

January 28, 2020

# Support SB20-038: CO Biodiesel Usage Standard

Elizabeth Burns-Thompson, Manager, Corporate Affairs



RENEWABLE ENERGY GROUP

# SB20-038 Benefits

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- Provides **cleaner air** where needed most, EPA nonattainment zone (Denver and front range)
- Provides **increased margins** to CO farmers and ranchers when they need it most
- Provides **flexibility to retailers** to allow for on-site blending and exemptions for “good cause”
- Provides **increasing environmental benefits** as the standard steps from B5 in 2021 to B10 in 2023
- Provides for **industry collaboration** to explore ways to boost biodiesel production within CO



# Providing Cleaner Fuel Solutions Since 1998

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*Renewable low carbon  
feedstock*



*Leading Refining Technology*

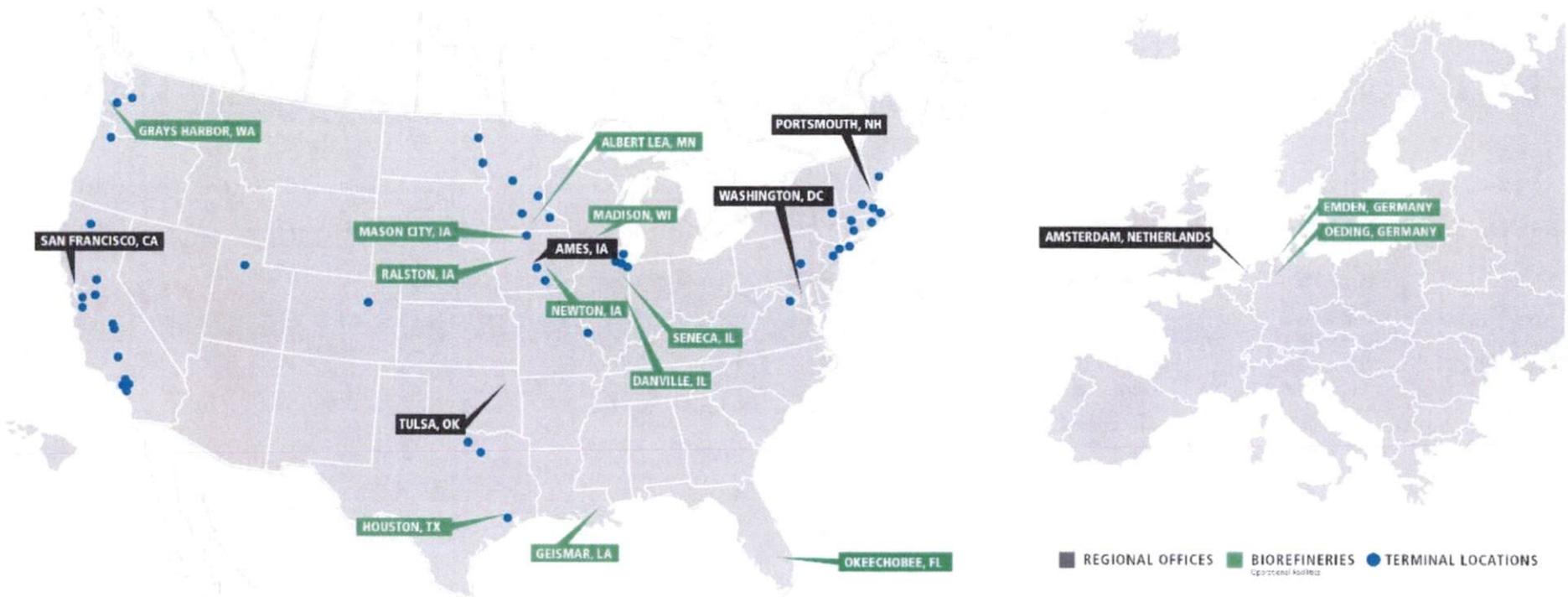


*Biodiesel & Renewable Diesel*

**North America's largest Advanced Biofuel producer - serving a growing demand for cleaner diesel fuels**

Source: 1. NBB. Energy balance defined as units of energy returned per unit of fossil used for production.  
2. EPA Lifecycle Greenhouse Gas Emissions for Select Pathways, 2016

# REG Production and Distribution



**45+**  
TERMINALS

**13**  
BIOREFINERIES

DELIVERED  
PRODUCT TO:

**49**  
STATES

**6**  
CANADIAN PROVINCES

**10**  
COUNTRIES

# Biomass-based diesel feedstocks

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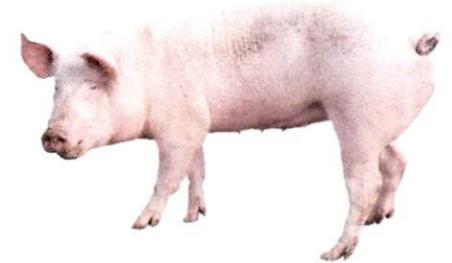
Soybean Oil



