

# Center for American Progress Action Fund



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**Testimony on “The American Energy Initiative: A Focus on the Outlook for Achieving  
North American Energy Independence within the Decade”**

**Energy and Power Subcommittee of the Energy and Commerce Committee**  
**2322 Rayburn House Office Building**  
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Progress Through Action

Chairman Whitfield, Ranking Member Rush, and members of the subcommittee, thank you very much for the opportunity to testify today.

I am Daniel J. Weiss, a Senior Fellow at the Center for American Progress Action Fund, a tax exempt organization dedicated to improving the lives of Americans by transforming progressive values and ideas into policy.

The question posed for this hearing is “A Focus on the Outlook for Achieving North American Energy Independence Within the Decade.”

Many experts are optimistic that the reduction of oil demand combined with the increase of domestic oil and natural gas production could further reduce oil imports by 2020. Citi GPS predicts that “between 2010 and 2020...the fuel economy of the entire fleet could rise by 16 percent.”

Raymond James & Associates predicts a significant oil production increase in the coming years *without* any expansion of drilling into protected places or weakening of public health and natural resources protections.

But Congress must not ignore climate science when developing energy policies. **Promoting an energy independence plan that increases carbon pollution is like setting your house on fire to stay warm. It may work at first but the long term consequences are horrendous.**

This year the polluted climate continued to strike back, with the worst U.S. drought in over 50 years. The National Oceanic and Atmospheric Administration determined that the United States experienced the most extreme weather in a century, and it was the third hottest summer ever.

The Obama administration is moving toward energy independence while reducing climate pollution by establishing modern fuel economy standards and investing in clean energy technologies. We are also producing more oil and gas under new worker safety and health protections. We are using and importing less oil. Domestic oil production is the highest in 15 years. Natural gas production is the highest ever measured.

Last year the United States invested the most capital of any country in clean energy technologies to help us remain competitive in the \$2 trillion worldwide clean technology market. It is essential that the United States continue to invest in renewable electricity, energy efficiency and clean alternative fueled vehicles so that our domestic clean tech companies can compete with companies in other nations. Without incentives to invest in this emerging industry, we will cede these jobs and exports to China, Germany and other nations that do support their clean tech industry.

Domestic oil production provides important economic and security benefits. Fewer oil imports will reduce our trade deficit with other nations. But more production won't do much to lower prices at the pump because the oil prices that determine gasoline prices are set on world market controlled by the OPEC cartel.

The Associated Press tested whether more U.S. drilling would lower gasoline prices when it conducted an exhaustive analysis of 36 years of monthly U.S. oil production and gasoline price data. **AP found “No statistical correlation between how much oil comes out of U.S. wells and the price at the pump.”** The Wall Street Journal noted that residents of essentially oil free Germany paid about the same for gasoline as we did in recent years. (minus taxes, of course.)

Because more domestic oil production will have little impact on gasoline prices, “North American energy independence” proposals that expand drilling into previously protected places are unlikely to ease pain at the pump. However, such proposals *will* increase carbon and other pollution because many oil and natural gas production techniques generate significant emissions.

Giving states the authority to allow drilling in National Park Service units and other public lands within their borders tempts them to seek oil revenues rather than safeguard health and natural resources. The *New York Times* noted “States, as a rule, tend to be interested mainly in resource development.”

Yesterday the Center for American Progress released data highlighting 30 National Park units that face the prospect of future oil and gas drilling, including the Flight 93 Memorial and Everglades National Park. These places would be vulnerable if federal oversight of energy on public lands is eliminated in favor of more relaxed state regulations.

Building the Keystone XL pipeline won’t increase our energy security much because a portion of the Canadian tar sands oil flowing to our Gulf Coast refineries will be exported as diesel or gasoline to Europe or South America. But, the pipeline will foster an increase in energy intensive tar sands oil production in Canada. This will add even more carbon pollution to our overburdened atmosphere, further exacerbating climate change and its harmful and costly consequences.

The most important step we can take to become more energy independent while reducing carbon pollution would be to increase investments in the clean electricity, vehicles, and fuels of the future. The revenue to pay for such investments should come from closing \$2.4 billion of annual special tax breaks for the five largest oil companies – BP, Chevron, ConocoPhillips, ExxonMobil, and Shell. These five companies made \$60 billion in profits in the first half of 2012, on top of a record \$137 billion in 2011. Surely the money from these tax breaks would be better invested in the clean energy technologies of the future instead of adding to the coffers of some of the most profitable companies in the world.

### **Climate change impact grows; 2012 is 3rd hottest summer on record**

In this day and age, it is irresponsible and reckless to consider energy policy proposals without assessing their impact on climate change. Those policies that would reduce carbon pollution should be adopted. Energy policies that would increase pollution will boost the huge health costs associated with increasing the atmospheric burden of carbon and other pollutants responsible for climate change. Ignoring an increase in carbon pollution to increase energy independence is like setting your house on fire to stay warm – it may work at first but the long term consequences are horrendous.

