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HIGH DIESEL FUEL PRICES

HEARING

BEFORE THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

TO

EXAMINE WHY DIESEL FUEL PRICES HAVE BEEN SO HIGH AND WHAT CAN BE DONE TO ADDRESS THE SITUATION

SEPTEMBER 23, 2008

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HIGH DIESEL FUEL PRICES

TUESDAY, SEPTEMBER 23, 2008

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 10 a.m. in room SD–366, Dirksen Senate Office Building, Hon. Jeff Bingaman, chairman, presiding.

OPENING STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM NEW MEXICO

The CHAIRMAN. Why don't we go ahead and get organized here to start the hearing? Please take a chair. Thank you for joining us at this hearing today. We knew this would be a slow time in Washington, a quiet period, so we decided this is a good time to have this hearing.

I do think the subject of the hearing is very important. The diesel fuel market and also looking some at the aftermath of Hurricanes Ike and Gustav in the Gulf Coast, the recent spike in diesel demand and prices is a sign of the increased tightness in the market. While clearly the erratic price of crude oil, which we saw go up $16 in a few hours of trading yesterday, is a major piece of what is driving the price for diesel but it's also true that there are separate influences at work in the diesel market.

Global demand for diesel has surged while demand for gasoline has declined. Meanwhile, the recent hurricanes are highlighting how little cushion we have in our supply system. As the refineries work toward restoring full operational capacity, there simply is not enough oil flowing in the Gulf Coast to completely fill the pipelines.

While diesel market tightness is a long-term systemic issue, and recovering from the hurricanes is a short-time emergency, both of them offer an opportunity to reconsider the appropriateness of the policies that we currently have in place.

I know that some of my colleagues are strong advocates for increased use of diesel fuel in our passenger fleet. I share their enthusiasm for the increased fuel efficiency afforded by diesel engines but I believe there's a suite of issues that need to be better understood if we're to consider shifting United States energy policy in this direction. We need to better understand, first and foremost, whether we have enough diesel fuel available to support this kind of increased consumption. The recent price surge certainly seems to suggest that the world does not have any diesel fuel to spare.

We also need to consider whether diesel fuel really emits fewer greenhouse gas emissions than gasoline on a wheels-to-wheels or wells-to-wheels basis. While it's clear that fewer greenhouse gases are emitted from the tail pipes of diesel cars, those greenhouse gas savings may be offset by increased emissions from the refineries that make the fuel.

Finally, we need to understand the costs associated with making diesel fuel clean enough to meet our local air pollution requirements because emissions of some local pollutants are higher with diesel fuel than with gasoline.

I think it's also important to know how the restoration efforts are progressing in the Gulf as we hear stories of fuel stations in the Southeast running out of fuel. We need to understand whether the situation is expected to improve in the near future or whether we need to expect further supply problems to work their way through the system.

With refineries still out of power more than a week after Hurricane Ike, it seems our emergency response policy which relies completely on crude oil stored in the Gulf Coast is not well suited to meeting the ongoing threat of hurricane-related supply disruptions.

While this is a topic that deserves a more full discussion than we're able to give it today, I thought it would be useful to suggest that we should think of the current disruption in the context of what policy measures could be taken to prevent recurrences of these kinds of disruptions.

I thank the witnesses for being here. I'm sorry that our fifth witness from the National Electrical Manufacturers Association was unable to join us to discuss the connection between diesel fuel, the diesel fuel market and global electricity. Nevertheless, I do look forward to a good discussion on these interrelated topics.

Before I introduce the witnesses, let me call on Senator Sessions for any opening statement he would like to make.

[The prepared statement of Senator Domenici follows:]

PREPARED STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM NEW MEXICO

Senator Bingaman, thank you for holding this hearing and I want to thank the witnesses for joining us this morning.

In the past year we have seen gas prices climb to record levels. We are all aware of the difficulties those prices are causing for American families. Unfortunately, Congress has not taken action on the matter, outside of suspending oil deliveries to our strategic reserve. While I believe that time has run out to reach a bipartisan agreement on comprehensive legislation this year, I hope that the next Congress will meet our enormous energy challenge with solutions that are big enough to resolve it.

As we have heard so much about the cost of gasoline, the price of diesel has undergone an even larger price spike. Over the last few months while gasoline rose to $4.11 per gallon, diesel soared above $4.80 per gallon. These added expenses have made their way into every aspect of our economy and it is clear that something must be done to reverse course.

What is equally clear is the cause: global demand has increased significantly and supply has not kept pace. In the meantime, our country has become increasingly reliant upon foreign nations for our energy supplies. As proud as I am of this Committee's recent accomplishments, much bolder action is needed to reverse this trend.

Today we will hear about a 200 thousand barrel per day expansion at a refinery in China. We will hear about a 600 thousand barrel per day facility opening in India. For our part, the United States' most significant change to the diesel supply has been a reduction in its sulfur content. This action was important, and will result

in a great deal of environmental benefit, but it cost money and did not increase supply. After more than 30 years without a new refinery built in this country, it is time to seek a more balanced approach to our energy policy.

I look forward to hearing from the witnesses about actions that can be taken to reduce the price of diesel, make better use of it, and continue to build on the progress that we have made in developing our nation's energy policy. It is my hope that our conversation today will inform a larger debate going forward, and I'll have some questions for the witnesses on what solutions they propose after we have heard their testimony.

Thank you.

STATEMENT OF HON. JEFF SESSIONS, U.S. SENATOR FROM ALABAMA

Senator SESSIONS. Thank you, Mr. Chairman, for having this hearing. It's something you and I have talked about previously on several times, and it deals with questions that I am interested in, have discussed at some length with staff and actually done some research into this question.

I believe it's Popular Mechanics that compared, I believe, a Volkswagen diesel engine to a Toyota Prius and concluded that not only was it comparable in mileage but got a good bit better mileage than the Hybrid Prius and emitted less global warming gases, and we know 50 percent of the automobiles in Europe are diesels and if we're getting that much better mileage and reducing CO_2 emissions, the question I have is why aren't we using more diesel automobiles, and what are the factors that are causing this?

One of the questions I'd like to ask—and I have a vague recollection that maybe a decade or so ago, some understanding may have been reached when the Americans were not happy with diesel, they thought it was dirty, were unaware of the new high-tech low-sulfur fuels, the high- tech engines that are so, so much cleaner today than they used to be.

I've seen a Mercedes plant in Alabama, their Blue Tech Diesel, and the tail pipe is clean. You can put your finger in it and it's clean. It's not like the old black diesel pipes. So we've made some great steps forward.

So I guess my question is how did we get into this circumstance? Are the Europeans smarter than the Americans? Do we need to—when we incentivize a hybrid automobile substantially, do we have no incentive for diesel? We know that diesel fuel is taxed at 24 cents a gallon whereas gasoline is at 18 cents a gallon. So we've got actually a disincentive for diesel.

So to me, progress is progress. We certainly have a better understanding that a diesel engine—we have more confidence that it has a long lifetime of performance. We have less confidence about that in some of the battery- powered engines.

So I'm not against the hybrids. I'm all for the hybrids. I've supported that and I look for all kind of alternatives, but I thank you, Mr. Chairman. I repeat again what I've said before. You are having hearing after hearing on issues that are important to helping America decide how to handle this energy question, and I thank you particularly for having this one. I think it's an important issue.

The CHAIRMAN. Thank you very much. Let me just introduce our witnesses here.

Dr. Howard Gruenspecht is the Acting Administrator of the Energy Information Administration. He's a frequent witness before our committee. We appreciate him coming back.

Mr. Gregory Scott is the Executive Vice President for the National Petroleum and Refiners Association.

Ms. Barbara Windsor is the President and CEO of Hahn Transportation, out of New Market, Maryland. Thank you for being here.

Our former colleague, Dave McCurdy. We're very honored to have him here. He's President and CEO of the Alliance of Automobile Manufacturers.

Why don't each of you take about 6 minutes and give us the main points you think we need to understand about this set of issues and then I'm sure both Senator Sessions and I will have some questions.

Dr. Gruenspecht.

STATEMENT OF HOWARD GRUENSPECHT, ACTING ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION

Mr. GRUENSPECHT. Chairman Bingaman, Senator Sessions, I appreciate the opportunity to appear before you today to discuss the market for diesel fuel.

The Energy Information Administration is the independent statistical and analytical agency within the Department of Energy. We don't promote, formulate or take positions on policy issues and our views should not be construed as representing those of the Department of Energy or the Administration.

Prices for crude oil, gasoline and diesel fuel all set new records this year. While rising crude oil prices were the primary driver of record product prices, diesel prices rose much more than gasoline prices. The peak price of diesel in mid-July was $1.88 higher than the year-earlier level while the peak price of gasoline in early July was $1.13 higher than the year earlier level.

The diesel crack spread, the difference between the crude oil price and the wholesale price of diesel, averaged 75 cents a gallon over the January through July 2008 period, substantially above the comparable year ago period. In contrast, the gasoline crack spread over January through July 2008 declined compared to the comparable year-ago period.

In the first half of 2008, we experienced abundant gasoline supplies, relatively weak demand, and increased use of ethanol, all of which contributed to reduced gasoline margins. Since gasoline accounts for nearly half the output of a typical United States refinery, refiners responded to the lower margins by pulling back on refinery utilization, measured as input to the refinery divided by capacity. This year, utilization through July has been about 6 percentage points lower than normal.

Turning to distillate—that's both heating oil and diesel fuel—prices in the United States this year reflected tight world markets, not just the United States supply demand balance. World diesel demand growth is coming from increasing use, particularly in developing countries. Also, several unusual circumstances, including a severe drought in Chile that reduced its hydropower generation, earthquakes and disruptions of coal supply in China, and power

shortages in South Africa, all increased the demand for diesel fuel generation, pushing up the price of diesel worldwide.

Higher diesel crack spreads encouraged refiners to increase the yield of diesel in their output product streams. While yield changes are limited by both refinery equipment and crude oil characteristics in the near term, even small shifts in yields can lead to significant changes in volumes and diesel output is actually up over last year, despite lower refinery utilization rates.

The United States has been exporting more diesel than usual. For example, Europe imported about three times as much U.S.-origin diesel in the first half of this year compared to 2007 and Latin America imported more U.S.-origin diesel this year as well, about twice as much as it imported in the comparable period in 2007.

Before the recent hurricanes, product prices had declined from their peaks in July, mainly due to a decline in the price of crude oil. The worldwide diesel supply demand balance has also eased somewhat and will likely continue to improve as China and India expand refinery capacity and demand in Latin America abates with the end of their winter season.

Turning to our domestic situation, while the hurricane damage was less then feared, refineries have been slow to return to operation due to lack of power. Significant amounts of refinery production were lost and, with refineries unable to fill pipelines that move product to the Midwest and the East Coast, inventories have been dropping and spot shortages, mainly of gasoline, are occurring, even with imports increasing to help fill the gap.

Diesel supplies are in somewhat better shape. EIA's petroleum data for the week of September 12 through September 19, which are being collected yesterday and today and will be issued tomorrow, are likely to show low refinery runs and continued declines in product inventories. These data, though, are a lagging indicator of a situation that is improving, as indicated in yesterday's retail price data. Prices are coming down even in the affected regions.

Our most recent short-term energy outlook released before Hurricane Ike hit on September 9 forecasts WTI crude oil prices at $120 per barrel in the fourth quarter, with residential heating prices averaging $4.06 per gallon and diesel at 4.11 per gallon.

Recently, crude oil markets have weakened and then fluctuated amid concerns about demand declines in the United States and economic slowdown throughout the world. If crude oil were to be $10 lower than we had projected, that would translate into about a 25 cent lower price for products.

Shifting to a longer-term view, we expect world markets to keep pressure on the distillate fuels balance and prices. As discussed by Senator Sessions, Europe is continuing to shift more of its light-duty vehicles to diesel, in addition to growth for heavy-duty vehicles.

In the United States, we expect a shift in demand from gasoline to diesel, due to greater use of renewable fuels displacing petroleum-based gasoline and increased use of diesel to meet the fuel economy standards enacted in last year's Energy Independence and Security Act. As a result, our reference case projections show a decline in United States petroleum-based gasoline demand through 2022 but a 12 percent increase in diesel.

So, in addition to the operating changes to boost yields described above, some refiners are investing in hydro-cracking units and other equipment to increase their ability to make additional diesel fuel. The prices will likely continue to fluctuate, for both diesel and gasoline. However, in future years, we expect diesel to remain at a premium to gasoline more often than it has in the past.

This completes my testimony and I would be glad to answer any questions you would have.

[The prepared statement of Mr. Gruenspecht follows:]

PREPARED STATEMENT OF HOWARD GRUENSPECHT, ACTING ADMINISTRATOR, ENERGY INFORMATION ADMINISTRATION

Mr. Chairman and Members of the Committee, I appreciate the opportunity to appear before you today to discuss the distillate fuel market and this year's distillate fuel prices.

The Energy Information Administration (EIA) is the independent statistical and analytical agency within the Department of Energy that is responsible for producing objective, timely, and relevant data, projections, and analyses that are meant to assist policymakers, help markets function efficiently, and inform the public. We do not promote, formulate, or take positions on policy issues and our views should not be construed as representing those of the Department of Energy or the Administration.

PRE-HURRICANE DIESEL AND GASOLINE MARKET OVERVIEW

Prices for crude oil, gasoline and diesel set new records in 2008. After rising above $4 per gallon in June, the national average regular gasoline price in EIA's weekly price survey peaked at just over $4.11 on July 7, about $1.13 higher than at the same time last year. Diesel prices experienced an even greater increase this year. Having passed the $4 per gallon mark in April, U.S. diesel prices peaked at $4.76 on July 14, $1.88 higher than the same time in 2007.

While crude oil and product prices were setting new records in the first 7 months of 2008, the markets for gasoline and distillate fuels (diesel and heating oil) exhibited very different behavior. Both gasoline and distillate prices were pushed up by record crude oil prices, but gasoline prices did not rise as much as crude oil prices, while distillate prices rose more than crude oil prices, as illustrated in Figure 1.* (Note that both heating oil and diesel prices tend to move together since they are similar products, derived from the same boiling range material from crude oil.

Figure 1 displays the basic components of average gasoline and diesel prices during the first 7 months of this year in relation to their values for the comparable 2007 period. For example, diesel prices averaged $4.07 per gallon from the beginning of this year through July. Crude oil, the feedstock for gasoline and diesel, averaged $2.56 per gallon. Refiners processed the crude oil and received an average of $3.31 per gallon, providing 75 cents per gallon of diesel fuel above crude oil costs to cover refining costs and profits. Pipelines, terminal operators, distributors and retailers received about 29 cents per gallon to store and move the product to retail stations, and taxes accounted for about 47 cents per gallon. Separating product prices into these components helps to explain different elements of the petroleum market, but the relationship between crude oil and product prices can be a two-way street. For example, strong demand for distillate products is one factor that can add pressure to crude oil prices.

Figure 1 shows that higher crude oil prices accounted for about $1.14 of the per-gallon increase in the January-July gasoline and diesel prices over their levels in the comparable 2007 period. Figure 1 also shows that average prices at the wholesale level were higher for diesel than for gasoline. During the first 7 months of 2007, the diesel price spread (the difference between wholesale diesel and crude oil prices) averaged about the same as the gasoline spread, but, in 2008, the average diesel price spread expanded significantly over 2007, while the average gasoline spread narrowed. The combination of abundant gasoline supply and relatively weak demand depressed gasoline margins this year. With gasoline accounting for nearly half the output volume of a typical U.S. refinery, refiners in the United States responded by pulling back on crude oil inputs. At the same time, world distillate (diesel and heating oil) markets tightened, affecting U.S. diesel and heating oil prices. Although

* Figures 1–4 have been retained in committee files.

refinery utilization dropped in 2008 as a result of the gasoline market weakness, higher diesel margins led refiners to increase refinery distillate yields (the ratio of distillate output to crude oil input), allowing for increased distillate production in spite of the decline in crude oil inputs.

Figure 2, which shows the crack spreads (spot product price minus spot West Texas Intermediate (WTI) crude oil price) for gasoline and low-sulfur distillate, details the different price paths for these two products relative to crude oil. Abundant gasoline supplies, as evidenced by very high inventories early in March 2008, drove the gasoline crack spread to low levels, creating incentives for refiners to reduce production. Gasoline crack spreads were relatively weak through July and into August, typically the peak gasoline demand periods. They did, however, increase towards the end of August before hurricanes Gustav and Ike. At the same time, wholesale (i.e., spot) distillate prices were very high relative to crude oil, keeping diesel and heating oil prices above that of gasoline though the summer months. Yet, distillate inventories in the United States were generally not particularly low (Figure 3), indicating adequate U.S. supply.

