Biodiesel Industry Update

Presented by,
Paul J. Nazzaro, President, Advanced Fuel Solutions, Inc.,
Petroleum Liaison, National Biodiesel Board
162 Park Street, Suite 301
North Reading, MA. 01864
www.biodiesel.org, paulsr@fuelsolution.com

The National Biodiesel Board

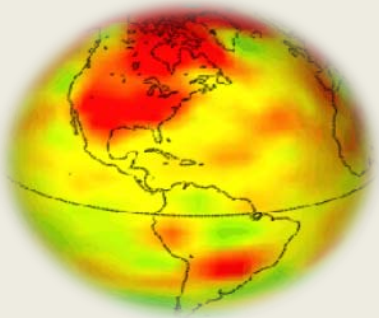
- Represents the biodiesel industry as the coordinating body for research and development in the United States.

- Founded in 1992 by state soybean commodity groups.

- Today NBB's membership is comprised of state, national, and international feedstock and feedstock processor organizations, biodiesel suppliers, fuel marketers and distributors, and technology providers.

Our Changing World…

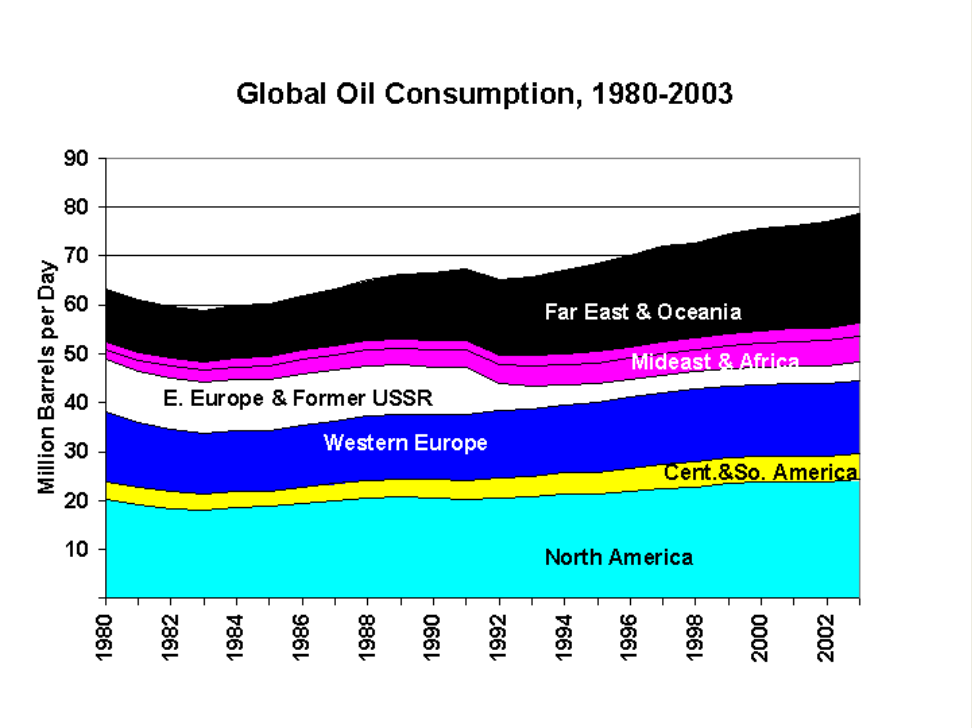
- Increasing World and US Energy Demand
- Domestic Refining Capacity Shortfalls
- Cost of War
- China & Asia
- Market Volatility
- Environmental Concerns



World Energy Consumption

- **84** million barrels of oil per day (MBD) was consumed in 2005.

