

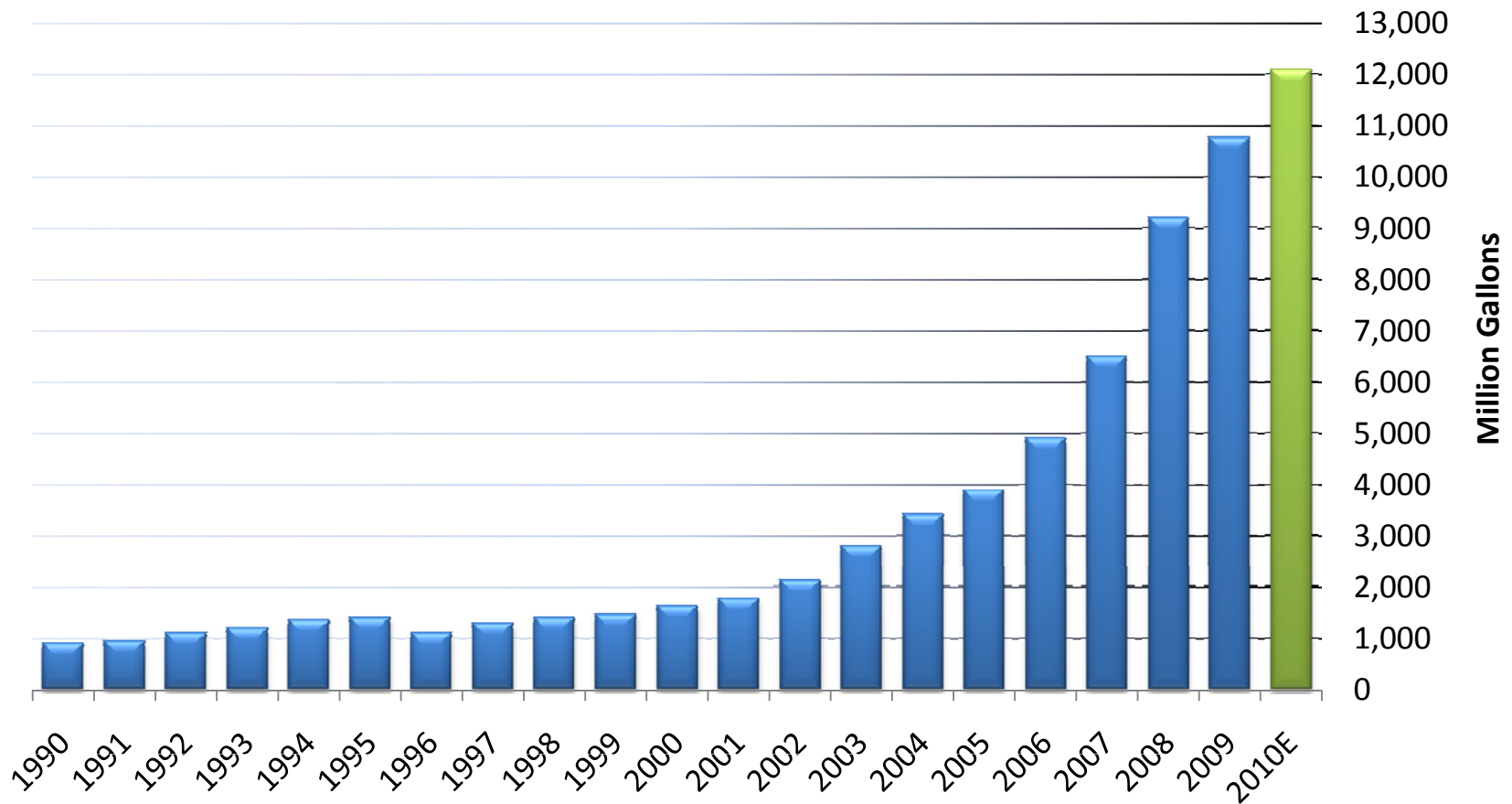


Ethanol Industry Update

Bob Dinneen
President & CEO
Renewable Fuels Association

Historical Ethanol Production

U.S. ETHANOL PRODUCTION



Current Ethanol Industry Capacity

	Capacity (MGY)
201 Operable Facilities	13,519
<i>13 idle facilities</i>	<i>947</i>
<i>188 operating facilities</i>	<i>12,572</i>
12 Facilities Under Construction	1,196
3 Expansions at Existing Facilities	76
TOTAL CAPACITY	14,791