The price of distillate prior to the hurricanes appeared to reflect tight world distillate markets this year, not just the U.S. supply/demand balance. World diesel demand growth is coming both from increasing transportation use and increasing use of distillate as a fuel for electricity generation, particularly in developing countries where electricity demand is outstripping generating capability. Generally, oil product demand in the non-OECD countries, where oil demand is growing fastest, is more heavily weighted towards distillate than is product demand in the U.S. On top of this trend, several unusual circumstances were boosting distillate demand further. Chile has been experiencing both a severe drought that reduced its hydropower generation and reduced imports of natural gas from Argentina. This, in turn, caused Chile to turn to more diesel fuel for electricity generation. As a result of these problems, Chile's diesel imports are expected to increase 5 to 10 percent in 2008 over 2007. China's demand for diesel also continued to increase as it turned to diesel-powered generators to combat shortages, stemming in part from recent earthquake-related disruptions of coal and natural gas supplies, and to provide adequate electricity for the Olympic Games this summer. South African mining companies are turning to diesel generators to deal with a power crisis in that part of the world. Even Europe experienced some very tight supplies of ultra-low sulfur diesel this past fall and this year. This very tight international situation has been pushing up the price for diesel worldwide, including in the United States.

As a result of strong international diesel demand, the United States has exported more diesel than is typical, as shown in Figure 4. Both Europe and Latin America purchased unusually high volumes from the United States. Europe imported 119 thousand barrels per day from the United States during the first half of 2008, compared to 37 thousand barrels per day in the first half of 2007. At the same time, Latin America imported a record volume of distillate from the United States: 302 thousand barrels per day compared to 147 thousand barrels per day in the first half of 2007.

Prior to the recent hurricanes, product prices had declined from their peak July levels, mainly as a result of the decline in the price of crude oil. In addition, the supply-demand balance in the diesel market had eased, and is expected to ease further through the end of the year for several reasons. Specifically, the regional diesel balance in Asia is expected to improve due to the recent start of China's 200-thousand-barrel-per-day refinery expansion at Qingdao and the planned start later this year of the 600-thousand-barrel-per-day refinery at Jamnagar in India. Latin America's problems may ease a bit as their winter season ends, particularly if Chile sees some drought relief.

REFINERY RESPONSE TO WEAK GASOLINE AND STRONG DIESEL PRICES

Refiners typically modify their output of a product either by adjusting the inputs to the refinery, which affects the output of all products, or by adjusting the yield or fraction of a product produced from a barrel of crude oil. Both types of adjustments have been made by refiners in 2008 to meet the market conditions.

Normally, refinery utilization (refinery inputs divided by capacity) varies seasonally with demand and maintenance outages. Utilization generally is highest during the summer months of May through August, where the industry frequently averages about 95 percent utilization. In the winter months of January through March, utilization frequently averages closer to 89 percent.

This year, with wholesale gasoline prices sometimes below the price of crude oil, increased use of ethanol, and plenty of inventory volumes to supply the market, refiners pulled back both on refinery utilization and on gasoline yields. Refinery utili-

zation averaged 86.6 percent for January through July 2008, which is 5.6 percent lower than typical January through July utilizations seen before 2006, when damage following the hurricanes in 2005 affected utilization patterns.

Despite the reduction in refinery utilization rates in 2008, distillate production has been high due to yield adjustments. While the extent of changes in the product mix is limited in the short term by the equipment available at each refinery, even small yield shifts among products can still produce a significant swing in volumes. For example, if refinery inputs are at 15.4 million barrels per day, a one-percentage point change in yield represents a 154,000-barrels-per-day change in product volume. This year, many refiners made operating changes to increase the amount of distillate produced for each barrel of crude oil that they ran.

During early spring, refiners typically begin to adjust yields to maximize gasoline production. However, because of the much higher crack spreads for diesel fuel this year, this shift did not occur. Furthermore, preliminary data indicate distillate yields have been near or above historical highs for many months this year. At the extreme, data for the months of April and May indicated some refineries have been able to increase distillate yields as much as 10 percentage points over last year while decreasing gasoline yields a similar amount.

LOOKING AHEAD—SHORT-TERM

The recent hurricanes have changed the market substantially. Although structural damage to refineries, pipelines, and platforms was less than had been feared, the lost production and the time required for system restart has put gasoline in short supply, and may somewhat delay the typical winter inventory build of distillate products, adding to gasoline, diesel and heating oil prices. In the week following Hurricane Ike, gasoline prices in EIA's weekly price survey rose substantially, particularly in the South Atlantic region (Petroleum Administration for Defense District , or PADD, 1c), the Midwest (PADD 2) and the Gulf Coast (PADD 3). Diesel prices did not show similar impacts—in fact, diesel prices fell on a national average basis, in all but one region. Information regarding the timing of the recovery from hurricane-related shutdowns of refining and oil and natural gas production is changing on a daily basis.

Recently, crude oil prices fell below $100 for the first time since early March. Perceptions have shifted from worries about having enough supply to meet demand to worries about demand significantly falling in the U.S. and spreading to other parts of the global economy. Additionally, some sizeable volumes of non-Organization of the Petroleum Exporting Countries (OPEC) production, such as in Brazil and Azerbaijan, recently came online, leading to an improved perception regarding non-OPEC supply growth for the second half of 2008 in comparison to the first half of the year.

EIA's most recent monthly Short Term Energy Outlook, published September 9 before Hurricane Ike and before additional signs of slowing global economic activity, forecast crude oil markets tightening further with WTI price averaging about $120 during the fourth quarter. Under these conditions, residential heating oil would average about $4.07 and diesel $4.11 per gallon under normal winter weather conditions. If, on the other hand, crude oil averages something closer to $100, these estimated prices could be reduced by as much as 50 cents per gallon. We will be looking closely at these uncertainties in our next Outlook.

LOOKING AHEAD—LONGER TERM

While we expect some near-term easing in the global distillate balance relative to conditions experienced in the first half of 2008, there is a long-term underlying trend that will continue to keep pressure on distillate fuel. Distillate fuel consumption has been growing at a higher percentage rate worldwide than gasoline for many years. Europe has been a primary factor in this shift. In response to concerns about energy efficiency and greenhouse gases, Europe has been shifting its light-duty vehicle fleet to more diesel-fueled vehicles—on top of the increases in diesel fuel used in commercial heavy-duty vehicles. The net result is that Europe consumes more distillate than gasoline, and distillate fuel use is growing while gasoline use is declining.

Looking ahead at U.S. demand over the next 15 years, EIA also expects a significant shift in demand from petroleum-based gasoline to distillates. The Energy Independence and Security Act (EISA) of 2007 substantially increased the renewable fuel mandate that was first established in the Energy Policy Act of 2005 and also significantly increased corporate average fuel economy standards for light-duty vehicles. More use of renewable fuels, primarily ethanol, will displace petroleum-based gasoline, as will higher fuel economy standards. In addition, vehicle manufacturers

are expected to produce more diesel vehicles as part of their strategy to comply with tougher fuel economy standards. While the shift towards diesel is likely to be smaller than the one Europe has seen, U.S. refiners will be facing a significant change in refinery product mix that will impact investments.

In the 15-year period from 2007 to 2022, the increased use of ethanol and increased light-duty vehicle efficiency standards projected in our 2008 Annual Energy Outlook reference case is expected to result in a decline in the demand for petroleum-based gasoline of about 610 thousand barrels per day (7 percent). However, continued growth in heavy-duty vehicle use of diesel over the same period is projected to push up distillate demand by about 690 thousand barrels per day (12 percent). As discussed in the Annual Energy Outlook 2008, EIA expects that a significant portion of the EISA mandate for cellulosic fuels could be met using a biomass-to-liquids (BTL) technology to produce a renewables-based diesel fuel from biomass.

Refiners are responding to the changing demand outlook and high distillate margins with short-term operating changes to increase distillate yields over gasoline. In addition, some refiners are installing hydrocracking units, which are designed to take heavy material from the crude tower and make distillate fuel. With additional operating changes and with the new hydrocracking capacity being planned, U.S. refiners might not need to do much more to satisfy U.S. distillate needs, although we are continuing to monitor and analyze this issue.

In summary, since hurricanes Rita and Katrina in 2005, we have seen continued strength in distillate prices relative to gasoline, buoyed by the continued world demand growth for this fuel. While diesel prices will probably fluctuate above and below gasoline prices from time to time, they may well remain at a premium to gasoline much more often in the future than they have historically.

This concludes my statement, Mr. Chairman, and I will be happy to answer any questions you and the other Members may have.

The CHAIRMAN. Thank you very much.

Mr. Scott.

STATEMENT OF GREGORY M. SCOTT, EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, NATIONAL PETROCHEMICAL AND REFINERS ASSOCIATION

Mr. SCOTT. Thank you, Mr. Chairman. My name is Greg Scott. I am here representing the National Petrochemical & Refiners Association today.

NPRA is a national trade association with nearly 500 members, including companies that operate and own virtually all of the United States refining capacity as well as most of the Nation's petrochemical manufacturers.

I am grateful for the opportunity to appear at this hearing.

There is no one answer to the question of why diesel fuel prices are so high. However, there are a number of factors that contribute to the current situation. First and foremost is the current high price of the crude oil from which diesel fuel is derived.

As you can see by examining Chart 1, which my human assistant is helping me with, there's a strong correlation between the price of crude oil and the price of diesel fuel. This shouldn't be a surprising thing, given the fact that crude oil costs make up over 65 percent of the price of diesel fuel. Refiner marketer transportation margins and Federal and State taxes make up the rest of the price.

Second, like gasoline, diesel is a commodity product and therefore susceptible to the simple rules of supply and demand.

Third, despite continuing domestic refinery expansions, the reality is that current United States refining capacity struggles every day and every month to meet high domestic demand for the full range of petroleum products, including gasoline and diesel.

Finally, the United States refining industry has invested billions of dollars over the last several years to successfully implement the

first portions of EPA's Ultra Low Sulfur Diesel Program or ULSD Program.

This program has reduced sulfur levels in highway diesel fuel significantly which is a great achievement. However, ULSD is significantly more expensive to manufacture than traditional diesel fuel. In addition, the strict sulfur limits of the ULSD Program result in the diversion of some higher sulfur distillate products, products that previously were used to make highway diesel, into other fuel streams, such as offroad diesel and home heating oil.

The relative amounts of gasoline and diesel fuel produced at a refinery is essentially fixed by the configuration of the refinery's process units. An individual refinery's ability to vary gasoline and diesel production, for example to increase diesel fuel production when demand is high, is constrained by its existing hardware. Refiners can and do make changes to their product slate and many have already done so this year in response to the market's high diesel demands.

However, it is not simply a matter of throwing a switch or turning some knobs on the refinery. As you can see in Chart 2, the average ratio of gasoline production to diesel fuel production has been trending downward for the last several years and just to interpret that chart, as that line trends down, we are making more diesel compared to gasoline out of the average refinery.

Clearly, domestic refineries are squeezing the maximum gallons of diesel out of their equipment. In fact, diesel fuel production is expected to be about 10 percent higher in 2008 than it was last year in 2007.

The CHAIRMAN. Let me just ask on that chart.

Mr. SCOTT. Yes, sir.

The CHAIRMAN. Since, as I understand it, when the line goes down, you're producing more diesel relative to gasoline.

Mr. SCOTT. That's correct.

The CHAIRMAN. When it goes up, you're producing less.

Mr. SCOTT. In my written testimony, we go through a fairly detailed example of about 42 barrels of crude oil, what's the yield of different products, and it's normally, in general, about 20 gallons of gasoline and about 10 gallons of diesel fuel, 2:1. As the markets signal more gas is needed, that line will tend to trend upwards. As it's currently signaling more diesel is needed, that line's going to trend downward.

The CHAIRMAN. Why has it been going up since—I can't tell what the date is there at the bottom.

Mr. SCOTT. From July through August——

The CHAIRMAN. Yes.

Mr. SCOTT [continuing]. It has been going back up. You know, I am guessing it is probably a result of the summer driving season and summer gasoline demand and also the need to, at some point, start building winter diesel fuel stocks.

The CHAIRMAN. OK.

Mr. SCOTT. My colleagues at EIA have reported the national days of supply for distillate fuel oil, in essence th diesel inventories, were at 32.1 gallons on September 12 of this year. This time last year, inventories were about 32.8 days of supply on hand. Both of

these inventory numbers are at the high end of the historical inventory band for diesel fuel.

Comparing these year-to-year inventory numbers indicates there is no current drastic shortage of distillate fuel oil in the United States. As long as inventories are strong, the markets are signaling that current supplies are adequate for the current demand.

Increasing demand for diesel in the United States and globally has shown little elasticity in the face of higher crude oil and petroleum product pricing. While higher crude oil prices and the resulting higher gasoline prices have led to reductions in domestic gasoline demand, as Dr. Gruenspecht indicated, such demand reductions in diesel have not occurred to date.

Today, there are a 150 United States refineries owned by approximately 60 companies with aggregate crude oil processing capability of 18 million barrels per calendar day. That compares to 15.2 million barrels per calendar day in 1996. That growth of 2.8 million barrels per day of capacity is equivalent to building a new refinery every year for 12 consecutive years.

Despite the significant increases in refinery capacity, the United States still does not possess significant capacity or sufficient capacity to satisfy all domestic fuel demand. If we collectively look at the future, there are strategies that can be pursued to address these issues in the years ahead.

At a time when diesel prices are high, with adequate supplies, refineries need more, not less, legislative and regulatory certainty. In order to make current and future investment decisions, refiners must know what the regulatory and tax policy landscape will look like in 5 or 10 years. If Congress fails to fully consider the fuel supply impacts of legislation and implementing regulations, then the current situation will not improve.

In our opinion, Congress should make increasing the nation's supply of oil, oil products and natural gas, a Number 1 public policy priority. We can start to achieve this goal by allowing the moratorium on the OCS oil and gas exploration to expire at the end of this month.

Congress also in our opinion should encourage continued domestic refining capacity expansion by extending and expanding the refinery expensing provision in Section 1323 of EPACT 2005.

NPRA was pleased to see that the Senate Finance Committee included such a provision in its new energy tax package which the Senate will consider later this week, but we were disappointed to see that the benefits of this expensing provision would be overwhelmed and even contradicted by the punitive tax increases on domestic oil companies also contained within that bill.

NPRA and its members stand ready to work with Congress to ensure a stable and effective fuels policy. Such a policy must encourage the development of a diversity of resources to improve our national security, assist consumers and protect our environment.

I appreciate this opportunity to testify and welcome your questions.

[The prepared statement of Mr. Scott follows:]

PREPARED STATEMENT OF GREGORY M. SCOTT, EXECUTIVE VICE PRESIDENT AND GENERAL COUNSEL, NATIONAL PETROCHEMICAL AND REFINERS ASSOCIATION

I. INTRODUCTION

Chairman Bingaman, Ranking Member Domenici, and members of the committee, I am Greg Scott, Executive Vice President and General Counsel of NPRA, the National Petrochemical and Refiners Association. NPRA is a national trade association with nearly 500 members, including those who own or operate virtually all U.S. refining capacity, as well as most of the nation's petrochemical manufacturers who supply "building block" chemicals necessary to produce products ranging from pharmaceuticals to fertilizer to Kevlar. I am grateful for the opportunity to share our views on why diesel prices have been so high, and what can be done to address the situation.

There are a number of factors that contribute to the current high price of diesel. First and foremost is the high price of the crude oil from which diesel fuel is derived. Second, like gasoline, diesel is a commodity product and therefore susceptible to the basic economic rules of supply and demand. Domestic and global demand for diesel remains very high and, unlike gasoline, diesel demand has not moderated in the face of increased prices. Third, despite continued past and current domestic refinery expansions, current U.S. refining capacity continues to struggle to meet high domestic demand for the full range of petroleum products. Finally, the U.S. refinery industry has made significant investments over the past decade to successfully implement the first portions of the Environmental Protection Agency's Ultra Low Sulfur Diesel, or ULSD, program. While the ULSD Program has resulted in significant reductions in the sulfur levels in highway diesel fuel, ULSD is both more expensive to make and results in the diversion of some higher sulfur distillate fractions—fractions that in the past were used to make highway diesel fuel—into other fuel streams such as off-road diesel fuel and home heating oil.

I will address each of these factors in more detail below and then provide NPRA's views on what can be done to address the situation.

II. BACKGROUND—REFINING 101

It may be helpful for members of the Committee to have some basic background on the chemistry and mechanics of oil refining. Such a framework will make it easier to answer the questions posed by this hearing.