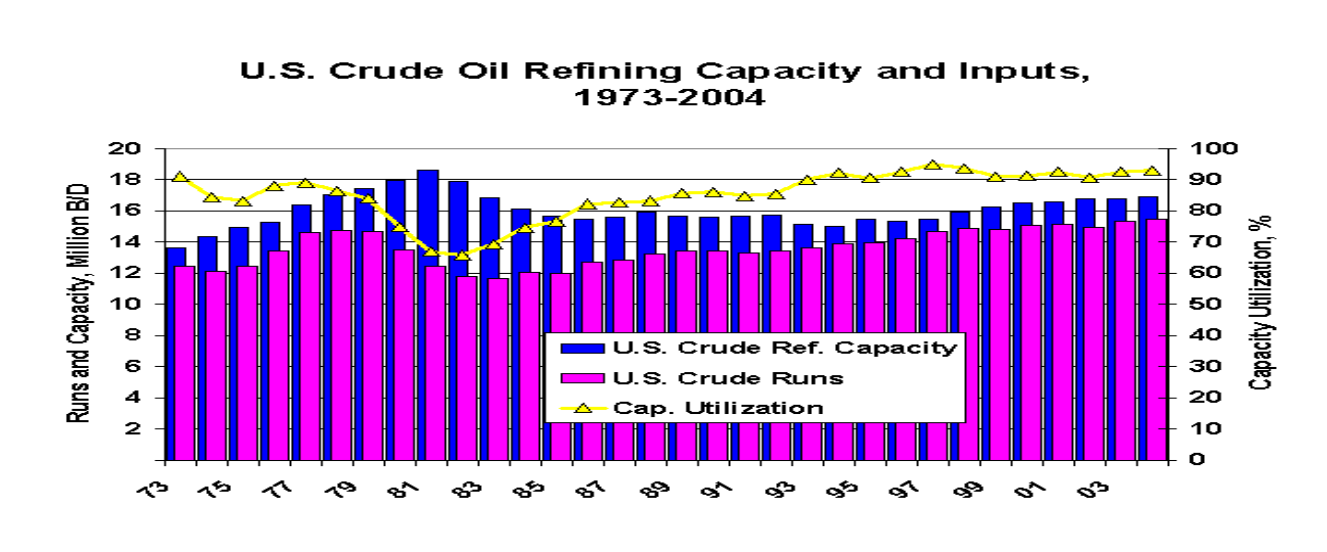
- Projections indicate an increase of 2% to **85.6** (MBD) in 2006 and to **94.6** (MBD) by 2010.



Source: Energy Information Administration

U.S. Consumption & Production

- The U.S. **consumes** approximately **20.5** (MBD), projected to reach **22.5** (MBD)by **2010**.
- The U.S. currently has 149 functioning refineries processing an estimated 16.0 (MBD).
- The US currently **imports** an estimated **2.5** (MBD) from the Persian Gulf. The balance coming from other regions of the World.



Sources: Energy Information Administration

Cost of War

- The Iraq conflict has cost the United States $8.4 billion per month. Congress has appropriated more than $500 billion to date.

- What is the real cost of your gasoline and heating oil?

- New York has contributed 47.0 billion to the Iraq War. $341.4 million per day, $4,681 per household, $1,721 per person.
  - *(www.nationalpriorities.org)*

Sources:

- *Joshua Gotbaum, Assistant Secretary for Economic Security, Department of Defense*
- *The Institute for Policy Studies*

Could your tax dollars be better spent?

Taxpayers in New York have paid $46.9 billion for the Iraq War thus far. For the same amount of money, the following could have been provided….

- ✓ 8,643,927 People with health care for one year or
- ✓ 87,754,865 homes with renewable electricity for one year or
- ✓ 904,654 public safety officers for one year or
- ✓ 7,648,888 scholarships for university students for one year or
- ✓ 2,467 new elementary schools or
- ✓ 266,447 affordable housing units or
- ✓ 16,379,382 children with health care for one year or
- ✓ 5,340,365 head start places for children for one year or
- ✓ 542,897 elementary school teachers for one year or
- ✓ 705,451 port container inspectors for one year……

Source: www.nationalpriorties.org

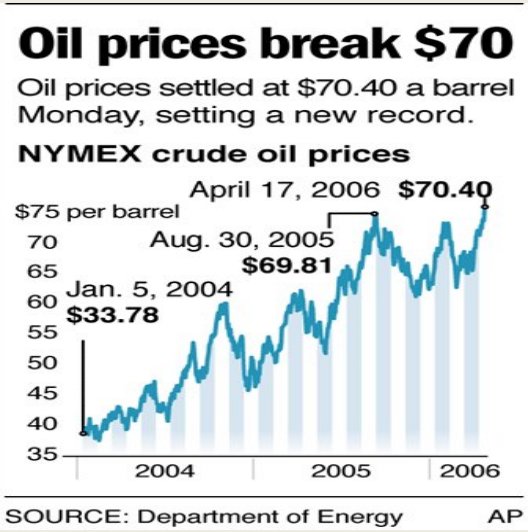
Competing With China & Asia

- Asia consumed 15.1 (MBD) in 2002.
- Asian demand will total approximately 22.7 million barrels of oil by 2010
- China currently imports over half of its daily oil consumption.
  - *Demand 2.5 billion barrels, produced 1.2 billion barrels*

Source: Energy Information Administration

Reality Check

Don’t Be Fooled ($117.15 BBL) 04-29-08



A Nightmare Realized

Oil prices top $78, settle in above $77

Oil: Looking at $100

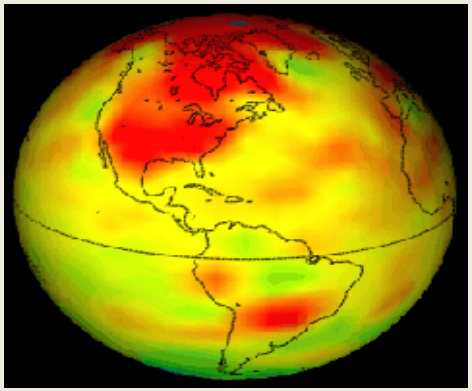
While a broader conflict with Iran isn't likely soon, one more big event could push crude prices into the triple digits.

