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ONE HUNDRED ELEVENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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April 26, 2010

MEMORANDUM

TO: Members of the Subcommittee on Energy and Environment

FR: Energy and Environment Subcommittee Staff

RE: Hearing on Clean Energy Policies that Reduce Our Dependence on Oil

On Wednesday, April 28, 2010, at 9:30 a.m. in Room 2123 of the Rayburn House Office Building, the Energy and Environment Subcommittee will hold a hearing entitled "Clean Energy Policies That Reduce Our Dependence on Oil." The first panel will examine the U.S. Environmental Protection Agency's policies that reduce our dependence on oil, including the recent tailpipe greenhouse gas standards and associated endangerment finding. The second panel will examine the impact of oil dependence on our economy and national security and how the recent Environmental Protection Agency (EPA) regulations and future policies can reduce that dependence.

I. BACKGROUND ON ENERGY SECURITY

The economic costs of our reliance on oil are large. The U.S. relies on petroleum to supply 96% of the fuel for its transport sector, and 37% of the energy for the overall economy.[1] As a result, the U.S. economy spent roughly $900 billion on petroleum products in 2008.[2] Because the U.S. contains only 2% of the world's oil reserves, yet consumes nearly 25% of oil production (Figure 1), the U.S. has increasingly relied on imports, which supplied 57% of U.S. oil demand in 2008.[3] As a result, the U.S. sent roughly $440 billion overseas to pay for imported oil and petroleum

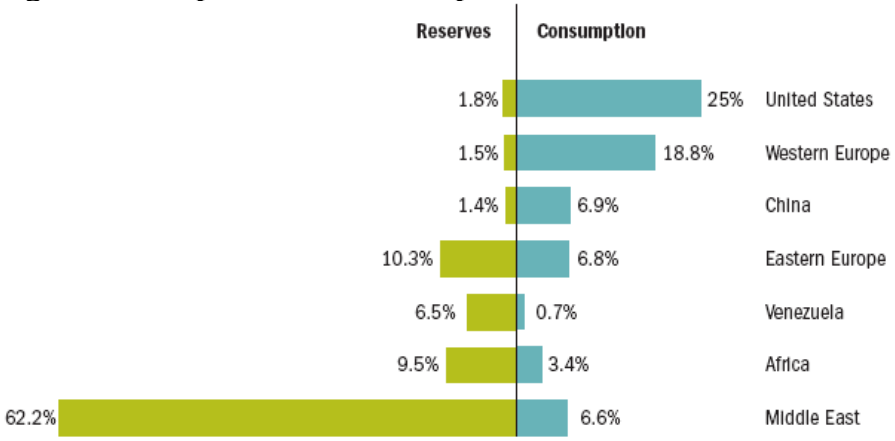
[1] Energy Information Administration, *Annual Energy Review* (June 26 2009) (online at www.eia.doe.gov/emeu/aer/overview.html).

[2] Energy Information Administration, *Short Term Energy Outlook* (Apr. 6, 2010) (online at tonto.eia.doe.gov/). Petroleum prices and petroleum consumption were lower in 2009 as a result of the recession.

[3] Energy Information Administration, *Oil: Crude and Petroleum Products Explained* (Jan. 26, 2010) (online at tonto.eia.doe.gov/energyexplained/index.cfm?page=oil_home).

products in 2008 – almost double the roughly $268 billion U.S. trade deficit with China.[4] These costs do not include the money spent to secure oil shipping routes, fund tax cuts for oil exploration, or pay for the environmental and health impacts of oil consumption.

Figure 1: Comparison of Consumption and Reserves of Selected Regions/Countries



Source: Environment Action with data from *BP Statistical Review* and Energy Information Administration

The economic effects of the nation's oil dependence are increased by the rising trend in oil prices. In 2001 the price of oil was $23 a barrel. By 2008 the price had jumped to $95, hitting a high of $147 during the summer.[5] As a result, the average annual household spending on gasoline roughly doubled during that same period.[6] Looking forward, global oil demand is projected to grow 23 to 24% by 2030 (requiring an extra 20 million barrels per day, or the equivalent of all of the oil used in the U.S.).[7] To meet these projections, two-thirds of the world's oil production in 2030 will have to come from fields that have not yet been developed or found[8] – roughly the equivalent of locating and developing six new Saudi Arabias.[9]

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[4] Energy Information Administration, *Annual Energy Outlook* (Dec. 14, 2010) (online at www.eia.doe.gov/oiaf/aeo/index.html). U.S. Census Bureau, *Foreign Trade Statistics* (Apr. 13, 2010) (online at www.census.gov/foreign-trade/balance/c5700.html).

