

The Advanced Rulemaking and the future of the RFS

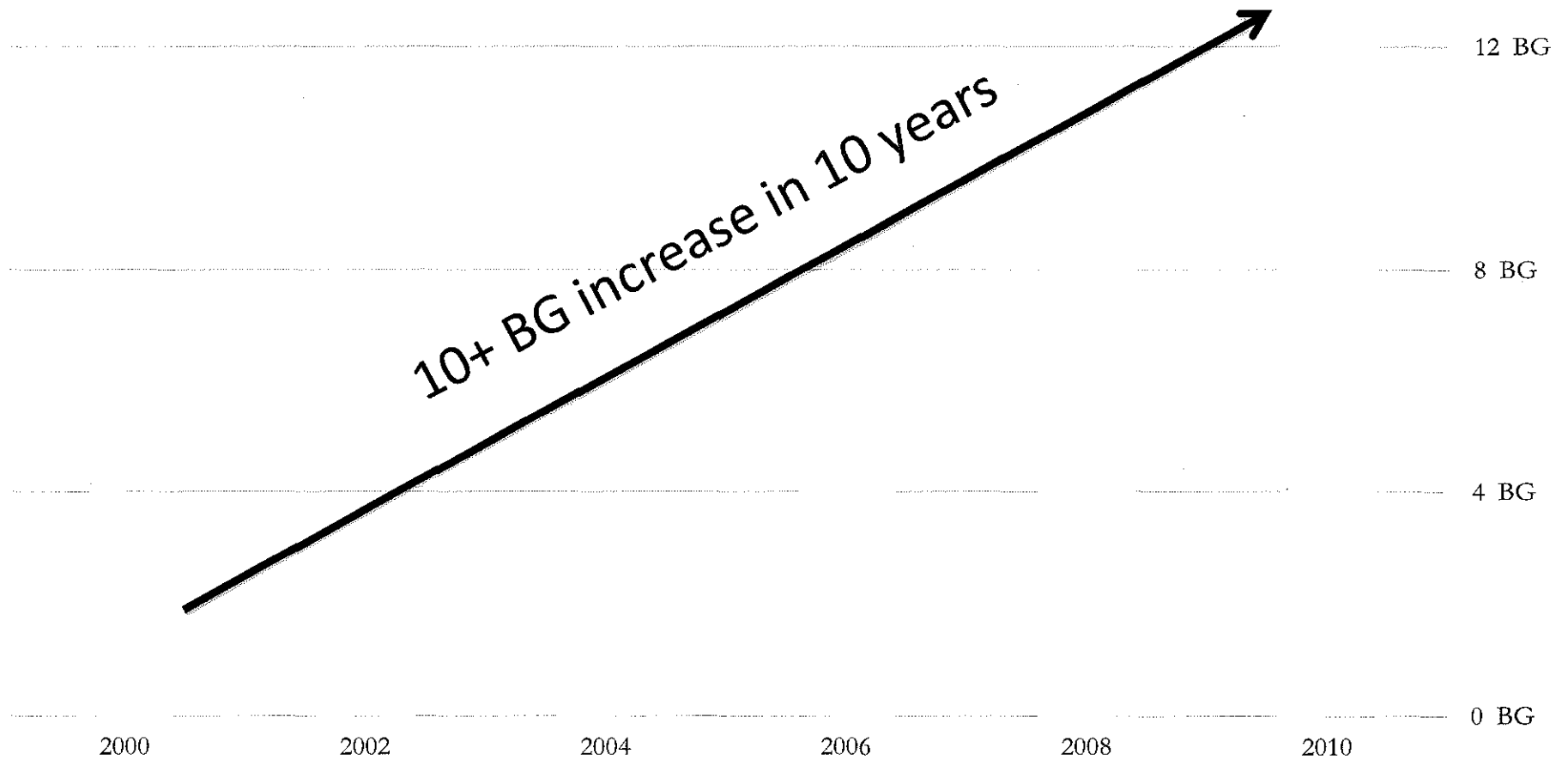
Meghan Higgins, Jeremy Martin & Joshua Goldman