By Steve Hargreaves, CNNMoney.com staff writer

July 14 2006: 3:30 PM EDT

Why Biodiesel?

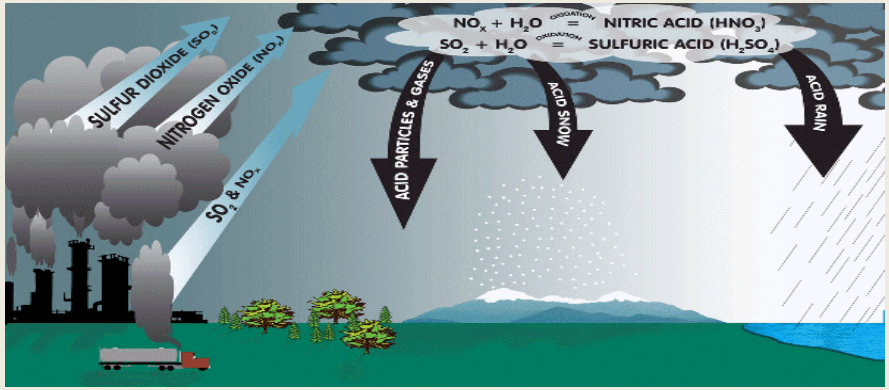
Global Warming



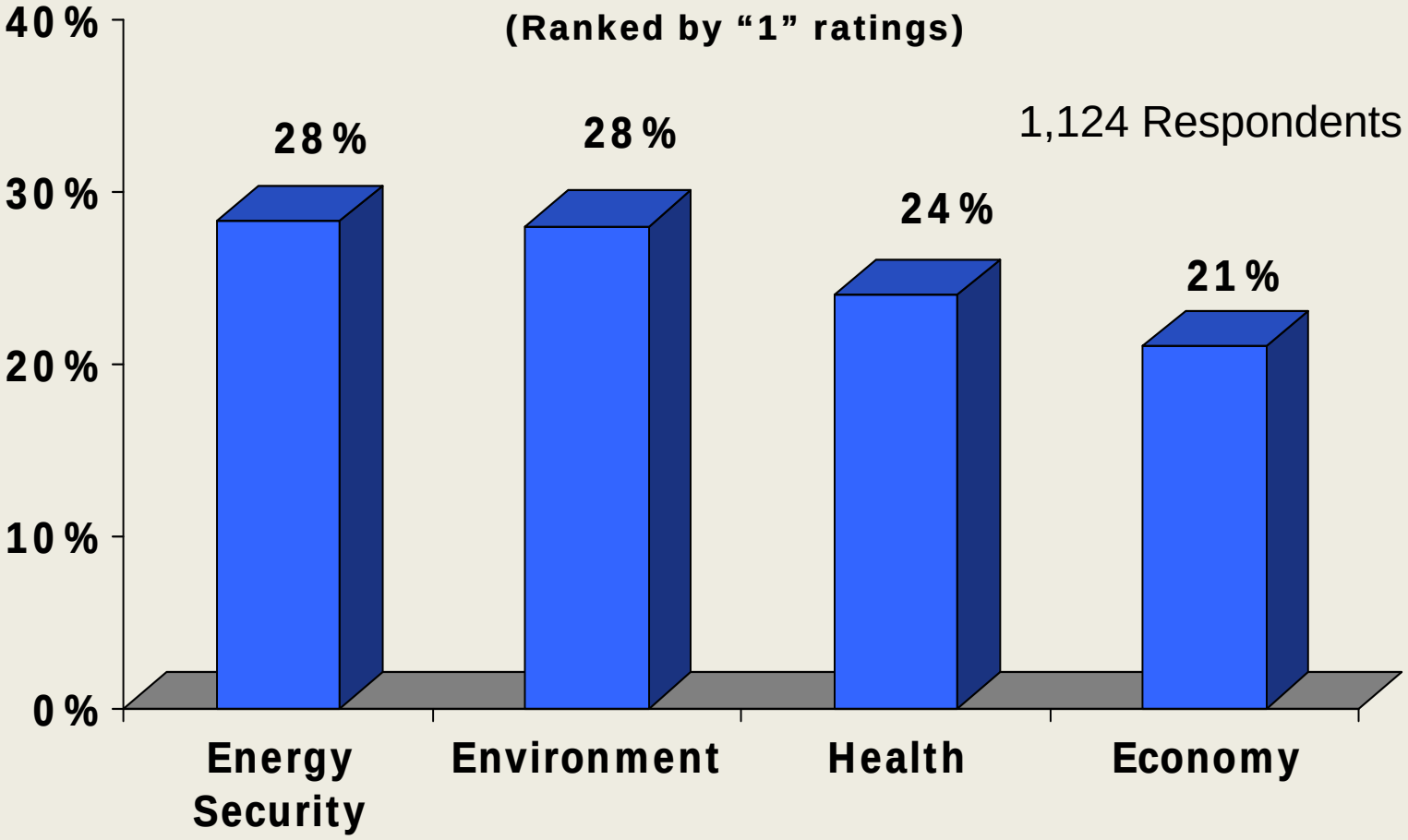
Particulate Emissions (PM 2.5)

