



Food & Agricultural
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What changes the baseline for renewable fuels?

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Agenda

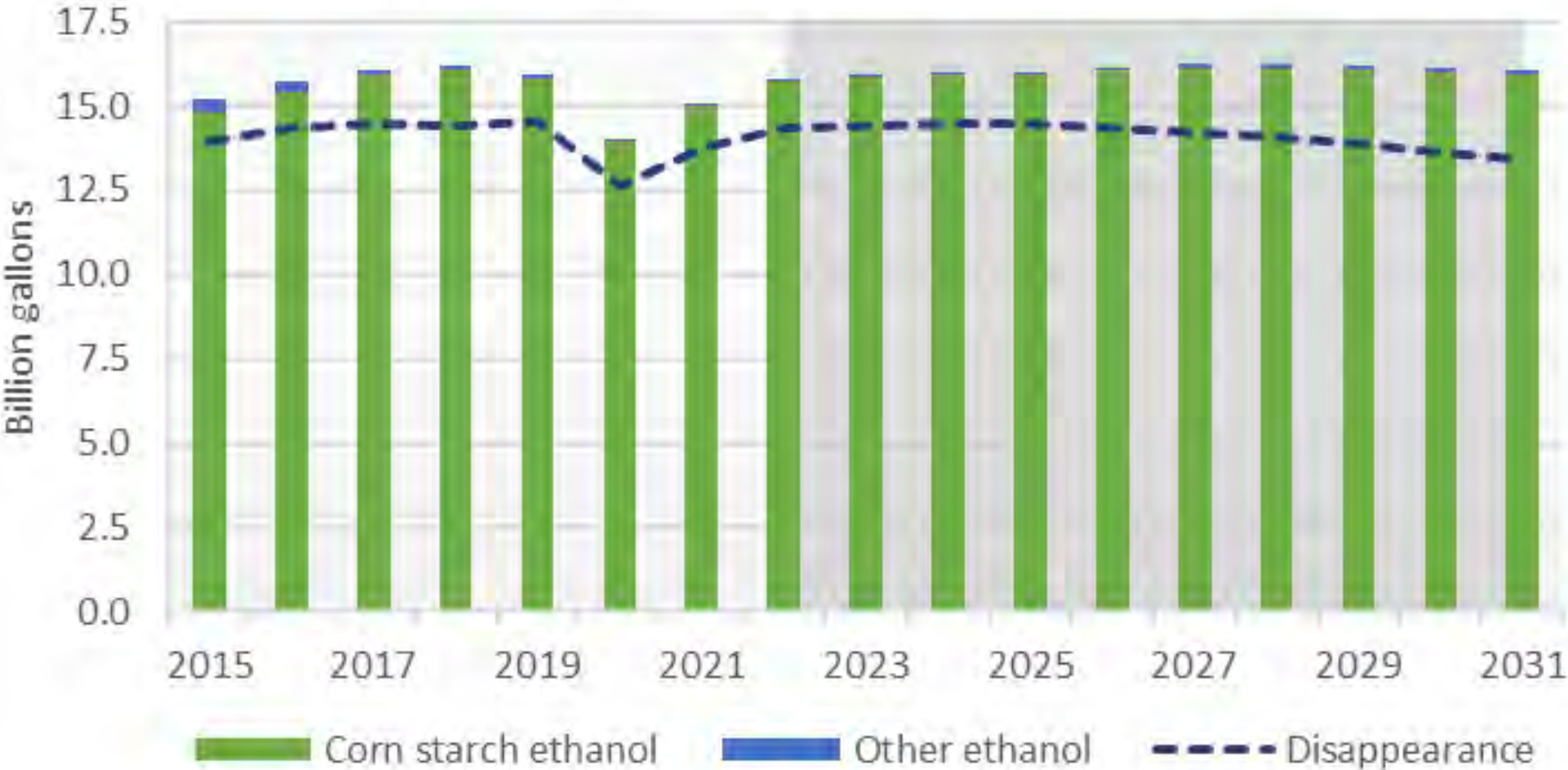
- Quick overview of some key baseline results
- Market and policy developments since then
- Remaining uncertainties