Union of Concerned Scientists

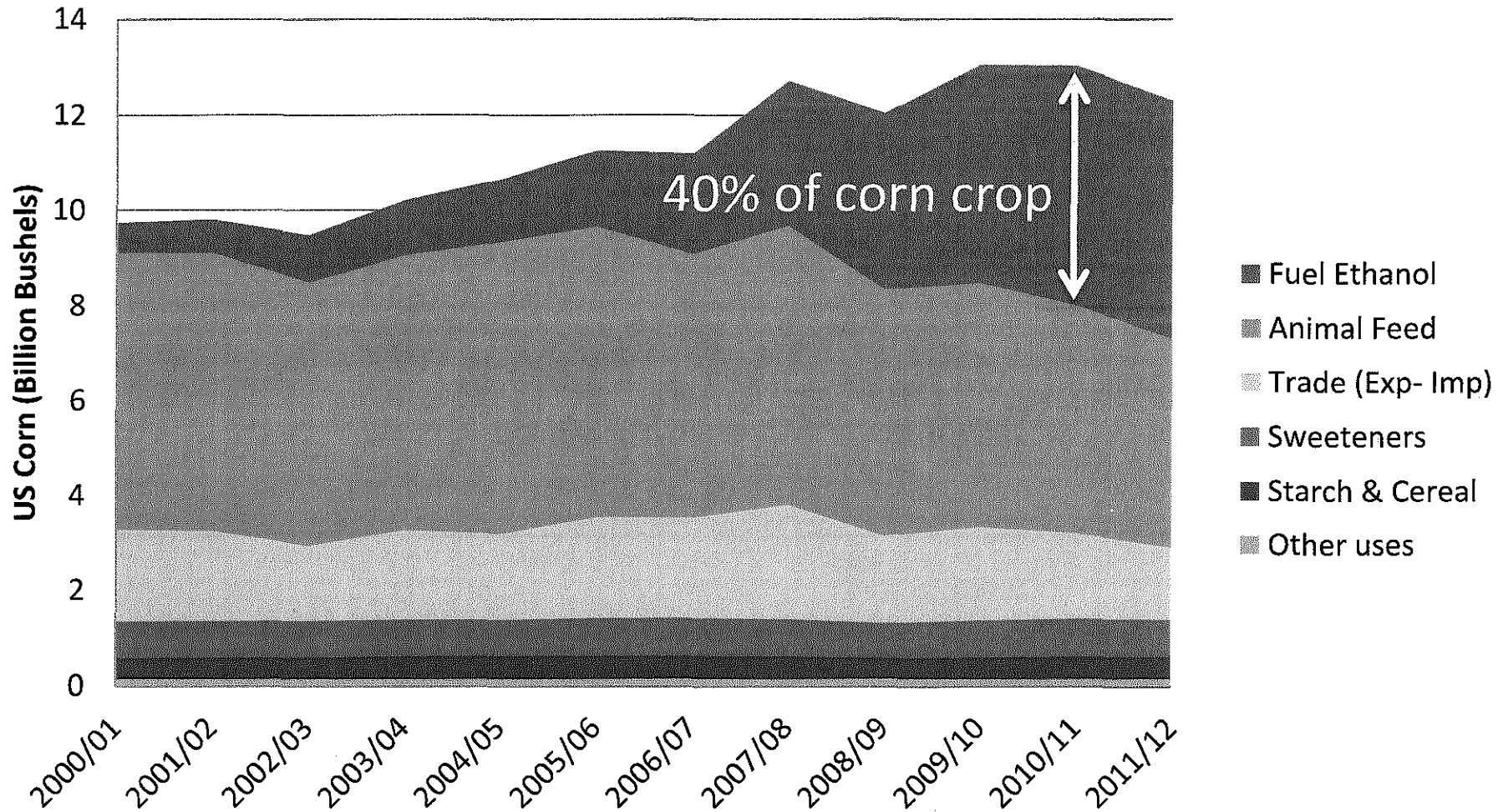
Jan 25, 2013