Smog

Acid Rain



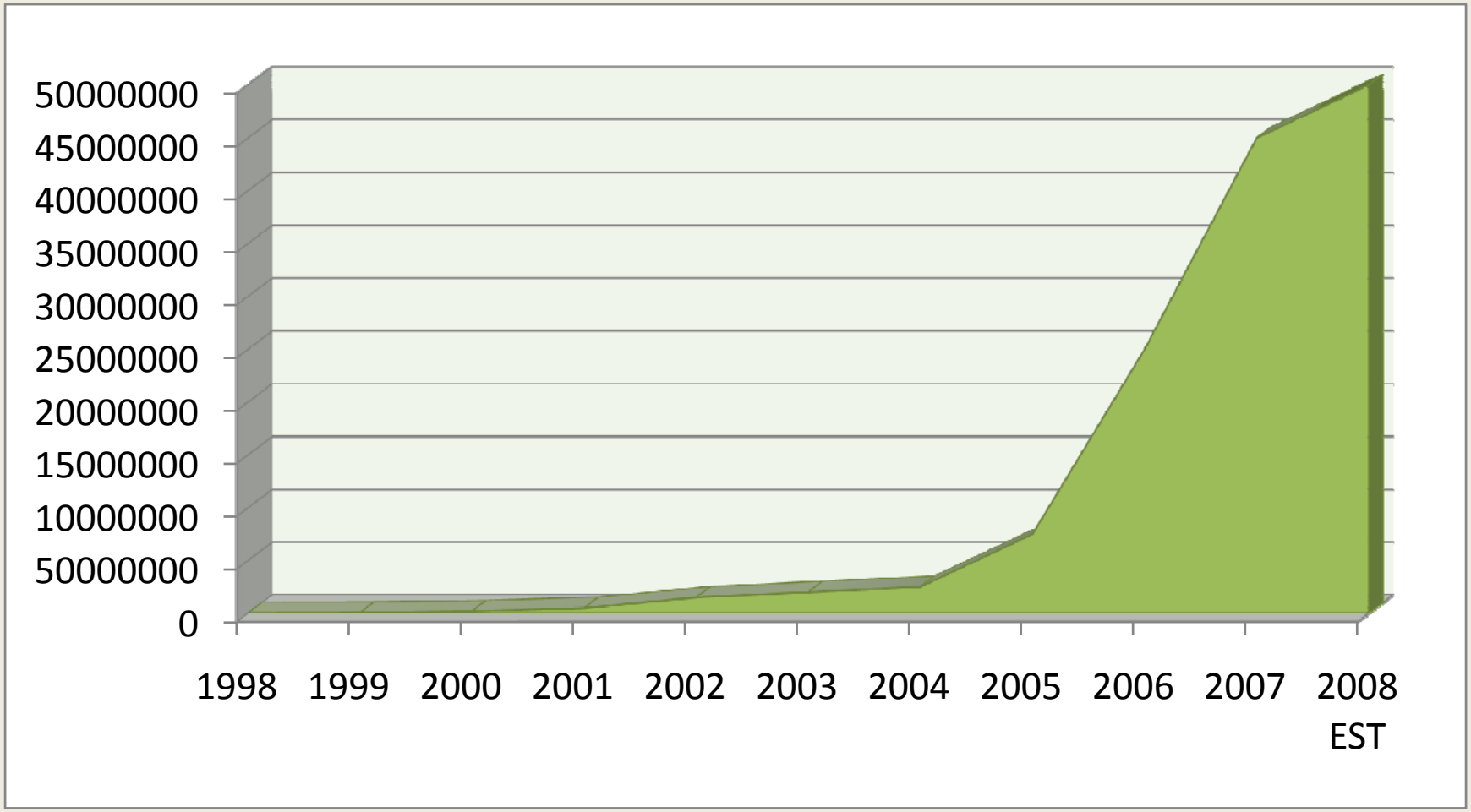
Importance of Biodiesel Benefits for U.S. Consumers



National survey conducted for the National Biodiesel Board in January 2008.