No two refineries are identical. The choice of processes and refinery equipment is based on crude oil type, product demand, and product quality requirements. Refineries process crude oil to produce many different types of petroleum products. Besides gasoline and diesel fuel, refineries also produce jet fuel, residual fuel oil, asphalt, lubricants, petrochemical feedstocks (i.e., ethylene, propane, propylene, naphtha, and gas oil), and other miscellaneous products. Crude oil, the basic feedstock, is not a homogenous substance. It varies widely in color, gravity, viscosity, sulfur content, metals content and other characteristics. There are hundreds of crude oils available throughout the world. Crude oil types include sweet (low sulfur), sour (high sulfur), heavy (high specific gravity), light (low specific gravity), paraffinic, naphthenic, and intermediate (somewhere in between paraffinic-and naphthenic-type).

A refinery is really nothing more than a complex, large-scale chemistry set with four basic processes: distillation, hydrocleaning, cracking, and blending. Refining separates the many compounds present in crude oil by boiling it at different temperatures. The chemistry of hydrocarbons is the principle used in this process—the longer the carbon chain, the higher the temperature at which the compounds will boil. Generally, crude oil is heated and changed into a gas. The hot gases are passed into the bottom of a distillation column and become cooler as they move up the height of the column. As the gases cool below their boiling point, they condense into a liquid. The liquids are then drawn off the distilling column at specific heights, ranging from heavy residues at the bottom, raw diesel fuels in the mid-sections, and raw gasoline at the top. These raw fractions are then processed further to make several different finished products.

The simplest refineries consist of crude and vacuum distillation, reforming and some hydrotreating capacity. The next level of complexity adds catalytic cracking and some additional hydrotreating. The most complex refineries include coking, more hydrotreating and hydrocracking. Additional processes yield the petrochemicals that serve as the building blocks for everything from cleaning agents to cosmetics, clothing, medicines and plastics.

Gasoline is the largest volume petroleum product manufactured by our nation's domestic refineries (8.4 million barrels/day in 2007), accounting for nearly half of

U.S. petroleum product production. Distillate fuel oil (which includes highway and off-road diesel plus home heating oil) accounts for the second largest petroleum product (4.1 million b/d at U.S. refineries in 2007). EPA reports that diesel fuel oil is produced at 136 continental U.S. refineries.[1]

Diesel fuel is a mixture of hydrocarbons for use as a heavy-duty truck (compression ignition engine) fuel. Key properties include aromatics content, cetane number/index, distillation temperatures, and sulfur content. To be used in the United States, diesel fuel must meet both EPA and ASTM specifications (ASTM D-975 (Standard Specification for Diesel Fuel Oils) and 40 CFR Part 80 and 40 CFR Section 69.51) . Distillate fuel oil is produced from hydrocarbons that are heavier than gasoline and lighter than lubricants. Therefore, a large fraction of a barrel of crude oil does not contain hydrocarbons that are suitable as components of distillate fuel oil. Simply put, a barrel of crude cannot be used to make only gasoline or diesel, but instead makes a variety of petroleum products.

It is important to understand this last point. A barrel of crude oil is 42 gallons. From a barrel of crude, a "typical" domestic refinery can produce approximately 10 gallons of diesel fuel, 20 gallons of gasoline, 4 gallons of jet fuel, and 6 gallons of other products, including LPG, fuel oil, lubricants, coke and asphalt.[2] The precise volume of each product derived from a barrel of crude depends on many factors, including the chemical characteristics of the crude, the technology available at the individual refinery to distill and process the crude's fractions, market demands, and the regulatory standards a fuel must meet.

Thus, while most refineries have some flexibility to alter their production from a single barrel of crude oil between gasoline, diesel fuel and other petroleum products, this flexibility is very limited and is constrained by the basic chemistry of petroleum products, the equipment at the individual refinery, and the technologies of the engines in which these products are to be used. For example, if the markets are signaling that diesel fuel is in high demand, some refineries might be able, to a modest degree, to increase diesel fuel production and reduce gasoline production. The "typical" numbers above (20 gallons of gasoline and 10 gallons of diesel from a barrel of crude) may be altered to introduce a diesel fuel bias (19 gallons of gasoline and 11 gallons of diesel from a barrel of crude). However, there is a limit to this bias that cannot be exceeded due to the equipment available at each refinery.

Domestic petroleum refiners move between a "gasoline-bias" and a "diesel-bias" throughout an average year, on average maximizing gasoline production in the Spring of each year (in anticipation of the summer driving season and high gasoline demand) and maximizing diesel production in the fall of each year (in anticipation of the home heating oil season and high distillate demand). As depicted on Chart 1,* the ratio of gasoline production, divided by diesel production, has steadily declined for the past two and one half years. A declining ratio translates into greater diesel fuel production.

Similarly, there are seasonal swings in inventories: the days of supply of distillate fuel oil ranges from 25-35 days, at the low end at the beginning of summer and at the high end at the beginning of winter. EIA reports that the national days of supply for distillate fuel oil was 32.1 days on September 12, 2008 and was 32.8 on September 14, 2007.[3] These inventories are at the high end of the historical inventory band, indicating that there is not a distillate fuel oil supply shortage at the present time.

In addition, EIA reports that the days of supply of gasoline ranges from 21-26 days, at the low end during the winter and at the high end at the beginning of summer in order to accommodate the transition from winter to summer gasoline specifications. The national days of supply for gasoline was 20.1 days on September 12, 2008 and was 20.2 on September 14, 2007.[4]

Recently, statistics have been reported that indicate that our nation's domestic refining industry is not operating at full capacity. Those statistics do not reflect the full story. First, some refineries have been out of service for repairs, environmental upgrades, maintenance ("turnarounds") and expansion. Second, over the past month, the operations of several dozen refineries along the Gulf Coast have been impacted negatively by Hurricanes Gustav and Ike and are either just getting back to normal

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[1] "Summary and Analysis of the 2008 Nonroad Diesel Fuel Pre-compliance Reports," EPA420-R-08-017, September 2008, page 4. http://www.epa.gov/otaq/highway-diesel/compliance/420r08017.pdf

[2] The sum of these products is not 42 gallons because a portion of crude oil is consumed as fuel in the refining process.

* All Charts have been retained in committee files.

[3] http://tonto.eia.doe.gov/oog/info/twip/twip__distillate.html

[4] http://tonto.eia.doe.gov/oog/info/twip/twip__gasoline.html

operations or are in start-up mode. Finally, as the inventory statistics above indicate, there is no shortage of gasoline or diesel fuel in the United States. Thus, as long as inventories are strong, the markets are signaling to domestic refiners that current supplies are adequate for current demand. Any significant increase in domestic production simply is not necessary to maintain adequate supplies of gasoline and diesel fuel.

Based on this background on petroleum refining and diesel fuel production and supply, I will now address the factors contributing to high diesel fuel prices.

III. HIGH CRUDE OIL PRICES

As noted above, crude oil is the fundamental feedstock for diesel fuel. As Chart #2 indicates, crude oil prices (the solid line in the chart) have increased significantly over the past five years. This chart also tracks (the dashed line in the chart) the price of highway diesel fuel over this same time period. As you can see, the price of highway diesel fuel closely tracks the price of crude oil with some slight variations due to supply and demand issues.

This correlation should not be surprising to the Committee. According to the EIA, the cost of crude oil makes up 64 percent of the cost of a gallon of diesel fuel. Refining, transportation and retail costs comprise another 25 percent, and federal and state taxes are the remaining 11 percent of the price of a gallon of diesel fuel in August 2008.[5]

Thus, as long as crude oil prices remain high, it would be difficult to anticipate significant reductions in diesel fuel prices. Crude oil prices have come some down off their summer highs of over $140.00 per barrel. If this trend in crude pricing continues and past experience provides us with any guide to the markets' future behavior, moderating crude oil prices should moderate upward pressures on diesel fuel prices. However, additional factors are at play in the markets that may cause a departure from past experience.

IV. HIGH GLOBAL DEMAND FOR DIESEL AND DIESEL SUPPLY

As I am sure other witnesses before this Committee will relate, many consider diesel fuel to be the "fuel of the future" and are making significant investments to develop and product diesel-poweredhighway vehicles in record numbers. In other parts of the world, this trend towards diesel-powered vehicles and away from gasoline-powered vehicles is already well underway and will accelerate in the coming years.

Over the past two decades, Europe has transformed into an economy that powers its vehicles on diesel fuel. Diesel's share of new vehicle sales has exceeded 50 percent annually for the last several years. Europe's strong shift from gasoline to diesel has created supply challenges for itself and its imports of diesel are growing.

As diesel fuel demand across the world and in the United States increases, this demand has shown little elasticity in the face of higher crude oil and petroleum product pricing. While higher crude oil prices and the resulting higher gasoline prices have led to reductions in domestic gasoline demand, according to EIA, such demand reductions for diesel have not occurred to date. This may be due to the fact that substantial amounts of diesel consumption is non-discretionary (a school bus must still drive its route; a commercial truck must still deliver its goods). Conversely, some gasoline consumption appears to be discretionary, as both overall petroleum consumption and gasoline consumption has declined, month-over-month, in each of the last 12 months, according to EIA .

Domestic (and world-wide) refining capacity for gasoline and diesel fuel is increasing to respond to this increased demand. Today, there are 150 U.S. refineries, owned by 60 companies, with aggregate crude oil processing capacity of 17.6 million barrels per calendar day (as of January 1, 2008) as compared to 15.2 million b/d on January 1, 1996.[6] And these refineries are getting larger and more complex. In 1981, the average refinery in the United States had approximately 57,000 b/d of crude oil distillation capacity. Today, the average refinery has a capacity of over 110,000 b/d. This growth is equivalent to building a new refinery every year for 12 consecutive years.

Despite these increases in domestic refining capacity over the past decade, the United States continues to struggle to meet domestic gasoline and diesel fuel demand. The U.S. is a net importer of gasoline and a net exporter of distillate fuel

[5] http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp
[6] http://www.eia.doe.gov/emeu/aer/pdf/pages/sec5—21.pdf 9

oil.[7] Although precise statistics are not available as to the specifications of the distillates being exported, it is likely that the distillates exported from the U.S. are higher sulfur diesel fuels, which is not in demand in this country due to the ULSD program. These higher sulfur fuels continue to command higher prices due to significant demand overseas. As a result, most distillate exports are designed to serve these demands.

V. DIESEL PRODUCT COSTS HAVE INCREASED, AND HIGHWAY DIESEL CAPACITY HAS REMAINED STATIC, DUE TO ULSD PROGRAM

The Environmental Protection Agency (EPA or Agency) has required significant reductions in the sulfur content of diesel fuel. The Agency issued rules in 2001 to reduce the sulfur content in highway diesel fuel by 97% by June 2006 and standards in 2004 to reduce the sulfur content in nonroad diesel by 75% by June 2007 and by 99% by June 2010.

These regulations required the installation of new, or increased capacity (e.g., expanding the reactor volume) process equipment (i.e., distillate hydrotreater) to remove the sulfur compounds in distillate fuel oil-compatible streams. This equipment also results in higher operating costs because of the hydrogen and catalysts required for this equipment. For example, the sulfur in crude oil may be 5,000—20,000 parts per million (ppm); so a considerable amount of sulfur reduction is required to meet EPA regulations at a cap of 15 ppm. EPA's standard can be technically met, but at a high cost. U.S. refiners have spent billions of dollars on these units. There has been considerable activity securing permits, ordering and installing equipment, unit commissioning, and integrating the equipment at the refinery.

There are several different types of sulfur compounds in these streams and some are harder to remove than others. There is also variability depending on the type of crude oil and processing before the stream is desulfurized. In addition, this desulfurization step must be accomplished while ensuring that other key properties are on-spec (i.e., density, cloud point, and distillation temperatures).

VI. IMPACT OF HURRICANES ON DOMESTIC REFINING

Hurricane Gustav made landfall in Louisiana on September 1 and Hurricane Ike made landfall in Texas on September 15. These events were obviously disruptive to people, businesses and property. Ports, refineries, pipelines and offshore oil and gas platforms were closed. After the passage of these hurricanes, damage was assessed and facilities came back as power was available and safety concerns were considered. Some refineries are restarting production at reduced rates. Others have damage to repair before they are available to restore operations.

Many refineries in the Houston/Galveston area are still shut down or in restart mode. Four refineries in the Port Arthur, Texas area are still shut down. In the Houston/Galveston area, five refineries are still shut down and four are restarting. NPRA does not have an estimate of when all of these affected refineries will return to full operation.

The U.S. Department of Energy has expeditiously delivered emergency exchange crude oil from the Strategic Petroleum Reserve to refineries in response to disruptions caused by both hurricanes. The exchange agreement includes return of the principal amount of similar quality crude oil to the SPR, plus payment of an in-kind negotiated premium. This is an appropriate use of this resource.

VII. RECOMMENDATIONS

NPRA has several recommendations for this Committee concerning steps that can be taken to address current high diesel fuel prices. Unfortunately, in the short term, there is little that can be done in the public policy arena to immediately impact diesel fuel supplies and prices. However, if we collectively look to the future, there are strategies that can be pursued to address these issues in the years ahead.

First, a general recommendation. At a time when diesel prices are high, despite adequate supplies of diesel, refineries need more——not less——legislative and reg-

[7] Exports of distillate fuel oil in May and June 2008 were 444,000 and 654,000 b/d,7 respectively (by comparison, exports of distillate fuel oil in 2007 averaged 240,000 b/d and imports were 301,000 b/d). Distillate fuel oil in May and June 2008 was shipped from the U.S. to more than 20 countries, primarily in South America and Europe. Imports of distillate fuel oil in May and June 2008 were 188,000 and 179,000 b/d, respectively. The U.S. is a net exporter of distillate fuel in response to increasing, strong global demand and adequate U.S. supplies. This tight global supply-demand balance may result in a continuation of the recent role for the U.S. as a net exporter of distillate fuel oil (in 2007 and earlier years, the U.S. was a net importer of distillate fuel oil).

ulatory certainty to make reliable project feasibility analyses and to drive future investment opportunities. If Congress fails to fully consider the fuel supply impacts of legislation and implementing regulations, then this situation will not improve. Refiners support and encourage continued environmental progress. However, if policymakers have tended to overlook and take for granted the supply side of the environmental-energy equation, then we are destined for more of the same. It is imperative, in our opinion, that determining the impact on supply must be fully embedded in the policy-making process. In working with policymakers on improvements to fuels and facilities, NPRA has often commented that industry needs time, flexibility or more realistic standards to minimize negative impacts on fuel supply. Policymakers, however, often opt to promulgate regulations that are "technology forcing," constructed with limited and often theoretical "margins of safety," and requiring implementation in the shortest time possible—all without adequate attention to fuel supply impacts. Congress should make increasing the nation's supply of oil, oil products and natural gas a number one public policy priority.

Let me apply this general recommendation to several specific legislative initiatives currently under consideration by this Congress.

Since the price of crude oil makes up a significant portion of the cost of diesel fuel, reducing crude oil prices should have a beneficial impact on diesel prices. Applying basic economic principles, if crude oil supplies increase and demand remains the same, then the upward pressures on products derived from crude, such as crude oil, should lessen. To increase crude oil supplies, Congress should permit the moratorium on oil and gas exploration on the Outer Continental Shelf to lapse at the end of this month and free our nation's energy industries to increase crude oil supplies.

Congress also should encourage continued domestic refining capacity expansion by extending and expanding the refinery expensing provision in section 1323 of the Energy Policy Act of 2005. We were pleased to see such a provision in the most recent energy tax package released by the Senate Finance Committee and strongly support that provision. This initiative encourages the expansion of domestic refineries and a resultant increase in diesel fuel supplies.

However, the same Senate Finance bill that includes the refinery expansion provision also includes tax measures that will raise the cost of capital on domestic refiners—in effect, washing away the capacity expansion incentives in other sections of the bill. Clearly, Congress is sending mixed messages with respect to whether domestic refinery expansions should be encouraged. If this Congress wants domestic refinery capacity increased, then it must adopt policies that further these goals——not policies that work against them.

The refining industry is further challenged to comply with mandated reductions in diesel sulfur content in 2010 and the enormous federal Renewable Fuel Standard, which includes significant submandates for biodiesel and renewable diesel. Again, these policies respectively discourage increased domestic diesel fuel production and increase the costs of this production.

VIII. CONCLUSION

NPRA members are dedicated to working cooperatively at all levels to ensure an adequate supply of clean, reliable and affordable transportation fuels. We stand ready to work with Congress to ensure a stable and effective fuels policy that utilizes a diversity of resources to improve our national security, assist our consumers and protect our environment, all without jeopardizing the refining industry's jobs and profitability and other industries dependent on the financial health of the refining industry. I appreciate this opportunity to testify today and welcome your questions.

The CHAIRMAN. Thank you very much.

Ms. Windsor.

STATEMENT OF BARBARA WINDSOR, PRESIDENT AND CEO, HAHN TRANSPORTATION, INC., NEW MARKET, MD

Ms. WINDSOR. Thank you, Mr. Chairman and Senator Sessions.