Energy prices ease somewhat before trending up

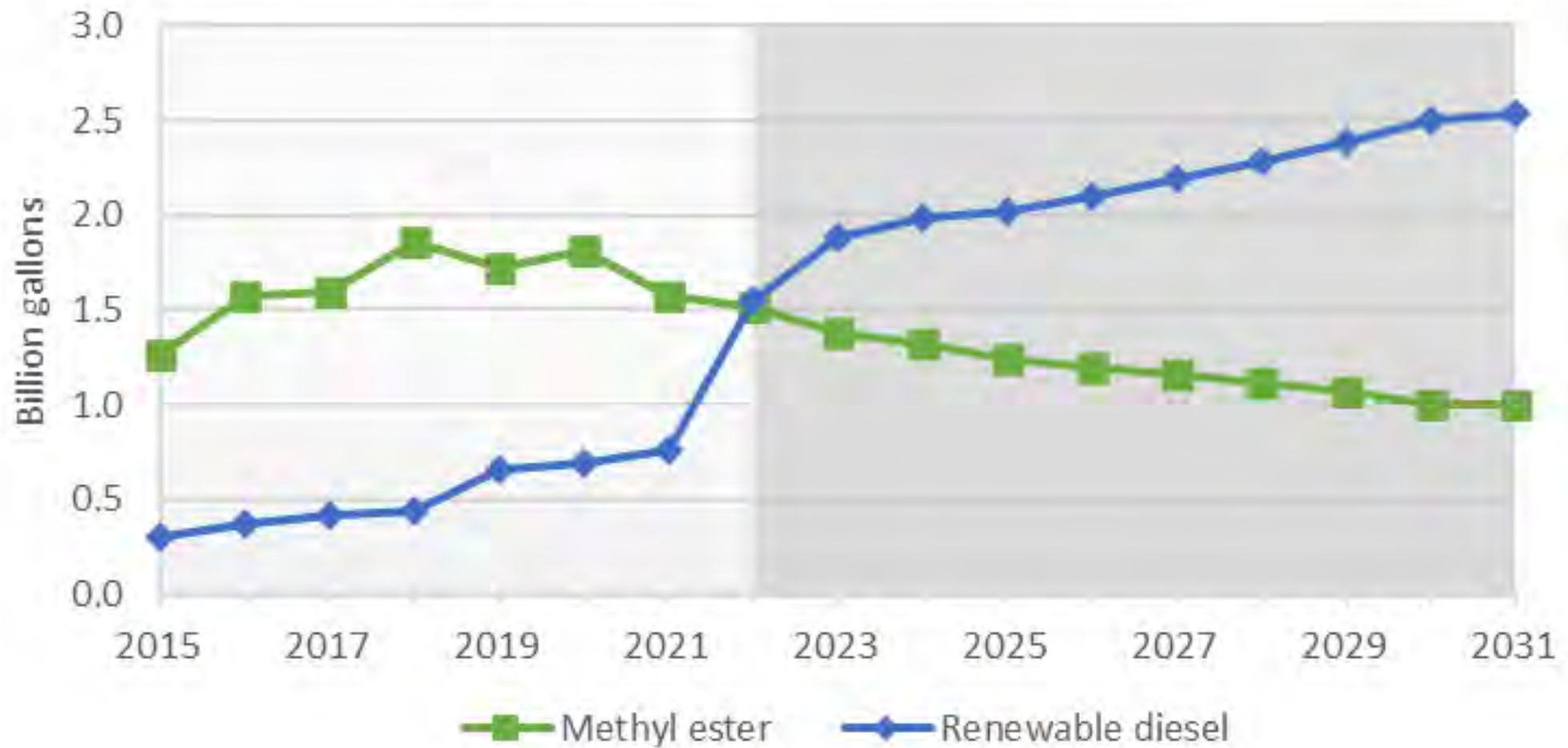


Sources: FAPRI-MU 2022 