

The United States Refining Industry
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Oral Testimony
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For decades, the U.S. has set energy independence as a goal, but the current Administration has more recently upped that to energy dominance. While that might seem like standard political posturing, the U.S. refining industry, with support from the upstream and midstream, has in fact already established dominance in its own sector of the energy business. Since 2007, the U.S. has transitioned from being the world's largest importer of refined products to being the largest exporter by most measures. In that time, the U.S. net product balance has moved from a shortage of 2.5 million barrels per day to a surplus of well over 3 million barrels per day, currently.

The U.S. refining industry's ability to become a global export powerhouse, and to maintain that position, has and will be dependent on both things they have and will do well and also on the failures by their competitors around the world. On the domestic side of that equation, the free market environment in which the U.S. refining industry is allowed to operate, which isn't the case in most other countries, has been a key driving force. Over the years, market signals have "thinned the herd," as uncompetitive refineries were closed and the remaining facilities evolved into the most advanced and complex

set of refineries in the world. This allows U.S. refiners to run heavier and more difficult to process crudes, turning them into more valuable products, all at higher yields than refiners in any other region of the world.

The U.S. also has the deepest, most talented and experienced refinery labor pool in the world; all the way from management, through the technical ranks and down to the skilled and hourly levels. Combined with more flexible employment and work rules than exist in many other countries, this allows U.S. refiners to run their plants more reliably, safely and at higher throughput rates. It also allows them to operate the plants, execute capital projects and perform maintenance activities at lower costs, despite high wage rates.

A major boost to the competitiveness of U.S. refineries in recent years has been the shale revolution. This event, which was also facilitated by the free market environment in this country, has allowed both oil and gas production to soar. Resulting low domestic natural gas prices provide U.S. refiners significant operating cost advantages versus many global competitors, particularly in Europe and Asia. Even more important has been the boom in oil production, which has substantively lowered refiner's relative crude costs.

Further advantaging the U.S. industry has been the difficulties experienced by foreign refiners. Building and running refineries is a very complex task, requiring not only experienced and skilled manpower, but efficient and properly incentivized operating, maintenance, project execution and planning efforts. Many of those elements have been lacking in other parts of the world, in large part due to over regulated market environments.

The issues our neighbors to the south in Latin America have encountered have been particularly helpful to U.S. refiners. Utilization rates in most countries in the region average between 50% and 70%, compared to over 90% in the U.S. Despite growing regional demand, refining capacity and throughput has declined over the last decade. This hasn't been for a lack of trying, as a significant number of expansion and greenfield projects have been planned and initiated. Most have either not gotten off the ground or encountered significant cost overruns and delays. Much of the problems relate to the sponsorship of these projects by government controlled companies, with the accompanying issues of confused and conflicted planning, incorrect staffing, corruption, and in many cases simple incompetence. These same issues have negatively impacted the operations at existing plants and as a result, U.S. product exports into Latin America have grown by almost 2 million barrels per day over the last decade.

The ability to successfully penetrate and grow export markets has been a necessity for the health of the U.S. refining sector, considering stagnant domestic demand. Even with the strong growth experienced over the last three years as a result of lower prices, total domestic consumption was still over 900,000 barrels per day lower in 2017 than in the peak demand year of 2005. Despite this, and while our friends in Europe and Japan were shutting down over 3 million barrels per day of refining capacity in a similar environment, the U.S. was able to increase refining capacity by 1.4 million barrels per day.

The U.S. refining renaissance has benefitted the country as a whole and consumers of petroleum products at all levels. Together with the boom in domestic crude and gas production, the refined product surplus has been a major contributor in reducing the trade deficit. It has also led

to a higher degree of supply security, and lower prices versus the previous environment where products had to be imported. This is particularly important during major supply disrupting events. A prime recent example of this, and a true confirmation of the robustness and resiliency of the U.S. refining industry, was last year's rapid return of supply after Hurricane Harvey's devastation at the U.S. Gulf Coast.

Looking to the future, the health of the U.S. refining industry will be dependent on a variety of factors, including market forces, geopolitical developments and changes in the regulatory environment – both domestically and globally. On the regulatory front, new domestic regulations which depress demand, increase costs, or limit market or feedstock access all could negatively impact U.S. refining competitiveness. More costly environmental rules certainly fall in this category, but perhaps the biggest threat to refiners and other segments of the petroleum industry could be more restrictive trade policies. Tariffs being imposed on steel and aluminum would have a very direct and negative impact on critical capital projects in all sectors. As just one example, three-quarters of the steel used in U.S. pipelines comes from overseas due to the lack of availability of the necessary grades domestically. More impactful still could be tariffs on crude and products themselves, but the biggest threat would be the potential of an all-out trade war which leads to slowing or declining global and domestic economic growth and product demand.

New regulations and policy initiatives can also be positive for the industry and consumers. Certainly, the cut in corporate taxes has and will lead to more capital investment in every segment as more projects move above the hurdle rate. Also, as countries around the world move toward lower sulfur transportation fuels and more stringent

environmental rules, U.S. refiners who have already had to make those investments, will further their relative advantages. The International Maritime Organization mandate to decrease bunker fuel sulfur in 2020 might be the single biggest event on the horizon and while it will advantage many U.S. refiners, especially the most complex facilities, it could be a major challenge to others.

To close out my prepared remarks, let me just say that a thriving refining industry is a critical resource for any country. It provides not just major benefits to both the economy as a whole and consumers, but is also an important national security asset. Nations around the world have targeted self-sufficiency in product supply and spent billions in an attempt to achieve this goal. But it has been the U.S. whose refining system has risen to the top, not through government involvement or subsidization, but by being allowed to organically develop and grow in a true free market environment. I believe it is incumbent on policy makers to remember this and thoroughly examine the impacts on the health of this vital industry and the resulting effects on consumers in any legislation that they consider.