

**Testimony of William R. Klesse
Chairman of the Board and Chief Executive Officer
Valero Energy Corporation
San Antonio, Texas
Before the Senate Committee on
Energy and Natural Resources
U.S. Senate
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My name is Bill Klesse, I am the Chairman of the Board and CEO of Valero Energy Corporation. Valero is a Fortune 500 company based in San Antonio, Texas. We are the world's largest independent petroleum refiner, with assets that include 13 U.S. refineries with a combined throughput capacity of approximately 2.3 million barrels per day, ethanol, renewable and wind energy facilities, a network of pipelines, terminals and branded and unbranded independent wholesale customers.

The Current Environment for Refining In the U.S.

As an independent refiner, we do not explore for or produce crude oil or natural gas. Rather, we purchase crude oil, natural gas, and related feedstocks as inputs in a sophisticated manufacturing process to produce familiar refined products such as gasoline, jet and diesel fuel, and other petroleum products. Prices of these products are a result of a complex set of factors such as international markets, input prices, labor, transportation, and other costs. Independent refiners such as Valero cannot determine consumer prices. Indeed, the "invisible hand" of the market itself determines prices with supply and demand adjusting until markets clear. It is a global market as products are fungible (specifications can vary) and easily transported. Refined

products move to the highest priced areas. Over time, prices between markets can reflect unique specifications and locations, but will move to freight costs and logistics access.

The U.S. is the largest, most sophisticated market for refined petroleum products in the world with New York Harbor being a pricing point and the U.S. Gulf Coast a huge physical supply market. The modern oil and gas industry has been providing energy for Americans for nearly 150 years. During this time, the industry has proved cyclical and seasonal. No new refinery with significant operating capacity has been constructed since the 1980s, while the total number of refineries has decreased by half, overall capacity has increased from 16,859,000 barrels-per-calendar-day then to 17,823,659 barrels-per-calendar-day with an annual utilization rate of about 89 percent today.¹ As the number of U.S. refineries has declined, the operating capacity complexity of the remaining refineries has been increased to keep up with worldwide demand. Imports and exports also influence market prices and prices are very visible in the commodity exchanges around the world where anyone can buy and sell benchmark crude oil, natural gas, and refined products.

The refining industry was hit hard by the recent recession. Much of the financial news regarding U.S. refining was uniformly negative since the beginning of the recession in 2008 through last year. Rising crude oil prices, declining demand and ever-changing regulations led to weak margins for refiners, even causing several East Coast refineries to shut down.² While crude prices remain high, and demand is still down about 10% today compared to pre-recession levels, the outlook for refiners has improved significantly due to the increase in North American natural

¹ U.S. Energy Information Administration

² Oil & Gas Journal. *US Refining Outlook Rosier than it Seems*. December 3, 2012. <http://www.ogj.com/articles/print/vol-110/issue-12/processing/us-refining-outlook-rosier-than.html>

gas and crude oil production which are giving the industry competitive advantages in the global market.

Valero in particular has sought to benefit from the revolution resulting from increased domestic shale gas and oil production. Refining is energy intensive, and Valero consumes about 700 million cubic feet a day of natural gas. In fact, energy is the largest component of a refinery's variable operation costs. Additionally, natural gas liquids are an important ingredient in creating finished products from crude oil, and the current supply dynamics have reduced the costs of these feedstocks. As shale oil production has increased, larger volumes of crude oil from highly productive basins like the Bakken and Eagle Ford have replaced imports for the domestic refining industry.

The marketplace for crude oil, natural gas and refined products is global, as products can easily be produced and transported across the world. Domestic refiners, therefore, compete against international refiners as well as each other. Despite the drop in domestic demand and additional global refining capacity constantly being added, U.S. refineries have maintained high utilization rates that allow them to produce excess gasoline and diesel fuel that can be exported. This is a benefit to the U.S. economy as the jobs and value added are here in the U.S.

