

BIODIESEL: ADVANCED BIOFUEL, HERE NOW

CUTTING POLLUTION, CREATING JOBS AND STRENGTHENING AMERICA'S ENERGY SECURITY

Biodiesel is a renewable, clean-burning diesel replacement that is reducing U.S. dependence on imported petroleum, creating green jobs and improving our environment. It is made from an increasingly diverse mix of resources including agricultural oils, recycled cooking oil and animal fats and meets the strict specifications of ASTM D6751.



ENERGY DENSITY MATTERS

SHARE OF TOTAL U.S. CARBON DIOXIDE EMISSIONS 2016⁷

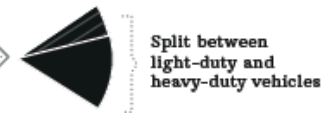
- POWER GENERATION
- INDUSTRY
- AGRICULTURE
- COMMERCIAL
- RESIDENTIAL



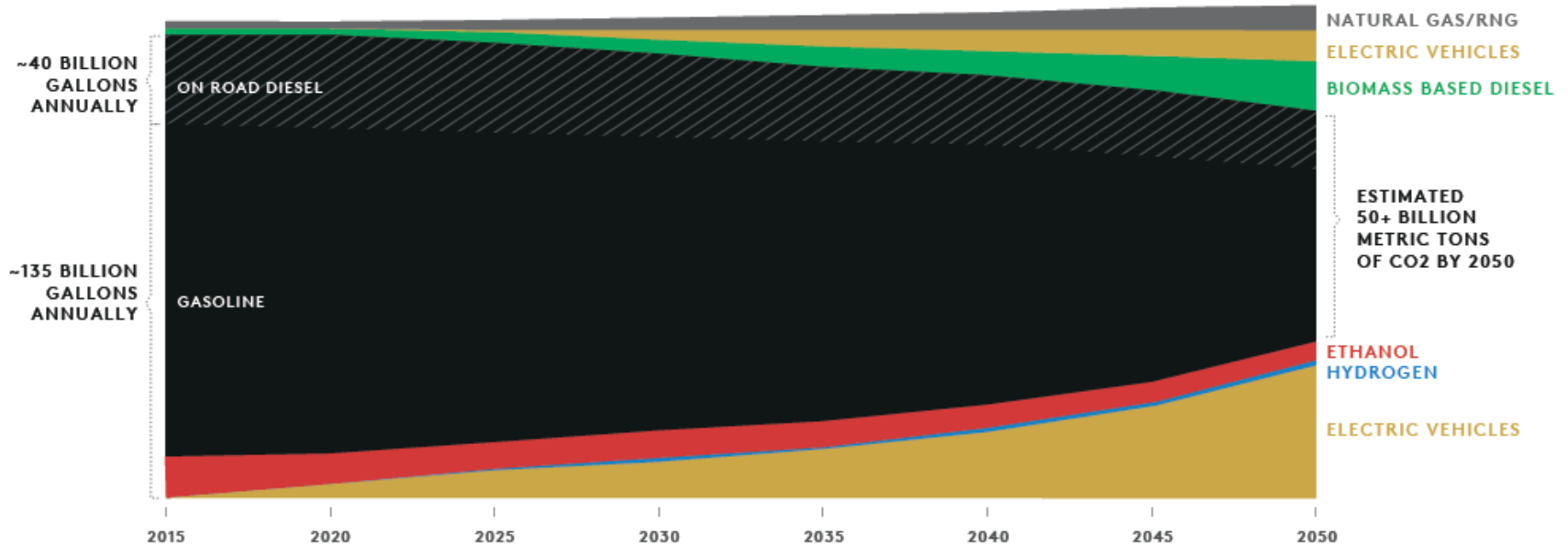
TRANSPORT EMISSIONS



ON-ROAD TRANSPORT EMISSIONS



TRANSPORTATION TRANSITION IN QUADRILLION BTU^{8,9,10,11}



ENERGY DENSITY IN 1000 BTU PER GALLON EQUIVALENT FT312



PROVEN PERFORMANCE



“The suite of post-combustion controls for diesel engines, including Diesel Oxidation Catalysts (DOC), Diesel Particulate Filters (DPF) and Selective Catalytic Reduction (SCR), are likely to be among the most important environmental technologies of the 21st Century”

