How SAF Production Unlocks Greater Fuel Supply Resilience

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Executive Summary

SAF (Sustainable Aviation Fuel) production activates three interconnected mechanisms that improve fuels supply in the market where SAF is produced it: (1) adds renewable naphtha directly to the gasoline blending pool; (2) allows petroleum refineries to shift their yield slate away from jet fuel production and toward more gasoline; and (3) frees inbound infrastructure capacity for other fuels by displacing petroleum jet fuel logistics. These mechanisms compound. A market that produces SAF does not just substitute one jet fuel molecule for another — it reshapes the economics and logistics of the entire transportation fuel system.

California illustrates the magnitude of these effects. The state has about 275 MMGY (million gallons per year) of HEFA (Hydroprocessed Esters and Fatty Acids) technology capacity at two facilities, which equates to 18 kbd (thousand barrels per day)). SAF capacity running at full production would generate a gasoline supply uplift estimated at 653 to 845 MMGY (42 to 55 kbd), or 6 to 8 percent of California’s annual demand. To put this in perspective, gasoline production capacity in California has declined about 30 percent since 2020.

The cost implication is a potential compression of California wholesale gasoline prices by 23 to 47 cents per gallon — driven by displacing higher-cost imports and reducing LCFS (Low Carbon Fuel Standard) compliance obligations. The gasoline supply benefit is not symmetric across the calendar: it is most valuable during refinery seasonal transitions from gasoline to distillate optimization and back again. Having an alternative supply chain for transportation fuels also is valuable following an unplanned outage at an oil refinery, precisely when California’s structurally tight market is most exposed to price spikes that can reach 40 to 80 cents per gallon above the national average.

SAF Production Process

SAF is not a single-molecule fuel. The two commercially mature production pathways each deliver a slate of products, and that slate matters for fuels markets beyond aviation.

HEFA technology converts fats, oils, and greases — used cooking oil being the most common feedstock today — into a mix of fuels. In maximum-SAF operating mode, the yield is approximately 70 to 75% SAF, 10 to 20% renewable naphtha, and 10 to 15% renewable propane and other light ends. The naphtha co-product is the critical variable for gasoline markets: it is a clean, low-carbon blendstock that enters the gasoline pool directly. There is currently about 530 MMGY of HEFA-based SAF capacity installed in the US, of which 275 MMGY of capacity is in California.

ATJ (Alcohol-to-Jet) technology converts ethanol, e.g., made from corn, or isobutanol into jet-range hydrocarbons through an oligomerization process. SAF yields are higher (70 to 90%), but the co-product slate is narrower and commercially less significant. ATJ is at earlier stages of commercial deployment and currently carries a higher production cost than HEFA. LanzaJet owns the only ATJ plant currently operating not only in the US, but also the world.[1]

FT (Fischer-Tropsch) technology converts biomass or municipal solid waste into synthesis gas (a mixture of carbon monoxide and hydrogen) and then transforms this syngas into long-chain hydrocarbons through a catalytic process. The resulting feedstock is subsequently hydroprocessed and distilled to produce jet-range kerosene. The core challenge of the FT pathway is economics. The plants are capital and energy intensive and has not yet achieved cost-competitive commercial scale.

Current SAF standards require blending with petroleum jet fuel at a maximum 50% blend ratio for all approved pathways. This constraint exists because neat SAF often lacks sufficient aromatics and other properties required by aircraft fuel systems. For analytical purposes, SAF production volumes in this paper refer to pre-blended volumes — the relevant unit is how many gallons of non-petroleum jet fuel enter the supply pool, regardless of how those gallons are ultimately blended.

Part I: How SAF Reshapes Fuels Markets

For the purpose of analyzing gasoline market effects, HEFA is the pathway that matters most: it is the only commercially deployed pathway and it has a meaningful co-product stream outside the jet fuel range.

The commercial case for SAF production typically is framed around aviation decarbonization, LCFS credit generation, and refinery asset repurposing. Each of those arguments is valid. What receives less attention is the structural effect SAF production has on the broader transportation fuels system — specifically on gasoline supply, price levels, and volatility. That effect operates through three distinct but interconnected mechanisms.

