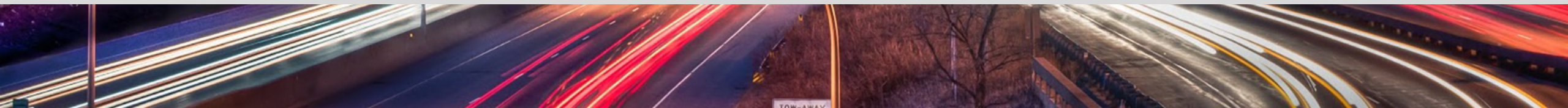
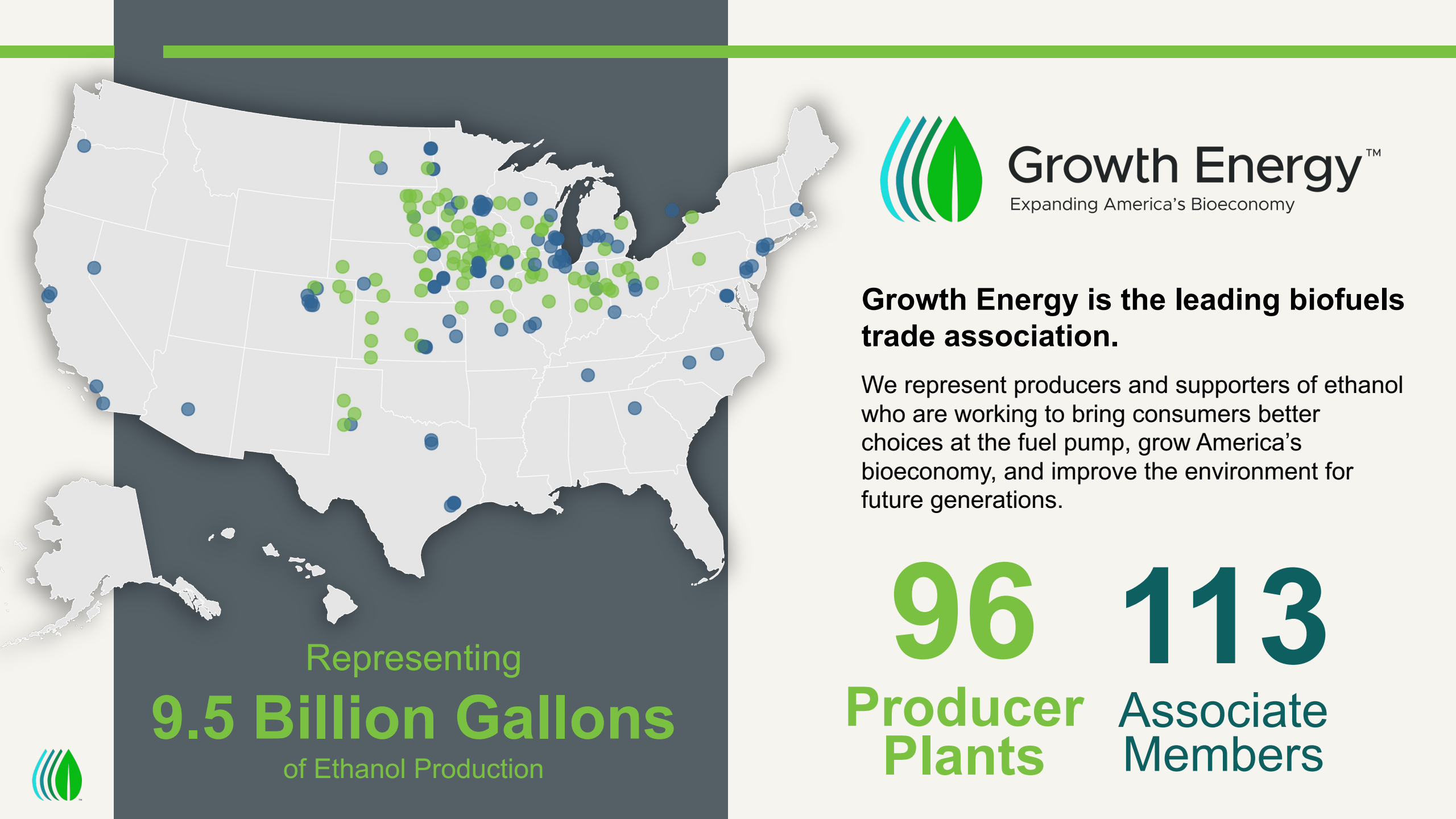




The Future of Bioethanol in a Low-Carbon World





Growth Energy™

Expanding America's Bioeconomy

Growth Energy is the leading biofuels trade association.