My name is Barbara Windsor. I'm President and CEO of Hahn Transportation, headquartered in New Market, Maryland.

My family built and grew this business over the past 75 years and today we operate more than 100 trucks and employ over a 150 individuals. As a trucking company, we are dependent on a plenti-

ful supply of diesel fuel. In fact, our company purchases approximately 2,600 gallons of diesel fuel daily to ensure that our trucks are able to deliver freight to our customers.

Last year, Hahn Transportation spent over 1.7 million on diesel fuel and this year, we are expected to pay an additional $950,000 to $1 million more on that fuel. This dramatic 55 percent year over year increase in the cost of diesel fuel is harmful to the trucking industry and to the United States economy.

Today, I appear before you representing not just my company but also the American Trucking Association. ATA is the national trade association of the trucking industry. Through its affiliates, state associations and affiliated conferences and other organizations, ATA represents more than 37,000 trucking companies throughout the United States.

Diesel fuel is the lifeblood of the trucking industry. Each year, the trucking industry consumes over 39 billion gallons of diesel fuel. This means that a one cent increase on the average price of diesel costs the trucking industry an additional $391 million a year in fuel expenses.

The national average price of diesel fuel is currently over $4 per gallon which is a $1.06 more than just a year ago. The trucking industry is on pace to spend an incredible $159.9 billion on fuel this year. This is $47 billion more than we spent in 2007 and more than double the amount we spent just 4 years ago.

Today, it costs approximately $1,200 to refuel a truck. As a result of this dramatic increase in the price of diesel, which has coincided with the downturn in the economy and the softening of the demand for the freight transportation services, many trucking companies are struggling to survive.

In the first half of 2008, more than 1,900 trucking companies with at least five trucks or more have failed. This was the largest number of trucking-related failures since 2001. It is very likely that a large number of companies that operate fewer than five trucks also will have turned in their keys during this first half of the year.

For most truckers, fuel has now surpassed labor as the largest operating expense we have. Diesel fuel's a commodity that is refined from petroleum. Like most commodities, it is a competitive marketplace. Its price is determined by supply and demand. The dramatic run-up in petroleum product prices, including gasoline and diesel, is the result of a confluence of factors.

First, there's been an increase in global demand for petroleum, primarily on the rapid growth in China and India, but also from the increased demand among Europe and the Persian Gulf countries.

Second, there is very little excess petroleum in the market and any disruptions, potential and real, translates into an immediate price spike.

Third, we have borne witness to a dramatic decline in the value of the dollar. Five years ago, the dollar was at a parity with the Euro. Today, the dollar is worth nearly 30 percent less than the Euro.

Finally, we note that there has been a significant increase in the amount of dollars invested in the petroleum futures market by non-

commercial participants and believe that this increased speculation may be partially responsible for the increase in commodity prices.

Against this backdrop, we greatly appreciate the opportunity to discuss actions that Congress can take to help address the soaring prices of diesel fuel. The fuel prices we face today is very severe. There is no one single solution to high oil prices and Congress must embrace a multifaceted approach to solving this problem.

We are not going to be able to conserve our energy, our way out of this crisis, nor will we increase our production, provide a total solution to this. We're going to need every tool in the tool shed to address this crisis. Keeping with this metaphor, we need a drill to expand the supply of petroleum, we need a saw to cut the demand for petroleum, and we need a hammer of government to ensure that the petroleum markets are transparent and not subject to increased speculation by manipulation.

First recommendation is to increase supply, increase the domestic exploration, increase domestic refining capacity, and one national diesel fuel standard.

The second recommendation is to demand control our speed, reduce main engine idling, address congestion and highway infrastructure, fully fund EPA's Smart Way Program, enhance truck productivity, support truck fuel economy standards and support research and development of new technology.

Third recommendation is to ensure market transparency and prevent excessive speculation and manipulation.

During the past 5 years, the assets allocated to commodities, commodity index trading strategies have risen from 13 billion to 260 billion. The huge increase in dollars invested in the petroleum futures market and the prevalence of exempt transactions and/or electronic exchanges that are not regulated by the Commodities Future Trading Commission has led many experts to conclude that "the current price of petroleum is artificially inflated and has departed from the fundamental market forces of supply and demand."

While we cannot quantify the extent of which speculation is responsible for the recent dramatic increase of the price of crude oil, we believe that excessive speculation is part of the problem. For this reason, we believe that Congress should take steps to increase the transparity of the petroleum exchanges and establish reasonable position limits for non-commercial traders to prevent excessive speculation.

At a minimum, Congress should require the CFTC to regulate the petroleum markets to the same extent that regulates other commodity trading. Reasonable position limits should be imposed that ensure the ability of consumers of the underlying commodity to effectively hedge market risk while limiting excessive speculation from investors that have been using the futures market for asset accumulation.

Mr. Chairman, ATA appreciates this opportunity to offer our insight into measures that the country should take to help address this high diesel fuel crisis and I'd be happy to answer any questions.

Thank you.

[The prepared statement of Ms. Windsor follows:]

PREPARED STATEMENT OF BARBARA WINDSOR, PRESIDENT AND CEO, HAHN TRANSPORTATION, INC., NEW MARKET, MD

Mr. Chairman and Members of the Committee:

My name is Barbara Windsor, and I am the President of Hahn Transportation, a trucking company headquartered in New Market, Maryland. My family built and grew this business over the past 75 years and today we operate more than 100 trucks and employ over 150 individuals. As a trucking company, we are dependent on a plentiful supply of diesel fuel. In fact, our company purchases approximately 2,600 gallons of diesel fuel daily to ensure that our trucks are able to deliver freight to our customers. Last year, Hahn Transportation spent approximately $ 1.7 million on diesel fuel and this year we expect to spend an additional $950,000 more for that fuel. This dramatic (55%) year-over-year increase in the cost of diesel fuel is harmful to the trucking industry and the U.S. economy.

Today, I appear before you representing not just my company, but also the American Trucking Associations (ATA). I am proud to serve as an ATA Vice Chairman and the former Chairman of its Political Action Committee. ATA is the national trade association of the trucking industry. Through its affiliated state trucking associations, affiliated conferences and other organizations, ATA represents more than 37,000 trucking companies throughout the United States.

The trucking industry is the backbone of this nation's economy accounting for more than 80% of the nation's freight bill with nearly 9 million Americans working in trucking-related jobs. The trucking industry delivers virtually all of the consumer goods in the United States. We are an extremely competitive industry comprised largely of small businesses. Roughly 96% of all interstate motor carriers operate 20 or fewer trucks.

Diesel fuel is the lifeblood of the trucking industry. Each year, the trucking industry consumes over 39 billion gallons of diesel fuel. This means that a one-cent increase in the average price of diesel costs the trucking industry an additional $391 million a year in fuel expenses. The national average price of diesel fuel is currently over $4.00 per gallon, which is nearly $1.06 more than just one year ago.

The trucking industry is on pace to spend an incredible $159.9 billion on fuel this year. This is $47 billion more than we spent in 2007, and more than double the amount we spent just four years ago.

Today it costs approximately $1,200 to refuel a truck. As a result of this dramatic increase in the price of diesel, which has coincided with a downturn in the economy and a softening of the demand for freight transportation services, many trucking companies are struggling to survive. In the first half of 2008, more than 1,900 trucking companies with at least five trucks failed. This was the largest number of trucking related failures since 2001. It is very likely that a large number of companies that operate fewer than 5 trucks also have turned in their keys during the first half of this year.

This hardship surprises few in the industry. For most truckers, fuel has surpassed labor as their largest operating expense. Over the past five years, total industry consumption of diesel fuel has gone up roughly 15 percent, while the price of diesel has nearly tripled during the same time period.

Trucking is a highly competitive industry with very low profit margins. This explains why many trucking companies are reporting that higher fuel prices have greatly suppressed profits, if they are making a profit at all. Our industry cannot simply absorb this rapid increase in fuel costs. We must pass some of these costs through to our customers. So not only do high fuel prices devastate truckers, but their customers as well. Ultimately, the consumer is forced to pay higher prices for food, clothing and other basic necessities.

A. WHY HAS THE PRICE OF DIESEL INCREASED?

Diesel fuel is a commodity that is refined from petroleum. Like most commodities in a competitive marketplace, its price is determined by supply and demand. The following chart demonstrates the close correlation between the price of petroleum and the prices of gasoline and diesel fuel.

With the exception of a brief period following Hurricanes Katrina and Rita in 2005, the prices of gasoline and diesel have paralleled the price of petroleum. The price spikes in refined products following the hurricanes of 2005 help illustrate the problem our nation faces when petroleum is available in the marketplace, but refining capacity is inadequate.

The dramatic run-up in petroleum product prices, including gasoline and diesel, is the result of a confluence of factors. First, there has been an increase in global demand for petroleum primarily from the rapid growth in China and India, but also from increased demand among Europe and the Persian Gulf countries. Until re-

cently, the United States demand for petroleum and refined products has steadily increased. This year, however, as a result of exorbitantly high fuel prices and a slowing economy, the U.S. has experienced some demand destruction. The U.S. Energy Information Administration estimates that U.S. petroleum consumption fell 4.5% during the first half of 2008, compared with the corresponding period in 2007.

Second, the story behind the global supply of petroleum amounts to a wall of worry. The U.S. is the third largest oil producer in the world; however, our production of domestically produced oil from Alaska is declining and new sources of production have been placed off limits for environmental reasons. A large majority of the world's oil supply is controlled by foreign countries. Many of these countries have come together to form the OPEC cartel, whose mission is to restrict petroleum supplies and prop up prices. Other oil producing nations, such as Nigeria, Venezuela and Russia, are politically unstable or simply do not agree with U.S. policies and may intentionally withhold oil from the market in an attempt to hurt U.S. interests. As a result, there is very little excess petroleum in the market and any disruption—potential or real—translates to an immediate price spike.

Added to this wall of worry is an increased risk premium on each barrel of oil. This risk premium is based upon geopolitical instability and a new found appreciation of the vulnerability of U.S. production and refining capabilities to hurricanes in the Gulf of Mexico and southern U.S.

Third, we have borne witness to a dramatic decline in the value of the dollar. Five years ago, the dollar was at parity with the Euro. Today, the dollar is worth nearly 30% less than the Euro.

While the weak dollar has helped U.S. manufacturers export their goods, it has hurt U.S. consumers who have seen significant erosion in their purchasing power. Since oil is denominated in dollars, a large percentage of the increased price of oil can be attributed to the significant fall in the value of the dollar relative to other world currencies.

Finally, we note that there has been a significant increase in the amount of dollars invested in the petroleum futures market by non-commercial participants and believe that this increased speculation may be partially responsible for the increase in commodities prices.

It is clear that our energy crisis is a complex problem that requires a comprehensive solution.

B. A COMPREHENSIVE SOLUTION IS REQUIRED

Against this backdrop, we greatly appreciate the opportunity to discuss actions that Congress can take to help address the soaring price of diesel fuel. The fuel crisis we face today is severe. There is no one single solution to high oil prices and Congress must embrace a multifaceted approach to solving this problem. We are not going to be able to conserve our way out of this crisis. Nor will increased production provide a total solution. We are going to need every tool in the tool shed to address this crisis. Keeping with this metaphor, we need a drill to expand the supply of petroleum, we need a saw to cut the demand for petroleum, and we need the hammer of government to ensure that petroleum markets are transparent and not subject to excessive speculation or manipulation.

1. The Drill—Recommendations to Increase Supply

For the foreseeable future, the trucking industry will continue to depend upon the diesel engine and an adequate supply of diesel fuel to deliver America's freight. Presently, there is no technology that is capable of replacing the efficiency of the diesel engine for heavy duty trucks. As our population continues to grow and other nations continue to industrialize, the global demand for diesel fuel will continue to increase.

The International Energy Agency has stated that global supplies may not keep up with demand through 2013 and that spare capacity from the Organization of Petroleum Exporting Countries will shrink, resulting in a "tight" market with little spare oil production capacity. The dramatic increase in the price of oil is partially fed by the perception that over the next few years there will be a shortage of oil as a result of the failure to invest in increasing oil supplies. For these reasons, in addition to reducing consumption and lessening the demand for petroleum, we need to focus on increasing our supply of crude oil.

A. Increase Domestic Exploration.—ATA believes that increasing our domestic supply of crude oil will help lower diesel fuel prices. To achieve this goal we need to begin environmentally responsible exploration for crude oil in the Arctic National Wildlife Reserve and Outer Continental Shelf. We also must begin developing the oil shale resources in Colorado, Utah and Wyoming and eliminating the barriers to

utilizing coal-to-liquid technologies to exploit our vast domestic coal resources. The technology exists to ensure that these resources are developed in a manner that protects the environment. We also must consider the fact that drilling in Alaska or mining in Colorado requires Clean Air Act permits, Clean Water Act permits and land use development permits, all of which contain a host of environmental protections. Compare this to the drilling for oil in Venezuela or off the coast of Cuba with virtually no environmental protections. The debate over whether to drill in these areas of the United States has been ongoing for decades. In light of geopolitical instability, the growing demand for energy from Asia and Europe, and new drilling techniques to ensure that environmentally-sensitive areas remain protected, it is time to change these policies and develop these critical domestic resources.

B. Increase Domestic Refining Capacity.—For years now it has been apparent that the U.S. has underinvested in refining capacity. Regardless of the reason for this underinvestment (e.g., environmental restrictions or economic factors), it is time to reverse this trend.

To help expand U.S. refining capacity, ATA has asked that EPA streamline its permitting process to facilitate refinery expansions and new refinery construction. Congress also should consider enacting incentives to encourage increased domestic refinery capacity.

C. One National Diesel Fuel Standard.—While gasoline moves people, diesel fuel moves our economy. Due to the uniquely interstate nature of diesel fuel, Congress should take extraordinary steps to ensure that no state enacts a boutique diesel fuel mandate. Today, California and Texas require special boutique diesel fuel blends. These unique blends cost more to produce and prevent diesel fuel from simply being transported from one jurisdiction to another in times of shortage. In addition, boutique fuels are typically produced by only a handful of refineries, which results in less competition, higher refining margins, and ultimately higher fuel prices.

While Congress took steps to curb the proliferation of boutique fuels as part of the Energy Policy Act of 2005, the Act created a loophole for states seeking to enact renewable fuel mandates. To date, five states have enacted biodiesel mandates and several others are considering this course of action. In light of the recently enacted biodiesel mandate as part of the expanded federal renewable fuel standard (RFS), Congress should preempt state biodiesel mandates. These duplicative state mandates are not needed to ensure a strong domestic biodiesel industry and will simply create an economic environment where biodiesel producers can charge extraordinarily high prices for their product—insulated from the checks and balances of a competitive market. The federal RFS guarantees that 1 billion gallons of biodiesel will be consumed domestically—the free market must be allowed to operate to ensure that this mandate is achieved in the most cost effective manner possible. State biodiesel mandates will distort the free market and prevent biodiesel from being consumed in those parts of the country where it is most economical to do so. Congress must preempt state biodiesel mandates as inconsistent with our national interest and efforts to promote the cost effective use of biofuels.

While on the subject of biodiesel, we would be remiss if we did not call for renewed efforts to close the splash and dash loophole. The American public would be outraged if they knew that their tax dollars were being spent to subsidize biodiesel that is ultimately exported for sale outside the U.S. Beginning next year the Congressionally-mandated biodiesel standard will require U.S. companies to consume 500 million gallons of biodiesel. This number jumps to a billion gallons in 2012. For this reason, we do not believe that we should create an incentive to export subsidized biodiesel, which will drive up the price of this mandated alternative fuel for U.S. consumers.

2. The Saw—Recommendations to Reduce Demand

Reducing the nation's consumption of diesel fuel will reduce the overall demand for petroleum and should result in lower prices for petroleum products.

A. Control Speed.—The typical heavy-duty diesel truck travels between 5 and 7 miles on a gallon of diesel, depending upon load, route, equipment and drivers' skill. Speed has a direct correlation to fuel consumption. In fact, for each mile per hour that a truck travels above its optimal fuel efficiency point, its fuel economy decreases by 1/10 of a mile per gallon. For example, a truck traveling at 65 mph that is capable of achieving 6 miles per gallon, will achieve only 5 miles per gallon when traveling at 75 mph. For this reason, ATA recommends that Congress establish a national speed limit of 65 mph for all vehicles. Of course, to achieve the maximum benefit of this policy, the federal government will need to partner with States to ensure strict enforcement of the 65 mph speed limit.

ATA also has petitioned the Administration to require that all new trucks be equipped with factory-installed devices that electronically limit the truck's maximum speed to 68 mph. In addition to the fuel conservation benefit from ensuring that trucks do not exceed this speed, we are confident that this measure will further reduce the number of truck-related fatalities that occur on our nation's roadways.