Mechanism 1: Renewable Naphtha Enters the Gasoline Pool

The HEFA process to produce SAF also co-produces renewable naphtha that can directly enter gasoline blending. In a typical petroleum refinery, gasoline is blended from

[1] https://www.lanzajet.com/freedom-pines

a mix of reformate, alkylate, FCC gasoline, hydrotreated straight-run naphtha, and other streams. Renewable naphtha could be blended directly into the gasoline pool on a volumetric basis. Each barrel of renewable naphtha could be blended into the gasoline pool directly expanding total gasoline supply.[2]

In addition, renewable naphtha also reduces the CI (carbon intensity) of the gasoline pool, which is important for markets with LCFS (low carbon fuel standards). Renewable naphtha carries a CI of approximately 5.5 kg CO2e/gal — well below petroleum naphtha (approximately 11.3 kg CO2e/gal) and the US gasoline average of 8.9 kg CO2e/gal). In markets with low-carbon fuel policies, this CI advantage generates compliance credits, reducing the per-gallon LCFS cost embedded in retail gasoline prices.

A gasoline blender with access to renewable naphtha can choose blending routines that increases volume, reduces the CI, or some combination of the two. Where the blender ends up along that blending frontier depends on the wholesale price of gasoline, LCFS credit price, and the cost of other blending components. In a policy environment where LCFS compliance costs are a binding constraint on fuel blending economics, renewable naphtha delivers a durable competitive advantage relative to blenders that only have access to petroleum blendstocks.

Mechanism 2: Petroleum Refineries Shift Their Yield Toward Gasoline

Jet fuel and gasoline compete for the same intermediate streams inside a petroleum refinery: primarily the naphtha fraction, reformer output, and hydrocracker yield. The economics of running maximum jet fuel production come at the direct expense of gasoline yield. Refineries continuously optimize their product slate in response to relative product margins, and in recent years that optimization has pushed heavily toward jet fuel.

SAF production changes that optimization signal. When a reliable, non-petroleum jet fuel supply exists, petroleum refineries face less commercial pressure to maximize jet yield. The incremental jet demand that SAF satisfies is no longer a call on the petroleum refinery's product slate. The result is an easing of the internal competition between jet and gasoline for intermediate streams, which allows refiners to run a slate that produces more gasoline.

This mechanism is not trivial in its magnitude. The shift from a max-jet yield to a more balanced slate represents a material change in gasoline output, and the effect is durable as long as SAF production remains online (and local oil refinery capacity is not reduced due to competition from SAF). It also builds gasoline inventory more consistently across the calendar, rather than allowing inventories to be depleted through max-jet runs and then scrambled for during gasoline supply tightness.

[2] Blenders could reduce the amount of straight run (petroleum) naphtha or other refinery gasoline blendstocks as they add renewable naphtha. However, this would only be the case if those blendstocks had a higher value outside the gasoline pool.

Mechanism 3: Marine Terminal Capacity Shifts to Gasoline Imports

Import logistics for transportation fuels compete for shared infrastructure: dock space, berths, and marine terminal capacity. When terminals are occupied by jet fuel imports or RD (renewable diesel) exports, they are unavailable for gasoline imports. This constraint is not merely theoretical — in structurally tight markets, the competition for terminal access during peak demand periods is a real binding constraint on how quickly gasoline supply via imports can respond to a price signal.

SAF production relaxes that constraint in two ways. First, by displacing petroleum jet fuel imports, it reduces the volume of jet fuel that needs to arrive by ship, freeing berths for gasoline tankers. Second, in markets where SAF production is co-located with RD production — or where HEFA facilities reduce RD output as a byproduct of optimizing toward SAF — the volume of RD moving by marine logistics also decreases. That RD volume can be replaced by rail supply from inland production facilities, which frees additional marine terminal capacity.

The logistical benefit is asymmetric in its timing: terminal capacity is most valuable not on average days but during supply disruptions, refinery transition seasons, and periods of rapid demand growth. Precisely when a market needs surge import capacity, freed terminals provide it.

Why the Three Mechanisms Compound

Individually, each mechanism provides a modest and bounded supply benefit. Together, they are mutually reinforcing. Renewable naphtha adds volume and generates LCFS credits. The yield shift expands in-state production. The logistics shift increases the ceiling on import surge capacity. The combination does not merely add supply at the margin — it reduces the probability and severity of the supply disruptions that generate large price spikes. A market with all three mechanisms operating simultaneously has lower average prices, lower price volatility, and a larger buffer entering any individual supply shock.

The counterintuitive implication: a one-gallon increase in SAF production can deliver a an increase in gasoline supply of up to two-to-three gallons, depending on the specific logistics and refinery context. SAF could be a powerful indirect lever on gasoline market resilience.