The important point is that any policies making it *more difficult* to refine in the U.S. are contrary to the public interest. There are things that the industry and regulators cannot control, such as the prices of crude oil, feedstocks and utilities. However, there are things, such as regulations and taxes, which regulators can control. Reducing those controllable costs will help bring consumer prices down and improve further the competitiveness of the U.S. refining industry to be able to export excess refined products.

Relationship between Refining, Consumer Price and Supply

As I noted, the process by which consumer prices for refined products, including gasoline, are set is very complex. The “invisible hand” of the market balances supply and demand in the way it does for other familiar products and commodities. The costs of production cannot be calculated by a simple equation and varies not only among companies but even within the individual process units of a single refinery. Ultimately, because of the wide range of variables affecting gasoline prices are outside of the control of a refiner, and because of the competitive and robust size of the U.S. market, refiners such as Valero are in position of being price takers rather than price makers and use linear program computer models to optimize a refinery.

It has long been recognized that the price of crude oil plays a major role in determining the cost of refined products. Crude oil represents by far the largest component of gasoline prices, and it is important to remember that crude oil prices are completely out of independent refiners’ control and are clearly set by the global market, adjusted for quality and location. Retail gasoline prices currently are composed of about 67 percent crude oil costs, 14 percent refining costs and profits, 12 percent taxes and 8 percent distribution and marketing costs and profits. Of a recent

average retail gasoline price of \$3.61 per gallon, only 50 cents can be attributed to refining, while \$2.40 would be attributed to crude. Even if refiners could somehow make fuels at absolutely no cost, and did not make any profits, gasoline would still cost well over \$3 per gallon today.

Despite the recent rise in domestic crude oil production, oil prices overall have not fallen significantly. The U.S. remains a net crude oil importer, so crude prices clearly reflect movements in the global marketplace as the prices paid must be high enough to attract the imported crude supply to America.

There are other factors affecting retail product prices, some of which can be affected by government policy.³ According to the Energy Information Administration (EIA), the wide range of factors that combine with the price of crude to set the retail price for gasoline include:⁴

Different gasoline formulations required in different parts of the country

Over the years, federal and state governments have required that refiners produce a range of specialized gasoline blends. Neutral third parties such as the Government Accountability Office (GAO) have long recognized that the rising number of required fuel blends results in a variety of additional costs for refiners that increase the retail price of gasoline.⁵ As the GAO has explained:

Many experts have concluded that the proliferation of these special gasoline blends has caused gasoline prices to rise and/or become more volatile, especially in regions such as California that use unique blends of gasoline, because the fuels

³Energy Information Administration. “Frequently Asked Questions.” <http://www.eia.gov/tools/faqs/faq.cfm?id=3&t=10>

⁴ Energy Information Administration. “Factors Affecting Gasoline Prices.” http://www.eia.gov/energyexplained/index.cfm?page=gasoline_factors_affecting_prices

⁵ GAO, *Motor Fuels: Understanding the Factors That Influence the Retail Price of Gasoline* (May 2005) <http://www.gao.gov/assets/250/246501.pdf>

have increased the complexity and costs associated with supplying gasoline to all the different markets.⁶

Transportation, distribution, and marketing costs

A major variable impacting retail gasoline prices are the costs associated with transportation and distribution of crude oil and gasoline. The product supply infrastructure involves virtually all aspects of transportation infrastructure, touching on pipelines, barges, ships, terminals, rail, trucking, and storage tanks.⁷ Permitting and siting delays connected to the construction of new pipelines and other infrastructure can drive up retail prices and make gasoline prices more volatile because of inevitable supply disruptions related to equipment problems, weather events, or other unpredictable and uncontrollable events.⁸

The specific location of individual retail outlets

Gasoline prices are highly variable based upon specific location. As the GAO has explained, “Retail gasoline prices can vary from one region of the United States to another, between and within states and cities, and even within neighborhoods.”⁹ Proximity to refineries, regulation by all levels of government, and competition in local markets all combine to have significant impacts on retail prices in ways that cannot be controlled by refiners. Most retail outlets are operated by independent business people. They set their retail price.

