

Setting the Record Straight About RFS Compliance

A number of blatant mischaracterizations and untruthful assertions have been made about Philadelphia Energy Solutions Refining and Marketing LLC (PES) and the onerous Renewable Fuel Standard (RFS) obligations plaguing PES and other independent refiners. Below we set the record straight – dispelling the myths posed by the powerful ethanol lobby:

1. **MYTH: Refineries are battling biofuels.**

FACT:

PES and other independent merchant refiners are not opposed to biofuels – indeed, PES uses the maximum amount of ethanol and other biofuels that the market will absorb. PES and the USW believe strongly in the need to fix the broken RINs compliance mechanism that is crippling independent merchant refiners and threatening the livelihoods of their workers and the families they support.

The truth is that RINs were never intended to be a valuable commodity traded in an unregulated market – they were intended to make sure biofuels are blended. High RINs prices are not needed to ensure that biofuels are blended; rather, high RINs prices distort competition in the refinery industry and retail gasoline distribution markets.

The most effective way to reform the RFS is to move the point of obligation from refiners to those who control the blending of biofuels. There are a number of other solutions that can resolve the problem without disadvantaging biofuels companies.

PES believes that diversity in energy source and supply – including biofuels – is critical to American energy security, reliability and affordability. Independent merchant refiners, biofuel producers and their workers can both survive and thrive in the fuel marketplace if regulators and legislators have the political will to reform the broken RINs compliance mechanism.

2. **MYTH: PES could have invested \$40 million to bring ethanol blending capacity to the refinery instead of spending \$832 million on RINs.**

FACT:

A lack of blending infrastructure is not the issue – sufficient blending infrastructure already exists and PES can access it as needed. Rather, the issue is that under the RFS, only refiners and importers are obligated to comply by generating RINs through blending biofuels (and then selling the blended fuel) or buying RINs in the open market. Knowing that PES needs RINs for compliance, PES's larger customers prefer to blend the fuel themselves so that they can capture the RIN and then sell it to refiners for compliance. When PES handles the blending and captures the RIN, its customers demand a discount on the blended fuel tied to the price of the RIN.

As a result, large fuel retailers, integrated oil companies that own retail and RINs traders all benefit from the RFS system while independent merchant refiners are penalized. The only way PES could compete in the current system would be to buy enough retail stations to distribute its own blended fuel. Based on recent valuations, it would cost PES more than \$6 billion to buy the retail stations (approximately 3,000) needed to distribute blended fuels in sufficient quantities to satisfy its RINs compliance obligation.

3. MYTH: Refiners are not impacted by the cost of RINs because they simply pass on the costs.

FACT:

The broken RFS system rewards large fuel retailers, integrated oil companies that own retail and RINs traders at the expense of smaller independent merchant refiners and smaller retail gas station owners. The RFS was not designed to allocate benefits this way; rather, it has developed because of market power. The structure of the RINs compliance mechanism forces PES to sell its products to customers without biofuels blended in or, if PES is able to sell blended fuels, with a substantial price discount tied to the value of the RIN.

All of this could easily have been solved by changing the point of obligation to include those that actually control biofuel blending, but the EPA declined to do so last fall under intense political pressure from the agriculture and ethanol lobbies. Of note, changing the point of obligation would not change the volume of renewable fuels required to be blended into transportation fuels, but would simply change the entities obligated to retire RINs to demonstrate compliance. This reformed structure would more efficiently ensure compliance by placing the obligation where it belongs – with the party that does the blending.

4. MYTH: PES's bankruptcy was caused by mismanagement and industry issues, not the exorbitant cost of RINs.

FACT:

PES has managed the refining complex with impressive results and is well equipped to handle the cyclicity of the refining business. Through investing nearly \$900 million into the refining complex since its acquisition in September 2012, and disciplined operations, PES has:

- achieved first quartile operational availability;
- operated at a cost per barrel that is among the lowest in its peer group;
- increased employment from 850 full time employees to around 1,100;
- consistently delivered capital projects on-time and on-budget; and
- achieved a safety record that includes a recordable incident rate below industry average.

However, despite the EPA's assurances early in the rulemaking proceedings that RINs would be available at "reasonable prices," RINs prices spiked from an average of about \$0.05 to more than \$1 in 2013 and have since remained at elevated levels and fluctuated greatly. The skyrocketing price of RINs made a financial restructuring necessary. RINs are now PES's single largest expense after crude oil and, in 2017 alone, PES's RINs expense totaled approximately \$218 million, representing more

than twice the company's payroll, nearly one-and-one-half times its average annual capital expenditures, and approximately four times its interest expense. At the time of PES's formation, its RINs expense was near \$0.

No level of operational performance, technology improvements, or business acumen could offset the exorbitant and volatile price of RINs.

5. MYTH: PES operates with antiquated technology.

FACT:

The PES refinery complex is state of the art. Almost all of the operating units that currently comprise the Philadelphia refining complex were originally constructed between 1955 and 1980, and the complex and its technology have undergone regular upgrades numerous times since then.