Ethanol as a Fuel & Fuel Additive

1. E10 (10% ethanol by volume)

- Approved for use in all vehicles and engines
- ~98% of ethanol consumed as E10
- 80-85% of U.S. gasoline blended with ethanol

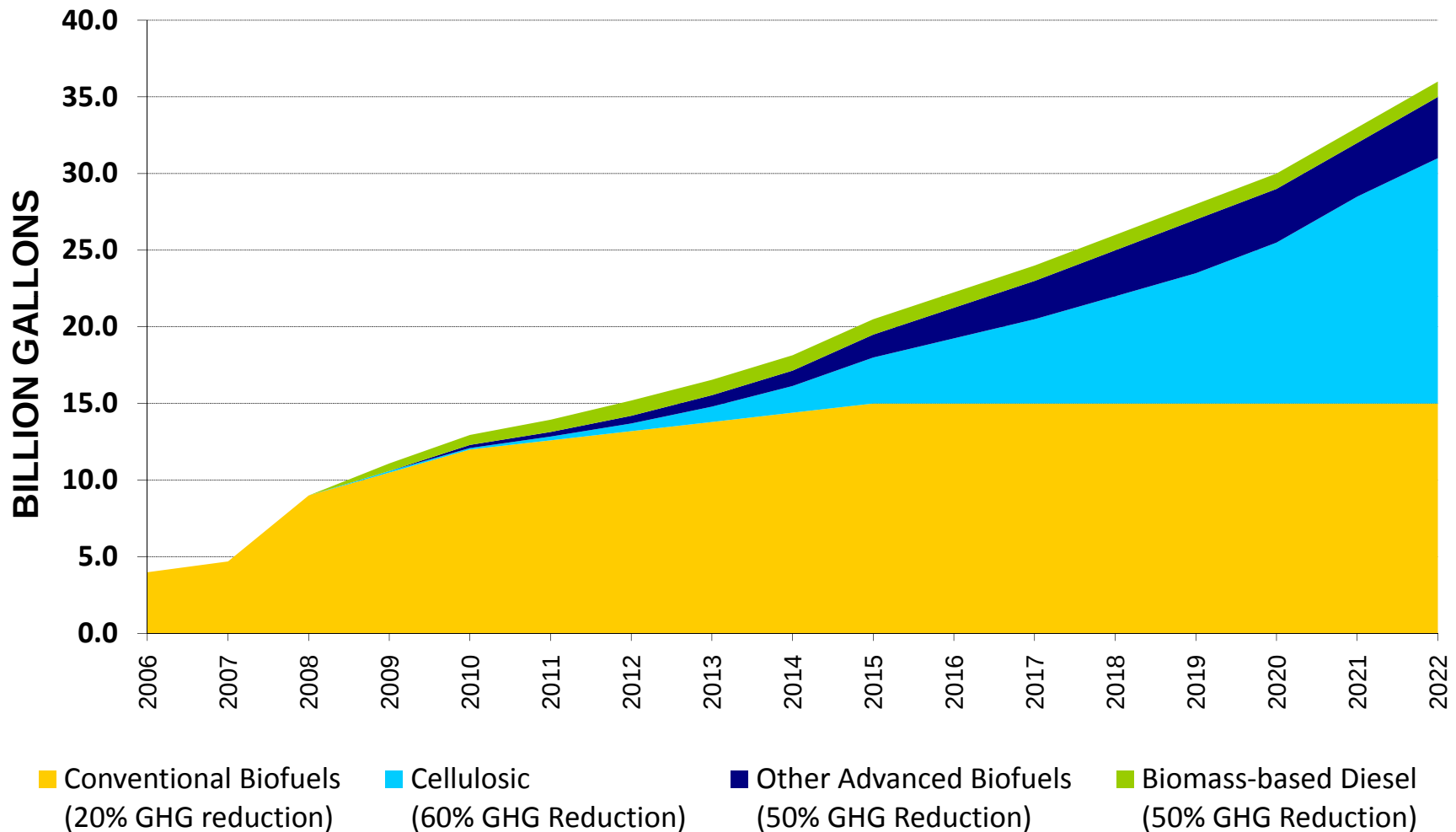
2. E85 (70-85% ethanol by volume)