The Background

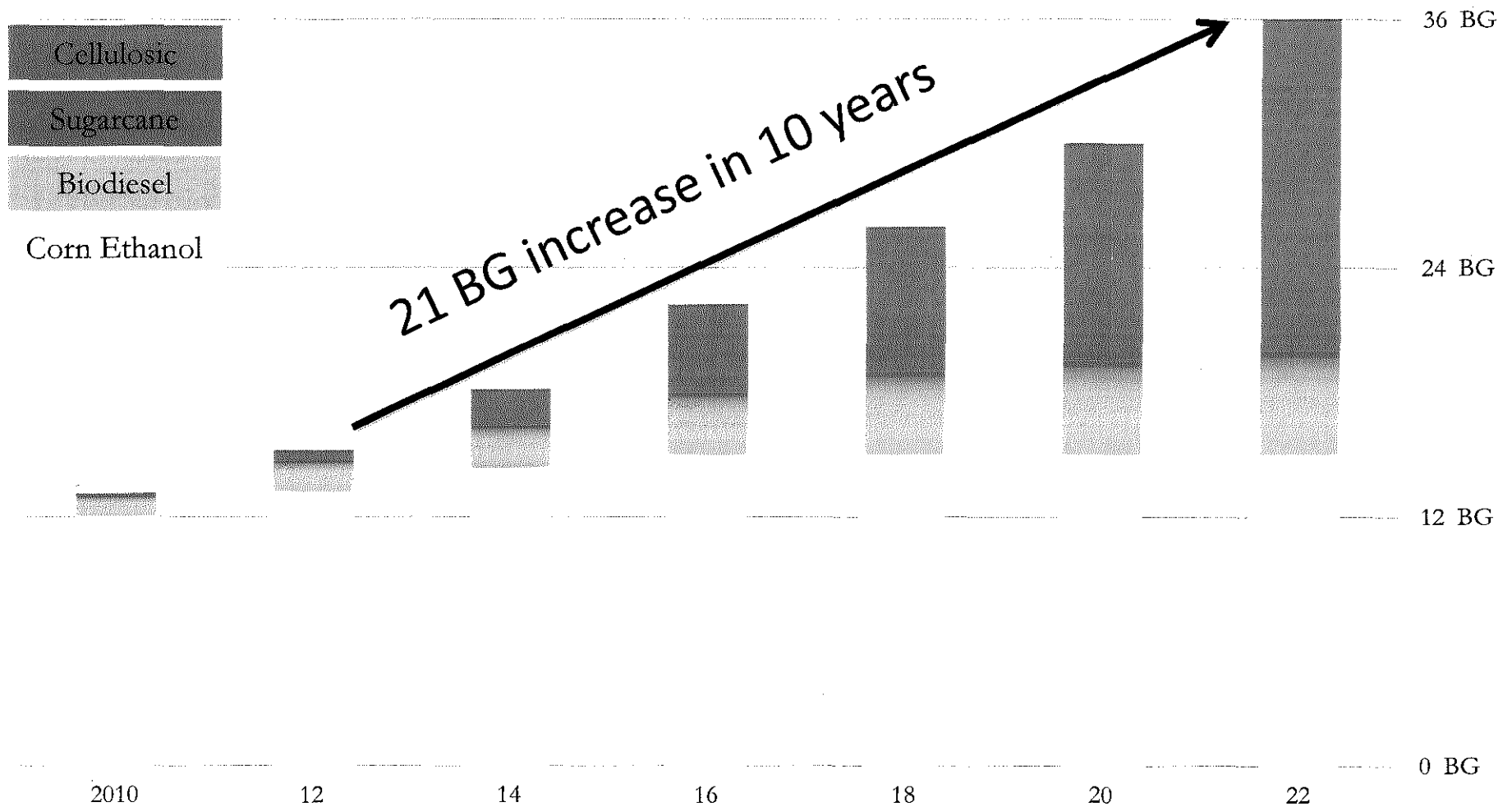
US Corn ethanol production (RFA Data)