We represent producers and supporters of ethanol who are working to bring consumers better choices at the fuel pump, grow America's bioeconomy, and improve the environment for future generations.

Representing

9.5 Billion Gallons

of Ethanol Production

96

**Producer
Plants**

113

**Associate
Members**



Board of Directors



Tom Willis

Conestoga Energy
Partners

Board Chair



Dan Sanders

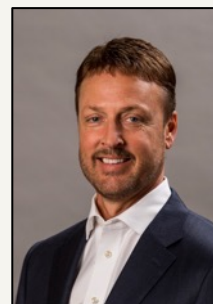
Front Range
Energy

Vice Chair



**Ray
Bradbury**

ADM



Jeff Broin

POET



Tom Buis

American Carbon
Alliance



**Richard
Childress**

Richard Childress
Racing



Rod Harris

The Andersons, Inc.



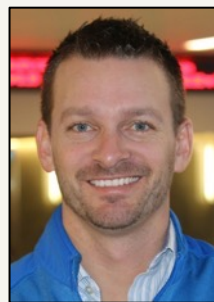
**Mark
Marquis**

Marquis Energy



Mitch Miller

Carbon Green
BioEnergy



**Scott
Pitstick**

Cargill, Inc.



**Rick
Schwarck**

Absolute Energy



**Dave
VanderGriend**

ICM, Inc.



**Nathan
VanderGriend**

ERI Solutions, Inc.