⁶ <http://www.gao.gov/assets/120/111642.pdf>

⁷ GAO, *Increasing Globalization of Petroleum Products Markets, Tightening Refining Demand and Supply Balance, and Other Trends Have Implications for U.S. Energy Supply, Prices, and Price Volatility*, at 2 (Dec. 20, 2007) <http://www.gao.gov/assets/280/270682.pdf>

⁸ *Id.* at 9-10.

⁹ GAO, *Motor Fuels: Understanding the Factors That Influence the Retail Price of Gasoline*. May 2005 at 36 <http://www.gao.gov/assets/250/246501.pdf>

Taxes

One of the most important variables related to retail gasoline prices are taxes imposed by federal, state and in some cases, local governments. The GAO has reported that “differences in gasoline taxes help explain why gasoline prices vary from place to place in the United States.”¹⁰

The market for non-gasoline products

Refineries cannot produce only gasoline and diesel. The refining process results in a significant portion of each barrel of crude oil becoming products other than transportation fuels.¹¹ The actual yield of refined products depends on refinery processes and type of crude processed. The production and marketing of these products, which typically sell at a gross margin loss compared with the price of crude oil, has to be offset by the sales of profitable products. While low-cost natural gas has benefited refiners operating and feedstock cost, it has also resulted in lower margins on natural gas liquids and petrochemical feedstocks that the refinery produces. However, the net benefit is positive.

Importance of the U.S. Refining Industry: *Economic Benefits*

America’s refineries are an essential part of the U.S. economy. According to a 2012 report by the American Petroleum Industry (API), the refining sector directly employs approximately 108,000 American workers throughout the country and also employs four times that many workers in support industries. These are high-paying jobs (average annual income of \$94,500), filled by highly skilled American workers across the country. New, large scale refineries, with a typical refining capacity of approximately 450,000 barrels per day, employ an

¹⁰ *Id.* at 5, 42.

¹¹ *Id.* at 1.

average of 1,500 refinery workers and 1,400 contracted employees.¹² Valero and its subsidiaries directly employ approximately 8,300 employees in the U.S.

The refining sector literally fuels America's economy. Refiners manufacture gasoline, diesel fuel, home heating oil, jet fuel, and other refined products and petrochemicals – vital inputs to almost every sector of the economy. Most people know refineries make fuels, but the refineries also provide Americans with essential products created from petrochemicals used in business and everyday life, such as plastics and polymers used in computers, medical equipment, wind turbines, solar panels, cosmetics and so much more. Refining is necessary to process and upgrade crude oil. Without refineries to process crude oil, we would be left without the basic building blocks of our national economy. Additionally, by doing this manufacturing domestically, billions of dollars flow into the U.S. economy, supporting many other American jobs and families.

The U.S. refining industry affects employment in a number of different ways. The obvious example is in the creation of construction jobs for workers and jobs at the refinery as refineries are upgraded and maintained. However, hundreds of jobs are also created during the equipment manufacturing and fabrication process. Refineries are often the major source of employment in cities throughout the nation, providing jobs for engineers, equipment specialists, operators, laboratory technicians, maintenance personnel, security officers and, administration, computer and other staff positions.¹³ The oil and natural gas industry contributed substantially to

¹² American Petroleum Industry. *Fact Sheet: Importance of a Strong Refining Industry*. February 24, 2012. <http://www.api.org/~media/Files/Oil-and-Natural-Gas/Refining/Domestic-Refining-Study-Facts-Key-Points.pdf>

¹³ Wood Mackenzie, 2011.

the nation's recovery from the recent economic downturn, accounting for 3 percent of net job creation since 2009.¹⁴