Why must we reduce carbon pollution to slow climate change? We need look no further than the headlines from 2012 to get a glimpse of our future if carbon pollution continues unabated. This has been another record year of extreme weather.

- The National Oceanic and Atmospheric Administration's U.S. Climate Extremes Index determined that January through August 2012 in the contiguous United States had the most extreme weather in 100 years.<sup>1</sup>
- The National Oceanic and Atmospheric Administration's National Climatic Data Center concluded that summer 2012 in the contiguous United States was the "3<sup>rd</sup> hottest summer on record." Only the summers of 2011 (74.5°F) and 1936 (74.6°F) had higher average temperatures for the Lower 48.<sup>2</sup>
- There were more record daily high temperatures from January 1, 2012 to August 5, 2012, than in all of 2011. And 2011 had the second hottest summer on record<sup>3</sup>
- The contiguous United States had its warmest July ever since record keeping began in 1895, according to the National Climatic Data Center.<sup>4</sup>
- The United States experienced the "largest moderate to extreme drought area (based on the Palmer Drought Index) since the 1950s," concluded the National Climatic Data Center.<sup>5</sup> This cost insurers \$5 billion for crop damages as of mid-August.<sup>6</sup>
- Last year the United States experienced a record 14 extreme weather events that caused more than \$1 billion damages and losses.<sup>7</sup>

Some may argue that an individual weather event cannot be linked to global warming. That ignores our new reality. Nearly "**all weather events are affected by climate change because the environment in which they occur is warmer and moister than it used to be.**"<sup>8</sup> Climate change makes heat waves longer and more intense. This in turn makes droughts longer and more intense, which then makes wildfire seasons longer and more intense. And warmer temperatures yield more water vapor in the atmosphere, which makes rainstorms more intense.

These extreme weather conditions over the past several years – drought, severe storms, floods, heat waves – are *precisely* the events that scientists have spent years warning us would occur if human produced carbon pollution continued unchecked.

Scientists determined that there is a strong relationship between climate change and extreme weather. The Nobel Prize winning Intergovernmental Panel on Climate Change reinforced this link in the "Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation" in March 2012.<sup>9</sup>

Scientists reviewed "over 1,000 scientific publications," to craft the report. The IPCC warned of "unprecedented extreme weather and climate events," including

- *Medium confidence [50 percent likelihood] in an observed increase in the length or number of warm spells or heat waves in many regions of the globe.*
- *Likely increase [66 percent likelihood] in frequency of heavy precipitation events or increase in proportion of total rainfall from heavy falls over many areas of the globe.*
- *Medium confidence in projected increase in duration and intensity of droughts in some regions of the world.*

The American Meteorological Society, or AMS, recently reiterated that climate change is human induced and underway. On August 20, 2012, the AMS reemphasized the threat posed by climate change.

*There is unequivocal evidence that Earth's lower atmosphere, ocean, and land surface are warming; sea level is rising; and snow cover, mountain glaciers, and Arctic sea ice are shrinking. **The dominant cause of the warming since the 1950s is human activities. This scientific finding is based on a large and persuasive body of research.** The observed warming will be irreversible for many years into the future, and even larger temperature increases will occur as greenhouse gases continue to accumulate in the atmosphere.*

***Avoiding this future warming will require a large and rapid reduction in global greenhouse gas emissions.** The ongoing warming will increase risks and stresses to human societies, economies, ecosystems, and wildlife through the 21st century and beyond, making it imperative that society respond to a changing climate.*

*Technological, economic, and policy choices in the near future will determine the extent of future impacts of climate change.<sup>10</sup>*

The AMS recognized what the National Academy of Sciences reiterated in 2010 about the human impact on our climate. The academy determined that global warming is real, and human induced:

*There is a strong, credible body of evidence, based on multiple lines of research, documenting that **climate is changing and that these changes are in large part caused by human activities.** While much remains to be learned, the core phenomenon, scientific questions, and hypotheses have been examined thoroughly and have stood firm in the face of serious scientific debate and careful evaluation of alternative explanations.<sup>11</sup>*

Dr. Richard Muller, a former climate change skeptic, recently conducted a lengthy analysis of temperature data partially fund by the Charles G. Koch Charitable Foundation (of Koch Industries and Americans for Prosperity fame).<sup>12</sup> This research project concluded that climate change is real and human induced. He wrote in *The New York Times*:

*Following an intensive research effort involving a dozen scientists, I concluded that global warming was real and that the prior estimates of the rate of warming were correct. I'm now going a step further: Humans are almost entirely the cause.*<sup>13</sup>

Climate change will also affect energy production and independence. The Energy Information Administration determined that the “worst drought in decades could affect U.S. energy markets.”<sup>14</sup> Earlier this week the *Washington Post* reported that