B. Reduce Main Engine Idling.—Truck drivers idle their trucks out of necessity. The Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA) Hours-of-Service regulations require mandatory off duty rest periods. Many over-the-road drivers rest in the sleeper berth compartment in their truck cabs. As the driver rests in the truck's sleeper compartment, he/she will often need to cool or heat the cab to rest comfortably. In extremely cold weather, truck drivers also will idle their engines to prevent the engine block from freezing. Argonne National Laboratory estimates that the average long-haul truck idles for 1,830 hours per year. With hundreds of thousands of these trucks on the road, idling has a significant impact on fuel consumption and the environment. The U.S. Environmental Protection Agency (EPA) estimates that idling trucks consume approximately 1.1 billion gallons of diesel fuel annually.

Several options are currently available to reduce engine idling. Auxiliary power units (APUs) are among the most popular choices in anti-idling equipment providing climate control (heating and cooling), engine preheating, battery charging, and power for household accessories without use of the truck's main engine. APUs have been proven by the Federal Highway Administration to save up to one gallon of fuel per hour of idling and to substantially reduce emissions and greenhouse gases.

More than 30 states, counties, or cities have adopted regulations limiting the amount of time a commercial vehicle can idle. While reducing main engine idling is a laudable goal, three major barriers stand in the way of trucking companies purchasing such equipment for their daily use: (1) the failure to grant exceptions for the additional weight associated with anti-idling equipment, (2) the imposition of a federal excise tax on the purchase of such devices, and (3) the actual cost of the devices themselves.

Since idling reduction equipment will add weight to a truck, many fleets cannot afford to reduce their cargo capacity to compensate for the installation of idle reduction equipment on a truck. To address this concern, Congress authorized a 400-pound weight exemption for trucks equipped with idle reduction equipment under Section 756 of the Energy Policy Act of 2005. While Congress' intent was to mandate this exemption, the Federal Highway Administration (FHWA) has determined that states "may" adopt the exemption on a voluntary basis. FHWA's interpretation of the weight exemption gives states the option of whether to allow the exemption or not. To date, 32 states have passed legislation recognizing the 400-pound weight tolerance and a handful of states are exercising enforcement discretion. ATA asks Congress to clarify the 400-pound weight exemption as being applicable to idling reduction equipment nationwide.

A recent IRS interpretation applies the Federal Excise Tax (FET) to the purchase of idle reduction equipment, which has increased the cost of this equipment and consequently reduced consumer demand for these proven anti-idling solutions. The 12 percent tax acts as a disincentive to truckers looking to reduce main engine idling. FET makes the acquisition of APUs more expensive and beyond the reach of potential buyers. The tax alone for a large fleet looking to buy 1,000 APUs at a typical retail price of $8,000 is almost $1 million. Taxing devices that are proven to reduce fuel consumption and diesel emissions clearly sends the wrong message to the nation. By taxing APUs, we are doing a great disservice to both our economy and the environment. To address these disincentives, ATA asks Congress to amend Section 4051 of Internal Revenue Code to make idling reduction equipment purchases exempt from FET. This action will increase demand for the introduction of idling reduction equipment, thereby ensuring greater fuel conservation and a cleaner environment.

While APUs are a proven alternative to main engine idling, most trucking companies just cannot afford purchasing devices that can cost up to $10,000 per unit. ATA is seeking financial incentives from Congress in the way of tax credits or grants to expedite the introduction of idling reduction equipment across the Nation.

C. Address Congestion and Highway Infrastructure.—Americans waste a tremendous amount of fuel sitting in traffic. According to the most recent report on congestion from the Texas Transportation Institute, in 2005, drivers in metropolitan areas wasted 4.2 billion hours sitting in traffic, consuming 2.9 billion gallons of fuel annually. ATA estimates that if congestion in these areas was eliminated, nearly 32 billion gallons of fuel would be saved and carbon emissions would be reduced by 314 million tons over a 10-year period. ATA recommends that Congress invest in a new

congestion reduction program to eliminate major traffic bottlenecks, with a specific focus on bottlenecks that have the greatest impact on truck traffic.

D. Fully Fund EPA's SmartWay^{SM} Program.—In February 2004, the freight industry and EPA jointly unveiled the SmartWay^{SM} Transport Partnership, a collaborative voluntary program designed to increase the energy efficiency and energy security of our country while significantly reducing air pollution and greenhouse gases. The program, patterned after the highly-successful Energy Star program developed by EPA and DOE, creates strong market-based incentives that challenge companies shipping products and freight operations to improve their environmental performance and improve their fuel efficiencies. To become a partner a fleet must commit to reduce fuel consumption through the use of EPA-verified equipment, low-viscosity lubricants, or other measures. By 2012, the SmartWay^{SM} program aims to save between 3.3 and 6.6 billion gallons of diesel fuel per year. EPA predicts SmartWay^{SM} participants will also reduce their annual greenhouse gas emissions by 48 million tons of CO_2 equivalents. SmartWay^{SM} is one voluntary greenhouse gas program that not only works, but exceeds expectations.

SmartWay^{SM} is a unique resource that reviews the use of new technologies that are proven to reduce fuel consumption and then uses market incentives to promote their deployment. The trucking industry has fully embraced SmartWay^{SM} and relies upon the innovativeness of this cutting edge program. The entire nation benefits from SmartWay^{SM} through the fuel that is conserved and the emissions reductions it produces. For this reason, Congress should increase the investment in this program to facilitate its expansion. While the program is growing by leaps and bounds, future funding remains uncertain. ATA and other freight and shipping sectors continue to work towards ensuring a separate line item in future EPA appropriations for SmartWay^{SM}, but we are troubled by the FY08 funding cuts to the program. More specifically, total monies allocated to the program this year dropped from roughly $3 million in FY07 to $2 million in FY08. Funding cuts to grants, contracting, marketing, technology development, and other program expenses have severely undermined the mission of the program. It is our hope that EPA will redirect an additional $1 million from the Climate Protection Program under the FY08 budget to ensure the continued growth and success of this remarkable program. Given that the Energy Star program's annual operating budget is $50 million, we also ask that Congress provide a line item appropriation to ensure that SmartWay^{SM} is adequately funded in the future.

E. Enhance Truck Productivity.—By reducing the number of trucks needed to move the nation's freight, the trucking industry can reduce fuel consumption, which would produce significant environmental benefits. More productive equipment—where it is consistent with highway and bridge design and maintenance of safety standards—is an additional tool that should be available to states. A recent study by the American Transportation Research Institute found that use of these vehicles could reduce fuel usage by up to 39%, with similar reductions in criteria and greenhouse gas emissions. The reduction in truck vehicle miles traveled on highways such as the New York Thruway, Massachusetts Turnpike, Florida Turnpike, and on roads throughout the Western United States, has lowered the amount of fuel burned in these states. These examples of responsible governance could be replicated by other states if given the necessary flexibility under federal law.

F. Support Truck Fuel Economy Standards.—Congress should ensure that fuel economy standards for commercial medium-and heavy-duty trucks are technologically and economically feasible, do not compromise truck performance, and provide manufacturers sufficient stability and lead time for production. Given that fuel economy in the industry has remained flat over the last quarter century and fuel now is the largest operating expense for many fleets, it is more critical than ever to increase fuel economy for these vehicles. ATA will be working closely with the U.S. Department of Transportation and the National Academy of Sciences as they evaluate fuel economy, fuel efficiency, and establish associated standards for medium-and heavy-duty trucks as directed under the Energy Information and Security Act of 2007.

G. Support Research and Development of New Technologies.—As we look toward the future, the trucking industry will be pressured to reduce its carbon output. The industry will find it difficult to do this without new affordable technologies. To address this issue, Congress should fund research and development in the areas of new engine technologies, aerodynamics, low-carbon fuels, fuel additives, lubricity, tires, batteries, hybrids, anti-idling equipment, insulation, and rolling resistance specific to operations of line-haul trucks. Technology advancements have stalled for many years and an infusion of funding into an organized research program will be critical to developing the next generation of more efficient and lower carbon-emitting trucks.

3. The Hammer—Recommendations to Ensure Market Transparency and Prevent Excessive Speculation and Manipulation.

During the past five years the assets allocated to commodity index trading strategies have risen from $13 billion to $260 billion. The huge increase in dollars invested in the petroleum futures markets and the prevalence of exempt transactions and/or electronic exchanges that are not regulated by the Commodity Futures Trading Commission (CFTC) has led many experts to conclude that the current price of petroleum is artificially inflated and has departed from the fundamental market forces of supply and demand. While we cannot quantify the extent to which speculation is responsible for the recent dramatic increase in the price of crude oil, we believe that excessive speculation is part of the problem. For this reason, we believe that Congress should take steps to increase the transparency of the petroleum exchanges and establish reasonable position limits for non-commercial traders to prevent excessive speculation. At a minimum, Congress should require the CFTC to regulate the petroleum markets to the same extent that it regulates other commodity trading activities. Reasonable position limits should be imposed that ensure the ability of consumers of the underlying commodity to effectively hedge market risk while limiting excessive speculation from investors that have begun using the futures markets for asset accumulation.

Balancing the need for an efficient petroleum market with the desire to limit petroleum speculation could help burst any speculative bubble that has formed in the petroleum markets. Congress should consider the merits of expanding government oversight of electronic petroleum exchanges and establishing position limits to make it less attractive for Wall Street to speculate on petroleum prices, while ensuring that a robust market exists for legitimate purposes. Most importantly, we note that the recommendations to increase oversight and establish reasonable position limits for non-commercial traders are remedies that have no potential downside. Under a worst case scenario, the transparency of the market is improved, but the price of oil remains unaffected. Under a best case scenario, these remedies burst the speculative bubble that continues to grow, restores investor confidence in the futures markets, and drives asset accumulators out of the futures markets resulting in a relatively quick reduction in the price the oil.

ATA appreciates this opportunity to offer our insight into measures that the country should take to help address high diesel fuel prices.

The CHAIRMAN. Thank you very much.

Dave, we're glad to have you here. Please go right ahead.

STATEMENT OF DAVE MCCURDY, PRESIDENT AND CEO, ALLIANCE OF AUTOMOBILE MANUFACTURERS

Mr. MCCURDY. Thank you, Mr. Chairman and members of the committee.

On behalf of the members of the Alliance of Automobile Manufacturers, the 10-member companies, Senator Sessions mentioned one, Mercedes Benz, we have 4 German members, Mercedes, BMW, Volkswagen and Porsche, and 3 Japanese members, Toyota, Mazda, Mitsubishi, and the 3 United States-based manufacturers, General Motors, Ford and Chrysler, and soon an 11th member, Jaguar-Land Rover.

But we do appreciate the opportunity to come talk to you about the role that clean diesel will play in reinventing the automobile.

The principal challenge, as you identified, Mr. Chairman, will be removing both the fuel and technology cost barriers that currently exist. Last year, Alliance members supported a tough new energy law, primarily written by this committee, that raises fuel economy to at least 35 miles per gallon by 2020, a 40 percent increase. Higher mileage means lower carbon dioxide emissions. Under this law, the auto industry will dramatically reduce CO_2 by 30 percent. We are the first industry to commit to such challenging CO_2 reductions.

Currently, there are close to five million diesel vehicles on U.S. roads and highways, those light-duty trucks and cars. Over the next year, automakers will launch more than a dozen new clean diesel car and truck models that meet the world's strictest clean air standards. By providing dramatic increases in fuel efficiency, 20 to 40 percent better than comparable gasoline engines, clean diesel vehicles can play a vital role in reducing United States oil consumption and reducing vehicle CO_2 emissions.

The combination of outstanding performance with significantly increased fuel economy led analyst J.D. Power and Associates to forecast that "diesels will account for 14 percent of the United States market in 2017, up from 3 percent today." That level of market penetration would save more than 29 billion gallons of gasoline and reduce CO_2 emissions by over 250 million metric tons over the lifetime of these vehicles.

Now clean diesel engines of today bear no resemblance to conventional diesel engines that many of us saw, I even owned, in the 1980s. Clean diesel vehicles meet the performance demands of consumers. They have high torque. They're smooth and quiet running and they have significantly improved fuel economy, but they also meet the most stringent Federal and state emission standards.

This environmental progress is a result of the new clean diesel system, combining clean diesel fuel, which we've discussed, with advanced turbo engines, with improved injection systems and effective exhaust control technology that result in reduced emissions more than 90 percent. This chart may be hard to show but we'll bring it up closer, if you'd like. It's really a system, fuels, engine and capture system.

Recently, talking about incentives that was mentioned by Senator Sessions, the IRS announced and the EPA certified that clean diesel vehicles from Volkswagen and Daimler would qualify for the Alternative Motor Vehicle Tax Credit. Other currently available clean diesel models are expected to qualify for this credit as well.

The Alliance and the industry applaud Congress for creating tax credits for clean diesel, hybrids, fuel cells and all other advanced technologies. These credits encourage consumers to purchase these vehicles by offsetting some of the price premium this technology requires.

Upgrades to the fuel injection systems, the turbo-chargers, electrical system, mechanical components and emissions control system increase the cost of diesel vehicles by $5 to $10,000 over their gasoline counterparts.

Now, the life cycle fuel savings from diesel make up for the higher upfront costs, unless, and I have to emphasize that, unless diesel fuel is significantly more expensive than gasoline.

We are concerned that the cost of diesel fuel could be a barrier to widespread acceptance of clean diesel technology by United States consumers. In Europe, as mentioned, almost 50 percent of all new vehicles are powered by clean diesel technology.

In addition to superior fuel economy, a main reason Europeans buy diesel-powered vehicles is that the fuel taxes are heavier on gasoline. In the United States, diesel fuel is more expensive than gasoline, as all the witnesses have testified, and is taxed at a higher rate. See the chart here. Just from yesterday, pricing impacts on

the market, the variation, the difference between diesel and regular gasoline.

Anything to lower the cost of diesel fuel will encourage consumers to consider purchasing a clean diesel vehicle. Policy that increases the cost of diesel fuel will certainly negatively impact consumer acceptance of this technology.

Recently, Margo Oge, Director of EPA's Office of Transportation Air Quality, stated, and I quote, "Diesel passenger vehicles are one important piece of the future technology puzzle. Clean diesel is a viable, efficient technology to help improve our air quality and energy security." Mr. Chairman, we agree.

Given this outstanding combination of performance, low emissions and fuel savings, we are confident that the new generation of clean diesel is here to stay, and we certainly look forward to working with this committee and Congress to address barriers to expanding this exciting new technology in the United States market.

Thank you.

[The prepared statement of Mr. McCurdy follows:]

PREPARED STATEMENT OF DAVE MCCURDY, PRESIDENT AND CEO, ALLIANCE OF AUTOMOBILE MANUFACTURERS

Mr. Chairman, Good morning, my name is Dave McCurdy and I am the President and CEO of the Alliance of Automobile Manufacturers (Alliance). The Alliance is a trade association made up of ten car and light truck manufacturers including BMW Group, Chrysler LLC, Ford Motor Company, General Motors, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota and Volkswagen. On behalf of the member companies of the Alliance I would like to thank you for giving me an opportunity to talk with you about the role clean diesel will play in reinventing the automobile. The principle challenge will be removing both the fuel and technology cost barriers that currently exist.

Last year, Alliance members supported a tough, new national energy law written in large part by this Committee that raises fuel economy to at least 35 MPG by 2020, a 40% increase. Higher mileage means lower carbon dioxide (CO_2) emissions. Under the energy law, the auto industry will dramatically reduce CO_2 by 30%, which makes us the first industry to commit to such challenging CO_2 reductions.

Currently, there are close to 5 million diesel vehicles on U.S. roads and highways. Over the next year automakers will launch more than a dozen new clean diesel car and truck models that meet the world's strictest clean air standards.

By providing dramatic increases in fuel efficiency—20 to 40 percent better than comparable gasoline engines—clean diesel vehicles can play a vital role in reducing U.S. oil consumption and reducing new vehicle CO_2 emissions. The combination of outstanding 1 performance with significantly increased fuel economy is leading auto industry analysts like J.D. Power and Associates to forecast that diesels will account for 14 percent of the U.S. auto market in 2017, up from 3 percent today. That level of market penetration would save more than 29 billion gallons of gasoline, and reduce CO_2 emissions by over 250 million metric tons, cumulatively over the lifetime of these vehicles.

The clean diesel engines of today bear no resemblence to conventional diesel engines. Today's clean diesel vehicles not only meet the performance demands of consumers—high torque, smooth and quiet-running engines, and significantly improved fuel economy—but also meet the most stringent Federal and state emissions standards. This environmental progress is the result of the new clean diesel system—combining clean diesel fuel, advanced turbo engines with improved injection systems and effective exhaust-control technology to reduce emissions more than 90 percent.