[5] *Fuel prices: Iran missile launches send oil to $147 a barrel record*, The Guardian (July 12 2008) (online at www.guardian.co.uk/business/2008/jul/12/oil.commodities).

[6] Bureau of Labor Statistics, *Consumer Expenditure Survey* (online at www.bls.gov/cex/csxmulti.htm)

[7] International Energy Agency, *World Energy Outlook 2009* (Nov. 10, 2009) (online at: www.iea.org/weo/2009.asp) pg. 81.

Energy Information Administration, *Annual Energy Outlook 2010 Early Release* (Dec. 2009) (online at www.eia.doe.gov/oiaf/aeo/index.html).

[8] International Energy Agency, *World Energy Outlook 2009* (Nov. 10, 2009) (online at www.iea.org/speech/2009/Tanaka/WEO2009_Press_Conference.pdf).

[9] International Energy Agency, *World Energy Outlook 2008* (Nov. 12, 2008) (online at www.iea.org/weo/2008.asp) pg. 250.

The geographic location of oil reserves can also have significant supply and price volatility effects. More than 50% of the world's oil supplies must transit one of six "chokepoints" such as the Straits of Hormuz.[10] Even a failed attempt to disrupt shipping would cause prices to skyrocket. On March 27, 2007, an unfounded rumor of an attack on a U.S. warship by Iran sent oil prices climbing $5 (to $68.91/barrel) in about 7 minutes.

B. National Security

The U.S. dependence on imported oil has significant national security implications. These include the monetary, diplomatic and other costs associated with ensuring that our energy needs can be met without interruption as well as the effects U.S. purchases of imported oil has on foreign producers. For instance, the RAND Corporation has estimated the cost of protecting U.S. interests in unstable parts of the world that produce oil, including protecting oil shipping routes, at between $67.5 and $83 billion dollars annually (an estimated 12 to 15% of the defense budget).[11]

A recent report authored by 12 retired generals and admirals also described how our oil dependence also funds terrorism:

> American and overall world demand for oil puts large sums in the hands of a small group of nations; those sums, in the hands of certain governments or individuals, can be used to great harm. Iran's oil exports, which reached an estimated $77 billion in 2008, provide 40% of the funding for a government that the U.S. State Department says is the world's "most active state sponsor of terrorism." Iran provides materiel to Hezbollah, supports insurgents in Iraq, and is pursuing a nuclear weapons program. While the U.S. does not trade directly with Iran, many of our allies do (including Japan, South Korea, Italy, and France). Saudi Arabian private individuals and organizations, enriched by the country's $301 billion in estimated 2008 oil, reportedly fund organizations that promote violent extremism revenues. The sad irony is that this indirectly funds our adversaries. As former CIA Director James Woolsey said, "This is the first time since the Civil War that we've financed both sides of a conflict".[12]

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[10] Energy Information Administration, *World Oil Transit Chokepoints* (online at www.eia.doe.gov/cabs/World_Oil_Transit_Chokepoints/Background.html).

[11] RAND Corporation, *Imported Oil and U.S. National Security* (2009)

[12] CNA, *Powering America's Defense: Energy and the Risks to National Security* (May 2009) (online at: www.cna.org/nationalsecurity/energy/).

II. RECENT EPA TAILPIPE EMISSIONS RULES

A. The History: Massachusetts vs. EPA

In 1999, the International Center for Technology Assessment (ICTA) and 18 other environmental and advocacy organizations petitioned the EPA to limit greenhouse gases from new motor vehicles, using its authority under Section 202 of the Clean Air Act. In 2003, EPA denied ICTA's petition and 12 States (California, Connecticut, Illinois, Massachusetts, Maine, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, Washington), three cities (New York, Baltimore and Washington DC), two U.S. territories (American Samoa and Northern Mariana Islands), and several environmental groups filed a lawsuit, *Massachusetts v. EPA*, challenging EPA's decision in the D.C. Circuit Court of Appeals. In 2005, the D.C. Circuit Court rejected the challenge to EPA's decision in a split decision.[13] The Supreme Court accepted the case and, on April 2, 2007, ruled for the petitioners.[14] Specifically, the Supreme Court ruling left EPA legally obligated to determine whether greenhouse gas emissions from motor vehicles could be reasonably anticipated to endanger public health or welfare. If EPA made a positive finding, then it would also have to take regulatory steps to reduce such emissions. The Court specifically considered an argument that EPA's regulation could result in the ancillary effect that new automobiles achieve greater fuel economy performance – a standard-setting responsibility held by the Department of Transportation. The Court rejected this argument as a reason to set aside EPA's duty to regulate pollution.