Baseline Outlook; EIA April 2022 STEO

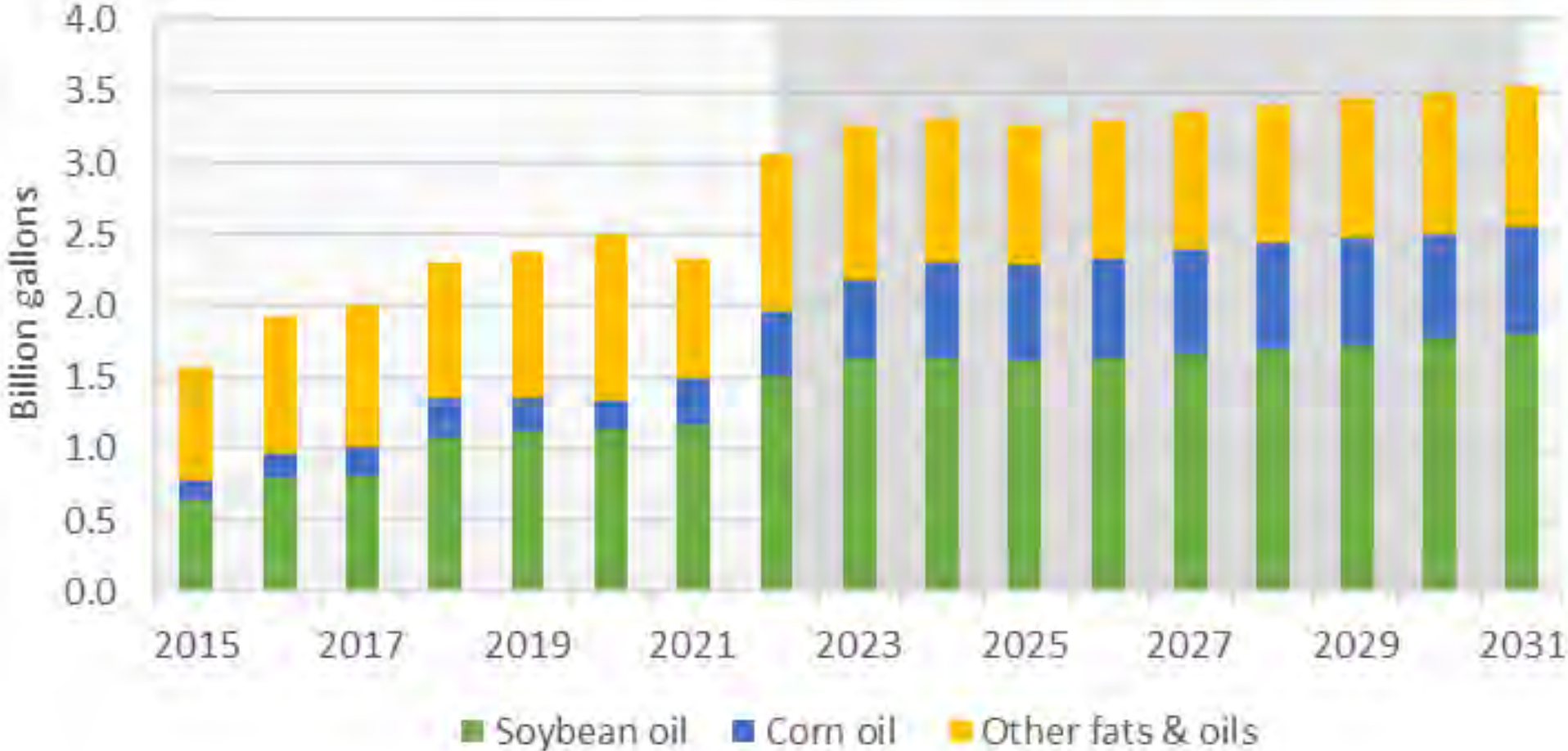
Ethanol production levels off