Part II: California as a Numerical Example

California provides the cleanest available numerical illustration of these mechanisms. The state has the most precise fuel specifications in the US, detailed supply chain data published by the California Energy Commission and EIA, a binding LCFS program with observable credit prices, and an active SAF facility whose output can be modeled against historical market data. The results are California-specific — they reflect the state's particular infrastructure, regulation, and supply geography — but the structure of the analysis is portable to any market where SAF production is operating or planned.

California's Supply Vulnerability

California's refinery capacity has contracted from approximately 0.6 million barrels per day since 2019 (from 1.9 million barrels per day to 1.3 million barrels per day following the closure of the Valero refinery in Benicia in 2026). The state is often called an "energy island" because of different fuel specifications and no meaningful pipeline connectivity to other US supply regions exists. In-state crude production is in structural decline, and more than three-quarters of crude inputs arrive by long-haul marine shipping, with nearly 20% sourced from the Middle East.

California consumes approximately 13 billion gallons of gasoline per year, with roughly 20% imported. Longer-hauled imports largely drives the difference between wholesale prices in California and the rest of the US. California also consumes nearly 4 billion gallons of jet fuel annually, with 16% imported.

Shrinking local production and lengthening supply chains create two structural vulnerabilities. The system carries less spare capacity to absorb unplanned outages. And refinery operators, under pressure to maximize margins, have optimized toward jet fuel production at the expense of gasoline, resulting in local supply stress when any upset occurs.

Since 2000, the California gasoline price premium over the rest of the US has averaged 58 cents per gallon and has materially widened since 2017. Price spikes, such as during an unplanned refinery outage, can add an additional 30 to 80 cents per gallon to the structural premium of California gasoline prices. Consumer research consistently shows that motorists prefer price stability — yet California drivers are exposed to both elevated average prices and sharp intermittent spikes.

An Analytical Benchmark: Phillips 66-Rodeo and World Energy-Paramount

The primary facility for this analysis is the Phillips 66 HEFA plant in Rodeo, California, with a capacity of 230 MMGY (15,000 b/d).[3] This is the largest operating SAF facility in the state and the only one with sufficient scale to produce measurable effects on the California fuels market. There also is the World Energy facility in Paramount (45

[3] The Phillips 66 Rodeo-Santa Maria oil refinery complex had gasoline production capacity of 920 MMGY (60 kbd) prior to its conversion to a 800 MMGY (52 kbd) renewable diesel/SAF facility in 2024.

MMGY), but it has not been operating since early-2025 following the termination of a partnership with Air Products.[4] The analysis benchmarks the Rodeo and Paramount plants operating at full SAF-optimized capacity and traces the three supply mechanisms through to their market-level gasoline implications.

Mechanism 1 in California: Renewable Naphtha

At full SAF-optimized operation a HEFA process generates a renewable naphtha co-product in the range of 10 to 20% of throughput (DOE, 2020). Applied to 275 MMGY of total production, this yields 28 to 55 MMGY of renewable naphtha (or about 1.8 to 3.6 kbd).

Against California's approximately 13 billion gallon annual gasoline demand, renewable naphtha would contribute 0.2% to 0.4% of incremental supply.[5] The volume is modest in isolation, but it is volume that does not depend on the petroleum supply chain — which is precisely the characteristic that matters during refinery upsets or broader petroleum logistics stress.

The LCFS benefit is concrete and quantifiable. Renewable naphtha carries a CI of 45 gCO2e/MJ versus petroleum naphtha at approximately 88.5 gCO2e/MJ. At LCFS credit prices (CARB, 2025) observed between Q1 2024 and Q1 2025 ($72 to $85 per metric ton), this CI differential reduces LCFS compliance costs embedded in retail gasoline by approximately 1 to 2 cents per gallon of blended product. The benefit is modest per gallon but durable across all gasoline sales in the California market.

Mechanism 2 in California: Refinery Yield Shift

California refineries have increased their jet fuel yield by more than half since 2017, with corresponding declines in gasoline and diesel output. The analysis estimates the yield shift potential by comparing actual 2025 Northern California refinery production data (CEC, 2026) against a historical yield benchmark calibrated to 2017 to 2019 averages — a period before the structural shift toward maximum-jet operations.

The estimated incremental increase in in-state gasoline production from yield normalization is 370 to 455 MMGY (24 kbd to 30 kbd), representing approximately 3% of California's annual gasoline demand. This is the largest single contributor to the total gasoline supply uplift and the mechanism most directly tied to sustained SAF production providing refiners a consistent commercial signal to run a more balanced slate.