DR. CHRISTOPHER FREY

PROFESSOR OF ENVIRONMENTAL ENGINEERING,
NORTH CAROLINA STATE UNIVERSITY²⁰

ALL DIESEL VEHICLE ORIGINAL EQUIPMENT MANUFACTURER (OEMS) APPROVE BLENDS UP TO B5²⁰

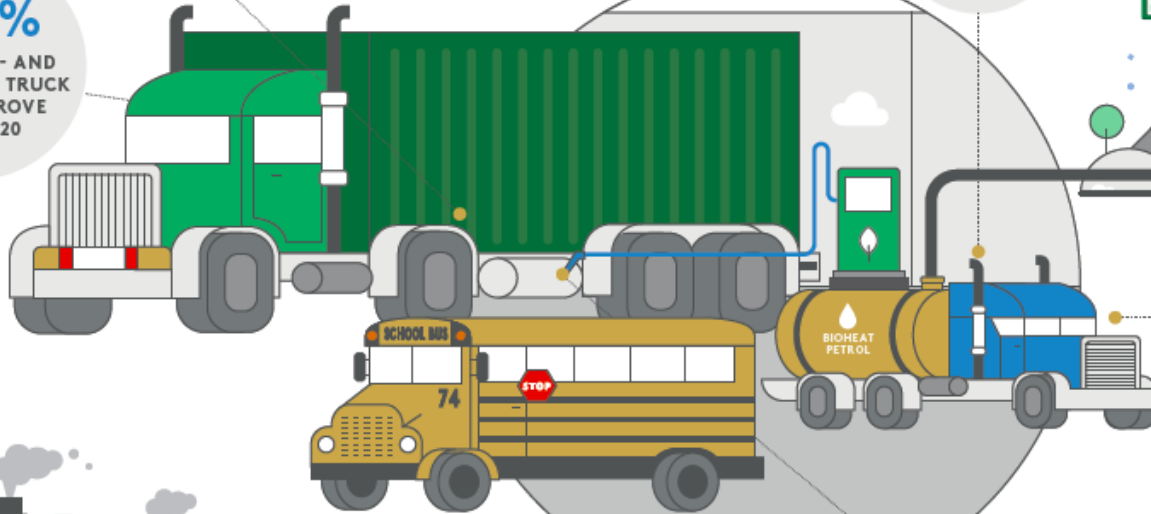


FARM EQUIPMENT



EPA TIER I AND TIER II PROVEN LOWER EMISSIONS

90+%
OF MEDIUM- AND HEAVY-DUTY TRUCK OEMS APPROVE UP TO B20



TESTING HAS SHOWN THAT A BIOFUEL BLEND OF 20% OR HIGHER WHEN MIXED WITH ULSD BURNS CLEANER THAN NATURAL GAS

HIGHER CETANE AND LUBRICITY THAN ULSD



ALL OTHER MARKETS