In fact, the Internal Revenue Service recently announced, and the Environmental Protection Agency certified, that clean diesel vehicles from Volkswagen and Daimler would qualify for the alternative motor vehicle tax credit and it is expected that several other currently available clean diesel models will also qualify for this credit.

The member companies of the Alliance applaud Congress for creating tax credits for clean diesel, hybrids, fuel cells, and all other advanced technologies. These credits will encourage consumers to purchase these vehicles by offsetting some of the

price premium this technology requires. Upgrades to the fuel injection systems, turbochargers, electrical system and mechanical components and emissions control system increase the cost of diesel vehicles by five to ten thousand dollars over their gasoline counterparts. Over the life of the vehicle, fuel savings from diesel engines potentially make up for the higher upfront cost, unless diesel fuel is significantly more expensive than gasoline.

Alliance members are concerned that the cost of diesel fuel could be a barrier to widespread acceptance of clean diesel technology by U.S. consumers. In Europe, almost 50% of all new vehicles are powered by clean diesel technology. In addition to superior fuel economy, a main reason Europeans buy diesel-powered vehicles is that fuel taxes are heavier on gasoline. In the U.S., diesel fuel is more expensive than gasoline and is taxed at a higher rate. Anything that can be done to lower the cost of diesel fuel will help encourage consumers to consider purchasing a clean diesel vehicle. Any policy that increases the cost of diesel fuel will most certainly negatively impact consumer acceptance of the technology.

Recently, Margo Oge, Director of EPA's Office of Transportation and Air Quality stated "Diesel passenger vehicles are one important piece of the future technology puzzle. Clean diesel is a viable, efficient technology to help improve our air quality and energy security." We agree. Given its outstanding combination of performance, low emissions and fuel savings, we are confident that the new generation of clean diesel is here to stay. We look forward to working with Congress to address barriers to expanding this exciting new technology in the U.S. market.

The CHAIRMAN. Thank you all very much for the excellent testimony.

Let me start with a few questions and then Senator Sessions and Senator Dorgan and Senator Murkowski will all have questions, I imagine.

The trends that everyone seems to agree upon, and speak up if I'm misstating this, but the trends are that we're using more diesel relative to gasoline in the mix of fuels that we use. That trend has been there and it's going to continue into the future.

Also, the price of diesel is higher relative to gasoline than it used to be. It used to be, in fact, I think just the opposite. I can remember when my strong impression was that diesel was cheaper than regular gasoline and now it's substantially higher and the trend seems to be toward more of a problem there.

We all know that the price of oil has gone up or has gone up substantially in the last year and that impacts the price of gasoline and the price of diesel, but can we single out or isolate those factors that are causing the price of diesel to be going up at a much faster pace than the price of gasoline? That's the question.

Ms. Windsor, you cite one item there. You say that the adoption of requirements for boutique fuel for diesel in California and Texas——

Ms. WINDSOR. That's right, yes.

The CHAIRMAN [continuing]. Is an increased cost that is put on there.

I think, Mr. Scott, you indicated that EPA's got their new requirements with regard to low sulfur have increased the cost of producing diesel, but the difference between the cost of producing it and the cost that's being charged for it still is substantially higher, as I understand it, than is the case with gasoline.

Mr. SCOTT. Mr. Chairman, you've noted the historical picture on that gas sign that Mr. McCurdy put up normally has diesel below gasoline prices.

The commentary I can make is that diesel fuel is a commodity and it reacts. We are in a worldwide market for petroleum products and as the demand for diesel fuel continues to grow and, as Mr.

McCurdy said, I think, the auto manufacturers would expect it to grow further, we need to keep pace with our refining capacity, otherwise, you know, supply and demand works and it's a question of where the supply and demand line cross at what price level.

The CHAIRMAN. If the supply and demand works, why hasn't the supply of diesel that's being provided to the market kept pace with the demand?

Mr. SCOTT. I actually believe it has. Dr. Gruenspecht may be better able to answer this than I am, but I know that our members have been switching to maximize their diesel efficiency and the production from the refineries, but there's only so much with existing equipment you can do.

There's basic chemistry issues that come into play that limit how far you can, let's say, swing a refinery toward distillate production.

The CHAIRMAN. Dr. Gruenspecht, why don't you comment on that? Also, could you comment on this issue about how I think you said we are exporting more to Europe, more diesel, than we used to, we are exporting more to Latin America than we used to? How does that square with the fact that demand is outstripping supply here and driving up prices?

Mr. GRUENSPECHT. As has been suggested by others, I think there are world market pressures. From 2002 to 2007 we were importing more diesel distillate fuel than we were exporting. In the first 7 months of 2008, given some of the conditions I mentioned in my testimony—the situation in Chile, the situation in South Africa, the situation in China—we were exporting more diesel than usual.

But I want to point out that our stocks of diesel fuel remained in the normal range throughout this period. By taking advantage of some of the high prices that were available for diesel, that's one of the things that kept refinery runs high because you could make a lot of money on your diesel at the same time you weren't making much money on gasoline.

So, the issue with exports is sort of a tricky one because if one imagines a world where those opportunities were not available, you might also be imagining a world where refinery utilization would have been even lower than it was.

In some sense, you sell the entire mix of products that comes out of the refinery. What you can produce is constrained by the carbon and the hydrogen inputs. What a refinery is is a big system for taking apart hydrocarbons in the crude oil and forming them into different hydrocarbon products.

So, yes, exports were up. Those markets needed a product, just like, in many respects, the United States needs gasoline now in Senator Sessions' region of the country, and we are pulling in more gasoline from the rest of the world than we normally would.

So, you know, sometimes we're on the receiving end of these extraordinary situations and sometimes we're on the sending-product abroad-end of the extraordinary situation.

The CHAIRMAN. Senator Sessions.

Senator SESSIONS. I had a town meeting in a little restaurant in Alabama and I complained about the high price of diesel and an older gentleman, I think it turned out he was an engineer, came up later and said, "Well, it's better fuel. That's why it's more ex-

pensive." I said, "It didn't use to be more expensive." He said, "People are smarter now. Got more BTUs."

Mr. Scott, is it a better fuel for transportation?

Mr. SCOTT. I'm going to leave that to the experts on how various fuels——

Senator SESSIONS. You get 30 percent better gas mileage.

Mr. SCOTT. If that's the question, does it get better fuel economy, the answer to that is yes. The diesel engine generally is a more efficient engine for a gallon of fuel.

Senator SESSIONS. It takes a certain type fuel, what we call the diesel fuel, to——

Mr. SCOTT. Yes, sir.

Senator SESSIONS. Ms. Windsor, do you have any thought about that?

Ms. WINDSOR. Yes, I do, because after ultra-low sulfur, which is 15 parts per million, came into our society a year ago, when diesel fuel, when it went from 500 parts per million which there is still some produced but most of the diesel fuel is ultra-low sulfur, 15 parts per million, it burns cleaner. However, the new engines are mandated, the 2007 engines and newer, will be all ultra-low sulfur diesel.

We find that the ultra-low sulfur diesel price versus the 500 parts per million, the low-sulfur diesel, runs anywhere from 10 to 12 cents per gallon more and we've been told that's because of additional refining.

Also, because of the quality of the burn and the lubricity and so forth, we find out that we are getting anywhere from one to two gallons at least less miles per gallon.

Senator SESSIONS. On ultra-low sulfur?

Ms. WINDSOR. Yes, we burn more fuel with the ultra, but it burns cleaner.

Senator SESSIONS. Mr. McCurdy, you foresee that with the mileage requirements that we must meet as a nation, the automobile industry has concluded that one aspect or effort to meet that would include more diesel engines because of the rather dramatic mileage increase you get.

Would that help you meet the standards that we've imposed on the automobile industry?

Mr. MCCURDY. Absolutely, Senator Sessions. As I indicated, we've committed to a 40 percent increase in CAFÉ, and one of the technologies that we believe will enable us to get there, if widely adopted in mass market, I diesel because of the efficiency and also it is cleaner as far as CO_2 emissions.

As my colleagues here indicated, and I certainly wouldn't want to debate Ms. Windsor on the quality of sulfur versus low sulfur of the particulates, but, you know, in the United States, in Europe, 51 percent of vehicles are diesel now and they are certainly higher-efficiency vehicles, but the difference and the reason that we weren't able to get them as widely used in the United States partly is regulatory.

California and several states have higher emissions requirements than the Federal Government and we couldn't produce the so-called 50-State car. It was a 45-State car and for mass manufacturers,

they're not going to produce a vehicle or introduce a vehicle that can't be sold in all 50 States.

Senator SESSIONS. Is that clarified now in the new law?

Mr. MCCURDY. As of 2000—as a matter of fact, yes, with the introduction of ultra-low sulfur diesel, which is kind of like—my basic understanding is it's like when we had moved from leaded to unleaded gasoline, you take the lead out, you take the sulfur out, and certainly it's cleaner. It's a bit more complicated and it affects the price some.

But two manufacturers have just introduced diesel into California and so therefore it meets the highest stringency in the world.

Senator SESSIONS. Now, could I just offer as my time winds down, the Europeans in their tax policies substantially favor diesel over gasoline. It's a dollar a gallon more. We have a 6 percent more tax on diesel, penalizing diesel 6 cents, and it's 24 to 18, I believe, cents a gallon difference. Is that good policy in your opinion for the country?

Mr. MCCURDY. Senator, I think the chairman mentioned it in the beginning, and I want to commend this committee because too often energy discussions and debates are superficial and really are not thought through and I think this committee is trying to bring some serious thought to this question.

Some of our policies are actually inconsistent. I'll cite some examples. On one hand, we want to encourage conservation, we want to encourage efficiency, and yet many are saying that gas prices are too high. We have a tax policy that in Europe, as we indicated, encourages, pushes drivers to the utilization of diesel and conservation of all gasoline.

So it doesn't make sense right now to have—if we're going to introduce more diesel into the United States in the car market, then this tax policy should be reviewed because right now, it's an inhibitor.

Originally, I think tax on diesel was a consideration about who used the highways the most and the trucking industry bore a big part of that, but if we want to really focus on efficiency and reducing CO_2, this tax policy should be reviewed.

Senator SESSIONS. The statement here that you gave that if we go to 14 percent of auto market diesel, according to J.D. Power and Associates, up from 3 percent today, that that would mean a saving of 29 billion gallons of gasoline which is a substantial savings just on that.

So I think, Mr. Chairman, you're having a good hearing. I won't belabor the point, other than to say that I do believe our goal as a nation must be to reduce our consumption of fuel and, in particular, our consumption of imported fuel. Every amount that we can save through conservation and efficiency first reduces, would you not think, Mr. Gruenspecht, our imports normally?

Mr. GRUENSPECHT. That's correct—imports are on the margin.

Senator SESSIONS. The margin. So it would tend—anything we save is basically a reduction of imports which is good for our economy and we've got a proven engine that the Europeans find to be very beneficial to them that uses 30 percent less and that has got to be a part of our mix, and thank you for allowing this discussion.

The CHAIRMAN. Thank you.

Senator Dorgan.

Senator DORGAN. Mr. Chairman, it's usually—I should say it's unusual to come to a hearing and agree with almost everything that I've heard on this panel and also among the witnesses. I think——

Senator SESSIONS. You haven't been hearing from your farmers and truckers like I have, Senator Dorgan.

Senator DORGAN. No, I've heard from all of them. We're prodigious users of energy in North Dakota and I agree with you that conservation is critically important. I agree with Mr. Scott, we should drill more, produce more. We should expand our refining capacity. I mean, I agree with the need to do all of that.

I do want to focus on the title of this hearing is why have diesel fuel prices been so high. Let me come back to a point that I've made repeatedly to this committee and that is unbelievable relentless speculation in the oil futures market. Ms. Windsor, you spoke of that especially.

Mr. Gruenspecht, did yesterday's experience in the oil futures market disabuse the EIA of the notion that there's no speculation going on?

Yesterday, oil jumped $25 a barrel, crushing the one-day record of $10 a barrel. It settled about $15 a barrel up.

Was there some unbelievable moment in supply and demand relationship that caused that yesterday or was that just unbelievable speculation, Mr. Gruenspecht?

Mr. GRUENSPECHT. I would say it's hard to provide instant analysis, but I would think that yesterday's experience was a good example of a short-term movement in prices that does not reflect fundamentals. It probably reflects some kind of trader activity. They're really two different kinds of—by the way, the EIA view, I think, expressed by Administrator Caruso, who I'm now acting for since he's left,——

Senator DORGAN. Right.

Mr. GRUENSPECHT [continuing]. Has been that fundamentals are the primary factor driving oil markets, but I think EIA's testimony has always been that other factors can affect short-run movements.

The most likely answer regarding yesterday's price movement is it was a "squeeze" where some trader had a short-term position and needed to get out of it but didn't start buying until too late. The other option, frankly, is manipulation and the CFTC has a case from July against, I think, a company called Optiver that discusses a manipulation designed to increase prices at the market close.

I would expect the CFTC—in fact, yesterday I was thinking how I would answer this if it came up—I would want to look into the possibility of manipulation and I noticed in looking at the clips this morning that the director or the acting director, I guess, of enforcement at CFTC stated he would be scouring Monday's trading to determine whether anyone engaged in illegal manipulative activity. So I guess I would say the cause yesterday was trader activity.

Senator DORGAN. Mr. Gruenspecht, well, you've described it as a squeeze. Some would say it's more than a squeeze yesterday, but

let me go back here because it relates—I think there are a lot of things that have caused this diesel price issue.

But EIA, as I've indicated before, Mr. Gruenspecht, you've seen this chart, we spend $100 million on the agency called EIA and we've got terrific people working there and so on, and we ask them to give us their estimate of what's going to happen to pricing and I assume that they use the fundamentals of supply and demand, projecting what will demand be, what will supply be, in order to evaluate what will happen with the pricing.

If I might show on this chart, starting in May of last year, this yellow line is where the EIA thought prices would go. July, they thought this would be the line. November last year, this would be the line. May of this year, this would be the line. These are all the best estimates of the EIA using fundamentals to evaluate what would happen to prices. This red line, by the way, is what happened to prices.

Mr. Gruenspecht, you've heard me query Mr. Caruso about this. The best experts in a $100 million Federal agency have told us the way it appears this line is going to look all the way along every time they've done the assessment, but in fact here's the way the line went.

My guess is it went this way because it has no relationship to the fundamentals that you studied that produced all these yellow lines and yesterday was perhaps more than a squeeze.

Ms. Windsor, when you describe this piece, if you're a trucker out there and you described how many truckers have gone under, if you're a trucker out there and you hear that there's a squeeze in the refining capacity or this or that, you know, there's not much you can do about it.

Ms. WINDSOR. No.

Senator DORGAN. This issue, this issue of a run-up in speculation on the futures market in which the market become broken and doesn't track at all with what the experts think should happen, that's also outside of the realm of any trucker to have any impact on at all and so we've had hearing after hearing on this and we've had all the experts come who have an interest in saying there is no speculation, who tell us that, there's nothing going on, don't believe your own eyes, and so that's the dilemma here.

I think the issue that you've just described, Mr. McCurdy, about the engine, Ms. Windsor also has talked about a much more engine, all of these things are interesting to this committee because you made a point that is very important. We can't ask somebody to produce a car that's not going to have fuel in all 50 States. The same is true with trying to move toward in the longer-term hydrogen fuel cell vehicles.

How do you change an infrastructure of being able to get gasoline and then a month later buying a new vehicle and finding a place to fuel with hydrogen, right? I mean that's probably 20 years away.

So these are all really interesting, challenging things, and I think Senator Bingaman has put us on the path to trying to think through bolder and more interesting and more innovative approaches to all of these energy challenges we have.

Mr. MCCURDY. If I could just respond to one point my friend and former colleague raised, and that is, the infrastructure issue which is a huge question because if you look at ethanol, you look at the number of stations available, there's some 1,700 out of a 170,000, but in diesel, it's about 49 percent of stations offer diesel. So there is a core infrastructure that would allow for an expansion of diesel much more rapidly than I think some others—across—that's nationwide, that's true, and it varies by State and some States probably a little higher, in more rural States.

So yes. The infrastructure could be expanded. It should be improved, but I think, you know, the technology barriers are one issue. The cost barrier and price is certainly the other and the disproportionate taxation and what we saw the price difference.

The CHAIRMAN. Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman, and thank you to the witnesses.

I want to try to understand just a little bit better what the real impact of the EPA regulations on the clean diesel and the ultra clean diesel fuel requirements.

When we moved to these requirements, at that time EPA indicated the cost was going to be somewhere between four and a half to five cents a gallon. I don't know if I heard you correctly, Ms. Windsor, but I thought that I heard you say it's more like double that.

Ms. WINDSOR. It can be, yes.

Senator MURKOWSKI. Twelve cents per gallon. Do we actually know how much these regulations have affected prices, and beyond that, is it completely factored in or are there still refineries that are undergoing the conversion so that we'll continue to see this price increase further? What do we know about these numbers?