U.S. Biodiesel Demand

Strong Crude Price, Blenders Tax Credit, Energy Security & State Legislation



Biodiesel Fuel Availability

- Available through direct shipment from over 1,956 petroleum distributors nationwide
- Approximately 1,300 retail filling stations nationwide, 648 locations are semi-truck accessible
- Movement towards biodiesel at the terminal – over 158 terminals nationwide, 40+ automated

Assessing Transportation Costs

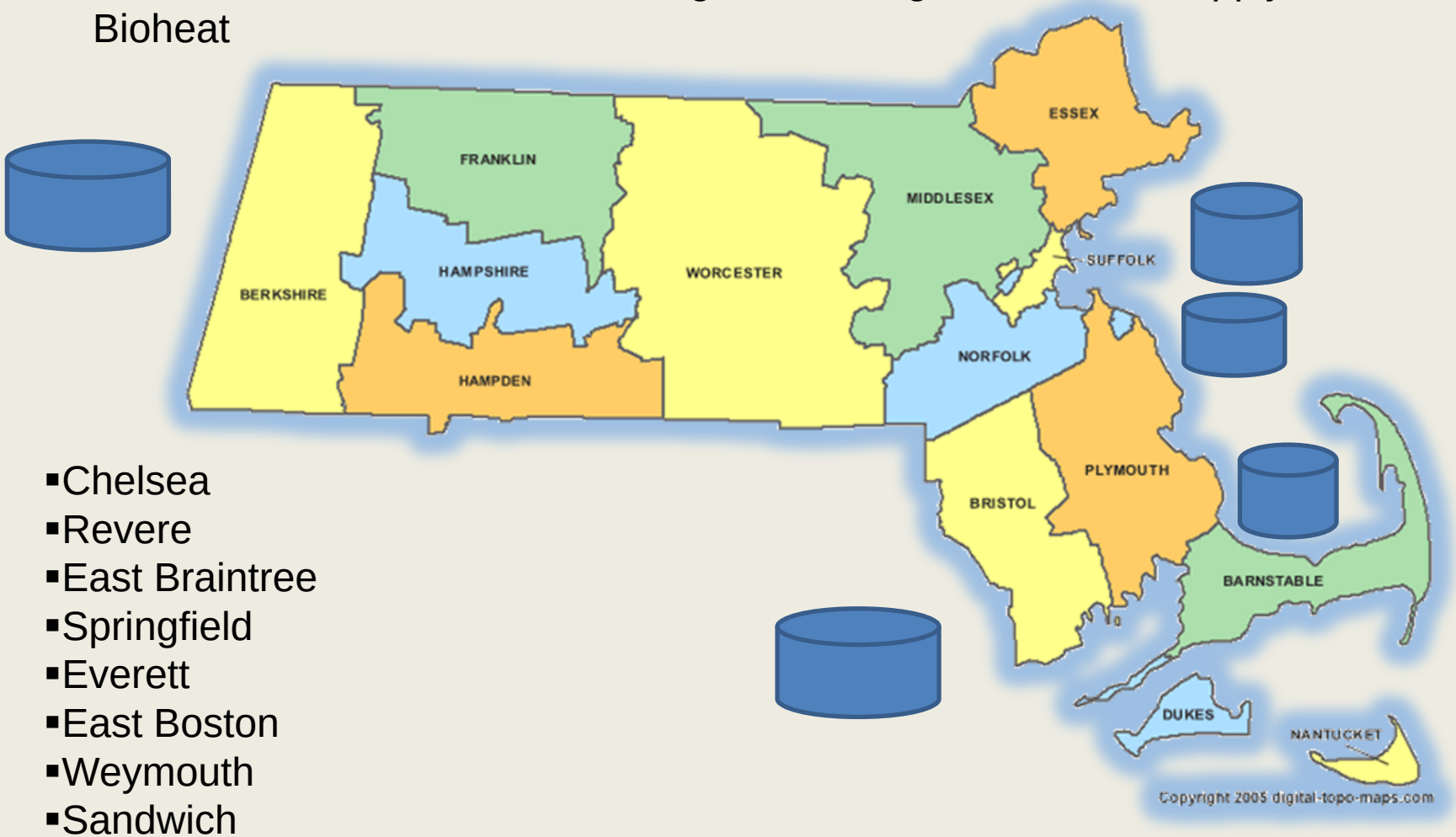
Truck **6000 gallons**
$0.20 ++ gal

Rail **23,000 – 28,000**
gal/unit $0.10 + gal

Barge **400,000 gallons**
$0.06 + gal

Pipeline **2.0 M gal $0.02 + gallon**

Massachusetts Terminals, Building Out Tankage For Future Supply of Bioheat



- Chelsea
- Revere
- East Braintree
- Springfield
- Everett
- East Boston
- Weymouth
- Sandwich
- Fall River
- New Bedford

Current Law Tax Incentives

Biodiesel Volumetric Excise Tax Credit:

- Biodiesel when blended with diesel fuel is eligible to receive a $1.00 per gallon credit against excise tax on first use vegetable and animal oils (virgin oils), and a $.50 per gallon credit against excise tax on second use oils (yellow grease).
- Available through December 31, 2008.
- Imported and Exported Biodiesel is eligible for the tax credit.