The refining industry also directly and indirectly contributes greatly to the U.S. GDP, and provides tax revenue. The income, sales, use, and property taxes paid by the industry provide much revenue to federal, state, and local governments. At state and local levels, much of this tax revenue directly benefits citizens because this money is often used for funding schools and building roads. Refineries also help the U.S. economy through their continual capital expenditures, wages, interest and dividend payments, charitable contributions and local support. Without a strong domestic refining industry, the U.S. would risk significant direct and indirect job loss, threatened economic security, and weakened global competitiveness. Valero has invested in its refineries and its people, significantly. Valero's capital spending has been one of the highest, if not the highest, in the U.S. refining industry.

The U.S. refining industry also has the ability to export products overseas, which in effect elevates the nation's status as a strong competitor in the global economy. The U.S. has gone from a net importer of petroleum products (including finished petroleum products and gasoline blending components) in 2005, to a net exporter in 2012.¹⁵ The ability to export refined products has kept marginal refineries open, ultimately benefiting consumers, our economy, workers and communities while enhancing our balance of trade.

¹⁴ American Petroleum Industry. *American Made Energy-Report to the Platform Committee*. 2012. http://www.api.org/policy-and-issues/policy-items/american-energy/~media/Files/Policy/American-Energy/American-Made-Energy_HiRes.ashx

¹⁵ American Fuel & Petrochemical Manufacturers. *Annual Report*. 2013. http://www.afpm.org/uploadedFiles/Content/About_AFPM/AFPM_2013_Annual_Report.pdf

Importance of the U.S. Refining Industry: *Energy Independence and National Security*

While Valero's locations and technology have put it in an ideal position to benefit from the increased North American oil and natural gas production, Valero is also an active participant in international crude markets – enabling it to benefit from a balanced and pragmatic portfolio of inputs. In this same spirit, we recognize the importance of the oil sands developments under way within the borders of our close ally Canada. Valero supports construction of the Keystone XL Pipeline and believes it will be in the strong energy security and economic interest of the U.S. and will bring a specific quality of crude suited for many U.S. Gulf Coast refineries to the Gulf Coast market.

Energy Efficiency and Environmental Improvements

Since 1990, the refining industry as a whole has spent over \$128 billion on environmental improvements.¹⁶ Though the industry has greatly expanded during this time, environmental emissions have decreased over the last 20 years. This decrease in emissions comes despite increasingly stringent refined product specifications, and an overall increase in refinery production of gasoline and jet and diesel fuels. Processing heavier and sour crude that have been available to the market has required more processing.¹⁷

Petroleum refining is an energy intensive industrial process, but the industry has made record improvements to lessen its environmental footprint. Environmental stewardship is a core value at Valero. As an example, we have spent approximately \$525 million to build a state-of-the-art flue-gas scrubber, one of the world's largest, at our Benicia refinery in California. This

¹⁶ Wood Mackenzie, 2011.

¹⁷ Thomas P. Nelson, “*An Examination of Historical Air Pollutant Emissions from US Petroleum Refineries*,” November 29, 2012. <http://onlinelibrary.wiley.com/doi/10.1002/ep.11713/pdf>

expenditure reduced sulfur dioxide emissions by 95 percent and nitrogen oxide emissions by 55 percent.¹⁸ Valero has also spent \$2.6 billion at its refineries on environmental upgrades that further reduced emissions during the last six years. Under a comprehensive Energy Stewardship Program, Valero refineries reduced energy consumption per barrel of throughput by 12% between 2008 and 2012 which has reduced our green house gas emissions.