*Drought and rising temperatures are forcing water managers across the country to scramble for ways to produce the same amount of power from the hydroelectric grid with less water, including from behemoths such as the Hoover Dam.*

*Hydropower is not the only part of the nation's energy system that appears increasingly vulnerable to the impact of climate change, as low water levels affect coal-fired and nuclear power plants' operations and impede the passage of coal barges along the Mississippi River.*<sup>15</sup>

Drought conditions can also interfere with the hydraulic fracking employed to produce shale gas. Citi GPS found that

*Fracking is a water-intensive process. The EPA estimates that 1.2 to 3.5 million gallons of water is used to frack a well.*

*Water is the very component in hydraulic fracking that makes the current shale gas and oil boom possible by creating fractures in the oil and gas-bearing shale gas rock thousands of feet below ground.*<sup>16</sup>

Some of the largest tight oil and shale gas fields are in Texas plagued by drought in 2011 and 2012. NOAA predicts that the nationwide drought conditions will remain mostly unchanged through the end of November.<sup>17</sup>

With the drought and other extreme weather events plaguing the United States during the past several years, it is essential that proposals to achieve “North American Energy Independence” must reduce carbon pollution. This would help slow the growth of heat waves, droughts, floods, smog, tropical diseases and other effects of climate change.

### **North American energy independence plan that rely solely on drilling will worsen climate change**

Energy independence plans that rely solely on more oil and natural gas production can exacerbate climate change. Burning oil for transportation and other purposes contributes 42 percent of U.S. energy related carbon pollution, according to the Energy Information Administration.<sup>18</sup> Natural gas adds another 24 percent. Combustion of these fuels just adds to the carbon pollution burden in the atmosphere.

In addition, the production of oil and gas also yields carbon and methane pollution that contributes to climate change. Companies producing “tight oil,” such as in the Bakken Shale in North Dakota emit additional carbon pollution through flaring employed “to eliminate gas at mineral exploration sites, and...pressure relief valves to ease the strain on equipment.”<sup>19</sup>

Reuters reports that

*The World Bank estimates that the flaring of gas adds some 360 million tonnes of carbon dioxide (CO<sub>2</sub>) in annual emissions, almost the same as France puts into the atmosphere each year or the equivalent to the yearly emissions from around 70 million cars.*<sup>20</sup>

The *New York Times* reported last year that in North Dakota,

*Every day, more than 100 million cubic feet of natural gas is flared this way — enough energy to heat half a million homes for a day.*

*The flared gas also spews at least two million tons of carbon dioxide into the atmosphere every year, as much as 384,000 cars or a medium-size coal-fired power plant would emit.*<sup>21</sup>

The United States is the third largest flarer in the world, and has more than doubled its flaring between 2009 and 2011, according to the World Bank.<sup>22</sup>

The production of shale gas from hydraulic fracking often releases fugitive methane, which is 25 times more potent greenhouse gas than carbon. Citi GPS describes the fugitive emission as

*Something that is not transformed into energy but is instead released into the air. Capturing that would be key, given the outsized impact of methane in a 20-year GWP [Global Warming Potential] scenario, though less so in a 100-year GWP scenario.*<sup>23</sup>

Preventing the leakage and venting of methane from fracking shale gas will reduce pollution while saving companies money. A March 2012 Natural Resources Defense Council report “Leaking Profits” identified ten commercially available methane control technologies that can capture more than 80% of methane currently wasted. This pollution reduction is equivalent to removing 40 million cars from the road. Selling the methane for energy generation would yield \$2 billion annually in revenue.<sup>24</sup>

The production of Canadian tar sands oil requires significantly more energy compared to conventional oil, so it results in more pollution. The 830,000 barrels per day to be shipped through the Keystone XL pipeline (discussed in more detail below), would add 27 million metric tons more of carbon pollution in the atmosphere annually.

## Moving forward to achieving energy independence

There are three primary components to increase energy independence, create jobs, and reduce pollution:

- Use existing resources more efficiently
- Develop clean energy technologies
- Increase production of existing resources

The United States has moved forward in each of these areas since 2008 without drastic changes to the current balance between energy production, public health protection, and efficient use of resources. With status quo energy policies that leave protected places alone, Raymond James & Associates projects

*Further declines [in oil imports]..By 2020 – based on the assumptions we previously outlined for domestic oil production, growth in biofuels, and declines in demand – we expect net imports to reach essentially zero. That's right – oil independence.*<sup>25</sup>

Each pillar is addressed below.

### **Oil imports falling due to modern fuel economy standards and investments in advanced vehicle technology**

There are clear benefits to importing less foreign oil. It enhances our national security to reduce dependence on oil from nation's that are less friendly to us than Canada and Mexico. In addition, fewer imports help our balance of trade since oil imports make up half of the trade deficit. In addition, the dollars spent on foreign oil would be better put to work domestically. In 2011, for instance, the United States spent \$371 billion on foreign oil.<sup>26</sup> Once these funds are sent overseas, they are gone from our economy and produce no additional economic activity. Lower imports can boost economic growth.