Distillers Corn Oil



Beef Tallow



Choice White Grease



Used Cooking Oil



Algae Oil



Canola Oil



Carinata Oil



# Markets for Biomass-Based Diesel

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On-Road Transportation



Off-Road Transportation



Home Heating Oil



Aviation Fuel



# Biodiesel Benefits Colorado Drivers

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- Enhanced Lubricity
  - No lubricity additives needed with B2 or higher blends
- Fungible
  - Easily blended at any level with ULSD and Renewable Diesel
  - B20 is common blend rate, supported by majority of engine manufacturers (light duty, heavy duty, and ag machinery)
- Growing Demand
  - Compared to other alternative fuel options, little to no infrastructure cost to adopt biodiesel
  - More diesel models added for passenger vehicle market, as consumers request larger, more fuel efficient vehicles
  - National surveys of commercial fleets consistently indicate their preferred alternative fuel is biodiesel



# Biodiesel Benefits Colorado Markets

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- Supports 64,000 jobs nationwide
- Overall economic output valued at \$21.6 billion
- Value to back to farmers & ranchers:
  - \$.63/bushel of soybeans
  - \$.35/bushel of corn
  - \$16/head for market steer
  - \$1.24/head for market hog
  - \$.01/head for poultry
- Transformed used cooking oil from a cost to a revenue stream for restaurant industry

Source: [https://biodiesel.org/reports/20121201\\_GEN-430.pdf](https://biodiesel.org/reports/20121201_GEN-430.pdf)

Source: Study, BIODIESEL DEMAND FOR ANIMAL FATS AND TALLOW GENERATES AN ADDITIONAL REVENUE STREAM FOR THE LIVESTOCK INDUSTRY (Sept 2014)

Source: <https://www.farmprogress.com/biofuel/biodiesel-industry-turns-corn-oil>

Source: <https://www.biodiesel.org/production/production-statistics>

Source: <https://www.fticonsulting.com/~media/Files/us-files/insights/reports/biodiesel-industry-impacts-economy-environment-energy-security.pdf>



# Biodiesel Benefits Colorado Environment

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## ➤ Reduced Emissions

- Sulfur, carbon monoxide, hydrocarbons and particulates
- Combusts fuel more completely instead of losing it out the exhaust

## ➤ Low Toxicity

- Comparable to vegetable oil for transport & handling requirements

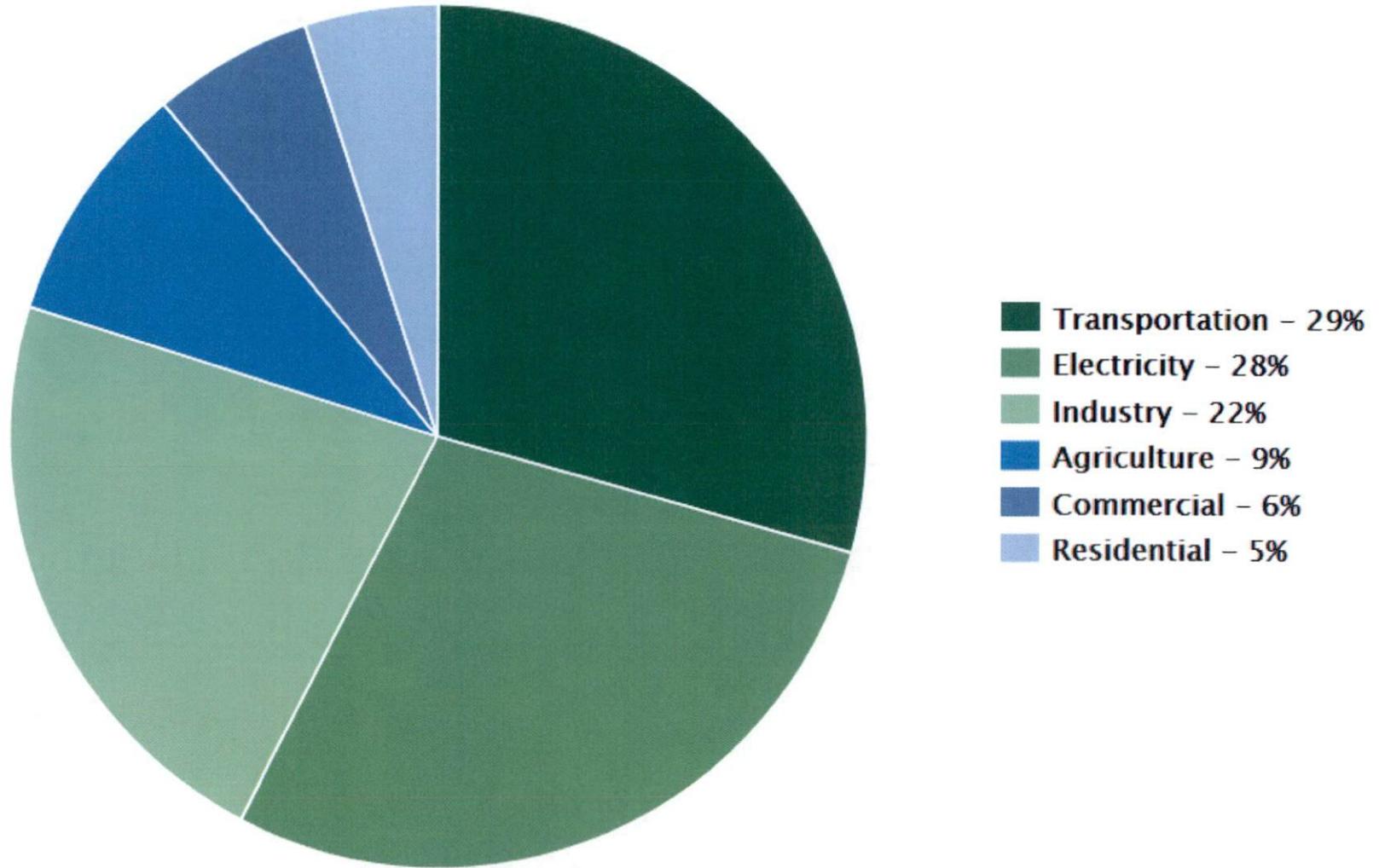
## ➤ Help implement goals set in HB 19-1261