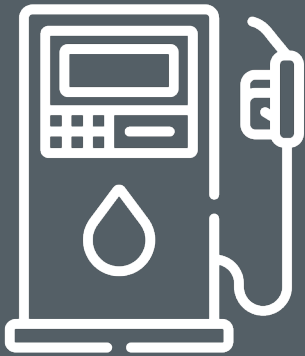


**David
Zimmerman**

Big River
Resources



Competing in a Low-Carbon Economy



**Enhanced
Market
Access**



**Effective
Policy
Solutions**



**Position
Bioethanol as
Climate Solution**



**Transportation
Fuels**

**Corn
Oil**

**Non-Road
Transportation**

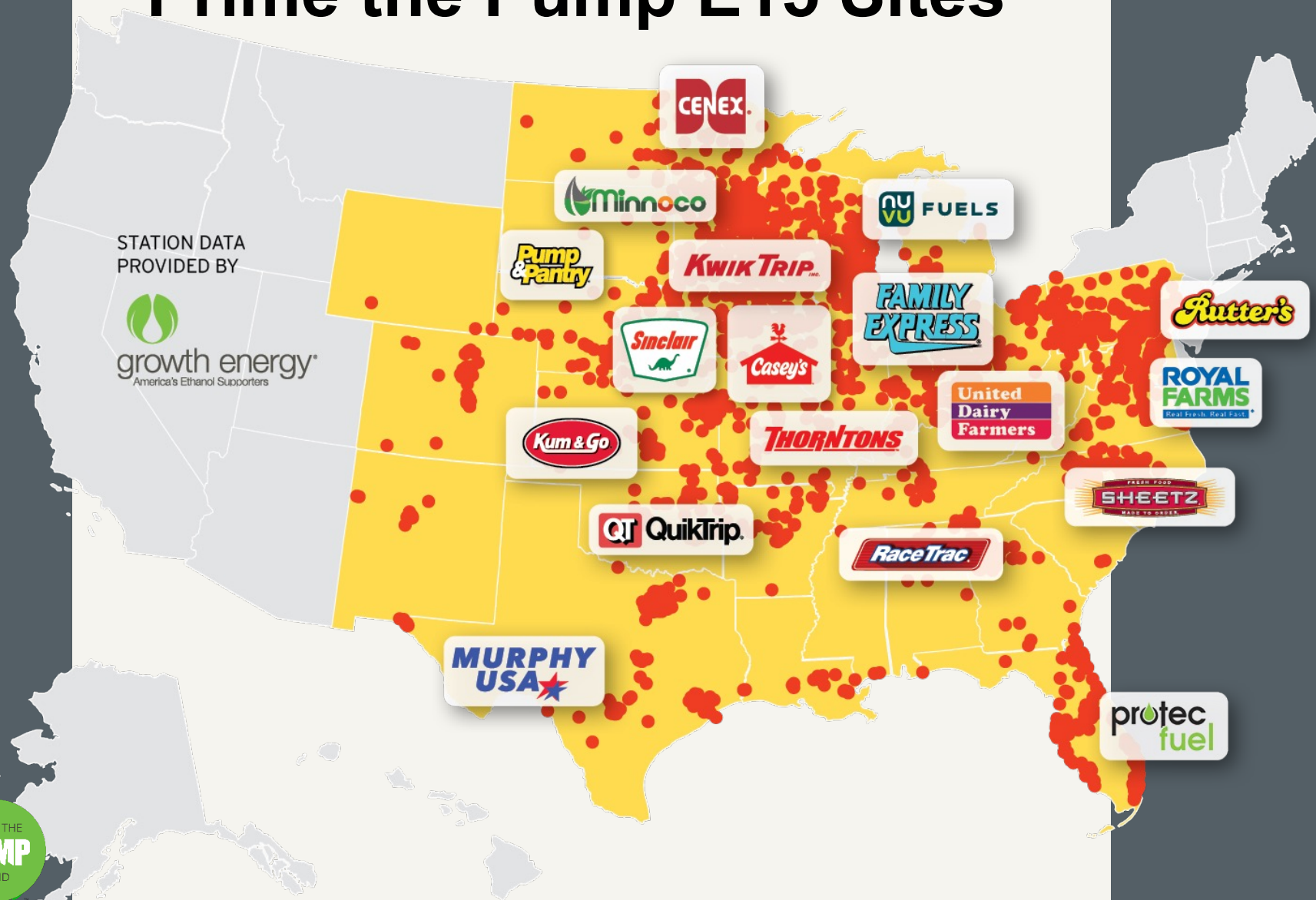


**Animal
Nutrition**

**Health & Industrial
Applications**

**Regenerative
CO₂**

Prime the Pump E15 Sites



Currently
3,244
E15 Sites

Nearly
5,900
Higher Blends

Big Business Responds to Climate

**Harvard
Business
Review**

**“Research: Actually, Consumers Do
Buy Sustainable Products”**



**“A Man On A Mission:
Gurhan Andac Wants To Bring
Sustainable Aviation Fuel To An
Airport Near You”**

Bloomberg

**“Vanguard, BlackRock Join Investors
Pledging to Hit Net Zero”**

**The
Guardian**

**“ExxonMobil and Chevron suffer
shareholder rebellions over climate”**



REUTERS

**“Exclusive: Global carmakers now target
\$515 billion for EVs, batteries”**





Consumer Point of View

Consumer focus on climate change is at an all time high.

- **69% of Americans** say that large businesses and corporations aren't doing enough to address climate change.
- **64% of American adults** say that reducing climate change should be a top priority.

([Pew](#) 2021)

Consumers are broadly passionate about the environment and expect the companies they purchase from to do more to address climate.

- **1 in 4 willing to switch brands** based on the company's climate action.
- Especially true with younger generations (18-24 year olds) who are three times more likely to switch brands based on climate values than those over 65.

([Deloitte](#) 2021)



46%

greenhouse gas
emissions from corn
ethanol are 46%
lower than gasoline.