Mechanism 3 in California: Marine Terminal Reallocation

EIA import data for 2025 shows that Northern California marine jet fuel parcels averaged approximately 5.5 million gallons per vessel, while gasoline blendstock

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[4] https://biodieselmagazine.com/articles/air-products-exits-world-energy-saf-expansion-project

[5] 1.8 kbd*42 gal/bbl*365 days = 27.6 MMGY or 0.2%; 3.6 kbd *42 gal/bbl*365 days = 55.4 MMGY or 0.4%

parcels were over 30% larger at approximately 7.4 million gallons per vessel (EIA, 2025). This size differential matters: swapping a jet fuel tanker for a gasoline tanker delivers more than a barrel-for-barrel gain in product volume through the same berth slot.

In 2025, 38 jet fuel vessels called at Northern California ports (EIA, 2025). Converting those vessel calls to gasoline blendstock deliveries would add an estimated 255 to 335 MMGY (17 kbd to 22kbd) of California gasoline supply — an increase of 1 to 2% of annual demand. The additional capacity is most valuable during peak summer demand and following unplanned refinery outages, when even a 1% swing in available supply can materially influence the wholesale price in California's structurally tight market.

A secondary logistics benefit operates through the RD supply chain. Northern California currently sends RD south by barge to satisfy Southern California demand. Increased SAF production at a HEFA facility reduces co-product RD output, reducing the volume that needs to move by marine logistics. Southern California's RD demand can be met by rail from Midwest and Gulf Coast facilities, using infrastructure and economics that already exist. Freeing barge slots in both Northern and Southern California provides additional terminal flexibility for gasoline imports at both ends of the state.

Table 1 — Logistical Flexibility from Increased SAF Production

Logistics Dimension	Current Configuration	With Full SAF Production
Northern CA dock use	Barge RD south; receive jet fuel	Receive gasoline imports; fewer jet calls
Southern CA dock use	Receive barge RD from north	Receive gasoline imports directly
Southern CA rail	Some RD from Midwest/Gulf Coast	Expanded RD rail volume replaces barge volumes
Gasoline import capacity	Constrained by RD and jet competition	Expanded; larger vessels possible
Price spike exposure	High during outages or transitions	Reduced; faster import response possible

Total Gasoline Supply Uplift

Summing across all three mechanisms, full utilization of current California SAF capacity generates a gasoline supply uplift of 665 to 900 MMGY — about 6 to 7 percent of current California gasoline demand. The implied multiplier is 3 to 4 gallons of gasoline supply for every gallon of SAF produced. To put this supply uplift in perspective, gasoline production capacity in California has declined about 4,800 MMGY (30 percent) since 2020.

Table 2 — Estimated California Gasoline Supply Uplift from Full SAF Production

Supply Mechanism	Uplift (MMGY)	Share of CA Demand (Percent)
Renewable naphtha to gasoline blending	40– 110	<1
Petroleum refinery yield shift	370 – 455	~3
Marine terminal reallocation (logistics)	255 – 335	2 – 3
Total	665 – 900	5 – 7

Source: Baker Institute analysis

Cost Implications

Two estimation methods bound the potential wholesale price compression from this supply uplift.