The refining industry is constantly adapting to changing times and is leading the way in the development of renewable fuels, and Valero is playing an active role in this innovation. Valero acquired 10 state-of-the-art ethanol plants, which operate under our subsidiary Valero Renewable Fuels Company, LLC, making Valero the first traditional refiner to enter the ethanol production market in a significant way. Also, Diamond Alternative Energy LLC, a Valero subsidiary, produces renewable diesel fuel from recycled animal fat and used cooking oil in partnership with Darling International Inc. at a 10,000-barrel-per-day unit at the St. Charles Refinery in Louisiana that just became operational.¹⁹

Valero's environmental efforts have consistently been recognized. In 2013 Valero's McKee Refinery received the Texas Environmental Excellence Award for the company's wind farm that reduces reliance on conventional power sources.²⁰ Additionally, Valero's St. Charles Refinery was recognized by the Louisiana Department of Environmental Quality and the Louisiana Chapter of the Air and Waste Management Association for its catalytic cracker

¹⁸ Donna Beth Weilenman. *Refinery to test new scrubber*. The Benicia Herald. December 4, 2010. <http://beniciaherald.me/2010/12/04/refinery-to-test-new-scrubber/>

¹⁹ Nicolas Zeman. *Valero's Renewable Diesel Plant Nears Start-Up*. ENR Louisiana & Texas. April 22, 2013. http://texas.construction.com/texas_construction_projects/2013/0422-valero8217s-renewable-diesel-plant-nears-start-up.asp

²⁰ Texas Commission on Environmental Quality. *Texas Environmental Excellence Awards 2013*. May 2013. <http://www.tceq.texas.gov/publications/pd/020/2013-NaturalOutlook/texas-environmental-excellence-awards-2013>

conversion project that reduced overall facility air emissions and eliminated thousands of tons of waste catalyst generated annually.²¹

The Unique Dynamic of Renewable Fuels

One of the most challenging factors facing the fuels market place is the implementation of the federal Renewable Fuels Standard (RFS). As a company, Valero has met the challenge of the RFS by becoming a market leader in the production of alternative transportation fuels. We are currently the third largest corn ethanol producer in the U.S. and have recently begun the production of renewable diesel fuel, as mentioned.

Whether or not one supports alternative fuel production, policymakers are right to be concerned with the impacts on consumer gasoline prices caused by the way in which the RFS is currently implemented. As the Committee is well aware, obligated parties under the RFS, refiners and importers, but not blenders, are required to demonstrate compliance with their renewable volume obligation (RVO) through the submission of renewable identification numbers (RINs). Unfortunately, the RINs market has caused significant unintended consequences. With the original 2005 law and its volumes, RINs were necessary for flexibility and the ability to track the program. When the law was revised in 2007 and the renewable volumes greatly increased, combined now with much lower than expected gasoline demand, RINs have become a huge cost and fairness issue. Also, in the past two years, the RINs market has been beset by allegations of fraud that has questioned the Environmental Protection Agency's (EPA) ability to administer the

²¹ St. Charles Herald Guide. *Valero spends \$600 million on environment*. May 7, 2008. <http://www.heraldguides.com/details.php?id=4017>

RFS program and resulted in increased compliance costs for obligated parties—most of which are passed on to consumers.

Most importantly, as U.S. gasoline demand declined from 2007 and as the renewable fuels mandate volumes increase, some U.S. refiners – those that are large merchants and wholesale, spot sellers – find themselves in an unintended predicament of either reducing gasoline production, exporting more gasoline at discounted prices, or buying renewable fuel credits (RINs), which soon may not even be available because the market is going infeasible. If the option of buying RINs doesn't exist because none are available or because of very high pricing, the domestic supply will be reduced. It's hard to believe that when Congress passed the Energy Independence and Security Act of 2007, a possible outcome was to reduce U.S. gasoline supplies and increase gasoline prices. However, as a refiner and an ethanol producer, that is exactly the potential outcome we find ourselves in today. No one expects that U.S. gasoline demand will rebound strongly and to begin to grow again, and there are physical constraints on using higher blends of ethanol in gasoline including the lack of car warranties to approve those blends. As a result, there simply aren't enough gallons of gasoline in which to put all of the required gallons of ethanol – and that has driven the price of corn ethanol RINs from \$0.05 in late 2012 to as high as \$1.16 recently.²² Also, there is no cellulosic ethanol and advanced ethanol has to be imported.

