anaheim, Anaheim Hills, Antioch, Apple Valley, Arcadia, Arcata, Artesia, Azusa, Bakersfield, Baldwin Park, Banning, Barstow, Beaumont, Bermuda Dunes, Beverly Hills, Bloomington, Blythe, Boron, Borrego Springs, Brawley, Brentwood, Buena Park, Burbank, Buttonwillow, Calipatria, Camarillo, Camp Pendleton, Canoga Park, Canyon Country, Carlsbad, Carpentaria, Carson, Castroville, Cathedral City, Cerritos, Chatsworth, Chino, Chino Hills, Chowchilla, Chula Vista, City of Industry, Claremont, Coachella, Coalinga, Commerce, Compton, Concord, Corona, Corona del Mar, Costa Mesa, Cypress, Daly City, Dana Point, Davis, Desert Hot Springs, Diamond Bar, Duarte, El Cajon, El Centro, El Monte, Elk Grove, Encinitas, Fairfield, Felton, Fontana, Fountain Valley, Fremont, Fresno, Fullerton, Garden Grove, Gardena, Gilroy, Glendale, Goleta, Grass Valley, Gridley, Hanford, Hawthorne, Hayward, Hesperia, Hollister, Hollywood, Huntington Beach, Inglewood, Irvine, Irwindale, Joshua Tree, Jurupa Valley, Kettleman City, La Canada, La Habra Heights, La Jolla, La Puente, La Verne, Ladera Ranch, Laguna Beach, Laguna Niguel, Lake Elsinore, Lake Forest, Lakewood, Lancaster, Lathrop, Lawndale, Lebec, Livermore, Lodi, Long Beach, Los Angeles, Los Gatos, Lost Hills, Madera, Malibu, Manhattan Beach, Marina, McClellan, Milpitas, Mira Loma, Mission Viejo, Modesto, Mojave, Monrovia, Montclair, Montebello, Monterey Park, Moreno Valley, Mountain Pass, Napa, Newhall, Newport Beach, North Highlands, North Hollywood, Northridge, Norwalk, Oakland, Ojai, Ontario, Orange, Oxnard, Pacheco, Pacific Palisades, Pacifica, Palm Desert, Palm Springs, Palmdale, Palo Alto, Palos Verdes, Palos Verdes Estates, Paramount, Pasadena, Perris, Petaluma, Pleasanton, Pomona, Port Hueneme, Rancho Cordova, Rancho Cucamonga, Redlands, Redondo Beach, Ridgecrest, Riverbank, Riverside, Robbins, Rowland Heights, Sacramento, Salinas, San Anselmo, San Bernardino, San Clemente, San Diego, San Francisco, San Jose, San Juan Capistrano, San Leandro, San Luis Obispo, San Marcos, San Pedro, Santa Ana, Santa Barbara, Santa Clara, Santa Clarita, Santa Cruz, Santa Maria, Santa Monica, Santa Rosa, Seal Beach, Selma, Signal Hill, Simi Valley, South El Monte, South Pasadena, South San Francisco, Sun Valley, Sunnyvale, Sylmar, Temecula, Thousand Palms, Torrance, Tracy, Tujunga, Tulare, Tustin, Twenty-nine Palms, Ukiah, Union City, Upland, Vacaville, Vallejo, Van Nuys, Venice, Ventura, Vernon, Victorville, Visalia, Vista, Walnut, Waterford, West Covina, West Hollywood, West

Sacramento, Westlake Village, Wildomar, Wilmington, Woodside, Yermo, Yorba Linda, Yuba City and Yucca Valley)

Coalition For Renewable Natural Gas

Community Fuels (Stockton and Encinitas)

Crimson Renewable Energy (Bakersfield)

Dave Williamson Biofuel Consulting (Berkeley)

Dogpatch Biofuels (San Francisco)

Elite Energy (Bakersfield and Dos Palos)

Imperial Western Products (Coachella, Corona and Selma)

Mendota Bioenergy (Five Points)

Morrison & Company (Chico)

New Leaf Biofuel (San Diego)

Pacific Ethanol (Stockton and Madera)

Propel

(Anaheim, Arcadia, Berkeley, Chula Vista, Citrus Heights, Claremont, Elk Grove, Fremont, Fresno, Fullerton, Harbor City, Hayward, Hemet, Huntington Beach, La Mirada, Lakewood, Long Beach, Murrieta, Norwalk, Oakland, Oceanside, Ontario, Placerville, Redwood City, Rocklin, Roseville, Sacramento, San Jose, San Marcos, Sylmar, Torrance, West Sacramento, Wildomar and Wilmington)

Red Rock Ranch (Five Points)

San Diego Airport Parking Company (San Diego)

SeaHold (Perris)

Sylvatex (San Francisco)

Team Biogas (Perris)

The Jacobsen Report (Chicago, IL)

TSS Consultants (Rancho Cordova)

West Biofuels (Woodland)

Western States Oil (San Jose and San Leandro)