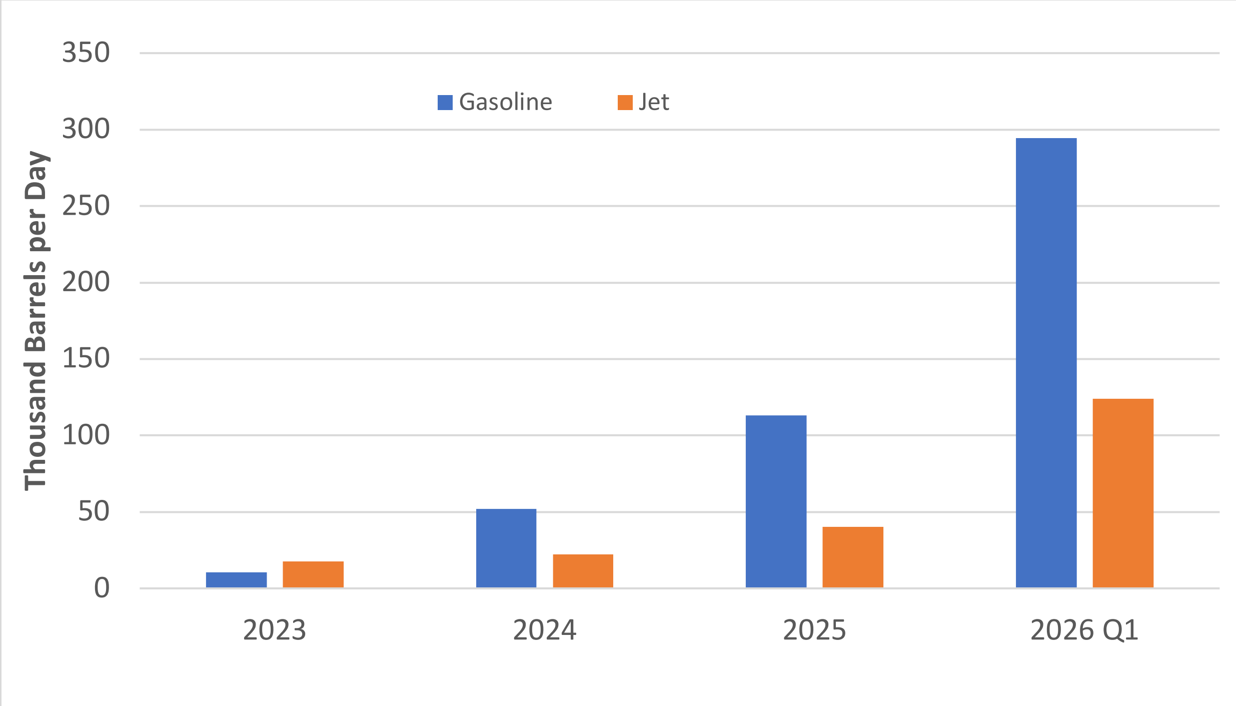
Method 1: Price Elasticity

Applying the U.S. gasoline demand price elasticity estimates from the Federal Reserve Bank of Dallas (Kilian and Zhou, 2020), which range from -0.27 to -0.35, to the 5 to 7% supply uplift implies a required price reduction of approximately 1.4 to 2.4%. At a retail price of $5.95/gallon (average for May 2026), this corresponds to a cost compression of 8 to 14 cents per gallon. Using annual average prices for 2025 ($4.41/gal), the cost compression would be of the range of 6 to 19 cents per gallon.

Method 2: Cost Curve Displacement

California is a structural importer and jet fuel. The increase in reliance on imports, as California refineries have closed, can be seen in Figure 1. While jet fuel imports have increased by a factor of 7 (from 18 kbd in 2023 to 124 kbd by 1Q 2026), gasoline imports have risen by almost 28 times the 2023 level (from 11 kbd to almost 295 kbd).

Figure 1 —California Petroleum Transportation Fuel Imports



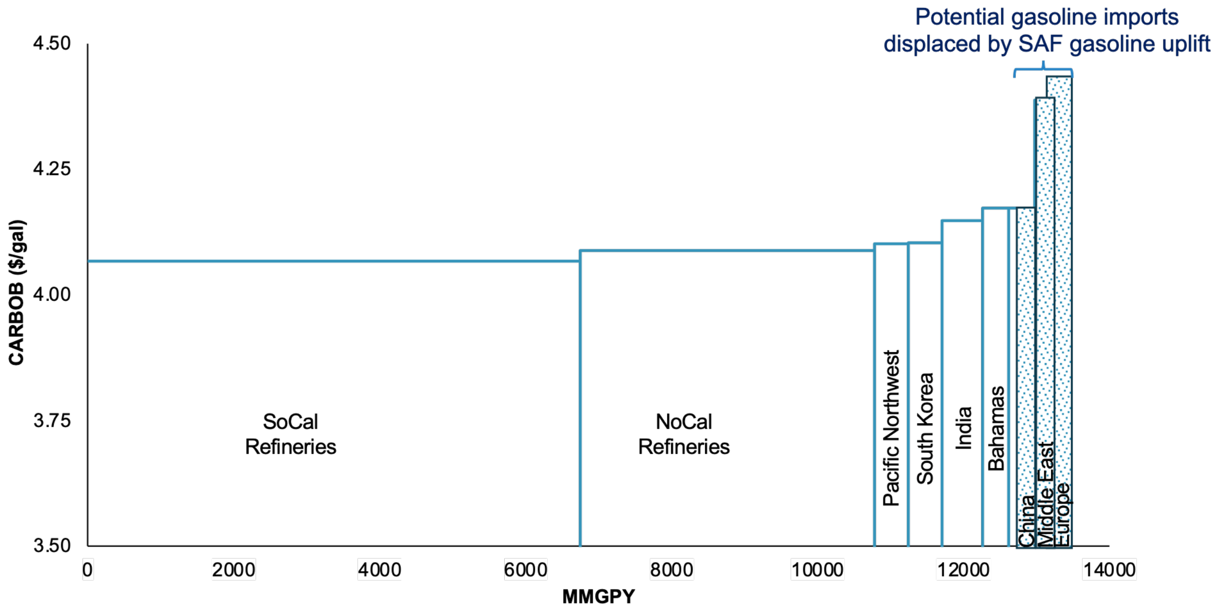
Source: Baker Institute analysis, EIA company-level import data