Low Carbon/Clean Fuel Standards

CALIFORNIA, OREGON, WASHINGTON
Policy in place, Tightening Standards

**ILLINOIS, MASSACHUSETTS,
MINNESOTA, NEW MEXICO, NEW YORK**

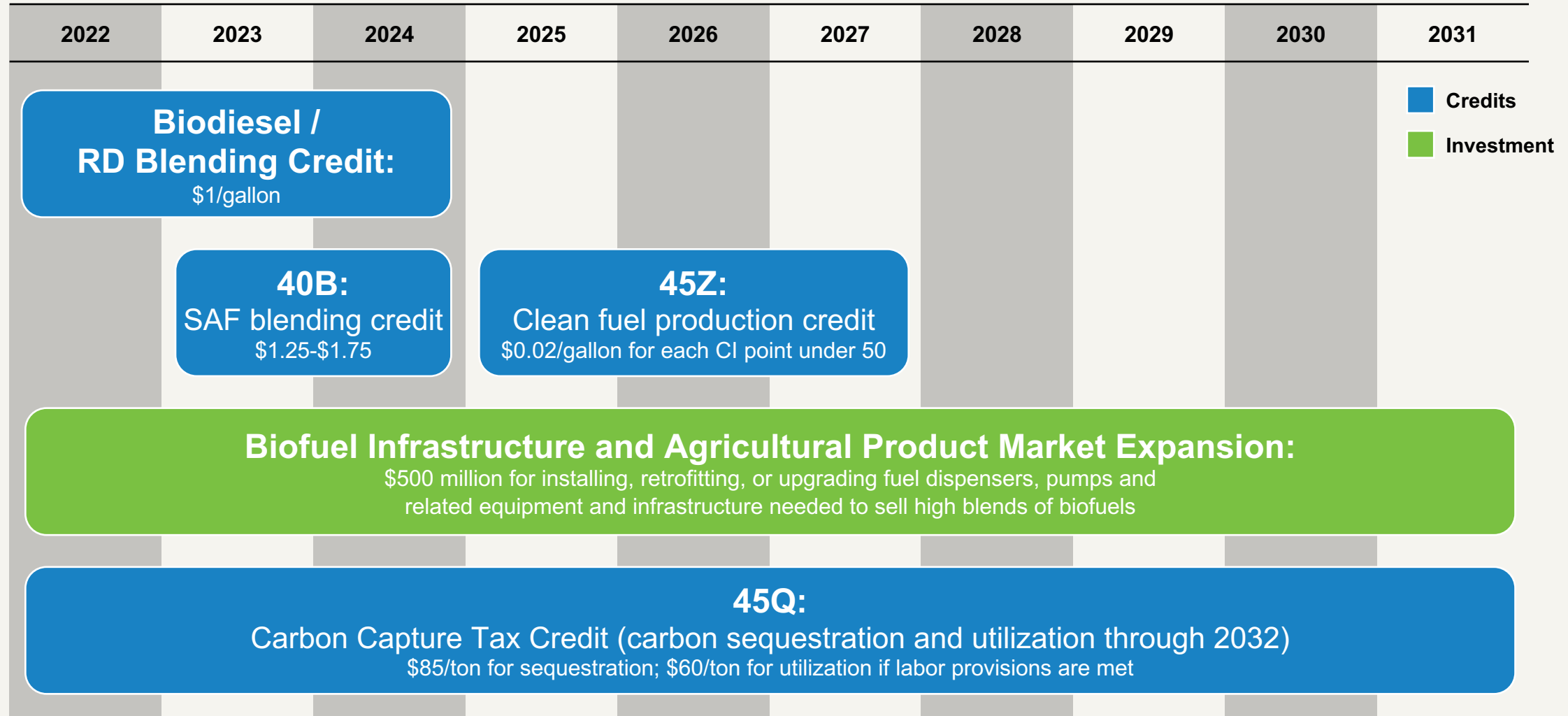
GLOBAL:

CANADA, EUROPE, BRAZIL

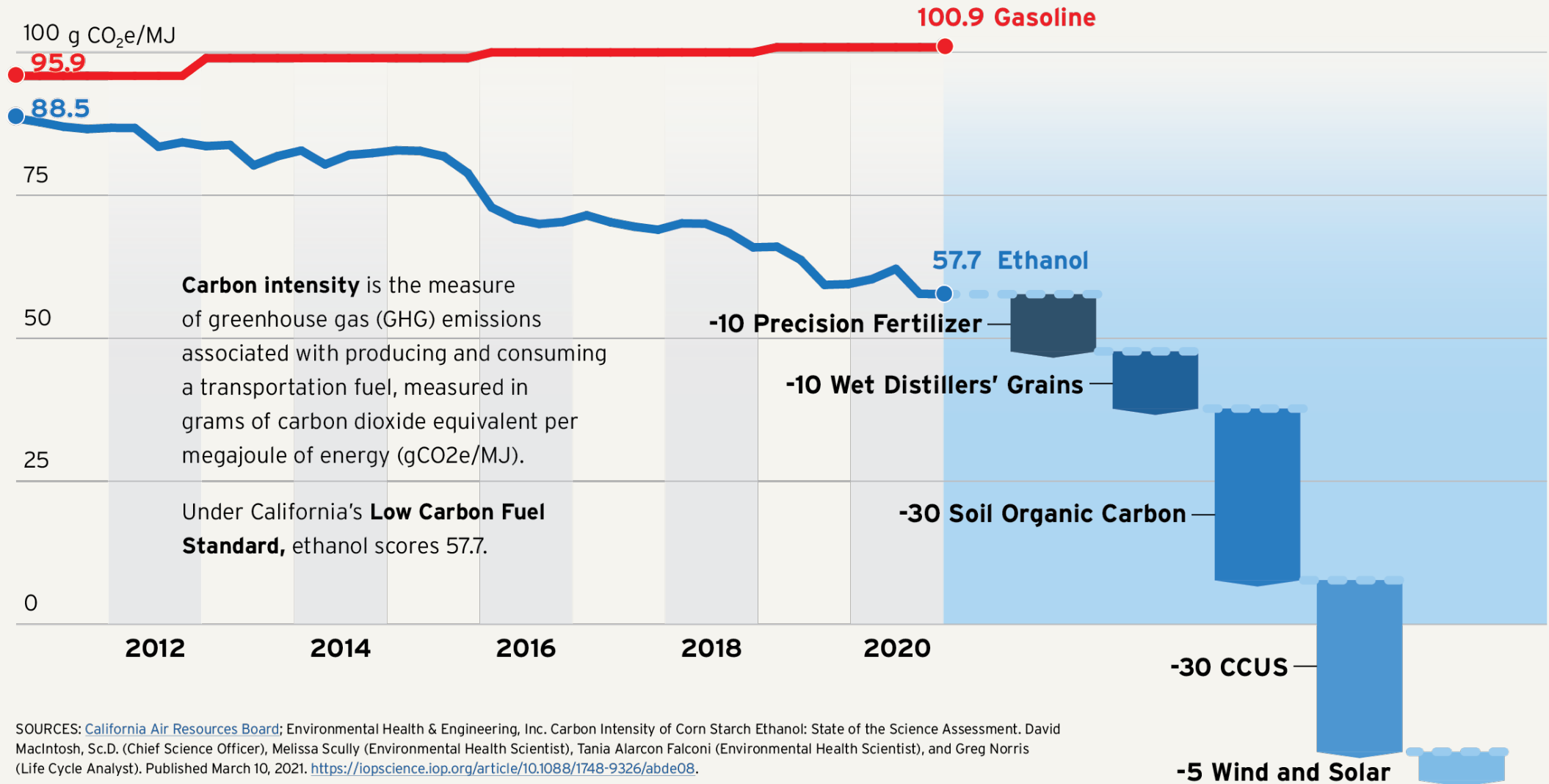


Inflation Reduction Act

Key Biofuels Provisions – Based on reductions in carbon intensity (CI)



Carbon Intensity of Ethanol Continues to Approach Net-Zero



SOURCES: [California Air Resources Board](#); Environmental Health & Engineering, Inc. Carbon Intensity of Corn Starch Ethanol: State of the Science Assessment. David MacIntosh, Sc.D. (Chief Science Officer), Melissa Scully (Environmental Health Scientist), Tania Alarcon Falconi (Environmental Health Scientist), and Greg Norris (Life Cycle Analyst). Published March 10, 2021. <https://iopscience.iop.org/article/10.1088/1748-9326/abde08>.