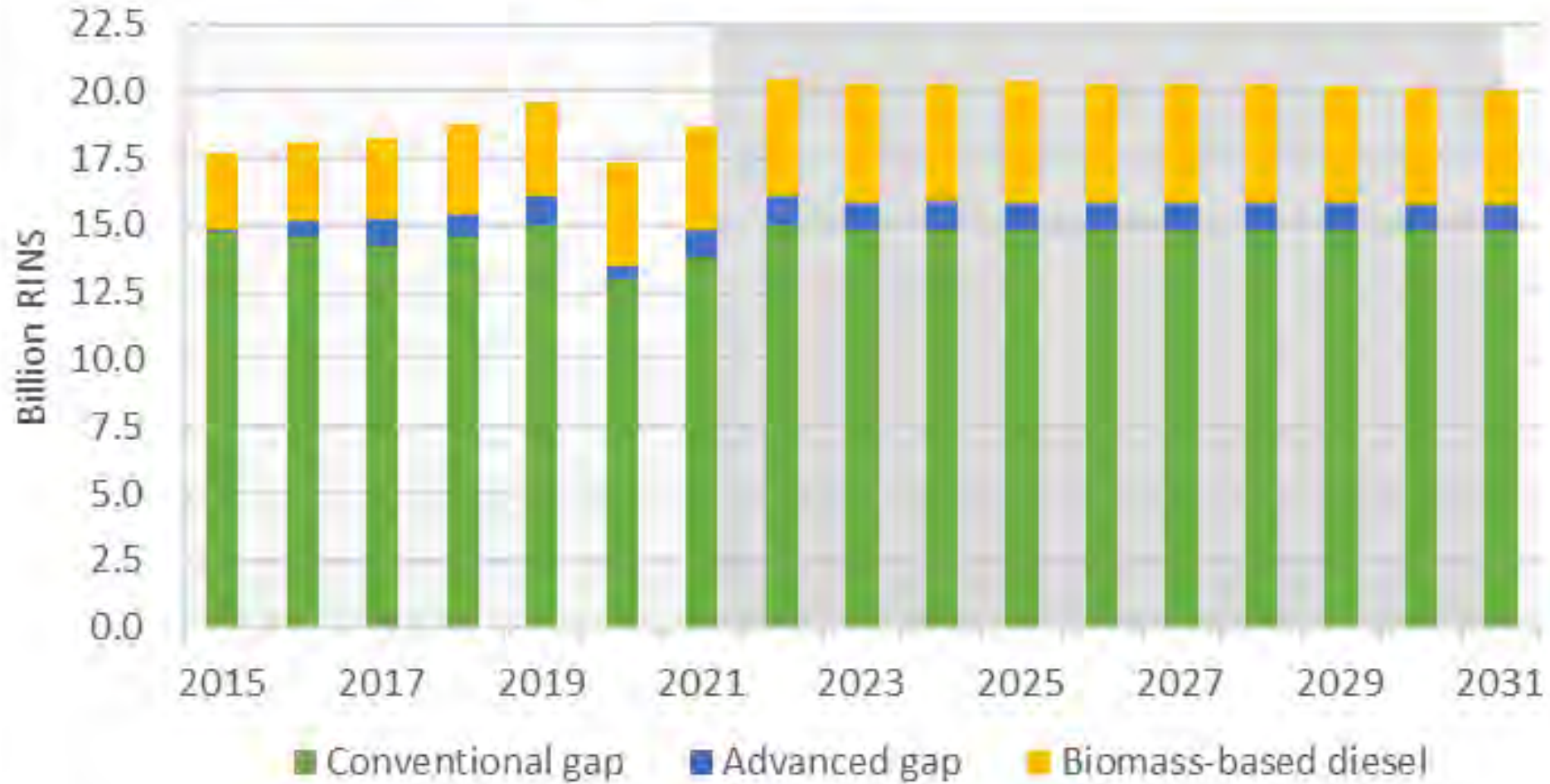
Renewable diesel surpasses methyl ester



Soybean oil remains dominant feedstock