Part of the surge in gasoline imports is to replace lost volume from closing California refineries and another part is replacing gasoline production lost by the shift from gasoline to jet production in the remaining California refining capacity.

The barrel (or gallon) that sets the price in an importing market is the marginal (highest cost) import. If the SAF-driven uplift of in-state gasoline supply displaces higher-cost gasoline import barrels or substitutes lower-cost gasoline imports, the cost compression reflects the spread between the displaced high-cost supply and the alternative source. Figure 2 shows a California import cost curve based on 2025 data and analysis. SAF's potential gasoline supply increase from a yield shift (410 to 565 MMGY) could put downward pressure of about 21 to 23 cents per gallon on wholesale (CARBOB[6]) by displacing higher cost imports. If the change in logistics from petroleum jet to gasoline imports displaced higher-cost imports (e.g., Europe, Middle East, China in Figure 2) with imports from a lower-cost region (e.g., South Korea), that 255 to 335 MMGY of cheaper gasoline imports could increase the downward pressure on gasoline costs by another 10 to 19 cents per gallon. From a cost curve perspective, the total downward pressure could range 31 to 42 cents per gallon.

[6] CARBOB is California specification gasoline before oxygenate (e.g., ethanol) blending

Figure 2 — Estimated California Gasoline Supply Cost Curve for 2025



Source: Baker Institute analysis, CEC supply data, EIA company-level import data, LCFS quarterly reports, marine shipping cost

The wholesale cost reduction is structurally durable as long as SAF production operates at scale. However, none of these estimates of cost compression is a guarantee of an equivalent decline in retail prices — market structure, refinery margins, and retail competition determine what the pass-through rate might be.

Price Volatility

The cost estimates above could understate the full consumer benefit. In California, the most economically damaging gasoline pricing events are not periods of persistently high average prices, but sudden spikes of 40 to 80 cents per gallon above the average California premium over US prices following unplanned refinery outages or other supply disruptions in the state. Consumer research consistently shows that motorists value price stability more than marginal reductions in average prices. Because SAF and renewable diesel facilities are still relatively new, it is not yet possible to determine whether their reliability will ultimately prove better or worse than that of conventional oil refineries. Even so, adding production assets that rely on different technologies and supply chains would strengthen the resilience of California's transportation fuel system.

SAF production directly addresses the structural drivers of those spikes. It gives petroleum refiners a consistent signal to run a more balanced product slate, building gasoline inventory during soft-demand periods rather than drawing it down through maximum-jet operations. It provides marine terminal flexibility that allows faster import response when a refinery goes offline. And it reduces the number of occasions when the marginal gasoline barrel must be sourced from the most distant, most expensive supply point on the cost curve.