- For use in flex-fuel vehicles (FFVs) only
- 7+ million FFVs; ~2,200 retail outlets
- <2% of ethanol consumed as E85

3. Mid-level blends (20, 30, 40% ethanol by volume)

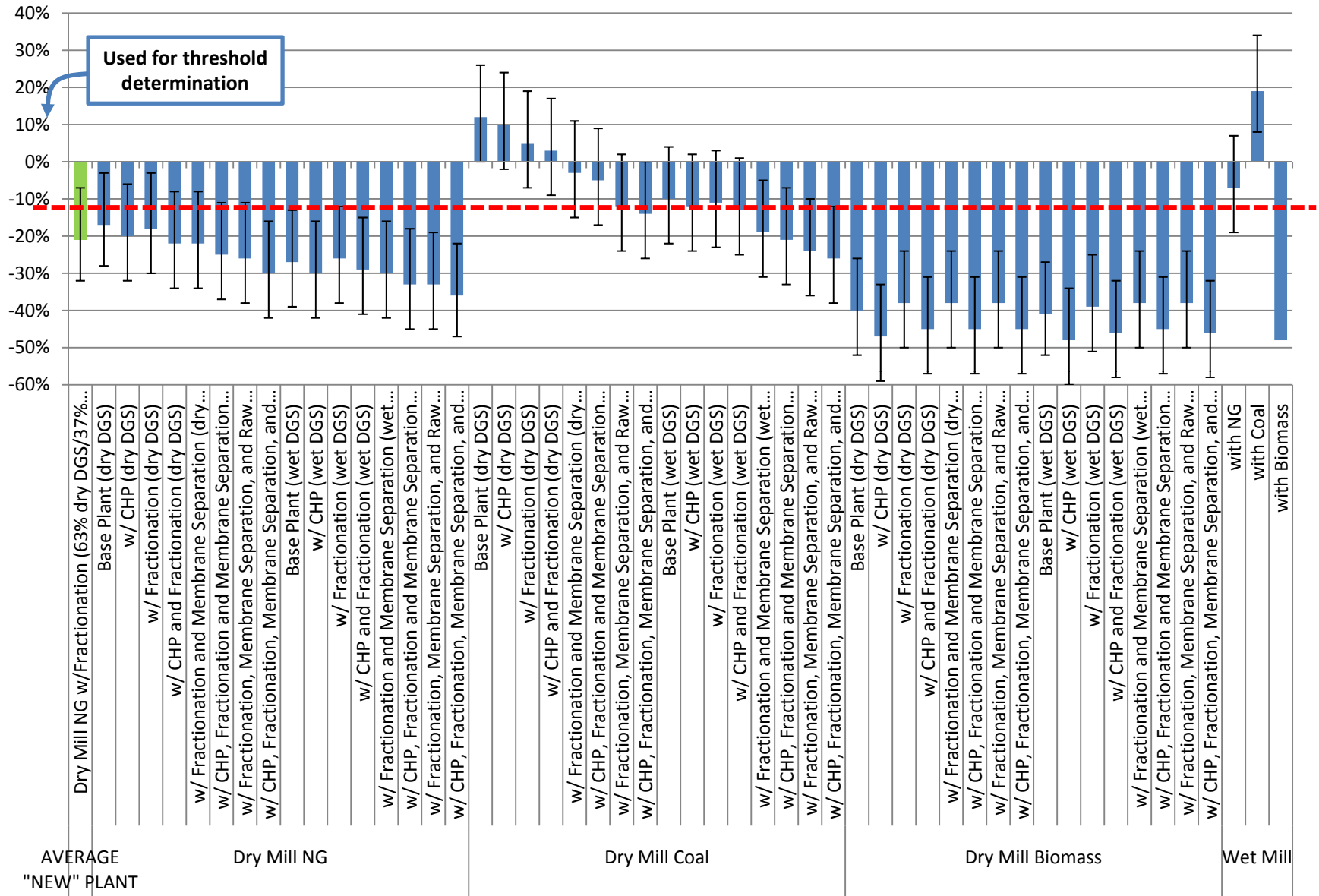
- For use in FFVs only
- Dispensed by “blender pumps” (<250 stations)
- Specifications, BMPs, etc. under development