B. EPA's Endangerment Finding

On December 5, 2007, in response to the Supreme Court decision, EPA sent a draft endangerment proposal to the White House Office of Management and Budget (OMB). This document found that carbon dioxide emissions from motor vehicles endangered public welfare. Congressional investigations revealed that the White House at the time refused to allow EPA to move forward on its proposal.[15]

Under the Obama administration, EPA conducted an additional review of the science and on April 17, 2009, issued a new proposed endangerment finding. This finding included two parts: The first part found that six key greenhouse gases – carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride – constitute in combination "air pollution which may reasonably be anticipated to endanger public health and welfare." The

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[13] *Commonwealth of Massachusetts, et al. v. Environmental Protection Agency*, 415 F.3d 50 (D.C.Cir. 2005) (online at www.icta.org/doc/GW%20decision.pdf)

[14] *Commonwealth of Massachusetts, et al. v. Environmental Protection Agency*, 415 F.3d 50 (S. Ct. 2007) (online at www.supremecourtus.gov)

[15] See i.e. *White House refused to open pollutants email*, (June 25, 2008) (online at www.nytimes.com/2008/06/25/washington/25epa.html)

second part found that emissions of greenhouse gases from new motor vehicles will contribute to atmospheric levels of greenhouse gas pollution.

Following the release of the proposed rule, EPA held a 60-day public comment period, which ended June 23, 2009, and received over 380,000 public comments. EPA reviewed and incorporated public comments into an eleven- volume response to comments document. On December 7, 2009 EPA Administrator Lisa Jackson signed the final endangerment finding.[16]

C. The Joint EPA/NHTSA Tailpipe Standards

With this positive endangerment finding, EPA was obligated to set a motor vehicle tailpipe emissions standard. Additionally, new fuel economy standards, promulgated by the Department of Transportation, were required by Congress under the Energy Independence and Security Act (EISA) of 2007. Additionally, the state of California had set tailpipe standards for greenhouse gases, and 13 other states decided to adopt these rules. This regulatory landscape left the automobile industry facing a number of tailpipe requirements.

In early 2009, the Obama Administration brokered an agreement to provide the auto industry with one national program for fuel economy and greenhouse gas emissions. Under that agreement, the DOT and EPA committed to promulgate 2012 to 2016 model year fuel economy and greenhouse gas standards that align with one another, and California agreed that all auto manufacturers that comply with the EPA greenhouse gas rule during this period will be deemed to be in compliance with the standards adopted by California and other states. This national program for fuel economy and greenhouse gas emissions was supported by the automobile industry, the states and environmental advocacy groups.[17]

D. Impacts of the New Tailpipe Standards

The EPA greenhouse gas tailpipe standards require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide (CO_2) per mile in model year 2016. This requirement is equivalent to 35.5 miles per gallon (mpg) if the automotive industry were to meet this CO_2 level entirely through fuel economy improvements.

Over the lifetime of the vehicles sold during 2012-2016, this national program is projected to save 1.8 billion barrels of oil. While EPA and NHTSA estimate that the joint rule

[16] Environmental Protection Agency, *Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act* (online at www.epa.gov/climatechange/endangerment.html).

[17] Environmental Protection Agency, *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* (online at www.epa.gov/oms/climate/regulations.htm).

will increase the cost of a vehicle by roughly $950, the net saving to consumers will be roughly $130 to $180 per year during a five-year loan and roughly $3,000 over the life of the vehicle.[18]

III. THE RENEWABLE FUEL STANDARD

The EPA also recently finalized a rule to implement the long-term renewable fuels standard revised by Congress under the Energy Independence and Security Act. The Renewable Fuels Standard (RFS) requires biofuels production to grow from 11.1 billion gallons in 2008 to 36 billion gallons in 2022, with 21 billion gallons to come from advanced biofuels.[19] Under the RFS, renewable fuels will displace 1.6 million barrels per day of petroleum by 2022.

IV. WITNESSES

The following witnesses have been invited to testify:

Panel 1:

The Honorable Lisa Jackson
Administrator
Environmental Protection Agency

Panel 2:

Fred Smith
Chairman, President and Chief Executive Officer
FedEx Corporation

Jason Wolf
Vice President for North America
Better Place

Robert Diamond
Former Lieutenant, U.S. Navy
Security Fellow, Truman National Security Project

Charles T. Drevna
President
National Petrochemical and Refiners Association

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[18] Environmental Protection Agency, *EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks* (Apr. 2010) (online at www.epa.gov/oms/climate/regulations/420f10014.htm).

[19] Environmental Protection Agency, *Renewable Fuel Standard* (online at www.epa.gov/otaq/fuels/renewablefuels/index.htm).