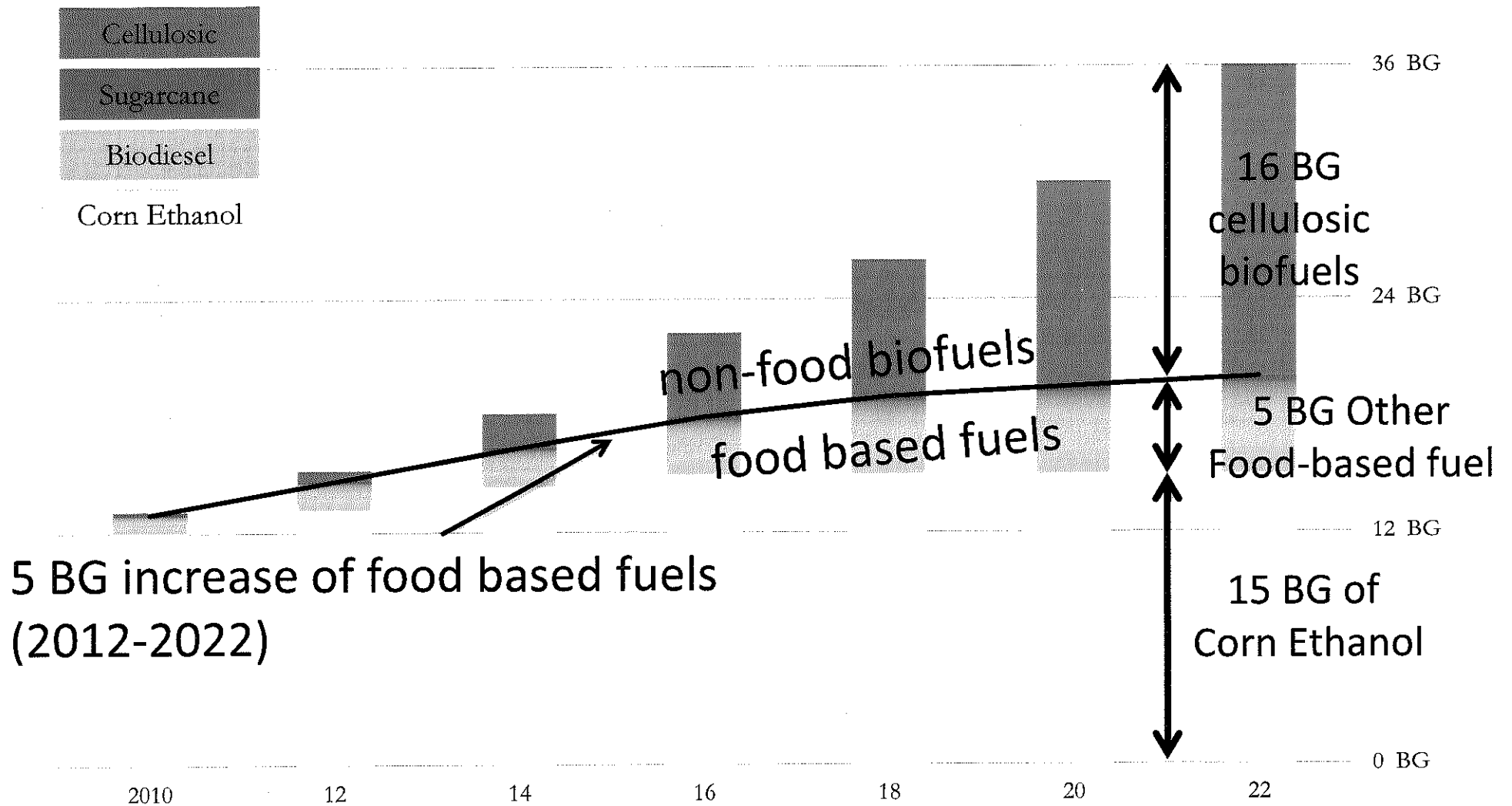
the market impact



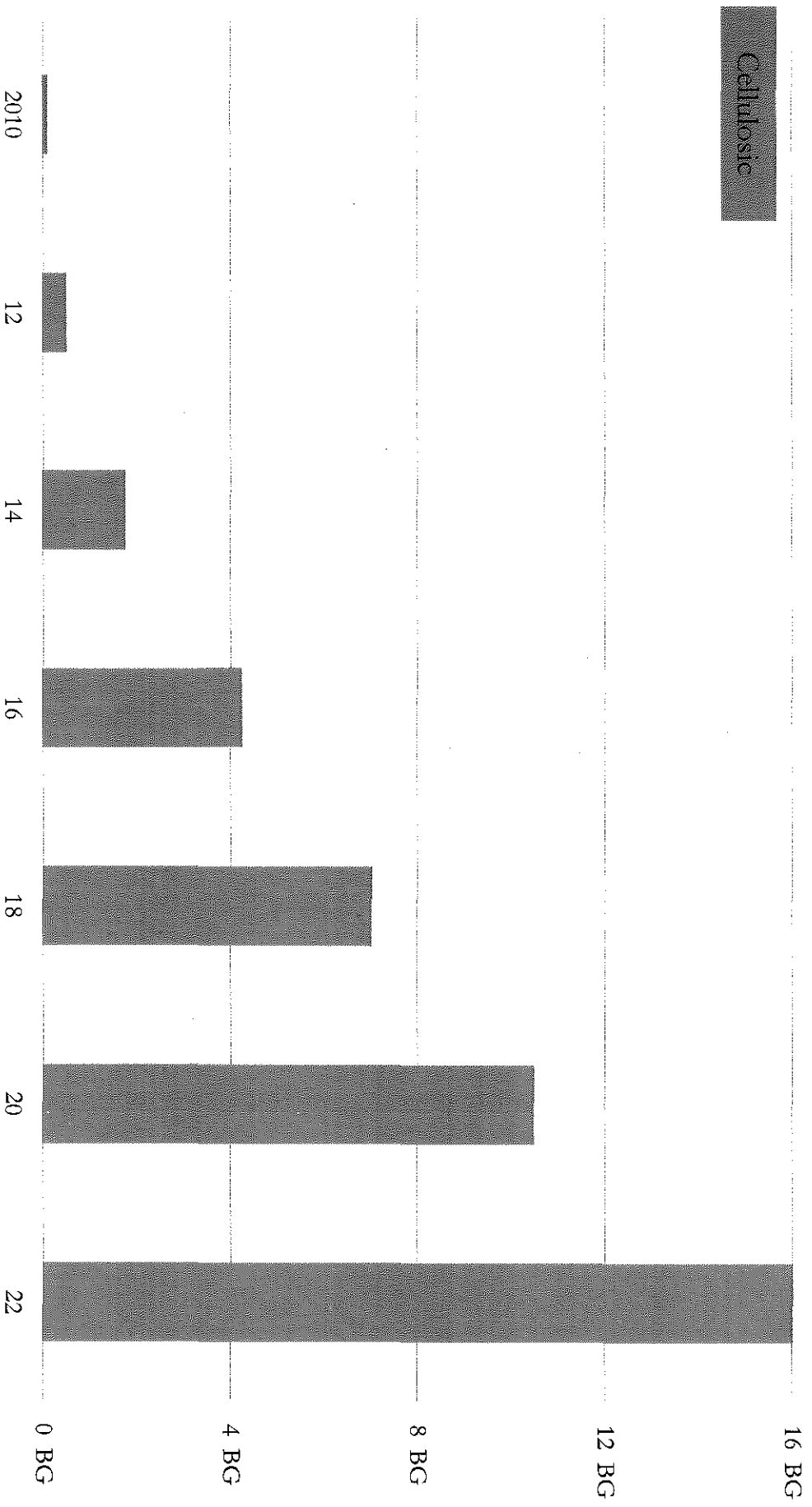
The next decade of the RFS



maybe we are smarter this time...