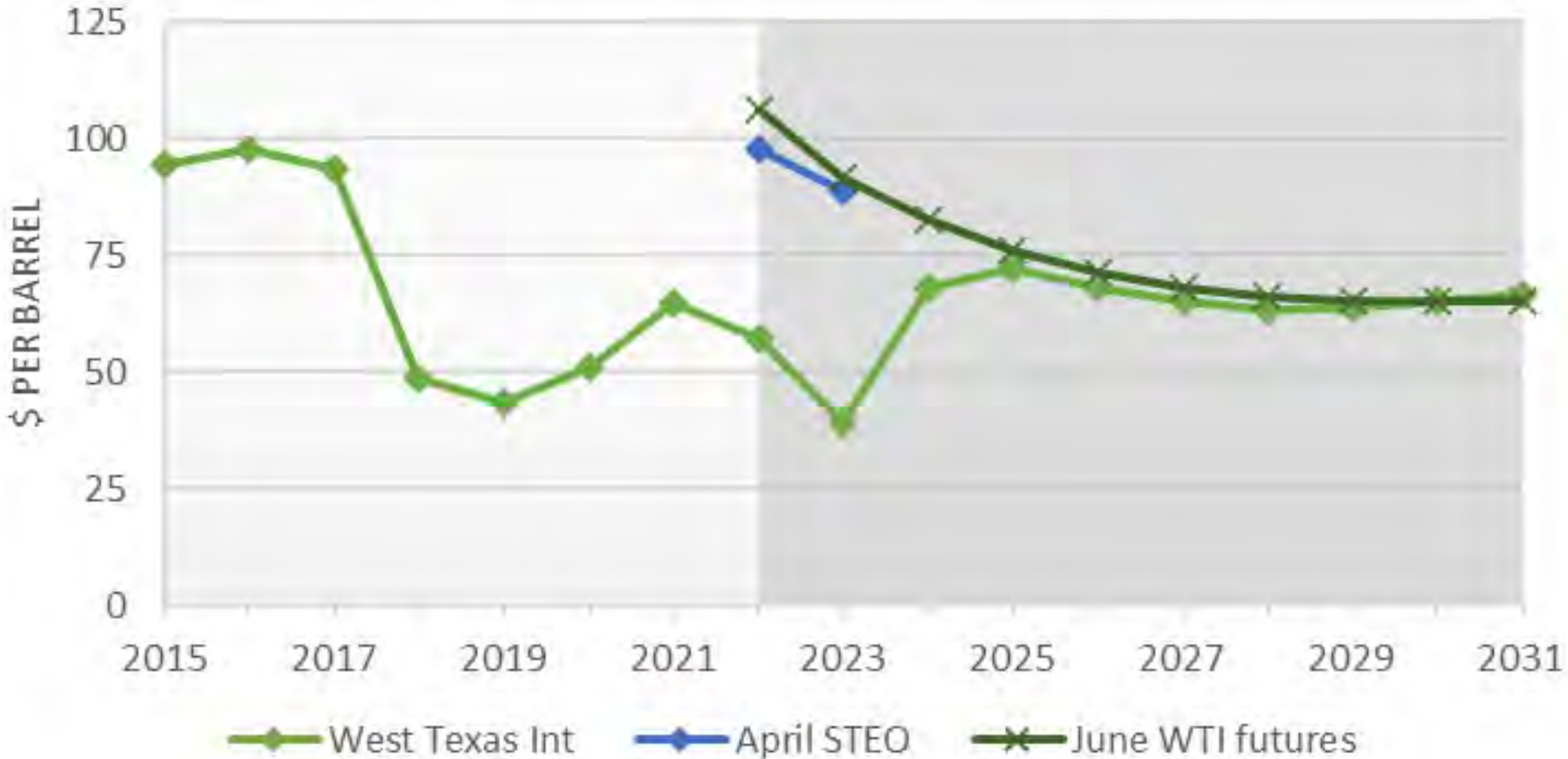
RFS requirements remain flat



A lot has changed since January...