Since 2008, U.S. oil imports have fallen by 12 percent. Last year the Energy Information Administration noted,

*By the broadest measure, U.S. dependence on imported oil fell below the 50 percent mark last year for the first time since 1997.*<sup>27</sup>

And this summer Energy Information Administration noted that there was a significant drop in oil consumption in 2011, and further reductions in 2012.

*Total [liquid fuels] consumption fell by 340 thousand bbl/d [barrels per day] (1.8 percent) last year.*

*Motor gasoline consumption accounted for the bulk of that decline, shrinking by 260 thousand bbl/d (2.9 percent). In 2012, total consumption falls by a further 170 thousand bbl/d (0.9 percent).*<sup>28</sup>

A major reason for this decline in imports is improved fuel economy. In 2010, the Obama administration – working with auto companies and workers -- finalized the first improvement in fuel economy standards in two decades, which took affect beginning in model year 2012.<sup>29</sup> They are already reducing oil use. On September 6 the Energy Information Administration noted



*The implied average fuel efficiency of the in-use light-duty vehicle fleet rose by roughly 1.1 percent in the first half of 2012 versus the comparable year-ago period.*

*Efficiency gains likely reflect both increasingly stringent Corporate Average Fuel Economy (CAFE) standards that were implemented for light-duty trucks starting in model year 2008 and for passenger cars starting in model year 2011.<sup>30</sup>*

The Obama administration recently finalized the second phase of modern fuel economy and carbon pollution standards for model year 2017 through 2025 cars and light duty trucks. These standards are supported by the autoworkers, all of the domestic auto companies and most of the foreign companies. They will reduce oil use by 2 million barrels per day in 2025 compared to 2010, and grow to 3.1 million barrels per day of savings in 2030.<sup>31</sup>

Citi GPS predicts “between 2010 and 2020, the weighted-average fuel economy of the entire fleet nationally could rise by 16 percent.”<sup>32</sup> In addition, these fuel economy standards will save owners of a 2025 model car a net \$4,400 in fewer gasoline purchases over the life of the vehicle compared to a 2010 car.<sup>33</sup>

As part of the effort to reduce oil use, the Department of Energy invested in advances vehicles through the Advanced Technology Vehicle Manufacturing program and the Advanced Research Projects Agency-Energy (ARPA-E), both signed into law by President George W. Bush. The first program helps companies modify their manufacturing facilities to build more efficient cars. The latter program will help companies “reduce costs and improve the performance of next generation [battery] storage technologies.”

Electric vehicles, such as the plug-in hybrid electric Chevrolet Volt, continue to grow in popularity. General Motors sold nearly twice as many Volts in the first eight months of 2012 compared to all of 2011.<sup>34</sup> Publicly available recharging infrastructure would increase the desirability of these gasoline sipping vehicles. Without such infrastructure, demand growth is limited and some advanced battery companies have struggled recently. As with other emerging advanced technologies, driving market demand certainty for the product would help provide investors and companies with more confidence.

Both the Senate and House plan to install public recharging stations for electric vehicles driven by legislators and their staff. Americans should have the same access to such recharging infrastructure. There is bipartisan legislation in Congress that would establish a “race to the top” for communities to receive federal investment to develop public recharging infrastructure. This would increase accessibility for drivers and therefore the attractiveness of these vehicles. The bills are sponsored by Sens. Lamar Alexander (R-TN) and Jeff Merkley (D-OR), and Reps. Judy Biggert (R-IL) and Ed Markey (D-MA).<sup>35</sup>

## **Clean energy has boomed under President Obama and investments have increased; Gov. Romney wants to end these policies**

Since 2008 there has been dramatic expansion of clean energy. Electricity generation from renewables from non-hydro power resources doubled in three years.<sup>36</sup> In August, wind electricity

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**Comment [1]:** Needs an endnote?

generation reached 50 gigawatts -- equal to 11 nuclear power plants or 44 coal-fired power plants -- and double the electricity compared to 2008.<sup>37</sup> Some states now rely on wind to generate significant amounts of electricity, such as Iowa, where 20 percent of electricity is generated from wind. The growth in the wind industry has increased domestic content of wind generation equipment from 50 to 70 percent.<sup>38</sup> The Department of Energy estimated that wind could provide 20 percent of our electricity by 2030.<sup>39</sup>

Solar electricity has also grown dramatically, expanding by 285 percent since 2008. U.S. solar developers installed 742 megawatts of solar photovoltaic cells in the second quarter of 2012. And if growth continues, the industry could install more than 3,000 megawatts of projects this year, according to a new market report from GTM Research and the Solar Energy Industries Association.<sup>40</sup>