At Valero alone, we anticipate cost increases of some \$500 to \$750 million this year just as a result of volatility in the market for RINs. Unfortunately, this cost will not add one more

²² See Mario Parker. *Gasoline Price Inflated by Ethanol in Oil Boom: Energy Markets*. Bloomberg. March 21, 2013. <http://www.bloomberg.com/news/2013-03-21/gasoline-price-inflated-by-ethanol-in-oil-boom-energy-markets.html>

gallon of fuel into the market. It is nothing more than a federally mandated cost to each gallon of transportation fuel that may be passed on to the consumer.²³ At the outset of the RFS, EPA found in its regulatory preamble that RIN's cost would be negligible. This estimate has turned out to be profoundly incorrect as the program approaches an infeasible situation, expected in 2014.

Some have suggested, including the EPA, that the refining sector should move the percentage of ethanol blended from 10 percent to as high as 15 percent, a blend called E-15. While Valero supports ethanol and is a leading producer, experts have repeatedly noted that the E-15 blend is not warranted for use by 95 percent of cars on the road today. E-15 reduces engine life and prompts fuel pump failures and consumer misfuelings. American Automobile Association (AAA) even called on EPA "to suspend the sale of E-15 until motorists are better protected."²⁴ There are also issues with boats, lawn mowers, motorcycles and other small engines. Greater reliance on higher ethanol blends is not the way to go, and would likely undermine consumer confidence in alternative fuels. Plus, we must all consider the effect corn ethanol in fuel has had on world food prices.

There is also the issue of refiners and importers – but not blenders – being obligated parties under the RFS. Thus, a very unlevel market has been created with winners and losers being picked within the same market place - in other words, who is getting the RIN value. Basically, it is a zero sum business in corn ethanol RINs.

²³ See Bradley Olson. *Drivers risk \$13B gas-price hike as ethanol charge grows*. Bloomberg. March 19, 2013. <http://fuelfix.com/blog/2013/03/19/drivers-risk-13-billion-gas-price-hike-as-ethanol-charge-grows/>

²⁴ See *AAA CEO Urges Suspension of E15 Gasoline Sales in Testimony to Congress*, AAA Public Relations. February 26, 2013. <http://newsroom.aaa.com/2013/02/aaa-ceo-urges-suspension-of-e15-gasoline-sales-in-testimony-to-congress/>

No matter what one's view on ethanol and other alternative fuels is, it is time to revisit the current implementation of the RFS in order to allow the orderly movement of renewable fuels into the fuel supply in a responsible manner that protects consumers and small businesses. The oil supply picture has changed, the basis of the original legislation has changed, the RFS should be repealed and new legislation developed.

Implications of Outages

Some observers, particularly in the West, have questioned the role of refinery outages in consumer prices. For environmental and safety reasons, it is necessary every few years to shut down an operating unit for a "turnaround."²⁵ Generally, turnarounds are scheduled for low-demand seasons with weather considered for efficient turnaround execution. Supply arrangements are made to cover for lost production, and there is currently surplus refining capacity in the United States. But unforeseen problems can complicate even the best plans, resulting in localized supply concerns. Clearly, as refineries have become larger, unplanned outages because of mechanical problems have caused increased priced volatility seen by the consumer.

The Federal Trade Commission has monitored the petroleum industry for years, including during the aftermath of Hurricane Katrina, for possible collusion and market manipulation. They found:

no evidence to suggest that refiners manipulated prices through any of these means. Instead, the evidence indicated that refiners responded to market prices by trying to produce as much higher-valued products as possible, taking into account crude oil costs

²⁵ *Managing Plant Turnarounds and Outages*. CED Engineering. at 1-2

and physical characteristics. The evidence also indicated that refiners did not reject profitable capacity expansion opportunities in order to raise prices.²⁶

The bottom line is that refiners take measures to limit the effect of unit outages on inventory and supply. These include increased production of alternate units, continued production from partially shut down units, import of alternate supply, and stockpiling of inventory leading up to a turnaround or outage. These steps are crucial to avoiding a major disruption in supply from a single outage. When there are regional shortages caused by hurricanes or other factors affecting refinery production, one area where regulators can help is by quickly providing Jones Act waivers that would increase the number of available ships, so that fuel supplies can quickly be moved from unaffected parts of the country.