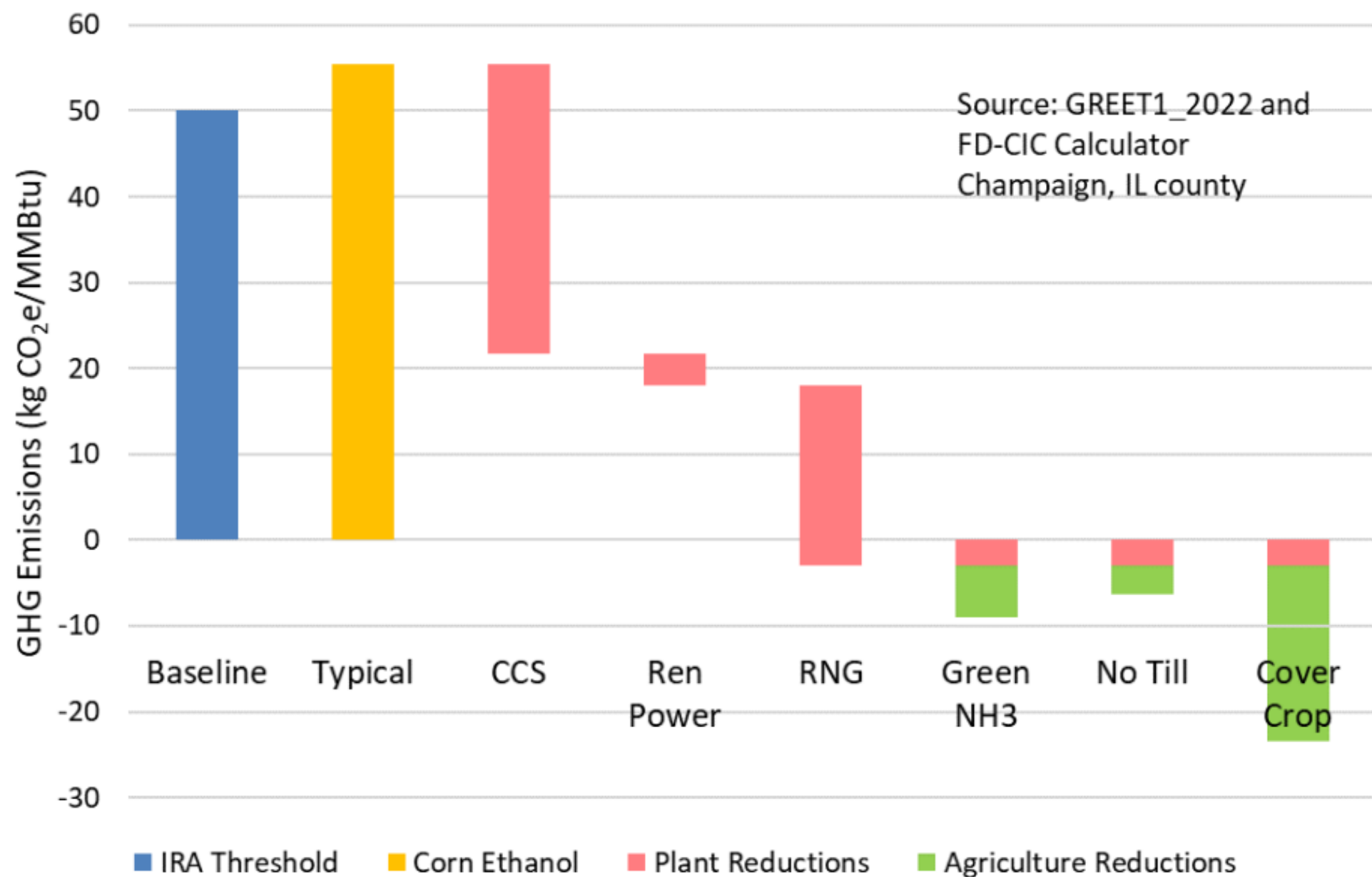


Figure 1. GHG Emission Reduction Options for Corn Ethanol.²

Carbon Pipelines



SUMMIT
CARBON
SOLUTIONS



WOLF

CARBON SOLUTIONS INC.