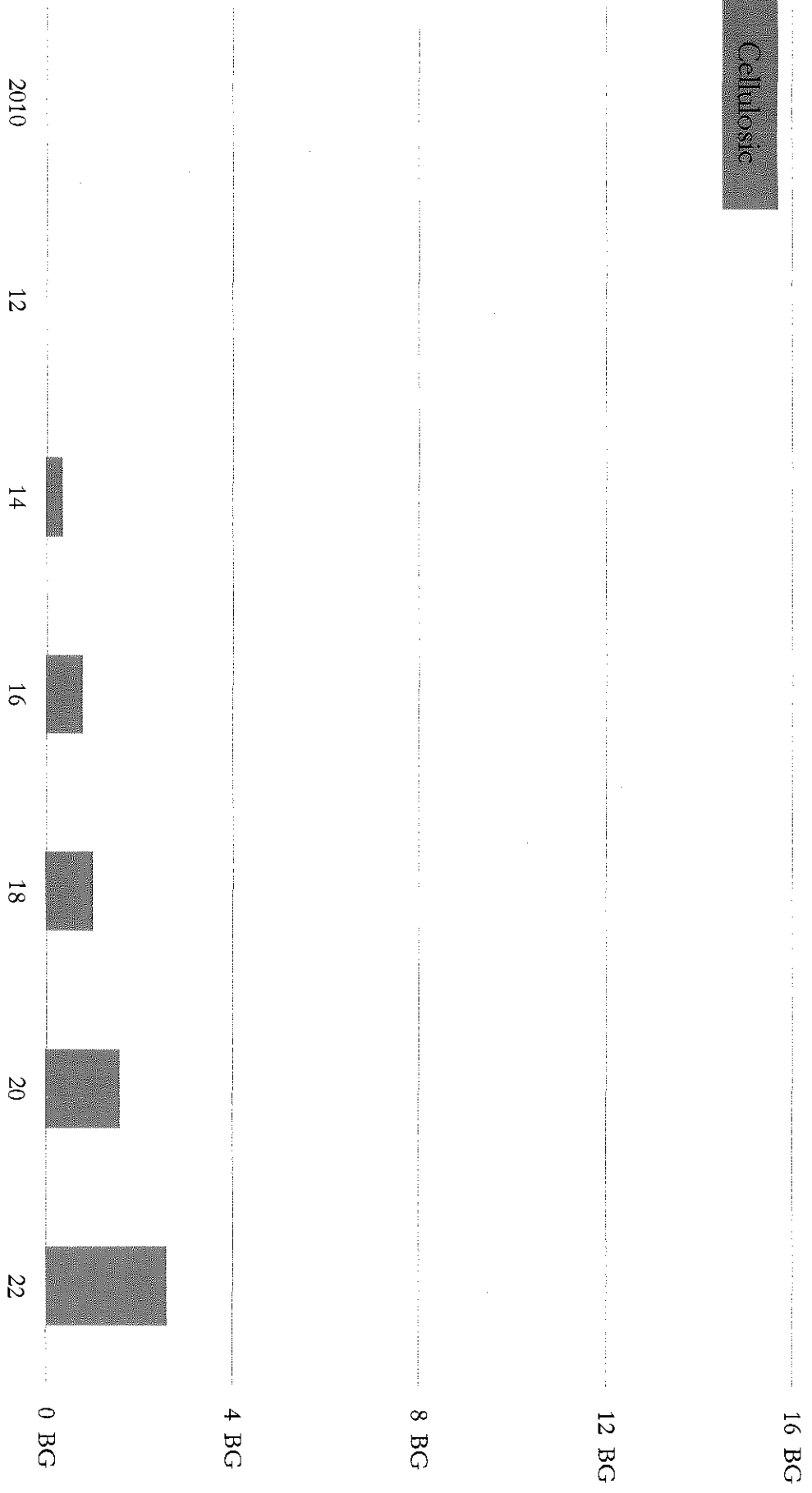


But the cellulosic fuels...