WHEN DEMAND FOR POWER PEAKS, BIODIESEL SHOULD DISPLACE PETROLEUM



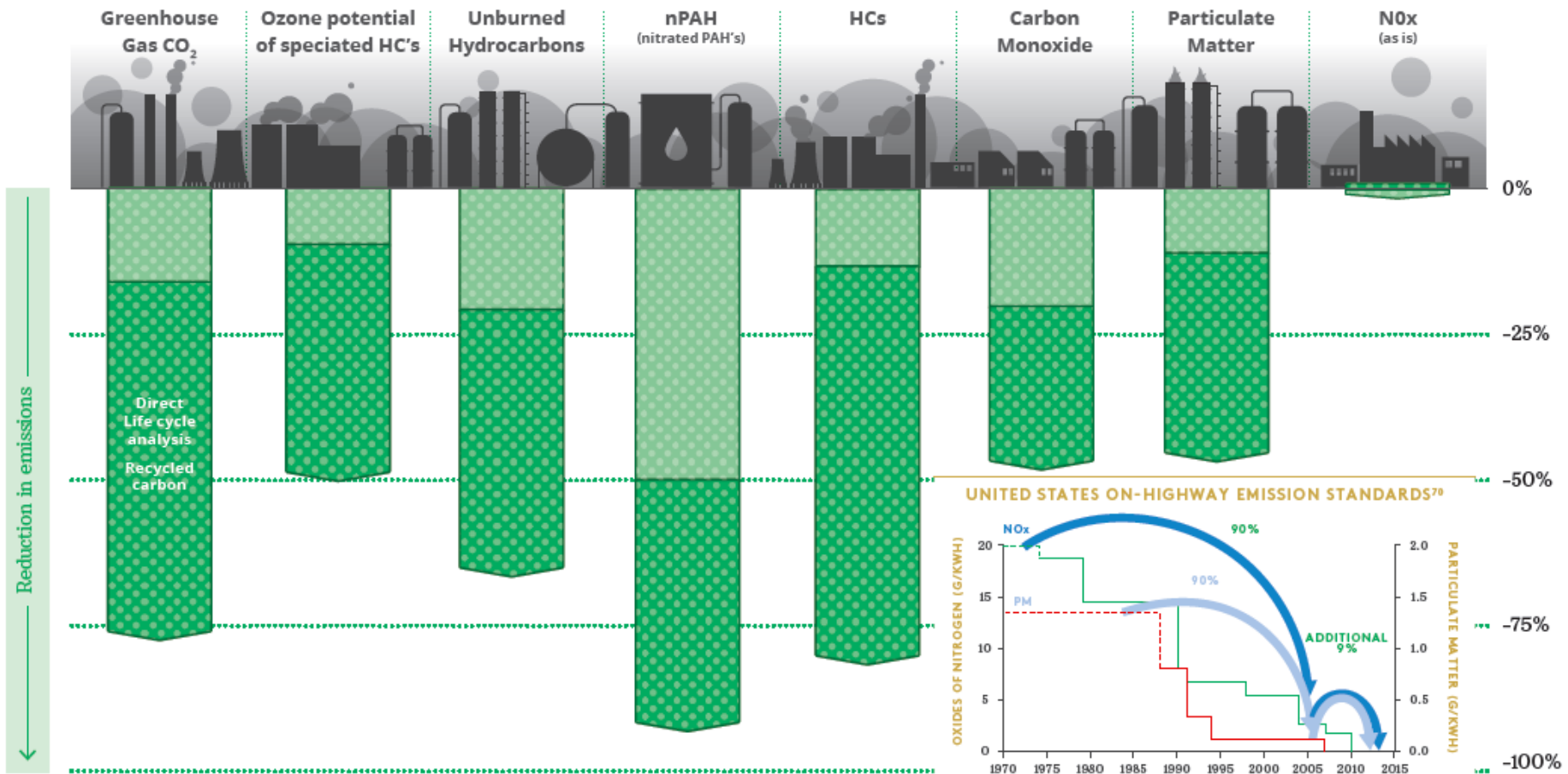
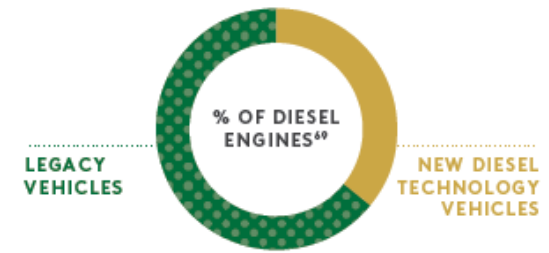
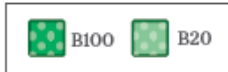
GET BLENDED FUEL DELIVERED AND USE YOUR EXISTING TANKS²⁰



BIODIESEL'S ON-ROAD HEAVY DUTY EMISSION BENEFITS^{61,62,63,64,65,66,67,68,69}

CRITERIA POLLUTANTS

BIODIESEL % BETTER THAN PETROLEUM



BIODIESEL: ADVANCED BIOFUEL, HERE NOW

Ryan Lamberg

Consultant

National Biodiesel Board

rlamberg@californiabiodiesel.org

415.418.0964