- War in Ukraine
- Weather issues in South America
- Continued inflation
 - Higher energy prices and potential impacts on demand
 - Higher feedstock costs and potential impacts on supply

Wide crude oil price divergence to start

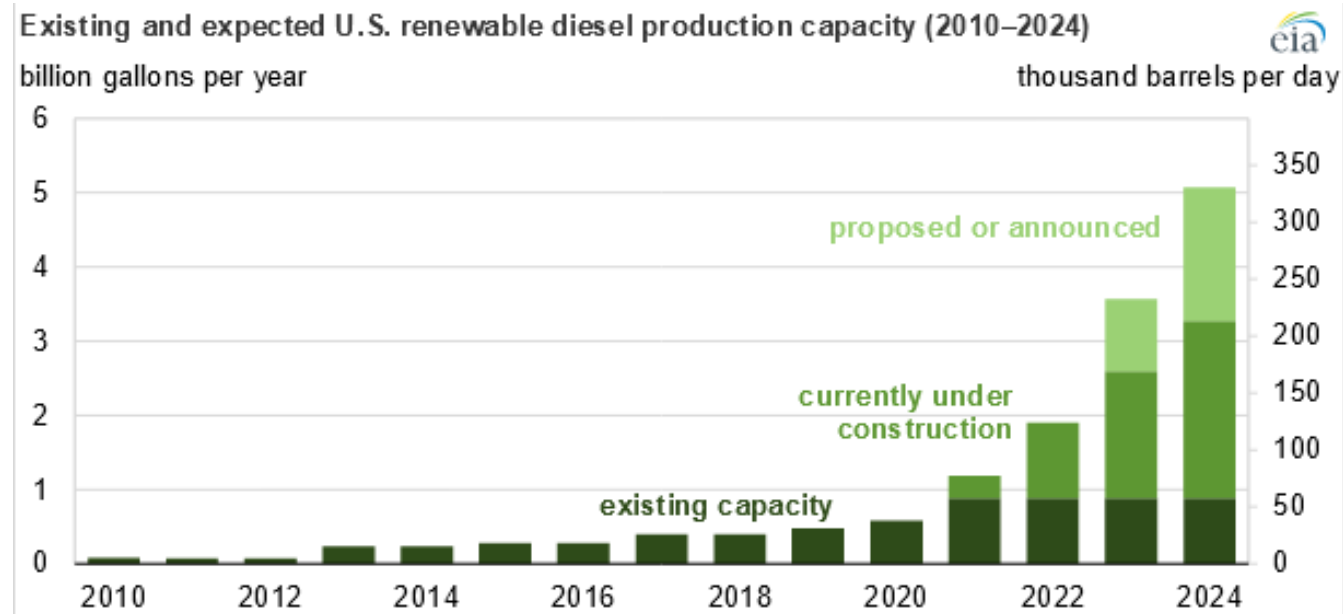


Sources: CME futures quotes as of April 14, 2022.

Recent E15 waiver

- Things to consider...
 - Price incentives are there
 - All else equal, higher RIN prices incentivize expansion
 - Similarly, ethanol prices that are below gasoline prices at the wholesale level
 - Consumer acceptance
 - Fuel purchasers tend to be creatures of habit, though price incentives could pull in “new” customers
 - Retailer perspective
 - Waiver appears to be temporary at the moment, so new stations offering E15 might be limited

Renewable diesel buildout



Source: Graph by the U.S. Energy Information Administration (EIA), based on data from company announcements in trade press

- Announced plans for RD capacity to reach ~5 billion gallons per year by 2024
- Rising feedstock costs and falling LCFS credits have cut into the margins a bit, though they are still net positive for RD

Other uncertainties

- RFS legislation does not “sunset” so either:
 - New legislation is passed that lays out how the program should function
 - EPA determines how the program functions under existing authority granted to them (**more likely of the two**)
- RVO announcements for 2020-2022 have alluded to this “SET rule” but no clear direction as of yet
- How will the RFS look beyond 2022?

- Rollout of electric vehicles (EVs)
 - Transition toward EVs seems to be gaining momentum
 - Energy Information Administration projected EVs would make up ~9% of the light-duty vehicle stock by 2050
 - Speed of transition could be faster if energy prices remain high for a prolonged period of time
 - Could be slower if high new/used vehicle prices lead to people hanging onto older vehicles longer

Today's takeaways

- A lot has changed since our Baseline exercise in January
- Higher petroleum prices are working in favor of biofuels in the short term, though higher feedstock costs could act as a bit of a headwind
- Longer term, RFS implementation and the electrification of light-duty vehicles are the primary uncertainties

Thanks!

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