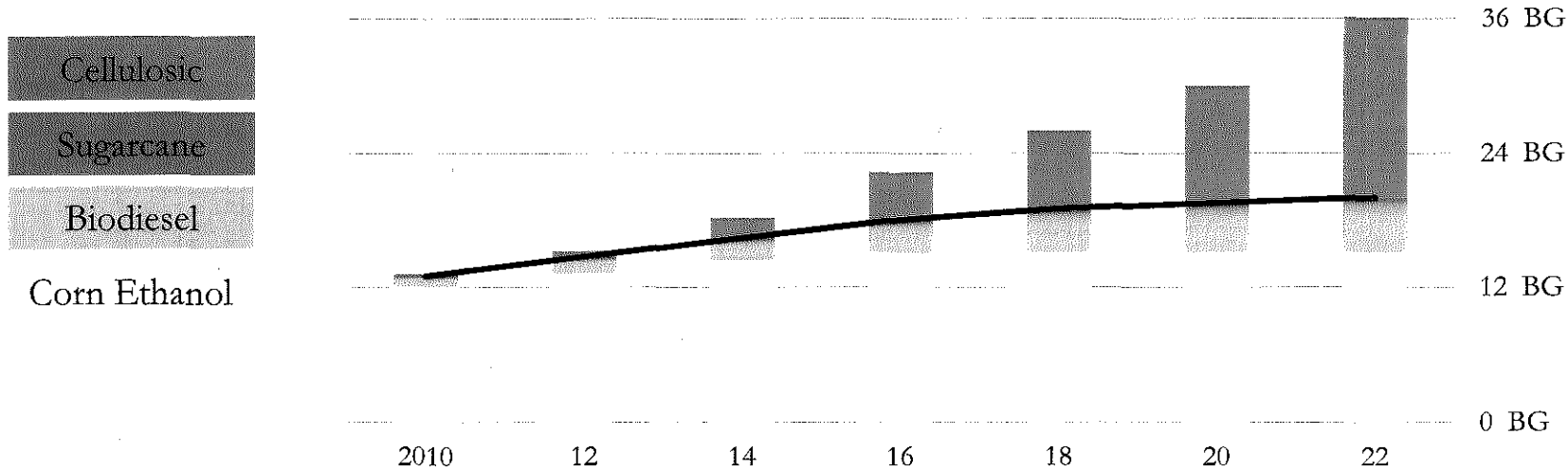


But the cellulosic fuels are behind schedule

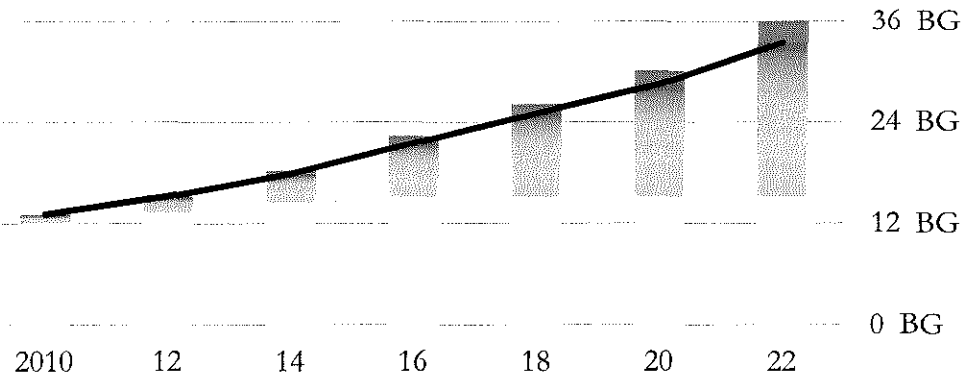
Cellulosic



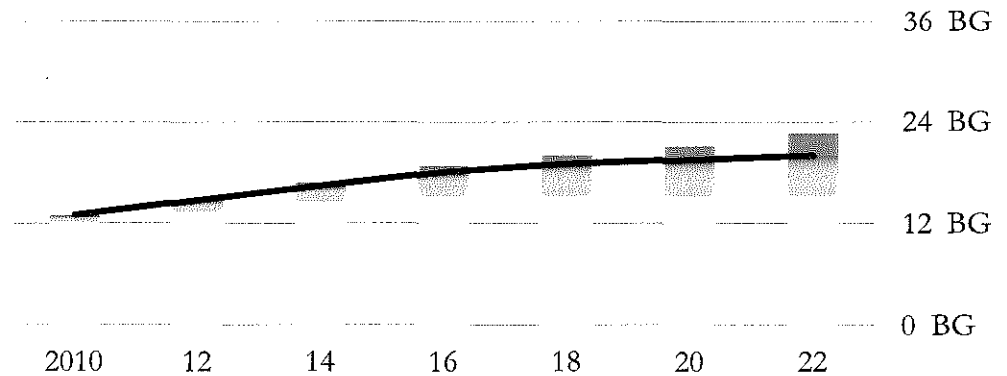
EPA has an important choice to make



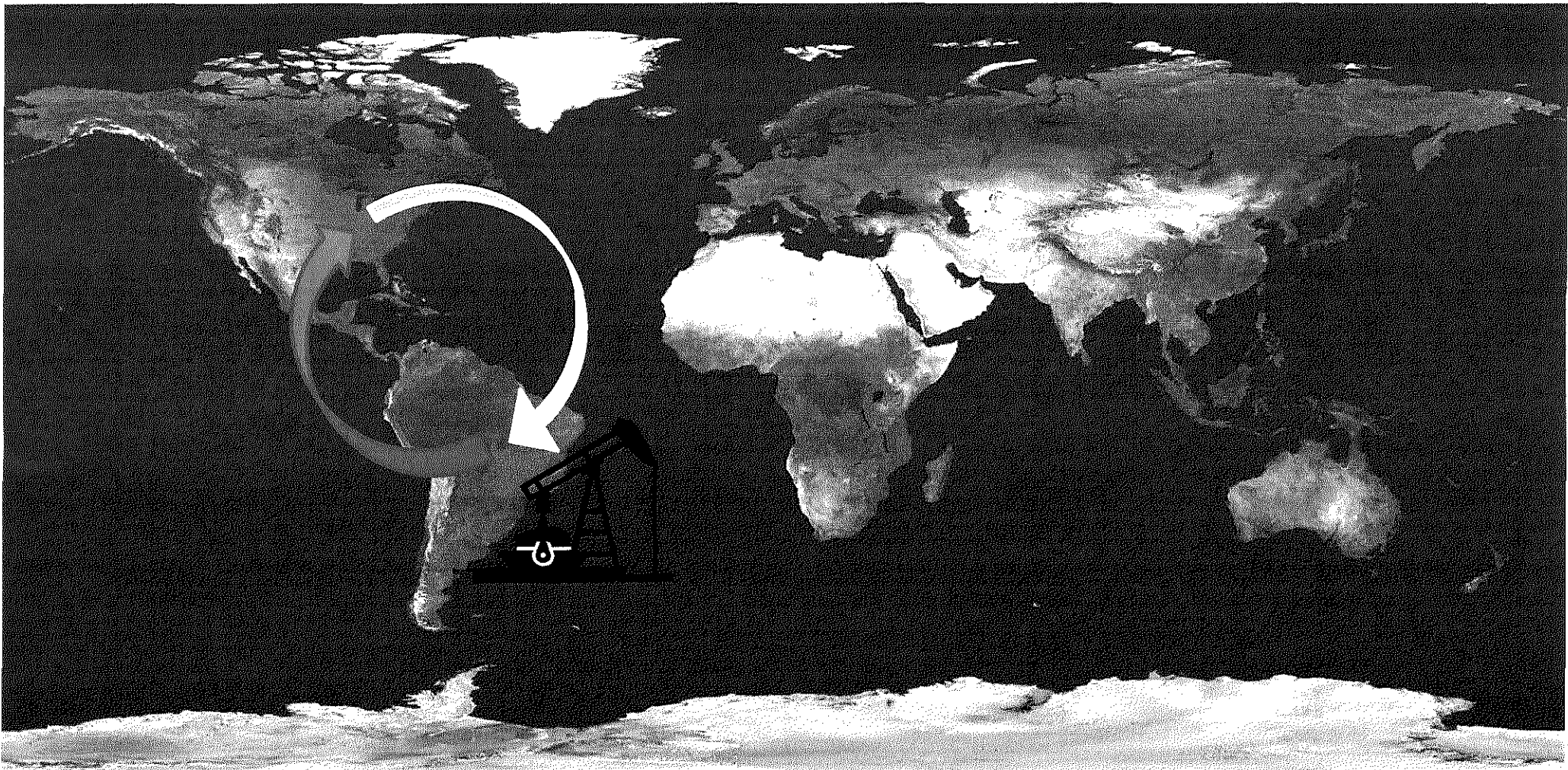
Protect the 36 BG goal
accelerate growth of food based fuels



or
Protect the 20 BG Cap on food based fuels
wait for cleaner non-food based fuels

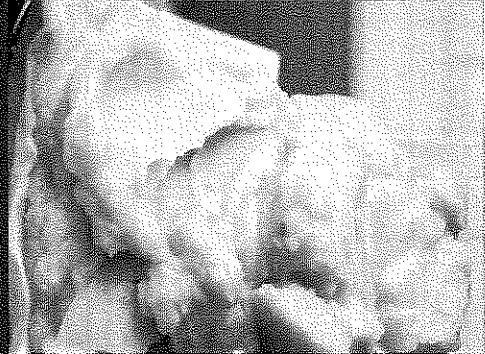


Accelerated growth of food-based fuel mandates will lead to counterproductive outcomes inconsistent with the goals of the RFS



FAO/OECD 2012 Agricultural Outlook

- FAO/OECD modeled several RFS compliance scenarios
 - option 1: Adv. volumes go down with cellulosic
 - option 2: Adv. volumes replace delayed cellulosic
 - US ethanol use up 10.6 Billion Gallons (BG) in 2021
 - US Ethanol imports up 8.6 BG
 - Brazil exports up 7.1 BG
 - These are net figures and do not count 4.8 BG of cross trade, US corn ethanol for Brazilian sugar ethanol
 - Brazilian ethanol production up 3 BG
 - Brazilian ethanol use down 4.1 BG
- In our hurry to ramp up ethanol use, we idle Brazil's ethanol compatible infrastructure, to bring ethanol to US where we lack adequate infrastructure



Summary

- To realize the climate and economic benefits of the RFS, the mandates should grow at a pace that reflects the availability of the underlying commodities .
- The scale of available vegetable oil and sugar resources are consistent with the more moderate pace of mandate growth and a 20 BG mandate, but are grossly insufficient to reach a 36 billion gallon total mandate.
- Biomass resources are available at a scale that makes 16 BG of cellulosic biofuel, and a 36 BG mandate reasonable
- Increasing mandates more deliberately will also make the transition beyond E10 less disruptive
- A more gradual RFS ramp-up will deliver more benefits than a faster one.