Eight midwestern governors have petitioned the Environmental Protection Agency (EPA) seeking to opt their states out of the federal 1-pound Reid Vapor Pressure (RVP) waiver which is a requirement to sell the current summertime blend of E10 gasoline.[1] [2] If their requests are granted, the E10 gasoline currently sold in most of the country during summer months will no longer be offered for sale in these eight states—**it would be illegal**. Instead, a new regional boutique fuel with a lower RVP would need to be produced and sold for this portion of the Midwest market. A boutique fuel for only these midwestern states is going to be significantly more complicated and expensive to produce and will require major adjustments to the refineries and fuel supply chain infrastructure serving the Midwest.

How this relates to E15.

States made the request to opt out of the federal RVP waiver for e10 in an effort to increase summertime sales of E15. Under federal law, summertime gasoline is only granted an RVP waiver if it is used to make E10 finished gasoline, not E15. In the absence of federal legislation that would change this, these states have chosen to revoke the existing RVP waiver for E10. ***They are not giving an RVP waiver to E15, they are taking one away from E10.***

AFPM has raised major concerns with EPA and the eight petitioning states. In fact, a study conducted by Baker & O'Brien—which looked at every facet of the fuel supply and distribution network in seven of the eight petitioning states—found that eliminating the RVP waiver for summertime E10 and introducing a new gasoline blend to just the petitioning states is going to come with **annual costs of $500-$800 million** (more on those costs below).

Here's some more of what we've shared:

The transition to summertime gasoline manufacturing is already underway for 2023.

Abruptly rescinding the RVP waiver for the current blend of summertime E10 gasoline would require the immediate manufacture of entirely new regular and premium gasoline blendstocks for just a select group of Midwestern states. EPA absolutely must not spring this change on refiners. Refineries are complex manufacturing facilities that adjust operations to begin churning out specific fuel products months ahead of when they're needed by the consumer market. Purchasing agreements for certain products—including summertime fuel blends—are in place long before the summer driving season and these agreements guide refinery production.

These eight states do not have their own self-contained liquid fuel supply chains.

They rely on an expansive distribution network of refineries, pipelines and terminals to get gasoline. Surrounding states offering the current blend of summertime E10 gasoline may be negatively impacted as well. This raises significant problems up and down the supply chain.

- It is more costly to produce a boutique blend of gasoline. Refineries that currently serve the petitioning states may not be configured to produce the new boutique fuel without making significant capital investments.
- Reduced supply availability in the Midwest means that some of the new fuel will have to come in from other facilities much further away.
- Distributing this boutique fuel will also be more challenging since not every terminal or pipeline will be able to carry a segregated fuel and most of the network will be committed to also transporting significant volumes of the current summertime gasoline blend covered by the RVP waiver.

Requiring a new lower vapor pressure gasoline will not help consumers, neither will EPA rushing a decision on these petitions.

The Biden administration should deny these petitions outright and, at least, guarantee a delay of implementation until after the 2023 summer driving season.

Studies being cited in support of the RVP opt-out underestimate the costs and disruptiveness of introducing a new blend of gasoline to just a select group of Midwestern states.

- Midwest states have estimated that the cost to produce lower RVP gasoline will only be a few cents per gallon. These estimates assume that refineries will only need to remove butane from their gasoline blends. However, removing butane alone will not be enough for every refinery to produce RVP-compliant fuel.
- Estimates from these states incorrectly assume that each of the nearly 30 refineries currently providing E10 summertime gasoline BOB to the Midwest will seamlessly adapt to produce a new blend of gasoline. This is incorrect. Not every refinery currently located in or providing gasoline to these states has the infrastructure and capability to manufacture a new gasoline grade. Refinery upgrades typically take two years to implement.

- The Chicago market provides a useful example of what happens when a lower RVP fuel is sold alongside conventional gasoline. The historical price difference between the two fuels is typically 8-10 cents per gallon, and in times of supply disruption has reached as much as 60 cents per gallon.

E15 use is limited by retail compatibility issues, and removing the RVP waiver is unlikely to have a significant impact on E15 use.

Summertime E15 sales are limited by the small number of retail stations and infrastructure capable of selling E15. EPA estimates the investment retailers would be required to make at stations for expanded E15 use would be around $108,000 per station, which according to EPA equates to an additional $2.49 per incremental ethanol gallon. With the considerable spending and construction that would be needed to bring more E15 to market, it would take years and years to see any impactful growth in E15 sales. E15 faces no RVP limitations in reformulated gasoline markets such as Chicago and Milwaukee, and yet remains a small fraction of overall gasoline sales.

Curious? Here’s some additional information on the $500-$800 million in annual costs projected by Baker & O’Brien.

AFPM commissioned an analysis by Baker & O’Brien that found a new Midwestern boutique fuel would cost more to supply the market, require investments in fuel supply chain infrastructure and increase supply disruption risks.

Eliminating the 1-pound waiver could cost the Midwest $500-$800 million in the first summer alone.

- The cost to produce, store, and distribute a unique Midwestern fuel that must be segregated from other fuel is expected to **range from 8 to 12 cents per gallon (cpg)** in the near term.
- The total incremental cost to supply a new boutique gasoline in the affected states **ranges from $500 - $800 million**, and a supply disruption could push **costs to $1.1 billion**.

Eliminating the 1-pound waiver will reduce overall fuel production in the affected states.

- Fewer refineries in the region will be capable of supplying Midwestern summertime gasoline. Refinery and supply system constraints would result in approximately **125,000 fewer barrels per day of in-region gasoline production** and **33,000 fewer barrels per day of in-region diesel fuel production** during the summer—equivalent to the loss of fuel from an outage at a large Midwest refinery.
- **Capital improvement projects are estimated at $50-$75 million per facility.**

Eliminating the 1-pound waiver puts the Midwest at greater risk of supply shortages.

- Lower fuel production in the region will be made up by fuel **supplied from Gulf Coast refineries**, which is transported to the Midwest by pipeline. Adding two new low-RVP grades (regular and premium) limits the capability of the fuel supply system to respond to a supply disruption.
- In the event of a disruption (e.g., hurricane, refinery outage), the affected states could experience **more frequent and longer supply disruptions and a higher risk of price spikes and shortages**.
- Recent history shows that price differences between low RVP and high RVP gasoline blends in the Midwest can reach 60 cpg in the event of a disruption.

Implementation requires lead time.

- PADD 2's refining complex evolved to serve conventional gasoline markets under the 1 psi ethanol waiver.
- As a result, refiners and pipelines cannot readily produce and segregate high and low RVP gasolines. To do so would require investments that **typically take two years** to complete.
- Typically, refiners transition to summer grade fuel in February, and pipelines in March to meet the deadline for supplying summer grade fuel at the pump.

[1] Wholesale conventional summer gasoline may not exceed 9.0 psi RVP per CAA 211(h). The addition of 10% ethanol generally increases RVP by 1.0 psi RVP, i.e., to 10.0 psi RVP. CAA 211(h)(4) provides a 1.0 psi RVP allowance for 10% ethanol blends.

[2] E10 finished gasoline is made by adding ethanol to the gasoline blendstock produced by refineries. The finished product is 10% ethanol and accounts for more than 95% of U.S. gasoline sales. E15 is gasoline that is 15% ethanol.

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