Mr. Scott. Dr. Gruenspecht.

Mr. GRUENSPECHT. One way to look at this, and not in an engineering way but in a market way, is to look at the difference between heating oil prices because heating oil prices are a high-sulfur product and diesel fuel prices, and we can look at what that difference was before this ultra-low sulfur diesel rule came in and after. Obviously, the prices are changing every day but, generally speaking, I think, before the 2005 hurricanes, typically on the Gulf Coast the prices were one to two cents higher for diesel oil than for heating fuel on the spot market.

That gap opened up quite a bit. I think, currently, it's 13 to 14 cents would be a typical gap. So if you take the one-to-two cent gap that you had before and now look at the 13-to-14 cent gap, you might say that the impact of the program as it's worked through the market has been to increase the size of that difference by a little bit more than 10 cents, maybe 11–12 cents a gallon, which I think is consistent with what was said by others.

Senator MURKOWSKI. Then again, Mr. Scott, if you want to speak to that, but also, so is that what we can expect that gap to be or is it going to increase further as the conversion continues or are we done with it?

Mr. SCOTT. First of all, we're not done with the conversion. I think it's important to distinguish between cost and price and the

cots of mining a diamond is very different than the cost that you and I would pay for it.

So the cost to the nation's refiners of the diesel sulfur reductions have been, I think, about $22–$23 billion to date. That's investments made in the facilities. The costs are determined—I'm sorry. The prices are determined by the market and if there is less diesel being made by the same machines because we've reduced the sulfur, then shortages tend to give rise to price pressures.

We have not fully implemented the ULSD Program. We have implemented most of the onroad program, the highway diesel fuel. Offroad, meaning tractors, other diesel-powered generators, that sort of thing, is coming over the next couple of years and then there's a third phase which is marine and locomotive diesel which will be coming in the 2010 timeframe.

So our folks continue to make their upgrades in order to take the sulfur out, but it's not over yet.

Senator MURKOWSKI. So, Mr. McCurdy's photograph of yesterday's prices in terms of what you pay for unleaded gas versus what you're saying for diesel as of yesterday, you would expect to see that differential remain for some time. Is that what you're suggesting?

Mr. SCOTT. I would be foolish to suggest future prices, but unless we increase supply of diesel fuel, there's no reason to expect downward pressures on prices.

Senator MURKOWSKI. Which brings us back to Mr. McCurdy's point about the need to perhaps examine the tax policies.

I know my family's a perfect case in point. My family up in Alaska had a diesel Suburban and as soon as my husband began to really appreciate what was happening with the diesel prices, we unloaded that vehicle and if we in fact do want to encourage, as the Europeans do, encourage more Americans to purchase these vehicles, it's not going to happen if you have that kind of a continuing differential in price. It's just not going to be there.

Mr. Chairman, thank you.

The CHAIRMAN. Senator Craig.

Senator CRAIG. Thank you, Mr. Chairman, and to all of the witnesses, Dave, it's good to see you again, and to all of you, thank you for being here.

I suspect we need you all in a very clear way more than we ever have because the Congress is falling all over itself at this moment trying to figure out where it should go and I am a living case in point.

I just came from an EPW Committee hearing where the chairman is pounding on EPA for not enforcing what the courts said they had to do with carbon and therefore some political motive was moving the EPA not to do what the courts had said they must and that is regulating, controlling carbon emissions greenhouse gas. But over here, we're suggesting that we have cost the consumer another 15 cents a gallon because we did do it or at least we cleaned up diesel substantially more than it has been.

Mr. Chairman, I find that a phenomenal and interesting contradiction, nearly, or at least one without balance because EPA, at the time the sulfur debate was going on, was talking 3, 4, 5 cents,

somewhere in that range, cost differential in a cleaner fuel. Today, you're suggesting it's anywhere from 10 to 12 to 14 cents.

Now if you use that indices and applied it against the committee's analysis of their climate change legislation, it's only going to cost $6.7 trillion and then you double it or triple it, oops, no wonder the American consumer and voter has decided at this moment that we don't deserve a good job performance rating.

This committee, frankly, does. We've done some phenomenal work in energy policy, thanks to this chairman and the ranking member and this committee over the last good number of years, and we've tried to stay out or at least work out our differences in, if you will, competing or contradictory approaches.

Congress hasn't been as successful at that. I remember buying diesel at 19 cents. Those were the good old days. We were actually using it to pump water. We quit that at 30 cents a gallon. It was no longer economical. We switched to electrical power.

So, Mr. Chairman, I remember a time when a diesel truck arrived at our farming and ranching operation and literally unloaded the entire truck because that's the volume we were buying it in. Those days are long gone. Then it was considered, if you will, kind of a spin-off from the processing and maybe Senator Sessions is right, the engineers had—finally the consumer became smarter as it relates to the economics of diesel.

But I'm not sure we have. So it's very important for us as we make these changes in policy that you from the private sector react and say here are the impacts of what we do or what we potentially do to the consumer.

Right now, the one impact we ought not do to the consumer is cost them more money. They're, if you will, stressed out to the limit and that's, I think, my greatest frustration, is how we create these balances to address what most of us view as a real problem and that is we shouldn't put more carbon into the atmosphere, but how do we create those effective blends and certainly the transportation industry is going to play a very valuable role in that.

I apologize for not being here for your testimony. Oil is trading down a $1.01 at this moment, so that there's a little bit of despeculation going on in the market today where there maybe was speculation yesterday. Sounds like a normal market day in the business of energy.

Thank you, all. Thank you, Mr. Chairman.

The CHAIRMAN. All right. Let me see. Senator Murkowski, did you have another questions?

Senator MURKOWSKI. No, thank you.

The CHAIRMAN. If not, I want to thank the witnesses. I think it's been useful testimony. Obviously we haven't completed the right policy in all these areas, but I think it's useful to understand the different factors that we need to keep in mind.

Thank you, all, for being here and that will conclude our hearing.

[Whereupon, at 11:10 a.m., the hearing was adjourned.]

[The following statement was received for the record.]

STATEMENT OF PATRICK CHARBONNEAU, VICE PRESIDENT, GOVERNMENT RELATIONS, NAVISTAR, INC.

Chairman Bingaman, Ranking Member Domenici, and members of the committee, my name is Patrick Charbonneau and I am Vice President of Government Relations at Navistar International Corporation (Navistar, Inc.). On behalf of Navistar, Inc., I would like to take this opportunity to thank you for allowing me to submit written testimony regarding the issue of diesel fuel prices.

Navistar, Inc. (NYSE: NAV) headquartered in Warrenville, Illinois, is a holding company whose wholly owned subsidiaries produce International® brand commercial and military trucks, MaxxForce™ brand diesel engines, IC brand school and commercial buses, and Workhorse® brand chassis for motor homes and step vans. It also is a private-label designer and manufacturer of diesel engines for the pickup truck, van and SUV markets. The company also provides truck and diesel engine parts and service. Another affiliate offers financing services.

THE ISSUE

The transportation industry has been hit by the unusual price disparity between diesel fuel and gasoline. Diesel has become higher in price than gasoline versus historic price parity.

THE IMPACT

Bankruptcies

More than 1,900 trucking companies went bankrupt during the 1st quarter of 2008 and 42,000 trucks idled (2.1 % of the nation's trucks). Up to 20% cost disparity with gasoline results in over $10 billion in annual excess fuel costs to the diesel drivers.

Truck Sales Drastically Down

Add on to the excess fuel costs $5k to $10k in price increases for new near zero emissions trucks in 2007 and again in 2010, and the result is truck sales down 43% and the job losses at truck and supplier plants. As a reference point the auto industry is down only 12% in the same period.

Dieselization Rates Down

The dieselization rate of lighter vehicles, such as heavy duty pickups, has dropped from a historic 70% dieselization to below 50%. The diesel vs. gas price disparity is impacting the consumer decisions to buy diesel vehicles, which enjoy the 30 to 40% fuel efficiency improvement over gasoline.

U.S. Burns More Fuel

Without this price difference being addressed, dieselization of consumer vehicles will contract instead of expand resulting in the United States (U.S.) burning more fuel and having to look for more sources of oil.

WHAT IS CAUSING THE PROBLEM?

Congress is reviewing many of the factors in the fuel pricing and supply situation. However, insufficient attention has been given to the fact that the demand for diesel fuel and gasoline is changing, in an environment where improvements in fuel efficiency and reductions in CO_2 emissions have become an important goal.

Gasoline demand is dropping in the U.S. and in Europe due to the use of ethanol, reduced driving/smaller cars (in the U.S.) and diesel passenger cars demand (over 50% in Europe). Diesel demand is increasing in Europe, China and India. The impact of increased dieselization in the U.S. is clear. The Environmental Protection Agency (EPA) has estimated that if the U.S. passenger car market was 35% diesel, the U.S. would save the equivalent of the oil that we import from Saudi Arabia.

If the price disparity is impacted by the shift in demand, changes in diesel supply can be achieved through conventional and non conventional means.

A conventional means is refinery flexibility. U.S. refineries produce ⅔ gas for every ⅓ diesel. In European refineries the focus is for more fuel efficient diesel resulting in almost 2/3 diesel for every ⅓ gas. More flexibility in U.S. refineries could significantly increase the production of fuel efficient diesel without increasing gasoline output.

Non conventional methods for acquiring more diesel without generating excess gasoline include biodiesel, Fischer Tropsch fuel from a variety of feedstocks (biomass, natural gas, low value refinery products, coal, etc) and diesel from shale oil.

CLEAN DIESEL BACKGROUND

Diesel has undergone a revolution that has resulted in diesel emissions levels for particulates and NO_X down over 90% from unregulated products. The fuel economy attributes of over 30% better efficiency than gasoline products as well as long life have made diesel the product of choice for the transportation industry. Because of the fuel efficiency and CO_2 emissions benefits, passenger car industries such as Europe have dieselization rates of over 50%.

CONCLUSION

Congress has not focused on the specific issue of price disparity between diesel and gasoline. Mr. Chairman, I am pleased that you are focusing this committee's attention on the high diesel fuel prices. Ultimately, what needs to be determined is what can be done to resolve not only the short term diesel availability and price but the longer term diesel fuel availability and its impact on future fuel efficiency objectives.

Again, thank you Mr. Chairman and Ranking Member and members of the committee for the opportunity to provide this testimony.

APPENDIX

RESPONSES TO ADDITIONAL QUESTIONS

RESPONSE OF DAVE MCCURDY TO QUESTION FROM SENATOR LANDRIEU

Question 1. As we respond to an increased global demand for diesel fuel and a call for increased production of biofuels, what role to you believe biodiesel will play in the future of diesel use?

Answer. In enacting the Energy Independence and Security Act (EISA), Congress recognized the potential for biodiesel and other biofuels to help lessen our dependence on petroleum-based fuels, improving our national energy security and reducing greenhouse gas emissions from the transportation sector. Diesel vehicles deliver between 20 to 40 percent higher fuel economy than comparable gasoline models, providing a promising technology pathway for automakers to meet EISA's required 40 percent increase in fuel economy standards by 2020.

As I state in my written testimony, diesel vehicles currently account for about 3 percent of new vehicle sales in the U.S. light duty market. J.D. Power and Associates recently forecast that diesels will account for 14 percent of the U.S. auto market in 2017. For comparison, diesel vehicles account for as much as 50 percent of the passenger vehicle fleet in some European nations.

The Committee's hearing on September 23rd highlighted increasing pressure on diesel supply and the resulting higher price of diesel relative to gasoline. A growing market for diesel automobiles over the next decade could create additional demand pressures. Increased production of renewable fuels compatible with diesel engines, including both renewable diesel and biodiesel, could alleviate some of the resulting price pressure on diesel fuel as we go forward.

Both renewable diesel and biodiesel have significant promise for supplementing, and ultimately displacing, conventional diesel fuel. However, unlike renewable diesel fuel, biodiesel fuel is not fully fungible with petroleum-based diesel either in the distribution infrastructure or in vehicle engines. Since biodiesel degrades quickly, care must be taken during fuel production and distribution to assure acceptable quality at the retail level. Poor quality fuel can cause serious problems that might lead consumers to reject both the fuel and the vehicle. Most diesel manufacturers accept the use of biodiesel at levels up to 5 percent by volume (B5) as long as the fuel meets accepted quality standards. Some vehicles may be able to use higher biodiesel levels, especially in light of the recently defined standards for biodiesel blends of between 6 and 20 percent (B6-B20).

Congress can help assure an adequate fuel supply to support the growth of a diesel automobile market by making working with standards organizations, fuel producers and distributors to promote high-quality and dependable biodiesel fuel. Congress can also promote policies to support price-competitiveness of diesel fuel, biodiesel and renewable diesel fuel relative to gasoline to encourage greater penetration of diesel automobiles in the U.S. market.

DEPARTMENT OF ENERGY,
Washington, DC, November 12, 2008.

Hon. JEFF BINGAMAN,
Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: On September 23, 2008, Howard Gruenspecht, Acting Administrator, Energy Information Administration, testified regarding why diesel fuel prices have been so high, and what can be done to address the situation.

Enclosed are the answers to 6 questions submitted by you, Senators Domenici and Lincoln to complete the hearing record.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen.

Sincerely,

LISA E. EPIFANI,
Assistant Secretary, Congressional and Intergovernmental Affairs.

[Enclosures.]

RESPONSES TO QUESTIONS FROM SENATOR BINGAMAN

Question 1. Is the recent surge in demand for diesel for electric generation a short term or long term factor? What arc alternative options for low-cost, off-grid electrification? Might this be a good application for biodiesel?

Answer. Diesel generators are often used in response to emergency situations, when commercial electricity supplies are disrupted. As a result, spikes in diesel generation arc most often short-term phenomena, rather than long-term solutions to providing electricity. For instance, disruptions to coal transportation systems in China last year during particularly harsh winter weather resulted in an increase in diesel generation. Many South American countries rely on diesel generators when drought conditions lower hydroelectric supplies.

In the long-run, electricity providers seek more cost effective solutions to supplying reliable electricity generation rather than continuing to rely on diesel generators. In China, for instance, there are plans to expand nuclear, coal-fired, and renewable generation. Unfortunately, these solutions can take a long time to implement because of the need to expand the infrastructure to support the expansion of electricity, including transmission lines, railroads and highways.

It is likely that diesel generators will continue to be used as short-term solutions to emergency situations, because they can be used to quickly respond to power disruptions, so that the use of biodiesel to fuel generators would be possible. In remote areas with no access to national grids and where it is difficult and expensive to expand transmission lines, renewable energy sources—for example, micro hydroelectric facilities, wind, solar, and other off-grid renewable technologies—could also provide relatively cost-effective power solutions.

Question 2. NPRA has stated that U.S. diesel exports are not clean enough to be consumed inside the U.S. Are there export data to back up this claim? Might there be other domestic applications for some of that diesel? For instance, could it be used for heating oil?

Answer. This year's distillate exports include both low sulfur and ultra-low sulfur distillate that could be used in the U.S. EIA uses export data provided by the U.S. Bureau of the Census that does not break out ultra-low sulfur diesel from low sulfur, but we confirmed that some of the product being exported included ultra-low sulfur diesel. The high sulfur distillate market (fuel with greater than 500 ppm sulfur) includes home hearting oil and fuel for electric generating use. Historically, high sulfur distillate represented more than half of total distillate exports. For example, in 2000 high sulfur exports represented 77 percent of the exported volumes, while in 2007 they represented 51 percent. This year, high sulfur exports dropped to 13 percent of total distillate exports, both because most U.S. distillate production (88 percent) is now low or ultra-low sulfur distillate and because some of the major export areas needing distillate, such as Europe, now use low sulfur or ultra-low sulfur product.

RESPONSES TO QUESTIONS FROM SENATOR DOMENICI

Question 1. On the second page of your written testimony, I noticed that in the past year, the cost to refine a gallon of gasoline has declined, while the cost to refine a gallon of diesel has increased. According to your chart, the cost to refine gasoline dropped by 31 cents, but the cost to refine diesel increased by 18 cents. Can you explain why these numbers went in opposite directions?

Answer. Figure 1 of the testimony, presents a simplified view of price components to help explain variations in retail prices. The component labeled as the "wholesale crack" in the figure is not refining costs to produce the products shown. Rather, the wholesale crack, defined as the wholesale price of gasoline or diesel minus the cost of crude oil to the refinery is a measure of the revenue available to cover remaining refining costs and refining profits associated with gasoline or diesel production after crude costs are removed. This revenue varies in the short run as a result of basic supply and demand forces in the markets for crude and products.