50

Ethanol plants
capture & utilize CO₂



15

Locations planning CO₂
sequestration projects





**“Mark my words:
In the next 20 years,
farmers are going
to be providing 95%
of all the sustainable
airline fuel.”**

— President Biden

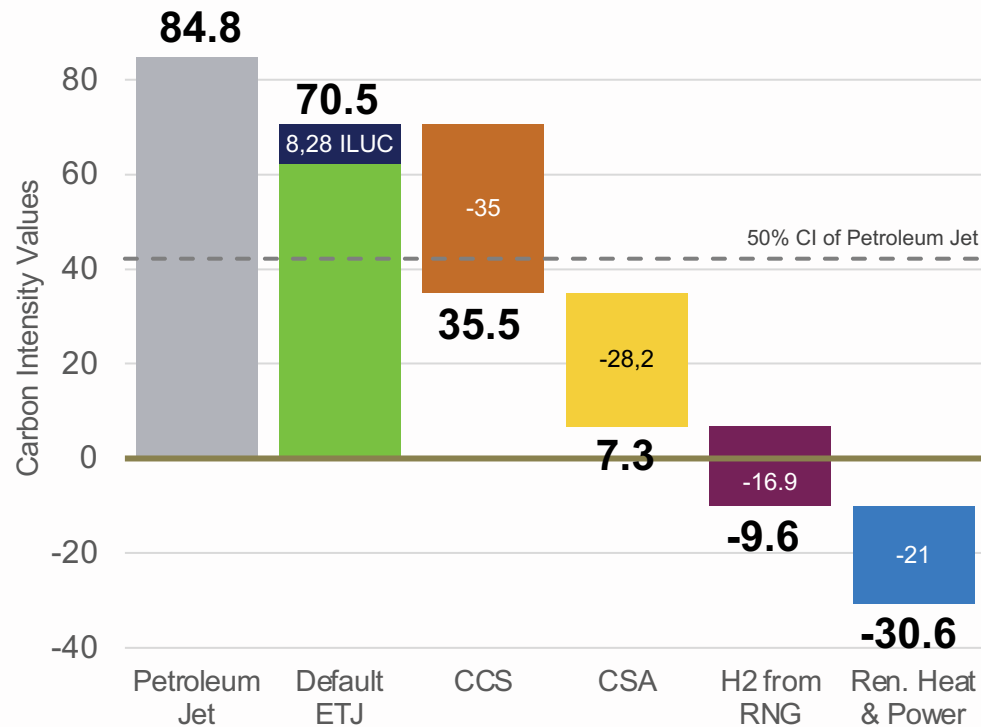
Auburn, Maine, July 28, 2023



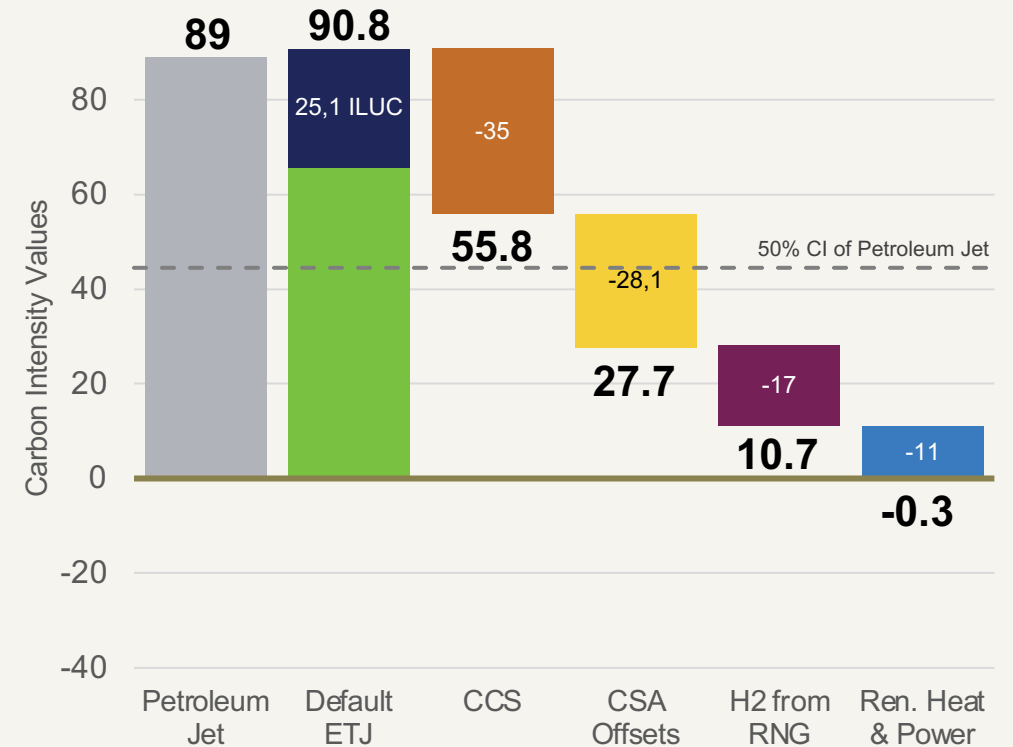
Carbon Intensity Reduction Potential of U.S. Corn Ethanol in Jet Fuel