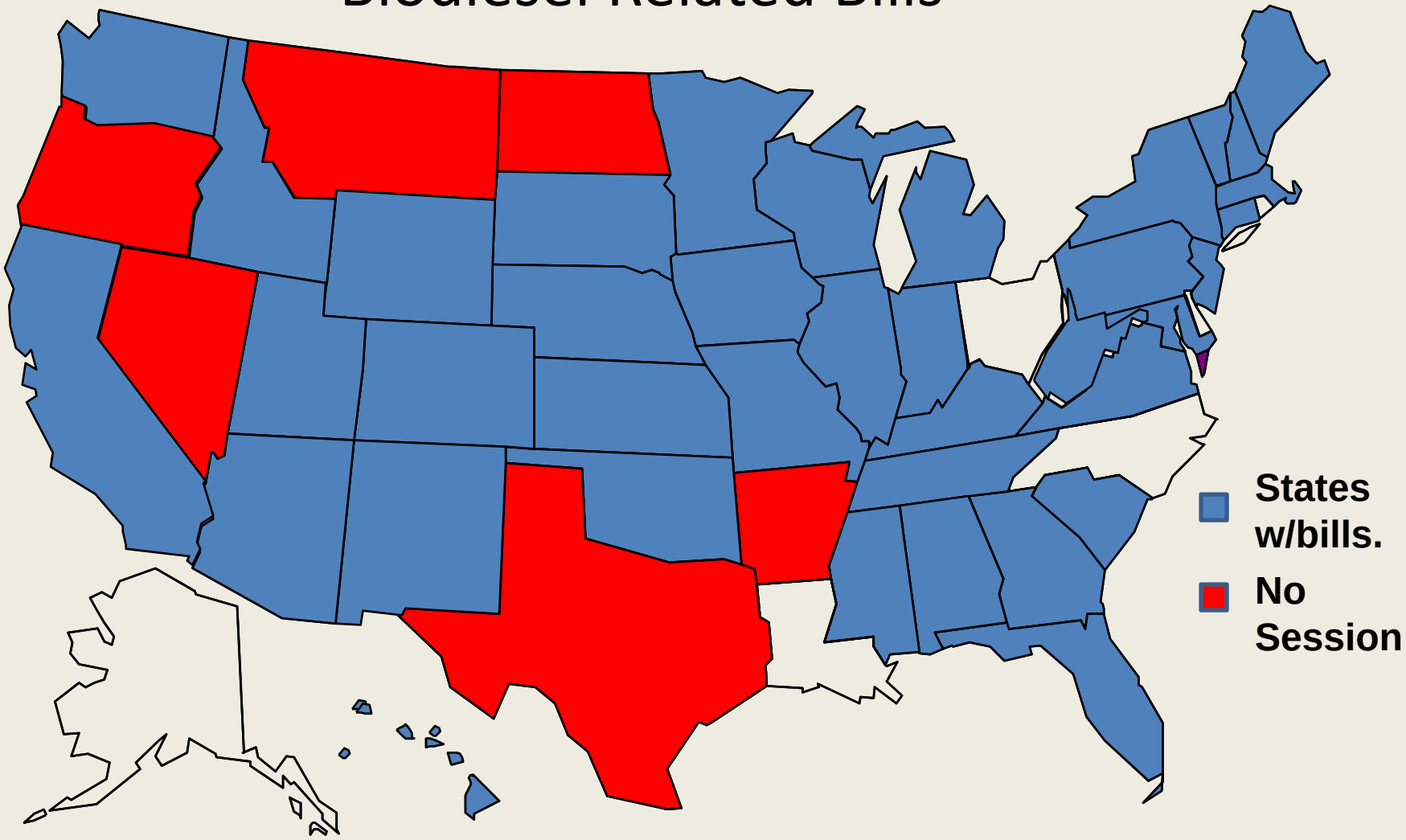
Current Law Tax Incentives

Small Producer Tax Credit:

- 10 cents per gallon income tax credit. To qualify, facility's annual production capacity cannot exceed 60 million gallons.
- Credit is capped at 15 million gallons of capacity for a total of $1.5 million per facility per year.
- Agri-biodiesel Producers (Expires 12-31-2008)

2008 Look Ahead

Biodiesel Related Bills



State Activity

- New York (19)
- New Jersey (6)
- Connecticut (15)
- Massachusetts (5)
- Vermont (9)
- New Hampshire (9)
- Maine (2)
- Pennsylvania (3)

Sustainability Defined

- Meeting the needs of the present in terms of environmental integrity, quality of life, and economic prosperity without compromising future generations' ability to meet these needs for themselves.