Renewable Fuels Standard (RFS2)



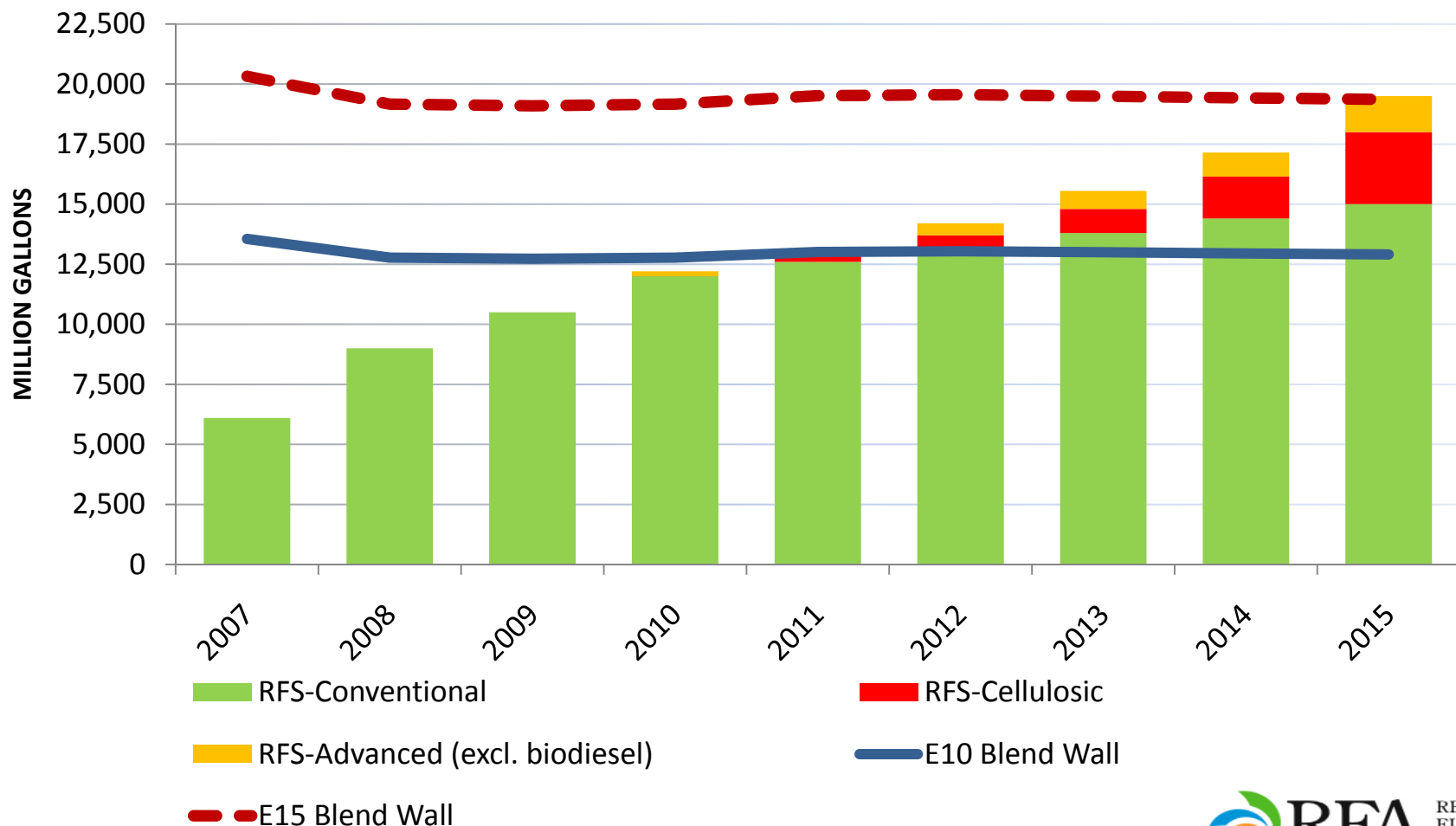
Note: 20% reduction for conventional biofuels applies only to new construction