Addressing Obstacles with Price Impacts

Fix the RFS

Within the context of the current RFS, it is clear that we must fix its implementation through the RINs market. Though not directly under this committee's mandate, RINs pricing is affecting gasoline prices. I applaud this Committee's attention to this issue and urge Congress to take action. As explained above, circumstances in the RINs market have changed dramatically since the mechanism was first established. Due to reduced gasoline demand, the ethanol blend wall, instances of RIN fraud, and other factors, there are not enough gallons of gasoline to blend with ethanol when marketing E-10 and E-85. This has led to higher prices and substantial uncertainty in the gasoline market. The RFS needs to be completely redone.

²⁶ *William E. Vocacic*, FTC Commissioner, p. 15

Valero has long worked cooperatively with state and federal regulators on implementation issues associated with the RFS. But now it is time to re-examine the RFS. What is the purpose of the RFS now? Remember there is no cellulosic ethanol available and what might come to market is very limited and totally uneconomic.

Develop a Reasonable Energy Exports Posture

A reasonable natural gas exports policy can maximize energy security and can protect consumer interests. But unfettered exports of natural gas and maybe someday, crude oil – raw materials to which American workers and American manufacturing can add significant value – may have significant unintended consequences and will raise costs.

Similarly, policies that increase U.S. refining costs may make us less competitive for exports. Policies that are too restrictive towards gasoline exports could undermine or even close marginally profitable refineries. The U.S. refining industry is a very efficient, but as all manufacturing, is faced with high labor and regulatory costs. Low priced natural gas offsets these costs and keeps us competitive. Valero urges a balanced and sensible approach to natural gas exports.

Enhance Domestic Energy Production

We live in extraordinary times for the U.S. energy sector. The rapid increase in production of domestic crude oil and natural gas is the most significant development that I have seen in my more than four decades in the energy business. According to the most recent figures from the EIA, oil from shale now accounts for 30 percent of total U.S. production and natural gas from shale is now responsible for 40 percent of total production.²⁷ We have turned the clock

²⁷ See *Shale-Gas Estimate Rises*, Tennille Tracy, Wall St. Journal (Jun. 10, 2013) available at: <http://online.wsj.com/article/SB10001424127887324634304578537801148740028.html>

back 20 years considering imports and production of oil and for natural gas, production is higher than it has ever been.

Like many major domestic manufacturing industries, the refining sector is energy intensive. In addition to lower operating costs from lower-priced natural gas, the availability of vast new supplies of crude oil to refineries on the U.S. coasts has made these plants more competitive. This increase in competitiveness and profitability in the refining sector ultimately benefits consumers in the form of lower gasoline and diesel prices. To jeopardize this development with burdensome one-size-fits-all federal regulations would be foolhardy and harmful to America's economy and American workers.

Establish a Predictable Regulatory Framework

Refinery operations are subject to extensive environmental regulations. Refiners are among the most regulated industry in the country, and U.S. refineries are already among the cleanest and most efficient in the world. A reasonable approach to regulation is one that both improves the environment while allowing the industry to remain competitive. A host of recent actions by EPA, referred to as the "regulatory swamp" due to the close proximity of their compliance targets and high costs, with very limited benefits, will create a highly unpredictable regulatory environment for our industry. These include:

- Proposed Tier 3 Gasoline and Diesel Standards
- Greenhouse Gas Rules and Permitting
- Finalized National Ambient Air Quality Standards (NAAQS) for Particulate Matter
- Finalized Mercury Air Toxics Rule
- Finalized Emission Standards for Boilers
- Final New Source Performance Standards (NSPS) for Oil and Gas Production
- Finalized Greenhouse Gas Standards for Cars and Light Trucks
- Final National Emissions Standards for Hazardous Air Pollutants at Petroleum Refineries

- Proposed Uniform Standards for Storage Vessels, Transfer Operations, Equipment Leaks, Closed Vent Systems, Control Devices
- Pending reconsideration to the NAAQS for NO₂, SO₂, and Ozone
- Pending NSPS and emission guidelines for refineries

Valero has estimated that its costs alone for compliance with the Proposed Tier 3 standards will be between \$300 million and \$400 million and will raise the cost of manufacturing gasoline a couple of cents per gallon. It will also increase our green house gas emissions because of the additional processing. That said, we support clean burning fuels.

In addition to EPA, other regulatory agencies and states have pursued independent regulations. For example, California's Low Carbon Fuel Standard (LCFS) and statewide cap-and-trade program were issued as part of the state's Global Warming Solutions Act. The LCFS in particular does little to achieve environmental objectives while discriminating against crude sources to the detriment of California consumers. These rules pick winners and losers among the refining industry in place of letting market forces operate as impacts reflect the individual refinery configurations and your access to specific crude oils.

Environmental laws and regulations are becoming more stringent and new environmental laws and regulations are continuously being enacted or proposed. The impact of these rules on the sector is real. One report noted:

As these regulations increase capital expenditures, and subsequently raise costs of operations they continue to pressure the economic sustainability of refinery operations, which under the current low margin environment can increase the risk of refinery closures and consequential job and economic loss. Overall, the regulations tend to create unintended consequences that duly disadvantage the US domestic refining industry relative to other refining centers of the world. The risks of this imply that companies could thus move operations to other countries with less stringent controls, increasing domestic manufacturing shutdowns, with implicit employment and tax revenue loss as opportunities are created overseas.²⁸

²⁸ Wood Mackenzie, 2011.

This is not just a hypothetical. A 2011 report by the Department of Energy found that the cumulative burden of federal regulations was a significant factor in the closure of 66 domestic petroleum refineries from 1990 to 2010.²⁹ In addition to increasing the cost of gasoline, additional regulations “may lead to additional job losses for America, weaken the U.S. economy, make America more reliant on nations in unstable parts of the world for vital fuels and petrochemicals, and ultimately endanger our national security.”³⁰

Avoid Tax Policy Changes with Unintended Consequences

Tax reform is a timely topic that is garnering increasing attention from Congress. Valero is currently subject to extensive tax liabilities, and changes to tax law and regulations will directly affect our businesses. We support reforms that will promote domestic competitiveness, investment, and job creation. This includes lower effective tax rates on manufacturers, and maintaining accounting methods like “last-in, first out” and the Section 199 deduction for manufacturing to stimulate economic activity at home. For companies like Valero that have overseas operations, we need provisions in the tax code that allow us to repatriate foreign earned income that we want to reinvest or distribute to our investors, most of whom are American. A fair tax code for domestic refiners ensures a healthy refining sector, benefitting the consumers and businesses that rely upon our products.

²⁹U.S. Department of Energy. March 2011. <http://www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/small-refinery-exempt-study.pdf>

³⁰Written Statement Of American Fuel & Petrochemical Manufacturers. United States House Of Representatives Committee On Homeland Security Subcommittee On Counterterrorism And Intelligence. “The Implications Of Refinery Closures For U.S. Homeland Security And Critical Infrastructure Safety.” March 19, 2012 <http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Drevna.pdf>

The increased crude oil and natural gas production in North America is creating huge opportunities for a U.S. manufacturing resurgence. On behalf of Valero Energy, I thank you for the opportunity to share our views.