Geothermal generated power increased by 13 percent during this time.<sup>41</sup> During the first half of 2012, renewable electricity projects were more than 38 percent of new electrical generation capacity.<sup>42</sup>

These successes were due to federal and state policies that encouraged private investments in clean energy projects, including state renewable portfolio/electricity standards, tax credits, and loan guarantees. These programs generally leverage far more private capital than their federal contribution -- sometimes as high as 13 to 1, according to DBL Investors. Some of these federal programs, such as the Production Tax Credit for wind energy, expire at the end of 2012. Some wind companies have already begun to lay off employees in response to decline in demand due to uncertainty about future incentives.<sup>43</sup>

Fortunately, a bipartisan group of Senate Finance Committee members voted to extend the Production Tax Credit for a year. Conservative Sens. Chuck Grassley (R-IA) and John Thune (R-SD) led this effort. Senate Majority Leader Harry Reid (D-NV) said on Tuesday that he would likely bring a bill to the Senate floor before the election to extend the expiring production, energy efficiency, and alternative fuels tax credits. He fears, however, that enough Republican senators are "going to run out the clock," by using stalling tactics.<sup>44</sup> Any delays will halt progress, and the wind industry will continue to shed jobs.

An American disinvestment in wind energy couldn't come at a worse time as global competition for the \$2 trillion clean energy market continues to heat up. In 2011, global investments in renewable energy surpassed investments in fossil fuels for the first time.<sup>45</sup>

The United States' \$48 billion in clean energy investments in 2012 led the world.<sup>46</sup> U.S. companies received more than 75 percent of all venture capital investments in clean technologies. But our status as a clean energy leader is far from permanent. We must continue to support the policies that have catapulted us to first place and ensure that our clean energy economy -- which grew by 8.3 percent during the depths of the recession from 2008 to 2009 -- continues to thrive.<sup>47</sup>

Other nations such as Brazil, China, Germany, and India recognize the promise of clean energy for economic growth and have adopted long-term policies to attract domestic and foreign

investment in their growing clean tech industries. Germany, for instance, generates one-quarter of its electricity from renewable energy.<sup>48</sup>

Four major financial institutions—Wells Fargo, Bank of America Corp., Goldman Sachs Group, Inc., and Citigroup, Inc.—have embraced clean energy by pledging to invest a combined \$170 billion in these technologies.<sup>49</sup> It is critical that the United States create a favorable economic climate so that these clean energy investments are made here and not elsewhere.

Abandoning clean energy incentives will take us backwards, and cede clean tech jobs to China and other nations. To continue our forward progress towards energy independence from volatile, dirty coal, we must continue to encourage private capital investments in clean tech.

### Domestic oil and gas boom since 2008

In addition to fuel economy improvements, President Obama presided over an enormous boom in oil and gas production, including from federal lands and waters. Data from the Energy Information Administration confirms this assessment. The Energy Information Administration determined that in 2011 the United States produced 646 million barrels of crude oil from federal lands and waters compared to 575 million barrels in 2008—a 12 percent increase in production. Oil production from federal areas was higher in every year from 2008 to 2011 than in 2006 to 2008. Since 2003, the most oil produced from federal lands was in 2011, and the most from federal waters was in 2010.<sup>50</sup>

The Congressional Research Service reiterated Energy Information Administration's finding that oil production from public lands is higher under the current administration compared to the last years of the previous one. CRS concluded that "oil production on federal lands is up slightly in 2011 when compared to 2007."<sup>51</sup>

Production from oil from the waters in the Gulf of Mexico is rebounding after the BP Deepwater Horizon oil disaster in 2010. The number of oil rigs in the Gulf of Mexico has rebounded to the number before the tragedy. In July, Barclays Equity Research noted that