RFS2 Final Rule: Corn Ethanol GHG Reductions



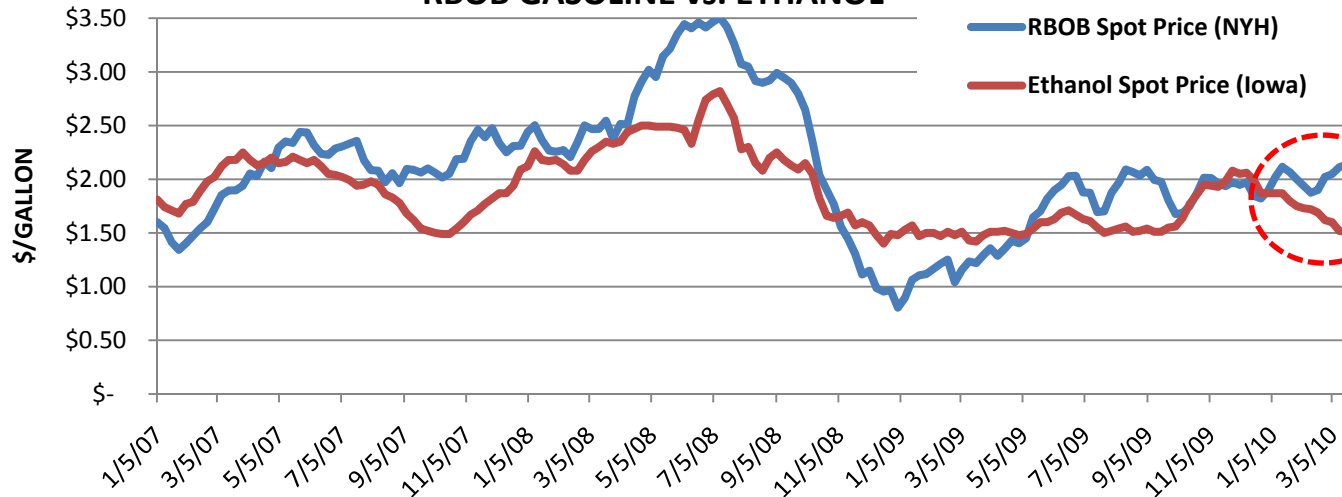
Meeting the RFS will require approval of “mid-level blends” (i.e. >E10)