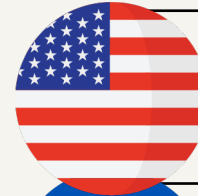
DOE GREET



ICAO CORSIA



SAF Demand Drivers



UNITED STATES

3 billion gallon target by 2030 incentives
via the Inflation Reduction Act



EUROPEAN UNION

6% volumetric blend requirement by 2030
20% blend requirement by 2035



UNITED KINGDOM

10% volumetric blending requirement by 2030



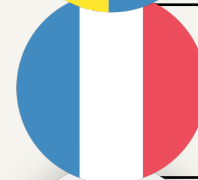
NORWAY

30% volumetric blending requirement by 2030



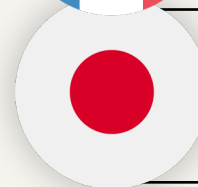
SWEDEN

27% volumetric blending requirement by 2030



FRANCE

5% volumetric blending requirement by 2030



JAPAN

10% volumetric blending requirement by 2030





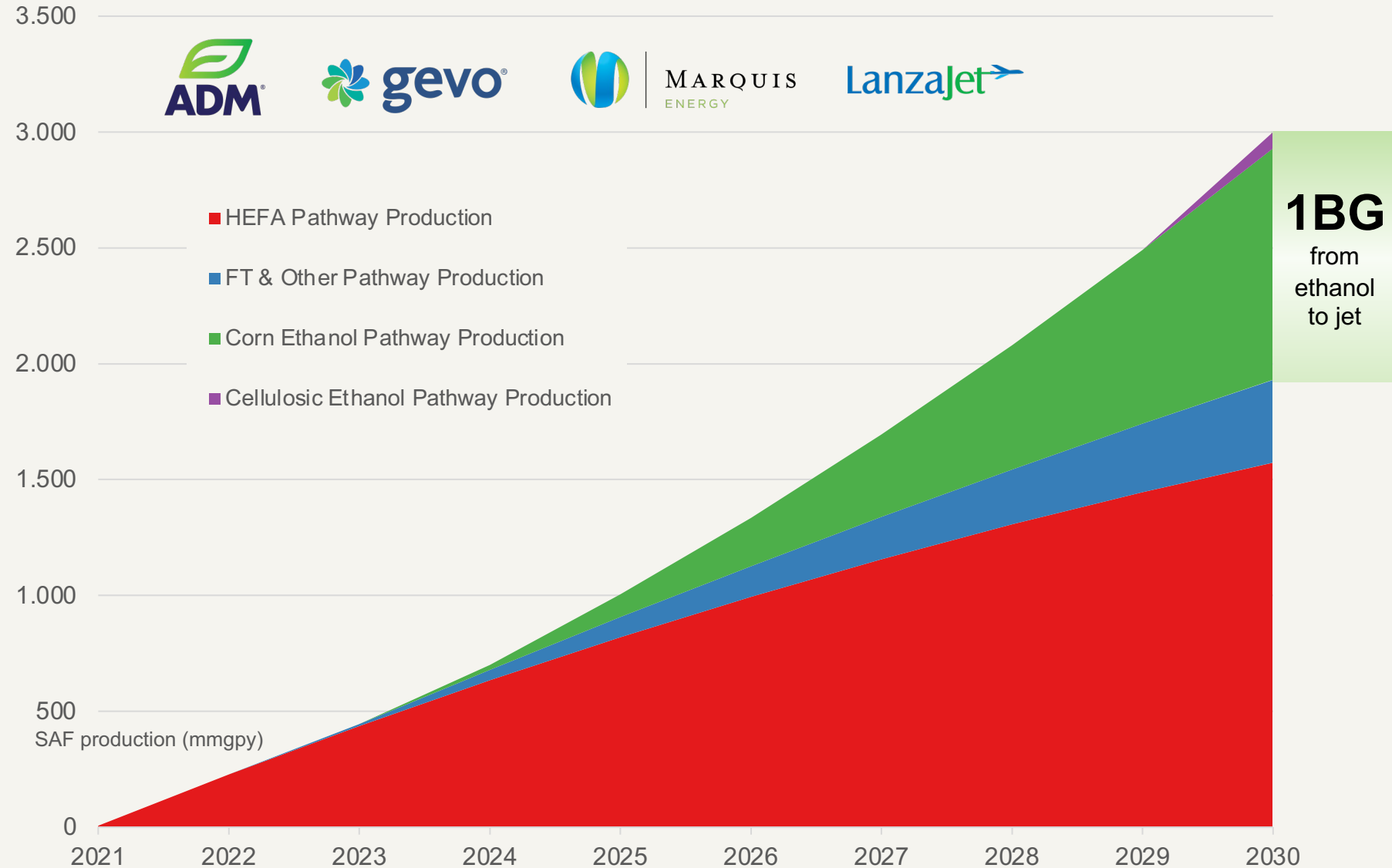
SAF Grand Challenge

3 Billion
Gallons by
2030



Fulfilment of U.S. SAF demand by year

2021-2030



Source: ICF

Questions?

Chris Bliley

cbliley@growthenergy.org

(202)579-7418

