Energy Policy Service | December 9, 2021

EPA's RVO Proposal Would Send RINs North of $2.00 Next Year

EPA's long-awaited 2020-2022 Renewable Volume Obligations (RVOs) dropped Tuesday (see our Dec 7 Bullet). 2020 and 2021 came in as we have expected since March, with EPA setting RVOs at actual blending levels. But the bearish relief those cuts provide will prove temporary, as 2022 RVOs return to the statutory 15 bg (as anticipated in our Mar 19 Brief), with an additional 0.25 bg "supplemental standard" added to comply with a court order on illegally waived 2016 volumes (see our Aug 24 Brief). The proposed RVOs will cause an historic ethanol gap next year, while the all-important D4 market (led by biodiesel and renewable diesel) will be extremely tight, even assuming high utilization levels. This points to historic high RIN pricing in 2022, with both D4 and D6 headed north of $2.00. The RIN bank can cover the gap, but uncertainty over 2023 will ensure any drawdown is accompanied by a corresponding price spike. Color:

EPA exacerbates bullish 2022 fundamentals by adding 0.25 bg in court-ordered volumes

Eager to cap RIN prices, President Trump's EPA ignored a 2017 court order to backfill illegally waived gallons from 2016 into future RVO supply. But the comparatively more pro-biofuel Biden admin seeks to add the 0.5 bg back into supply across 2022 and 2023 RVOs (0.25 bg each year). The result is a functional 2022 ethanol RVO set at 15.25 bg and a blendwall breach of 1.33 bg (vs. just over 1 bg prior to this announcement), putting further bullish pressure on already-bullish RIN fundamentals.

Ethanol (D6) RINs will again be tied to D4

As we have consistently advised since October 2020, the ethanol gap is the most important factor in determining D6 prices. Assuming a 10% blendwall, D6 RINs can only be generated up to 10% of US gasoline demand. For 2022, we are forecasting US gasoline demand at 9.08 mb/d, which implies an attached D6 RIN generation ceiling of 13.9 bg, well below the 15.25 bg mandate.

To satisfy their RFS obligations next year, refiners/importers will need to move up to the next demand tranche, meaning the marginal D6 RIN will be satisfied by the D4 market. This not only means a huge demand increase for D4 RINs, but that the D4-D6 spread should remain fundamentally narrow throughout 2022.

The RIN bank is a bandaid, not a cure for bullish biofuels fundamentals

EPA reported the RIN carryover bank is at 1.85 bg after 2019 compliance, a level it should maintain until 2022 with 2020-21 RVOs set at actuals. While 1.85 bg is more than enough to eliminate the 2022 ethanol gap, RIN prices have jumped to historical highs in the past based on expectations the bank would have to be drawn down in the future.

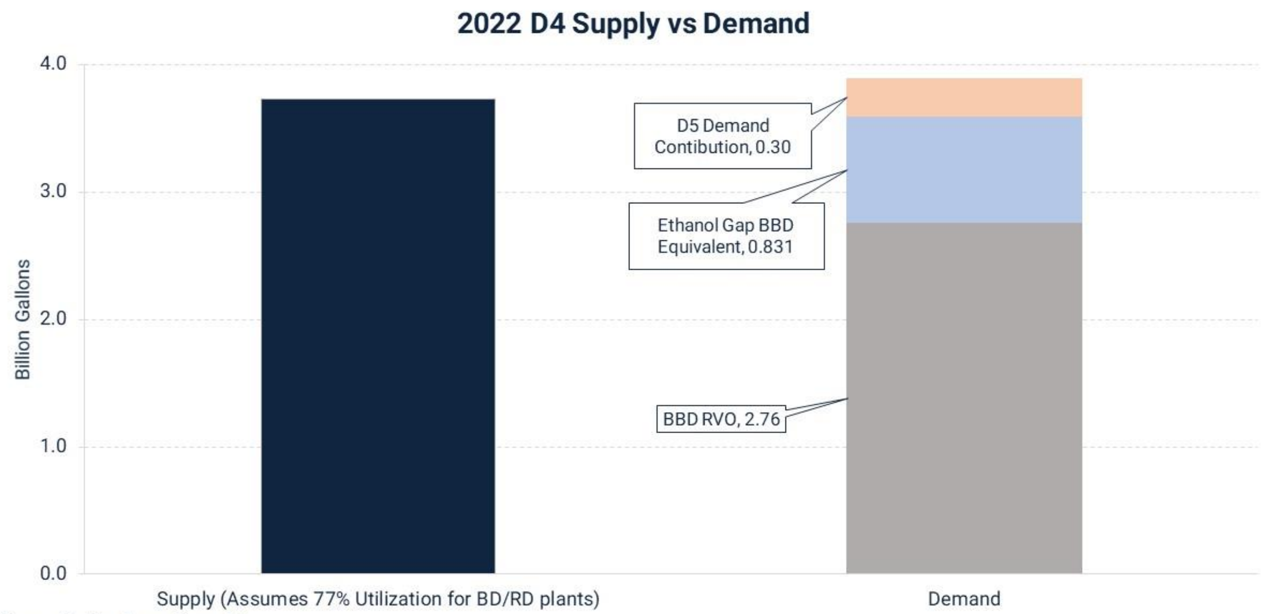
- D6 prices surged toward $2 in June 2021 when markets expected the bank would be needed in January 2022.

This, along with the massive question mark over 2023 RVOs, means operators will want to enter into that unknown with a drawdown bank. Consequently, any resort to the bank to meet 2022 RVOs would only amplify bullish pressure on RINs.