ETHANOL BLEND WALL AND RFS2 REQUIREMENTS



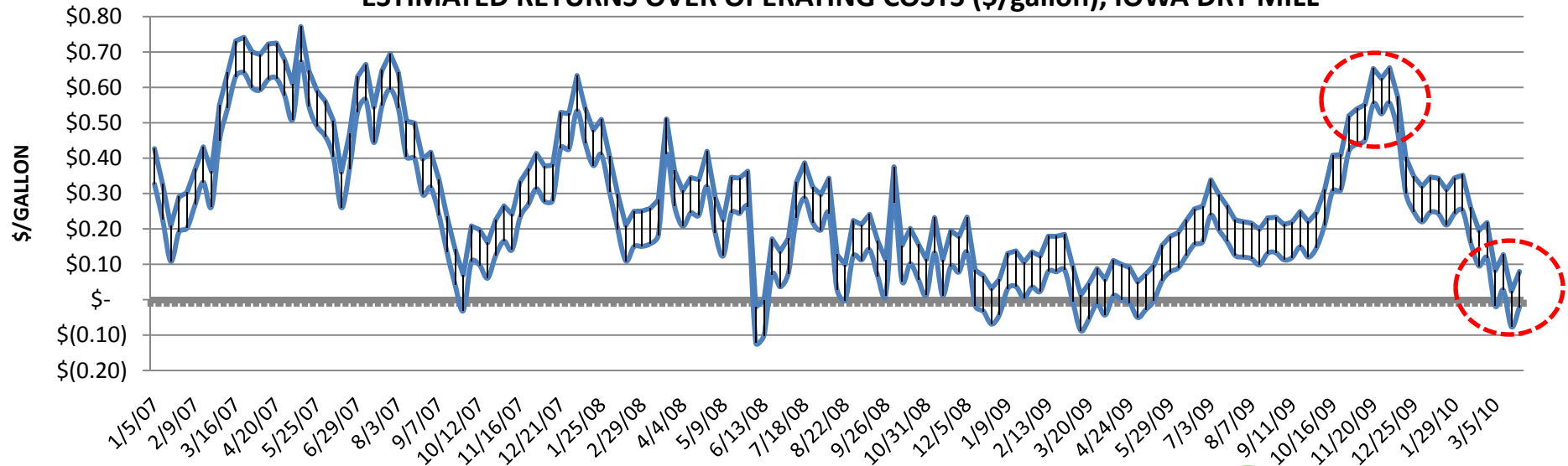
Current Ethanol Economics

RBOB GASOLINE vs. ETHANOL



- Gasoline-ethanol spread has widened in recent months
- Widest since 9/2008
- Returns over operating costs hit 2-year high in Q4, but have fallen sharply since

ESTIMATED RETURNS OVER OPERATING COSTS (\$/gallon), IOWA DRY MILL



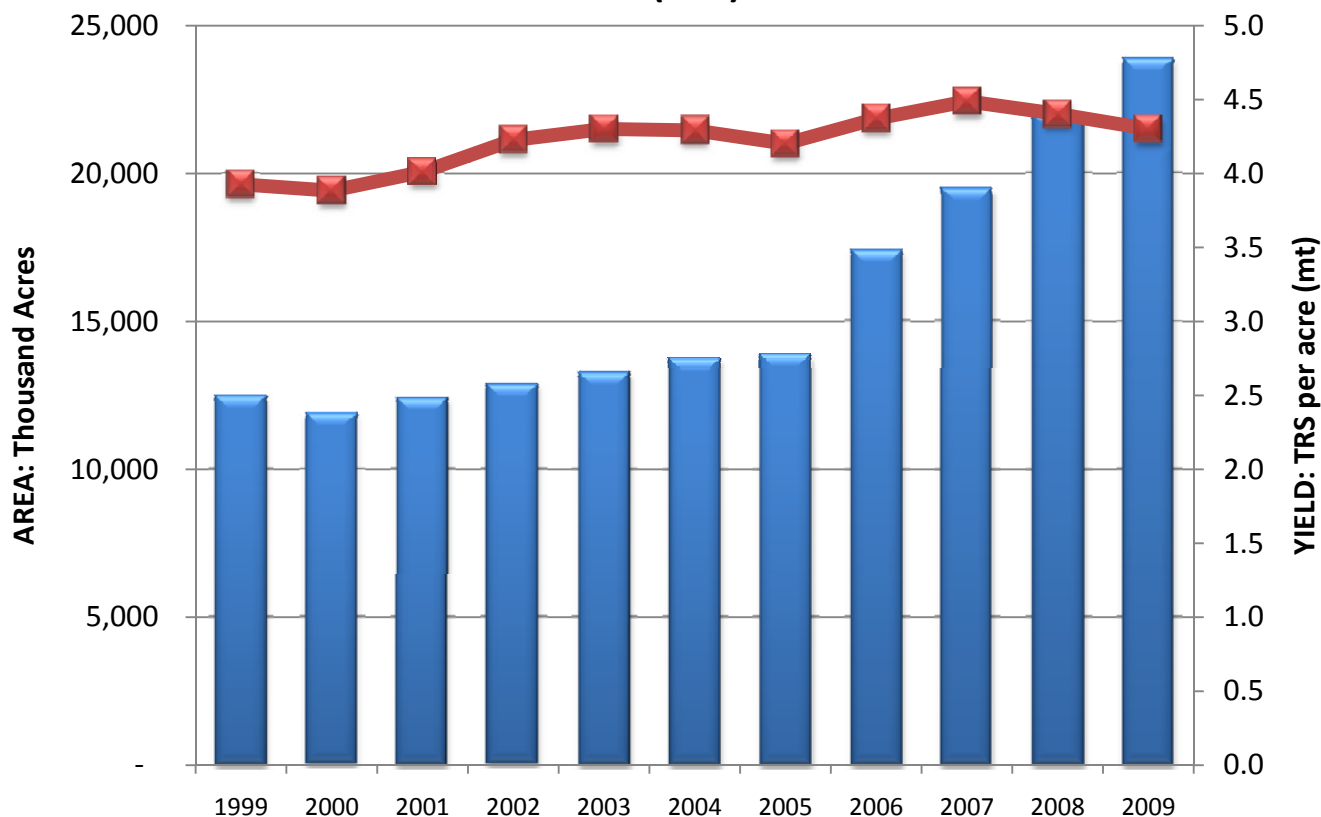
Source: RFA based on EIA weekly gasoline prices, EIA weekly natural gas updates, and USDA-AMS weekly Iowa ethanol reports