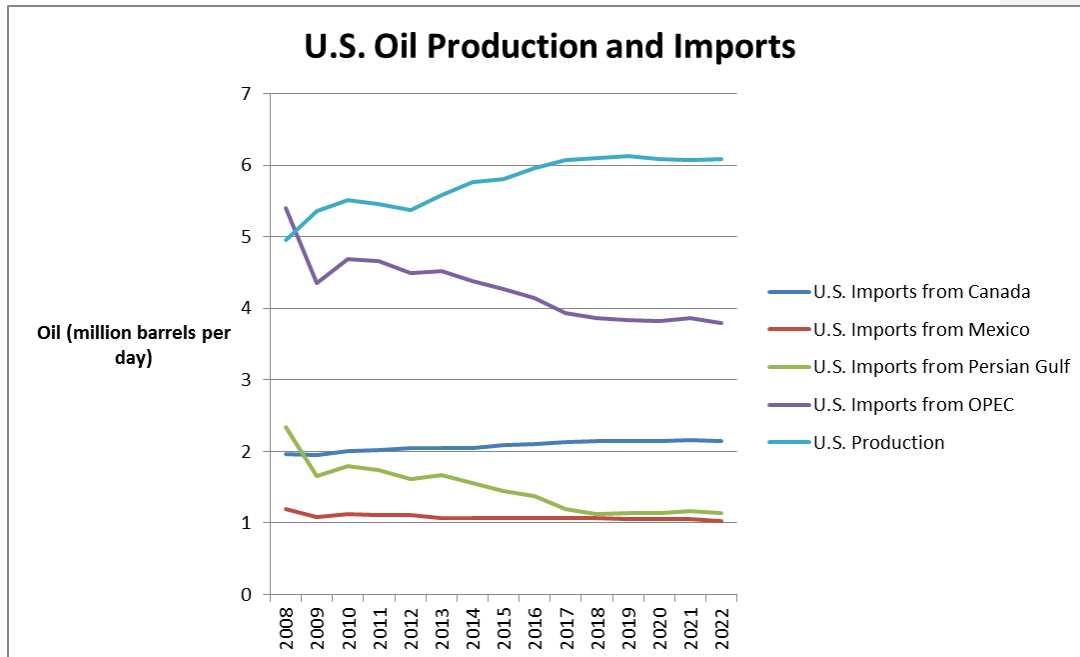
*The offshore rig count in the Gulf of Mexico is nearing its pre-Macon do [pre-Deepwater Horizon disaster] level and is expect to grow another 50 percent by 2014, one of the most visible indicators of the Gulf drilling revival.<sup>52</sup>*

This growth in offshore oil production has occurred along with the implementation of a number of new worker and rig safety requirements developed in response to the BP tragedy. Since the new standards were put into place, the Obama administration has approved nearly 700 permits for activities at hundreds of wells in the Gulf of Mexico alone.<sup>53</sup>

BP must spend at least \$22 billion in compensation for the economic and natural resource losses from this calamity.<sup>54</sup> Congress has yet to raise the liability cap for future oil blowouts. It remains at an absurdly low \$75 million, which could leave taxpayers responsible for billions of dollars of costs should another accident occur.

Many of the publicly owned lands with coal, oil, or natural gas are under the purview of the Bureau of Land Management. These lands are owned by all Americans, and have traditionally been managed to “meet the present and future needs of the American people.”<sup>55</sup> This includes allowing grazing, hunting, and recreation as well energy production on these publicly owned lands.

The Department of Interior has opened up huge acreage of land to oil and gas development. The department’s Bureau of Land Management conducted three of the top five largest sales in the agency’s history in 2011.<sup>56</sup> This year the Bureau of Safety and Environmental Enforcement approved controversial projects to drill in the Arctic Ocean and close to wilderness areas near Desolation Canyon, Utah. This level of oil and gas activity on public lands led The *New York Times* to conclude that “The score card shows that the [oil] industry is winning” its quest to open previously protected lands to drilling.<sup>57</sup>



Source: Energy Information Administration: Energy Outlook, Imported Liquids by Source

### Expanded domestic drilling won't affect gasoline prices

Whenever oil and gasoline price spikes occur, Big Oil and its political allies revive their demand for “drill, baby, drill.” But because oil prices are set by the world market, more domestic drilling

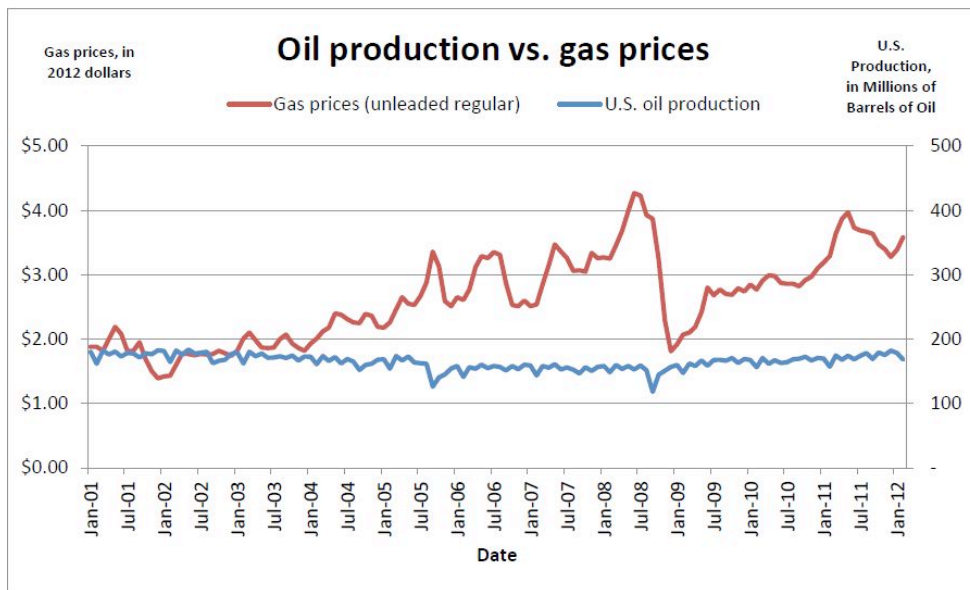
cannot really alter the price at the pump. Even oil independent nations such as Canada experienced high gasoline prices this year.<sup>58</sup>