Sustainability

- The National Biodiesel Board (NBB) supports efforts to ensure that biodiesel produced and sold in the U.S. comes from sustainable resources and is against any non-sustainable practices in producing agricultural commodities.

http://www.biodiesel.org/resources/sustainability/default.shtm
Environmental, Economic, Social Sustainability and Feedstock's

Market Opportunities…

ON-HIGHWAY USERS
- Trucking
- Fleets
- Passenger Vehicles

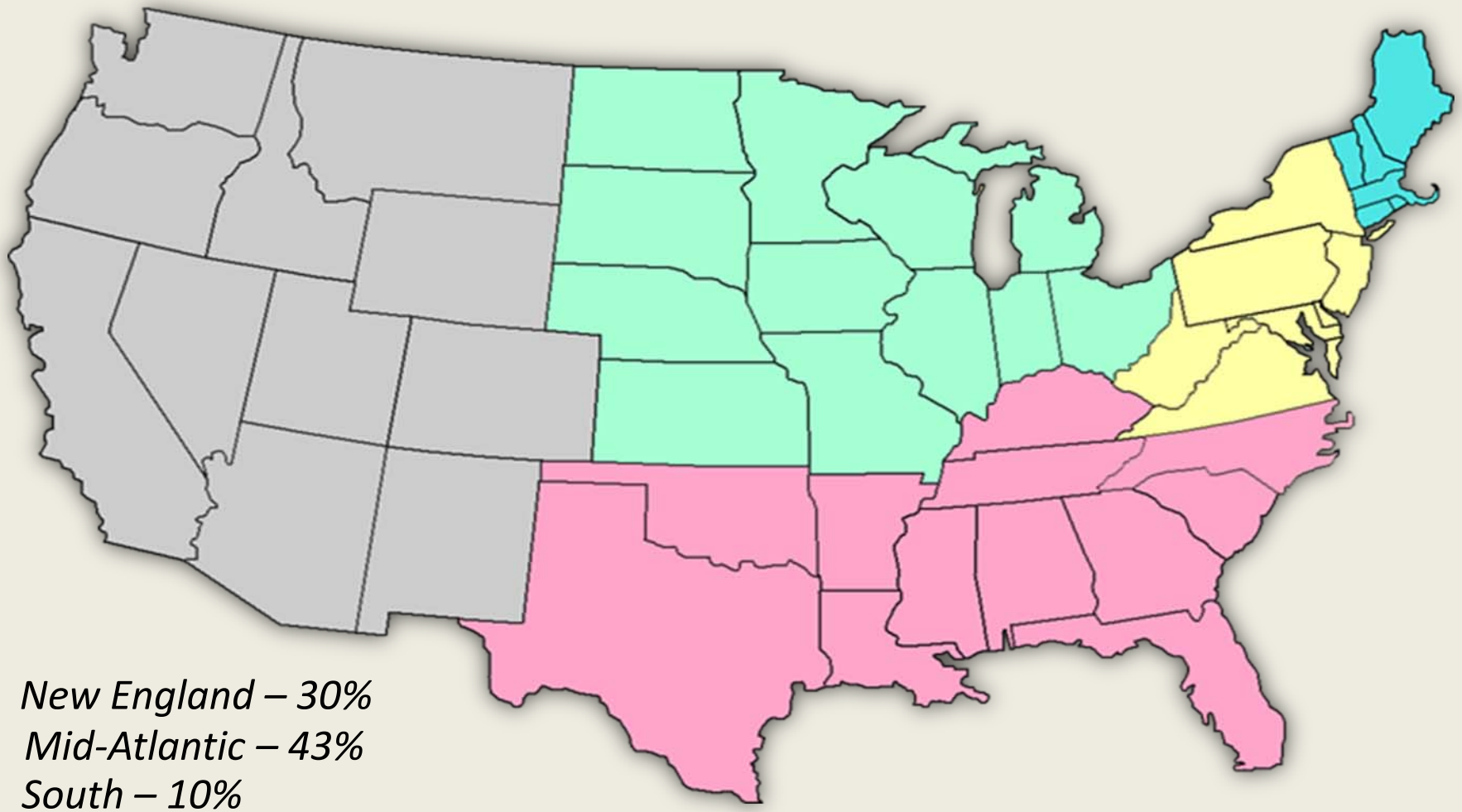
REGULATED FLEETS
- Federal
- State
- Utilities

Bioheat®

MARINE
- Recreational
- Tour Boats
- Environmentally Sensitive Areas

AG AND OFF-ROAD USERS
- Lubricity Enhancement

Regional Share of US Oil heat Market



New England – 30%
Mid-Atlantic – 43%
South – 10%
Mid-West – 11%
West - 6%

8-9 BILLION gallons concentrated in 22 states!