E15 Fuel Waiver

- Waiver submitted to EPA March 6, 2009
- EPA responded Dec. 1, 2009; approval decision delayed
 - Acknowledged no “show-stoppers” in testing to date
 - Still waiting for completion of key tests (e.g., catalysts)
 - Announced pump labeling effort
- Assuming no major issues, EPA could approve E15 for ***MY2001 and newer*** as soon as this summer
- A partial waiver on E15 likely does very little to boost ethanol demand—***must have a full waiver***
- A waiver for E15 ***allows*** (but does not ***require***) E15 usage. Economics (and RFS requirements) will drive adoption

Increased Brazil ethanol output has come primarily through area expansion

BRAZIL SUGAR CANE, AREA PLANTED AND TOTAL REDUCING SUGARS (TRS) YIELD



Between 1999-2009:

- Yield per acre of total reducing sugars increased 9.5% (0.8% CAGR)
- TRS yield peaked in 07/08
- Planted area *virtually doubled* (increase of 92%, or 6.1% CAGR)
- Increased ethanol output came mostly through sugarcane *area expansion*

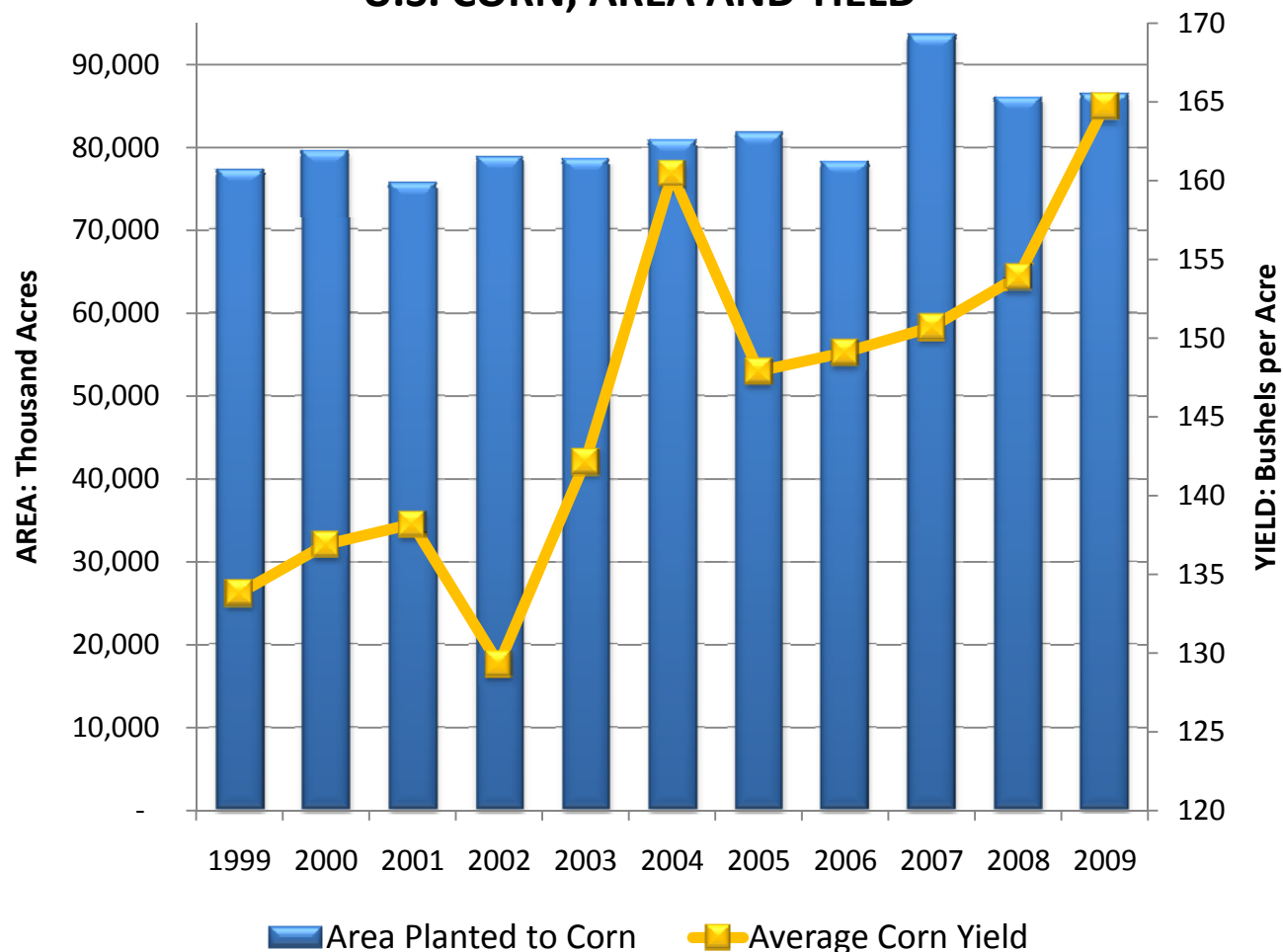
Sources:

■ Area Planted to Sugarcane ■ TRS/Acre (MT)

1.) IBGE (sugarcane area planted & cane yield); 2.) USDA/FAS/ATO (TRS yield)

Increased U.S. ethanol output has come primarily through higher corn yields

U.S. CORN, AREA AND YIELD



Between 1999-2009:

- Yield per acre increased 23% (1.9% CAGR)
- Record yield in 2009
- Planted area increased 11% (1% CAGR)
- 2009 planted area similar to late '70s/early '80s levels

Sources:

1.) USDA (corn area planted & corn yield)

Ethanol Tax Policy

- Volumetric Ethanol Excise Tax Credit (VEETC) expires Dec. 31, 2010
- \$0.45/gallon tax credit paid to gasoline blenders
- Reps. Pomeroy (D-ND) and Shimkus (R-IL) introduced H.R. 4940 (Renewable Fuels Reinvestment Act) in March
- RFRA provides:
 - 5-year extension of VEETC
 - 5-year extension of secondary tariff on imported ethanol
 - 5-year extension of small ethanol producer tax credit
 - 3-year extension of cellulosic ethanol producer tax credit

Ethanol tax credits paid for themselves in 2009

- Industry generated \$8.4 billion in Federal tax revenue
- VEETC cost \$4.8 billion
- Small ethanol producer tax credit cost ~\$200 million
- ***Ethanol provides a \$3.4 billion surplus for the Federal Treasury***
- Plus other economic benefits:
 - *State and local tax revenues*
 - *Reductions in farm subsidies (LDPs virtually eliminated since 2006)*
 - *Decreased spending on oil imports*
 - *Lower gasoline prices*

RFS2 and VEETC programs are interdependent and complementary

- Critics argue that an excise tax credit for ethanol is unnecessary when a mandate requiring refiners to blend ethanol already exists
- RFS mandates the ***use*** of ethanol, not the ***production***
- VEETC encourages domestic production and ensures that the RFS volume requirements will be filled primarily with homegrown supply

Potential Impacts of Failing to Extend VEETC

- Loss of more than **112,000 jobs** in all sectors of the economy
- Reduction of domestic ethanol production by **38%**
- Increased reliance on imported motor fuels (*Trading imported oil for imported ethanol from nations like Brazil*)
- Decrease in corn prices of **8 percent** (or ~\$0.30/bushel)
- Loss of investment in/support for second-generation biofuels
- Elimination of **\$2.7 billion** in state/local tax revenues and **\$2.4 billion** in federal tax revenues
- Reduction of aggregate GDP by **\$16.9 billion**
- Reduction of household income by **\$4.2 billion**

Source: IMPORTANCE OF THE VEETC TO THE U.S. ECONOMY AND THE ETHANOL INDUSTRY

By John M. Urbanchuk for RFA



Questions