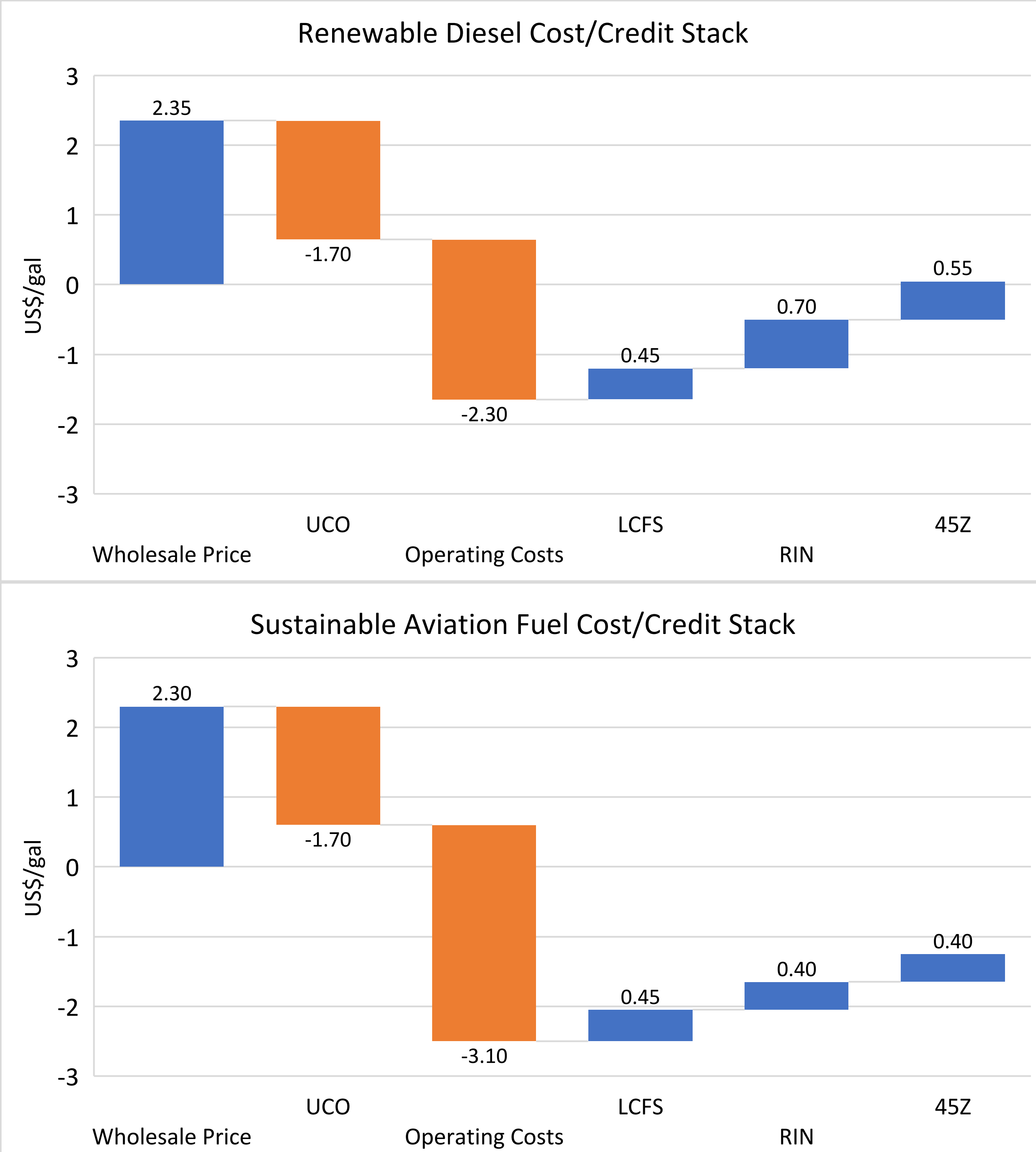
The result is a flatter distribution of California gasoline prices over time — fewer extreme events, better consumer welfare, and a market that is structurally more capable of absorbing supply shocks without disorderly price discovery.

Why California Has Not Yet Seen Significant SAF Production

Although expanded SAF production could contribute meaningfully to transportation fuel resilience in California, current market outcomes indicate that existing policy architecture has not yet produced sufficient deployment incentives. The constraint is not principally one of technical feasibility or resource availability; rather, it reflects a gap between the private economics of SAF production and the public value associated with fuel supply diversification, emissions reduction, and system resilience. Under prevailing credit values, incentive structures, and market prices, existing policy support does not fully offset the incremental production cost associated with shifting HEFA capacity from renewable diesel toward SAF.

Figure 3 illustrates this policy and market misalignment by comparing estimated 2025 production costs, credits, and incentives for renewable diesel and SAF produced in California. The upper chart shows that renewable diesel would generate a modest positive production margin of approximately +$0.05 per gallon after accounting for applicable credits and incentives. In contrast, HEFA-based SAF would produce an estimated net margin of approximately -$1.25 per gallon under comparable policy and market conditions. From the perspective of an individual facility operator, this margin differential creates a clear incentive to continue producing renewable diesel rather than reorienting output toward SAF. As a result, even facilities with the technical capability and processing equipment necessary to produce SAF have limited commercial rationale to do so absent additional policy support or a stronger market premium for SAF.