Annual Gallons B-100 per state at 5% Inclusion

AK	5,235,000
CT	42,715,000
DE	3,210,000
DC	1,635,000
ID	1,370,000
IN	6,975,000
KY	3,250,000
ME	31,130,000
MD	15,165,000
MA	58,230,000
MI	8,100,000
NV	1,000,000
NH	16,375,000
NJ	30,600,000
NY	123,160,000
NC	15,660,000
OH	12,345,000
PR	3,295,000
PA	64,285,000
RI	10,555,000
VT	7,855,000
VA	21,550,000
WA	5,890,000
WI	9,825,000

**Based on NORA Check-off Values*

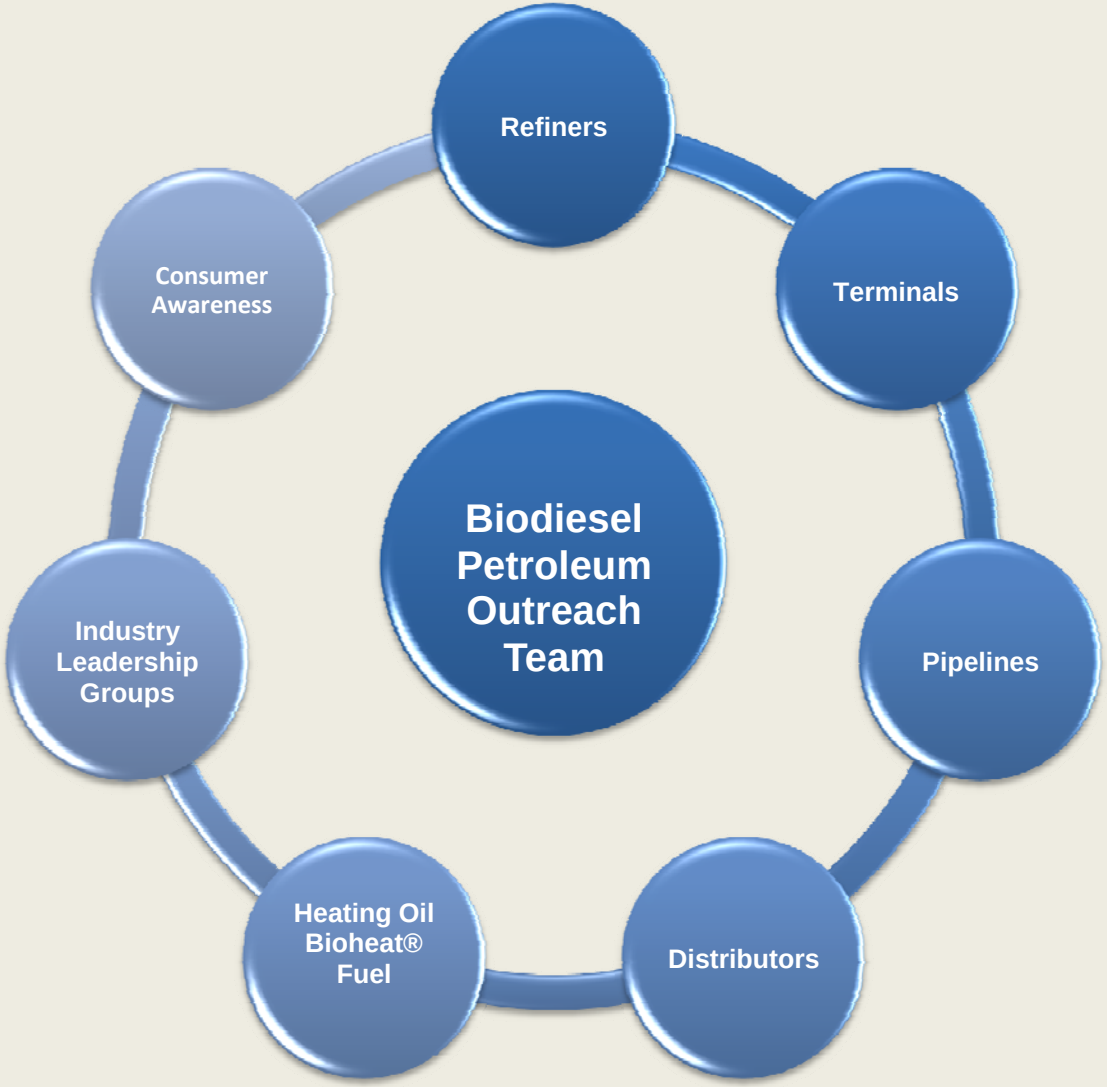
Why 5%?

- Presents minimal stress to biodiesel supply
- Matches Industry Vision of 5 X 15
- Likely success with installed base
  - Operational snafu's minimized
- Consumers think about their energy budgets

"I'm Comfortable With That"

- Bioheat® can help mitigate heating oil deficiencies as well improve consumers perception of oil heat.
- Biodiesel production capacity can meet market demands.
- Biodiesel fuel quality issues are improving nationwide
- Legislation will likely stimulate high volume state activities
- NBB and it's stakeholders are committed Bioheat®

Creating Strategic Partnerships



Thank you,

For More Information

National Biodiesel Board - (800) 841-5849 – www.biodiesel.org
Advanced Fuel Solutions, Inc. – (866) 213-3219, Paul Nazzaro, Petroleum Liaison, National Biodiesel Board