Tight D4 market will determine ultimate fate of D6 pricing

Looking to next year, D4 supply will need to pitch a perfect game at high utilization rates to fully satisfy the D4, the majority of the D5 (as it has historically) and the D6 obligation over the blendwall.

- Using a ~1.6 RIN equivalency factor (1 gal of an average D4 fuel generates roughly 1.6 D6 RINs), the 1.33 bg ethanol gap next year translates to a D4 demand increase of 831 mg.
- The proposed RVOs put BBD demand at 2.76 bg.
- The above combined with an assumed 300 mg D4 demand from the D5 market puts total D4 demand at 3.89 bg.

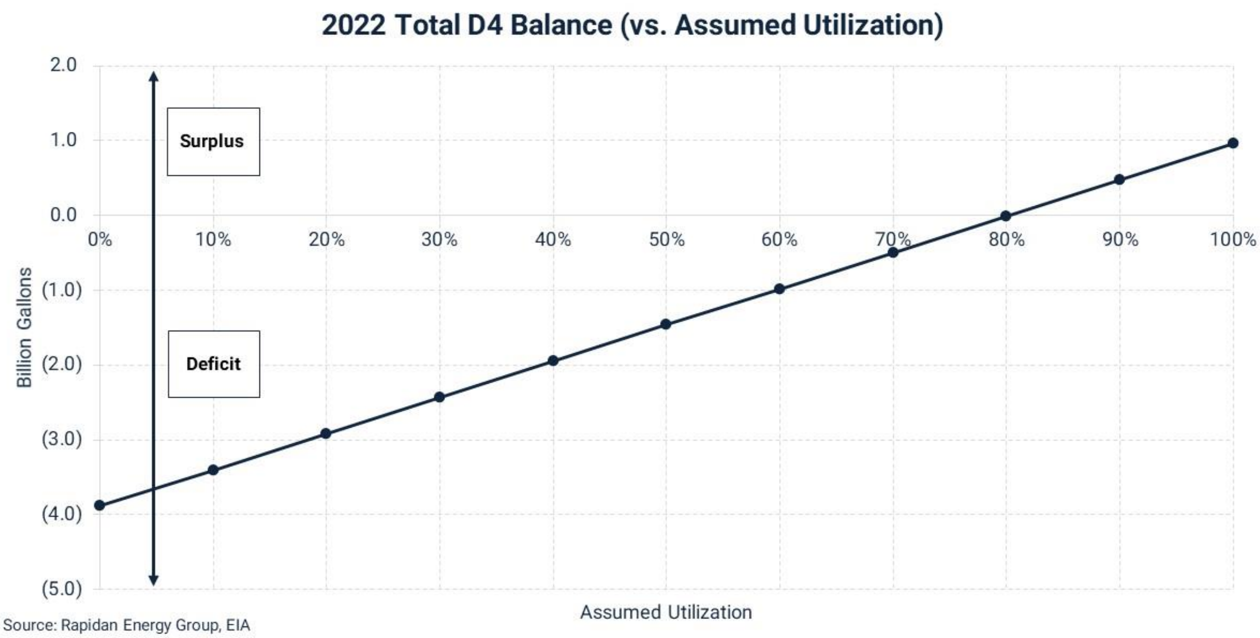


Source: Rapidan Energy Group, EIA

On the D4 supply side, the buildout of 2021 RD plants (especially Diamond Green Diesel expansion) and a forecasted 2022 RD capacity increase of 1.15 bg (1.96 million D4 RINs) puts *nameplate* D4 RIN generating capacity at ~4.843 mg in 2022.

- Assuming a 77% utilization factor, total 2022 D4 supply would come in at 3.73 mg.
- <u>To avoid a structural D4 shortage, D4 plant utilization would have to break above 80% and projects will need to come online as forecast</u>.

Our base case implies D4 RINs will surpass $2.10, with D6 hovering around $2.00.



Source: Rapidan Energy Group, EIA

Politics and post-2022 RFS uncertainty pose downside risks to our view

Because Biden's EPA essentially wiped small refiner exemptions (SREs) from its price control toolbox, revamping future RVOs is the only lever left to bring RINs down. In rejecting 60+ SREs this week, EPA reasoned that because obligated parties fully recover their compliance costs when they sell their fuel products, there is no hardship justifying a waiver. This was the 10th Circuit's reasoning in eliminating a wide swath of Trump-era

SREs and was left untouched by the Supreme Court's June 2021 ruling (see our Jan 14 Brief). Absent a change in EPA's formal position on this issue, any SREs would be incurably illegal.

Consequently, 2022 RIN prices will depend heavily on the structure of the RFS for 2023, when EPA is free to implement the program with near-total discretion. Our base case is that it will be politically and legally safest for the Biden administration to keep future rules close to the pre-'22 structure, ensuring continued strong demand for RINs in 2023. If, however, the Biden EPA alters the structure of the 2023 RVOs to diminish or eliminate the value of prior year RINs, refiners could then draw down the bank with impunity in 2022 and eliminate the massive ethanol gap, with bearish impacts on prices.

- A significant change to the RFS structure is more likely if either 1) high gasoline prices persist and RVOs are seen as one of the few ways to bring them down; or 2) climate policy is so stripped from the Build Back Better reconciliation bill that Biden needs to get creative to address his priorities via regulation (we have already seen reports he is considering integrating Electric Vehicle credits in the RFS for 2023).

The Biden administration will likely tip its hand on its post-2022 RFS implementation strategies in its 2023 RVO proposal, expected in June 2022. Leaks leading up to the proposal's release will help determine whether 2022 RVOs shoot for $2 or sink below $1.