Figure 3 — Production Margin with Existing Credits and Incentives (2025 estimate)



Source: Baker Institute analysis, Argus, CARB, Farmdoc Daily, StartGreen Commodities, Stillwater Associates

A Comment on the SAF-RD Tradeoff Critique

This policy framing also clarifies a common critique of expanded SAF production: the claim that greater SAF output necessarily comes at the direct expense of RD supply, creating a zero-sum tradeoff within the biofuels system. That critique is important because, if correct, it would weaken the case for using additional policy support to encourage SAF deployment. However, the zero-sum framing is analytically incomplete. It treats existing production patterns and logistics routes as fixed, rather than as market outcomes that respond to credit values, facility economics, feedstock availability, and transportation constraints.

From a policy-design perspective, the relevant question is not whether a gallon of SAF mechanically displaces a gallon of renewable diesel, but whether incentives can be structured to increase system-wide fuel resilience without reducing low-carbon diesel availability. Current market conditions suggest that this is feasible. Renewable diesel production capacity in the United States currently exceeds output by roughly 40%, and feedstock markets, logistics flows, and refining capacity can adjust in response to relative prices. Incremental SAF production therefore does not simply pull molecules from the renewable diesel pool; it changes marginal supply sourcing, draws on underutilized capacity, and redirects existing logistics pathways. EIA data (EIA, 2026) show more than 15 million gallons per month of renewable diesel already moving into California by rail from out-of-state sources in 2025, with monthly peaks exceeding 60 million gallons on an annualized basis. Expanding that rail flow to replace Northern California barge movements would require no regulatory change and no new terminal infrastructure — only a stronger commercial signal that Northern California HEFA production is shifting toward SAF.

The implication is that the SAF-RD relationship should be understood as a policy and logistics coordination problem, not as an unavoidable volumetric tradeoff. Southern California need not lose renewable diesel supply under this scenario; it can receive comparable renewable diesel volumes through a different logistics route while marine terminal capacity is freed for gasoline imports. Properly designed SAF incentives would therefore not merely shift value from one low-carbon fuel to another. They could support a broader reallocation of production and logistics capacity that improves the resilience of SAF, diesel, and gasoline supply simultaneously.

Conclusion

SAF production usually is evaluated on its aviation decarbonization merits. That evaluation is incomplete. A HEFA-pathway for SAF production can reshape the economics and logistics of the broader transportation fuels system through three distinct mechanisms: renewable naphtha co-product blending that adds low-carbon volume to the gasoline pool; petroleum refinery yield optimization. These give refiners and blenders a structural incentive to produce more gasoline; and also releases marine terminal capacity that could support a surge in gasoline imports precisely when it is most needed.

California demonstrates the potential magnitude of those effects with specificity. Full utilization of California's SAF capacity of 245 MMGY capacity generates a gasoline supply uplift of 665 to 900 MMGY — 5 to 7 percent of annual state demand — with an implied wholesale cost compression of 23 to 47 cents per gallon. The per-gallon SAF-to-gasoline multiplier is 3 to 4. The benefit concentrates exactly when California's market is most vulnerable: refinery transition seasons, unplanned outages, and periods of import logistics stress.

These results are infrastructure and California-specific. The precise magnitude of the gasoline uplift depends on refinery throughput decisions, logistics utilization, and individual facility blending choices. But the structural logic is not California-specific — it applies in any market where SAF production is co-located with petroleum refining and marine import infrastructure. One policy implication is that SAF investment decisions should be evaluated not only on their aviation carbon reduction credentials, but also on their system-wide effect on transportation fuel supply resilience.

Not explored in this paper is the potential impact a compression of wholesale gasoline (and/or jet fuel) price could have on petroleum refinery margins in California. If wholesale price compression of transportation fuels was significant enough to cause additional traditional refining capacity to close, the net impact on gasoline imports and the marginal price of gasoline in California could be much different.

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Glossary

Acronym	Definition
ATJ	Alcohol-to-Jet renewable fuels production technology
CARB	California Air Resources Board
CARBOB	California specification gasoline before oxygenate (e.g., ethanol) blending
CEC	California Energy Commission
DOE	US Department of Energy
EIA	U.S. Department of Energy, Energy Information Administration
FCC	Fluid Catalytic Cracking
FT	Fischer-Tropsch renewable fuels production technology

HEFA	Hydroprocessed Esters and Fatty Acids renewable fuels production technology
LCFS	Low Carbon Fuel Standard
PADD	Petroleum Administration for Defense District
RD	Renewable Diesel
SAF	Sustainable Aviation Fuel