For perspective, the last refinery built in the U.S., of any significant scale, was built in 1977, and of the 137 currently operating, only 13 other refineries of smaller scale have been built since then (per the U.S. Energy Information Administration).

Process units at PES also undergo regular, extended maintenance outages known as "turnarounds" every three to ten years, whereby units are overhauled, updated and improved. As a result, PES's units are in excellent operating condition and incorporate sophisticated technologies.

PES has world-class capabilities shared by only a handful of refineries in the world:

- PES operates one of the largest "resid" fluidized catalytic crackers (FCCs) in the world that allows it to crack low-value vacuum tower bottoms into higher-value refined products and can, therefore, economically process a heavier crude slate than many of its peers;
- PES operates the only Cumene unit on the U.S. East Coast, which allows it to make a valuable petrochemical feedstock that is the intermediate feedstock for another U.S. industry in the region and sells at a significant premium to other refined products;
- The substantial hydrotreating capacity of the Philadelphia refining complex allows PES to produce 100% of its diesel as ultra-low sulfur diesel, a premium product; and
- The significant reforming and alkylation capacity of the Philadelphia refining complex allows PES to produce a substantially higher percentage of its gasoline as high-octane "premium" gasoline.

The operation of the refining complex is overseen from a world-class, state of the art central control room with software that continuously optimizes the refinery operations based on real-time process inputs and market economics – this control room is among the most sophisticated in the industry.

6. MYTH: PES can only process more expensive light Brent crudes.

FACT:

PES is configured to run a wide range of crude slates and regularly processes heavy crudes. PES has recently upgraded and expanded its fluidized catalytic cracker (FCC). This FCC is now one of the largest resid FCCs in the world and provides PES with superior flexibility to efficiently process a

wider range of crudes than many other refineries. To build on this capability, the company has gone through an exhaustive process to qualify new crudes, resulting in a dramatically expanded menu of crudes it can process. In the past two years, PES has processed 23 new crudes, which includes heavy crudes.

PES buys crude that is a good value based on the market price of products that it refines into relative to the cost of the crude (i.e. how profitable the crude is to refine). The cost of different grades of crude, and their values, will continue to fluctuate. Market conditions will not guarantee that domestic and/or heavy crudes will remain cheap and/or valuable in the future. Maintaining flexibility is essential to ensuring a continuing supply of reasonably priced crude oil, and PES is well prepared to handle a broad range of crude oil.

7. MYTH: PES is geographically disadvantaged.

FACT:

PES is in fact geographically advantaged as it sits in the largest refined products market hub in the world – New York Harbor – a NYMEX delivery point. Other refineries have significant transportation costs to access this market, but PES has negligible costs in this regard. PES also has the ability to export product, unlike many land-locked Midwestern refineries.

Additionally, because of its geographic location, PES is optimally positioned as a critical supplier of energy security to the Northeast U.S. In the U.S. East Coast market, where PES operates, roughly 20% of the gasoline and 15% of distillate supply comes from foreign refineries, and more than 60% of the transportation fuel supply comes from the U.S. Gulf Coast, mostly via the Colonial Pipeline. Given the Colonial Pipeline is generally full, there are no pipeline connections from the Midwestern U.S., Jones Act freight from the Gulf Coast is expensive, and there are supply interruptions (e.g. hurricanes in the Gulf Coast and pipeline disruptions), PES plays an important role in the energy supply and security of the Northeast region. A shutdown of PES would therefore result in more foreign fuel imports, more frequent and severe energy supply disruptions and fuel price spikes.

8. MYTH: PES has faced financial troubles throughout its history, while benefitting from significant taxpayer subsidies.

FACT:

Prior to PES's inception in 2012, Sunoco owned the Philadelphia refining complex and the prior near-closure of the complex was primarily driven by Sunoco's evolving business strategy that shifted away from refining. At the time, that decision was influenced by a demand driven downturn that eliminated significant refining capacity serving the U.S. East Coast. These closures have subsequently improved the fundamentals of the market in which PES operates.

PES has not received federal aid, unlike the ethanol industry that has and continues to receive significant federal aid. When formed in 2012, PES received a total of \$25 million in grants from the Commonwealth of Pennsylvania that were invested directly in refinery improvements and creating jobs, including the addition of 240 direct new jobs.

- 9. MYTH: PES is trying to short the RIN market by selling ahead of what PES believes will be decisive federal action that will lower RIN prices.**

FACT:

It would be foolish for PES to take a position on the likelihood or timing of any such action by the federal government. Until very recently, PES has not sold RINs in significant numbers and has generally purchased RINs ratably during the year in an effort to ensure compliance with the RFS. In the months leading up to the bankruptcy filing, it became impossible for PES to continue purchasing RINs at these levels and at the same time maintain sufficient cash balances to run the business. As a result, PES sold some RINs in order to fund the ongoing operation of the business.

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