Figure 2 in the testimony displays time series of wholesale diesel and gasoline crack spreads. Looking at gasoline, it shows that during 2007 the wholesale price were often much larger than crude oil costs, implying high profitability. This year.

however, gasoline markets have had ample supply relative to demand as a result of declining demand, increased use of ethanol (and thus less need for crude-based gasoline), and increased availability of gasoline imports. This ample supply reduced the wholesale gasoline crack spread, and at times, pushed gasoline prices below the price of crude oil resulting in financial losses for gasoline production. At the same time, the distillate market, which includes diesel, and is distinct from gasoline market, tightened considerably worldwide as a result of growing demand, particularly in the electricity generating sector. That pulled diesel prices up relative to crude oil cost, improving refining profits from diesel production.

Question 2. Since 2002, EIA has broken out the price of diesel into its component costs—refining, distribution and marketing, taxes, and crude oil. In May 2002, refining accounted for 5.1 percent of the price of diesel, but since then, and even as the price of oil has increased substantially, refining costs have consistently been much higher. I understand that one factor in this increase may be the decision to mandate the use of Ultra-Low Sulfur Diesel fuel. EPA initially estimated this would cost no more than 5 cents per gallon. The transition to ULSD is important to improving air quality, but has it come at a greater cost than we expected? Can you describe any other factors that may account for the substantial increase in refining as a percentage of the price of diesel??

Answer. The data represented in Figure 1 reflects the sum of refining costs and profits which varies. The "wholesale diesel crack" component will vary both as a percent of total price and as an absolute value with the changing distillate and gasoline supply-demand balances in the short run. We do not have any direct measure of how the cost of producing diesel fuel has increased over time. Both heating oil and diesel fuel tend to move together with the general distillate market tightness or looseness, so looking at the difference between diesel prices and heating oil prices over time will help to isolate the impact diesel specification changes such as the move to ultra low sulfur diesel (ULSD) may have had. Prior to 2005 and the hurricane impacts on prices, wholesale diesel prices on the Gulf Coast would normally average one to three cents above No. 2 fuel oil (heating oil). After the ULSD program began in 2006, diesel has been averaging 13-14 cents per gallon over No. 2 fuel oil. This implies that the ULSD program may be contributing about 10 cents per gallon to the price of diesel fuel.

This is relatively consistent with the studies done on ULSD production costs. For simplicity, EPA, EIA, NPC and others use single numbers to discuss cost estimates. But these costs are difficult to compare. EIA's 2001 report. Transition to Ultra-Low Sulfur Diesel explains the difficulties in comparing costs in greater detail. For example, costs will increase with the relative amount of ULSD produced compared to 500 ppm sulfur or high sulfur distillate, with the amount of "cracked stock" (distillate material that conies from fluid catalytic cracking or coking units) that needs to be desulfurized, with the scale of the units used to desulfurize the distillate, and whether new or revamped units could be used. The clean diesel program has grown, with more of the distillate market being required to use low or ultra-low sulfur fuel, which alone would be expected to result in increasing costs.

Question 3. The military has undertaken a program aimed at providing a greater share of their energy needs with domestically produced fuel—much of this work has focused on taking greater advantage of our domestic coal reserves. What impact do you believe coal-to-liquids fuels could have on the price of diesel?

Answer. Given the amount of coal-to-liquids distillate fuels EIA is projecting in the AE02008 reference case in 2030. approximately 137,000 barrels per day, and the amount of diesel fuel use projected in 2030, 4.871 million barrels per day, the price effect would be likely be limited. In general, adding new supply to an extremely tight market for all distillate range material should lower prices to some extent for all midrange distillate products, but EIA has not performed quantitative analysis on this topic.

Response to Question From Senator Lincoln

The rise in both gas prices and diesel prices are especially worrisome in a rural state like Arkansas, where families have to drive long miles to work and school and the grocery store. The combination of lower incomes, high fuel prices, and the heavy dependence on pickup trucks and vans and use of farm equipment is putting an even tighter squeeze on family budgets. Rural residents do not have mass transit or grocery stores nearby and few alternative fuel options available to ease the pain at the pump.

Question 1. I do believe that most of our energy policy option will focus on the long-term, as we are not going to solve this problem overnight. However, in you expert opinions, what do you believe are Congress' most immediate options for pro-

viding relief to hard-working families and businesses which rely mostly on diesel fuel?

Answer. The Administration has pursued, as you note, significant strategies to increase both the efficiency of motor vehicles and the supply of alternative fuels for transportation use. These measures have included increased fuel economy standards for both cars and light trucks, mandates for greater use of non-petroleum fuels and incentives for their production, biofuels research, incentives for advanced hybrid vehicles, and increased access to domestic resources for increased domestic energy production. Despite these long-term initiatives, world oil prices rose to very high levels, peaking in the summer of 2008. The resulting gasoline prices of about $4.00 per gallon, and diesel prices even higher prompted widespread public concern.

Fuel prices have fallen sharply since their mid-2008 peak under the combined influence of consumer adjustments and weaker economic growth both in the United States and worldwide. These lower fuel prices provide significant relief to hard-working families and businesses. Additionally. the Department of Energy remains focused on long-term energy security through alternative fuels, increased domestic energy production and gains in enemy efficiency.

NATIONAL PETROCHEMICAL & REFINERS ASSOCIATION,
Washington, DC, October 9, 2008.

Hon. JEFF BINGAMAN,
Chairman, U.S. Senate, Committee on Energy and Natural Resources, 304 Dirksen Senate Office Building, Washington, DC.

Hon. PETE DOMENICI,
Ranking Member, U.S. Senate, Committee on Energy and Natural Resources, 304 Dirksen Senate Office Building, Washington, DC.

DEAR SENATORS BINGAMAN AND DOMENICI: I testified before the Senate Committee on Energy and Natural Resources on September 23, 2008 on diesel prices.

I am pleased to respond to the questions sent on September 25, 2008. Please see the enclosed document.

NPRA and its members look forward to working further with the Committee on this issue.

Sincerely,

GREGORY M. SCOTT,
Executive Vice President and General Counsel.

RESPONSES TO QUESTIONS FROM SENATOR BINGAMAN

Question 1. Is there a channel of communication between the refining industry and the auto manufacturers to ensure that your industries move in step toward increasing both diesel engines passenger vehicles and diesel fuel?

Answer. Antitrust law does not permit a trade association to direct oil company decisions to produce diesel fuel supplies at certain volumes. Oil companies are prohibited from discussing fuel production plans with each other. Oil companies make fuel production decisions independently.

The refining industry and auto manufacturers jointly sponsor cooperative, precompetitive research through the Coordinating Research Council. The major committees of CRC are Performance, Atmospheric Impacts, Emissions, and Advanced Vehicle/Fuel/Lubricants. This is a venue for frequent communication for many employees in the refining and automaker industries.

Question 2. NPRA has stated that U.S. diesel exports are not clean enough to be consumed inside the U.S. Are there export data to back this up? Might there be other domestic applications for some of that diesel? For instance, could it be used for heating oil?

Answer. On page ten of NPRA's testimony, we explain that precise statistics are not available as to the specifications of the distillates being exported. EIA reports Department of Commerce data which labels this product as 15-500 ppm sulfur.[1] NPRA mentioned the lack of precise statistics because the Department of Commerce does not report data for distillate fuel oil exports with less than 15 ppm sulfur. Therefore, there is a question as to the precise sulfur content of these exported vol-

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[1] EIA http://tonto.eia.doe.govidnav/pet/pet move exp dc NUS-Z00 mhhl m.htm. Department of Commerce http://www.census.gov/foreign-trade/schedules/b/2008/c27.html#2710 which shows two sulfur content categories for distillate fuel oil—1) less than or equal to 500 ppm sulfur and 2) greater than 500 ppm sulfur.

umes. The Department of Commerce plans to correct this confusion in the future by showing data separately for 15-500 ppm sulfur and less than 15 ppm sulfur.

Also on page ten of our testimony, we note that 15-500 ppm sulfur distillate fuel oil is not in demand in the U.S. highway diesel fuel market because of the ULSD program. This product could be used in non-highway diesel and heating oil applications. On page six of NPRA's written testimony, we cite EIA data that U.S. supplies of distillate fuel oil (all diesel plus heating oil) are currently at 30 days, indicating clearly that current U.S. supplies are more than adequate.

EIA's written testimony includes statements that this exported distillate fuel oil is being used for nontransportation uses such as for electric generation (see page 7).

RESPONSE TO QUESTION FROM SENATOR DOMENICI

Question 1. The EIA tells us that oil costs $2.65 per gallon, on average. After refining, we are told that refiners receive an average 75 cents per gallon of diesel fuel to cover refining costs and profits. How much of the 75 cents per gallon represent a refiner's costs and how much is profit?

Answer. NPRA does not have an estimate of a refiner's profit for production of an individual petroleum product. However, several press reports and the earnings statements of companies in the refining business show significant decreases in overall refining margins over the last three financial quarters—with some companies even posting losses. Refiners are the first to feel the impact of high crude prices. With the existing conditions of high crude oil prices, tight credit markets and demand decreases, refiners will continue to operate in a challenging economic environment in the foreseeable future.

October 23, 2008.

Hon. JEFF BINGAMAN,
Chairman, U.S. Senate, Committee on Energy and Natural Resources, Senate Dirksen Building, Room 304, Washington, DC.

RE: Response to Follow-Up Questions from September 23, 2008 Testimony of Barbara Windsor, President & CEO, Hahn Transportation, Inc., and American Trucking, Associations Vice Chairwoman

DEAR SENATOR BINGAMAN: Thank you for the opportunity to testify before the Senate Committee on Energy and Natural Resources' recent hearing entitled Why Diesel Fuel Prices Have Been so High, and What can be Done to Address the Situation. Additionally, ATA appreciates and strongly supports the pro-active effort of Senators' Lincoln, Bingaman, and others, to incentivize idle reduction systems for the nation's truck fleet through the introduction of S. 894. This letter responds to your requests for additional information. The responses set forth herein represent the positions supported by the American Trucking Associations (ATA).

RESPONSE OF BARBARA WINDSOR TO QUESTION FROM SENATOR LINCOLN

Diesel truck idling reductions considered one way to help alleviate diesel supply and demand imbalance. And one of the methods to help pave the way for increased use in anti-idling equipment is to provide tax credits to companies that purchase this equipment. As you may know, I introduced legislation last year, S. 894, the Idling Reduction Tax Credit Act which provides a business tax credit of 25% of the cost of idling reduction devices, up to $1,000.

Question 1. Given the run-up in diesel prices and demand, how has the importance of such tax credits increased? In what additional ways can Congress help increase the availability of idle reduction systems?

Answer. To put the importance of expediting the introduction of idle reduction equipment into the mainstream of trucking operations, one needs to go no further than looking at the amount and cost of diesel fuel trucking consumes on an annual basis. In 2006, trucks consumed over 39 billion gallons of diesel fuel at a cost of $106 billion. According to U.S. Environmental Protection Agency estimates, 1.1 billion gallons of diesel fuel (or nearly 3%) is attributed to truck idling. With trucking's diesel fuel bill reaching $113 billion in 2007, and 2008 projections estimated at over $159.9 billion, most fleets today say fuel is now their highest operating expense.

The Energy Information Administration (EIA) reported that the national average retail price for on-highway diesel fuel is currently at $3.65 per gallon, down from its historic high of $4.76 in July of this year. The EIA estimates that the average price for diesel fuel in the nation will be at $4.01 per gallon in 2008. With the fuel economy of large trucks remaining relatively flat over the last quarter century (typi-

cally 6.0 to 6.5 miles per gallon), companies are looking for other ways to conserve fuel, reduce carbon and emissions, and improve their bottom-lines. High on these company wish-lists is the purchase of idling reduction devices. Unfortunately, given the state of the nation's economy, high fuel costs, limited discretionary capital, and the overall slowdown in trucking, the purchase of idling reduction equipment remains unattainable for many businesses.

Long-haul trucks serve both as the drivers' work place and residence. Therefore, trucks idle for comfort, safety, and necessity. The average truck consumes roughly 1 gallon of fuel an hour when idling. Idling reduction devices can cut these hourly diesel fuel consumption levels from none (assuming battery power or electrification options) to roughly .2 to .4 gallons per hour (assuming options such as direct-fired heaters, auxiliary power units, etc.).

Recognizing that 96 percent of all trucking companies in this country are designated as small businesses, fleets are desperately seeking measures to further incentivize the purchase of idling reduction technologies for their trucks. To this end, Congress could help increase the availability of idle reduction systems through the following measures:

A. ISSUE BUSINESS TAX CREDITS ON THE PURCHASE OF IDLING REDUCTION DEVICES

ATA appreciates and endorses S. 894, the Idling Reduction Tax Credit Act, which provides a business tax credit of 25 percent of the purchase cost of idling reduction devices, up to $1,000 per device. While earlier efforts to secure business tax credits of up to $3,500 per idling reduction device were unsuccessful in the House, a $1,000 business tax credit would go a long way towards introducing such devices into trucking fleets. ATA asks the Congress to enact legislation affording fleets business tax credits on the purchase of idling reduction devices.

B. SUPPORT RESEARCH AND DEVELOPMENT FOR IDLING ALTERNATIVES

Technology advancements have stalled for many years and an infusion of funding into an organized research program is critical to develop the next generation of idling reduction technologies. ATA asks the Congress to fund research and development in the areas of new-generation batteries and anti-idling equipment.

C. RECOGNIZE WEIGHT EXEMPTION FOR INSTALLATION OF IDLING REDUCTION EQUIPMENT

Since idling reduction equipment may add substantial weight to a truck, many fleets cannot afford to reduce their cargo capacity to compensate for the installation of idle reduction devices on a truck. Overweight trucks can be cited by state enforcement officials and run the risk of receiving substantial penalties. To address this concern, Congress authorized a 400-pound weight exemption for trucks equipped with idle reduction equipment under Section 756 of the Energy Policy Act of 2005. While Congress' intent was to mandate this exemption, the Federal Highway Administration (FHWA) determined that states "may" adopt the exemption on a voluntary basis. FHWA's interpretation of the weight exemption gives states the option of whether to allow the exemption or not. ATA asks the Congress to clarify the 400-pound weight exemption as being applicable to idling reduction equipment nationwide.

D. INCREASE FUNDING FOR USEPA'S SMARTWAY^{sm} PROGRAM

In February 2004, the freight industry and USEPA jointly unveiled the SmartWay^{SM} Transport Partnership, a collaborative voluntary program designed to increase the energy efficiency and energy security of our country while significantly reducing air pollution and greenhouse gases. The program, patterned after the highly-successful Energy Star program developed by EPA and DOE, creates strong market-based incentives that challenge companies shipping products and freight operations to improve their environmental performance and improve their fuel efficiencies. To become a partner a fleet must commit to reduce fuel consumption through the use of EPA-verified equipment. One of the predominant measures in the program to achieve fuel savings is to employ idling reduction strategies and devices. By 2012, the SmartWay^{SM} program aims to save between 3.3 and 6.6 billion gallons of diesel fuel per year. EPA predicts SmartWay^{SM} participants will also reduce their annual greenhouse gas emissions by 48 million tons of CO_2 equivalents. SmartWay^{SM} is one voluntary greenhouse gas program that not only works, but exceeds expectations.

While the trucking industry has fully embraced SmartWay^{SM} and relies upon the innovativeness of this cutting edge program, future funding remains uncertain.

While ATA and other freight and shipping sectors continue to work towards ensuring a separate line item in future EPA appropriations for SmartWay^{SM}, we are troubled with the FY08 funding cuts to the program. More specifically, total monies allocated to the program this year dropped from roughly $3 million in FY07 to $2 million in FY08. Funding cuts to grants, contracting, marketing, technology development, and other program expenses have severely undermined the mission of the program. It is our hope that EPA will redirect an additional $1 million from the Climate Protection Program under the FY08 budget to ensure the continued growth and success of this remarkable program. Given that the Energy Star program's annual operating budget is $50 million, ATA asks that the Congress provide a line item appropriation to ensure that SmartWay^{SM} is adequately funded in the future.

E. REQUIRE DEDICATION OF DERA MONIES TO STATE IDLING REDUCTION EFFORTS

The Diesel Emissions Reduction Act (DERA) was passed as part of the Energy Policy Act of 2005. DERA is a bipartisan initiative authored by Senator Voinovich that authorizes $1 billion over five years to help states clean up diesel fleets through the establishment of voluntary national and state-level grant and loan programs to reduce emissions from existing diesel engines through clean diesel retrofits. Idling reduction devices are covered as retrofits under the DERA language. In FY 2008, the DERA program received $49.5 million to carry out its intent, a far cry from the $150.5 million short of the original. ATA asks the Congress to fully fund the annual $200 million DERA authorization levels over the next four years and require states receiving DERA retrofit funding to dedicate no less than 20 percent of such allocations towards the development of grants and/or low-interest loan programs for the purchase of idling reduction devices.

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