*The Wall Street Journal* reiterated that there is little relationship between domestic oil production and gasoline prices:

*Producing a lot of oil doesn't lower the price of gasoline in your country. According to the U.S. Energy Information Administration, Germans over the past three years have paid an average of \$2.64 a gallon (excluding taxes), while Americans paid \$2.69, even though the U.S. produced 5.4 million barrels of oil per day while Germany produced just 28,000.*<sup>59</sup>

To test whether more U.S. drilling would lower gasoline prices, the Associated Press just completed an exhaustive analysis of 36 years of monthly U.S. oil production and gasoline price data. AP found that there is:

*No statistical correlation between how much oil comes out of U.S. wells and the price at the pump. If more domestic oil drilling worked as politicians say, you'd now be paying about \$2 a gallon for gasoline. Instead, you're paying the highest prices ever for March.*<sup>60</sup>



Source: Associated Press

The Cato Institute, a free-market think tank, came to a similar conclusion earlier this year, arguing,

*Is President Obama responsible for the spiraling price of gasoline?*

*The facts say no... Why have gasoline prices increased since the start of the year? The simplest explanation is that the price of crude oil has increased.<sup>61</sup>*

## Proposal to give states control of federal lands threatens national parks

Proposals to allow states to control energy development in national forests, parks, wilderness areas, and other federal lands are designed to allow energy companies more access to them. States have much more incentive to allow energy production on these federal lands since they would derive a portion of the royalties and tax revenue from the extraction of resources. Oil companies want states to control these areas in order to bypass federal public health and environmental safeguards.

Additionally, states would have the authority to permit drilling or mining in or near these previously protected places without the thorough public involvement currently required by the federal review process. And as *The New York Times* noted “states, as a rule, tend to be interested mainly in resource development.”<sup>62</sup>

Giving states control of resource development on federal lands is a real threat to some of America’s most special places for hunting, fishing, hiking, and recreation. They could permit controversial projects near national parks such as uranium mining around the Grand Canyon, oil and gas drilling near Arches National Park in Utah, and coal mining 10 miles from that state’s picturesque Bryce Canyon National Park.

Oil and gas production is dirty business. The industrial roads, heavy equipment, drilling chemicals and pollution from fossil fuel production would destroy or contaminate the natural resources in these places that are owned by all Americans.

The proposal to allow states to decide the fate of energy resources in these special places prompted opposition from sportsmen and many other citizens who enjoy or benefit from areas. Bob Marshall, a columnist for *Field and Stream*, a popular outdoor activities magazine, recently wrote, “When it comes to the future of public hunting and fishing—especially out West—fewer proposals could be more frightening.”<sup>63</sup>

Some oil companies oppose this proposal. The International Association of Drilling Contractors – which includes both rig owners and oil field service companies – said that proposals to turn over federal lands to the states for fossil fuel production would harm their business. It would create uncertainty for them because it would force these companies to comply with a patchwork with state rules rather than meet a single federal health and safety standards.<sup>64</sup>

## Mid-Atlantic offshore drilling would interfere with national defense

There have been recent proposals to open areas off the Atlantic coast for oil and gas production. Such proposals, however, could impair national security because a large portion part of this area is critical for a wide array of military training, including explosives, submarine exercises and Navy SEAL training.

The Department of Defense wants to prohibit offshore drilling in a vast majority of the 2.9 million acre zone under consideration for oil production off Virginia.<sup>65</sup> About 20 percent, or 630,000 acres, would be open to drilling.<sup>66</sup> Secretary of the Interior Ken Salazar reiterated that Defense Department needs will take precedence over the energy industry.<sup>67</sup>

Similarly, proposals to open the Gulf coast of Florida to expanded oil and gas production would also interfere with Department of Defense training. Tom Neubauer, president of the Bay Defense Alliance, raised concerns about conflict with the Navy during an April 2012 public hearing on the expansion of drilling. He warned:

*The Gulf test range, which is essentially everything east of the military mission line, which comes down from Pensacola into the Gulf of Mexico, is really essential to nine bases in Northwest Florida.*

*Most of those bases do testing and training, research and development in the Gulf of Mexico. ... Drilling in those areas would impair those missions.<sup>68</sup>*

One of the benefits of energy independence would be enhanced national security. It makes little sense to strive for that goal by drilling in places that would interfere with our security.