- Reduce GHGs 26% by 2025, 50% by 2030, and 90% by 2050; with 2005 serving as baseline



# Role of Transportation in GHG Emissions

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Source: EPA <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions> 2017



# Biodiesel Success Stories

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- Our **National Parks** are biodiesel powered, with the fleet at Yellowstone leading the way as the first to run on B20
- **Snow cats** in Aspen and **ski lifts** in Wyoming's Beartooth Basin have operated on B20, proving there is no mountain biodiesel can't climb
- Iowa Department of Transportation is proving bitter cold winters are no longer a problem, with new technology allowing for B100 in **snow plows**
- School districts across the country have adopted biodiesel in bus fleets, including Denver Public Schools which began using B20 in their **school buses** in 2005



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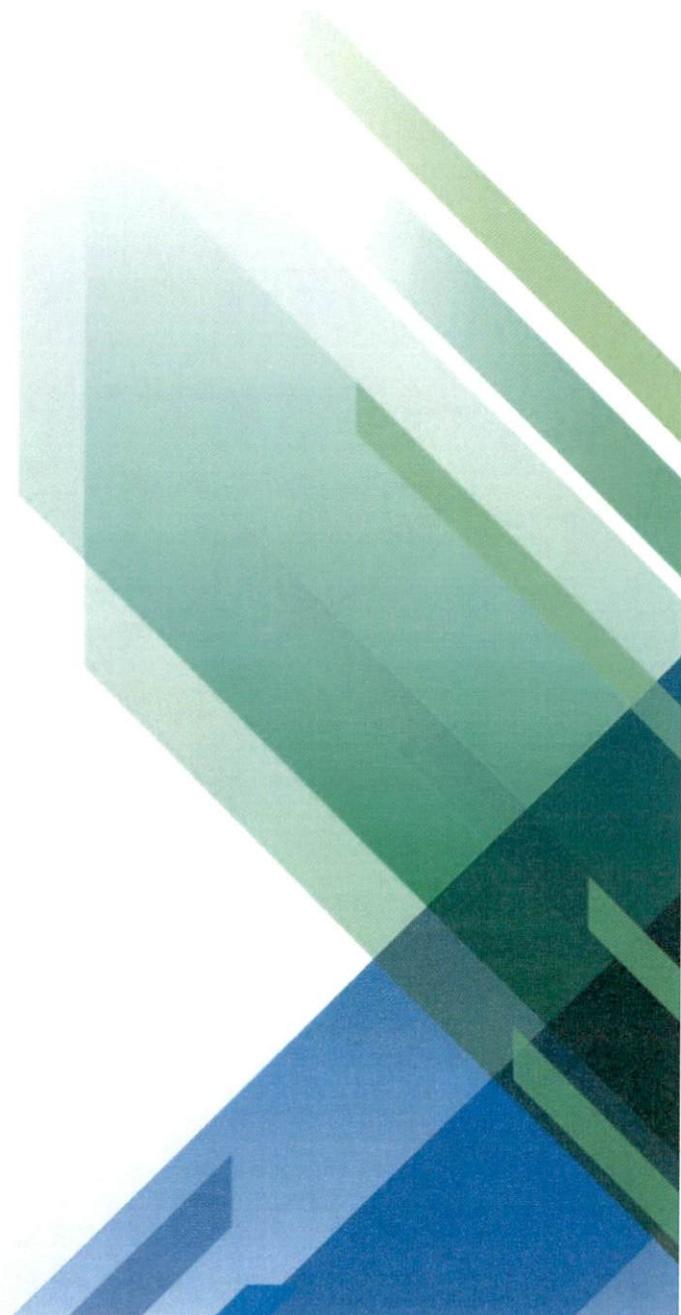


# Thank you.

Questions?

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# States with Notable Biodiesel Policies 2018