Drilling in these two places important to our military is even less sensible because “about 70 percent of undiscovered oil and gas resources are on federal lands that are available for leasing under current laws and administrative policies” according to recent analysis by the Congressional Budget Office.<sup>69</sup>

The expansion of drilling into previously protected places also threatens other values. For instance Florida’s tourism and coastal businesses activities (including fish and wildlife, ports, and defense-related industries) generate more than \$175 billion in economic benefits and 2.2 million jobs annually.<sup>70</sup> The Outer Banks of North Carolina – an area vulnerable to a mid-Atlantic oil spill – attracts more than 7 million visitors each year.<sup>71</sup> Even a modest oil spill could devastate the local economies of these two coasts.

Advocates for opening these areas also argue that the revenue from additional production could provide important revenue to the federal government. The Congressional Budget Office, however

*Anticipates that production from newly opened areas of the OCS over the 2023–2035 period would be far less than the amounts produced by current operations in the Gulf of Mexico.<sup>72</sup>*

More oil drilling in offshore or in other protected places won't reduce gasoline prices or speed energy independence by 2020 because it takes seven years for new offshore oil drilling to produce any oil.<sup>73</sup> The Energy Information Administration found that opening up the currently protected Atlantic and Pacific coasts won't have an impact on price. The administration also predicts that it will take 10 years to produce oil from the Arctic National Wildlife Refuge in Alaska.<sup>74</sup>

Ken Green, a resident scholar with the conservative think tank American Enterprise Institute, explained that crude oil is a global commodity whose price will be unaffected by new U.S. production. In 2011 *Greenwire* reported that Green said,

*The world price is the world price. Even if we were producing 100 percent of our oil," Green said, if prices increase because of a shortage in China or India, "our price would go up to the same thing ... We probably couldn't produce enough to affect the world price of oil," he added. "People don't understand that."<sup>75</sup>*

### **Export of Keystone XL Pipeline tar sands oil means the pipeline won't increase energy independence or lower gasoline prices**

Canadian tar sands oil is very energy intensive to produce, so it yields 15 percent or more carbon pollution compared to conventional oil production.<sup>76</sup> Canada is already a net oil exporting nation so it wants to export the tar sands oil to the United States via the Keystone XL pipeline that would run from Hastings CK Alberta through the central United States to Port Arthur, Texas, home to oil refineries. EPA determined that such a move could increase carbon pollution by up to 27 million metric tons compared to conventional oil production.<sup>77</sup>

The oil industry claims that approval of the northern section of the Keystone XL pipeline will increase American energy security and reduce dependence on oil from outside North America. This assertion is inconsistent with the record. There is evidence that companies will export at significant share of the petroleum products refined from the 830,000 barrels a day of tar sands oil that would flow from Alberta to the oil refineries in the Gulf Coast.

Texas refineries make gasoline and diesel out of oil to sell both domestically and internationally. Energy Information Administration notes that that "worldwide demand for diesel fuel and other distillate fuel oils has been increasing steadily, with strong demand in China, Europe, and the United States."<sup>78</sup> This raised the price for diesel, and makes it an attractive export. A Natural Resources Defense Council analysis of Energy Information Administration data determined that

*Gulf Coast refiners... [have] the greatest access and capacity to export to international diesel markets. Today these refiners have started reconfiguring their operations to prioritize diesel for international customers over gasoline for U.S. customers. Data from the fourth quarter of 2011 indicate that the majority of refined products produced in Texas Gulf Coast refineries were exported on the international market."<sup>79</sup>*

Canadian tar sands oil refined in the United States then sold to Europe or South America will do little to either lower gasoline or diesel prices here, or increase our energy security.



It is clear that at least some of the tar sands oil will be refined here and exported abroad. At an Energy and Power Subcommittee hearing on December 2, 2011, Rep. Ed Markey (D-MA) asked Alex Pourbaix, TransCanada's president for energy and oil pipelines, if he would "commit to not having that [Keystone XL] oil sold outside the United States?" Mr. Pourbaix said "No, I can't do that."<sup>80</sup>

With uncertainty about the ultimate destination of the Keystone XL oil, no wonder that Time magazine concluded "Keystone would have little immediate [price] effect, especially since there's already sufficient pipeline infrastructure in place for the next few years."<sup>81</sup>

The State Department's analysis of the project found that it would have little impact on U.S. oil supplies or prices at the pump. The State Department's final "Keystone XL assessment" concluded that it would not increase oil supply or lower prices:

*WORLD and ETP studies indicate that building versus not building Keystone XL would not of itself have any significant impact on: U.S. total crude runs, total crude and product import levels or costs. [emphasis original]*<sup>82</sup>

The State Department analysis also determined that the pipeline would only have a tiny impact on the price of crude and other products:

*Under the KXL scenario, delivered prices for [oil sands] ... into PADD3 Gulf Coast are lower than under the No KXL case and those for PADD2 [Midwest], higher. The effect is limited, no more than around \$0.70/bbl [per barrel].*<sup>83</sup>

This level of reduction translates to roughly one penny and a half per gallon of gasoline.

In addition, the State Department analysis acknowledges that the pipeline would actually raise gasoline prices in the Midwest since it would eliminate the current oil glut there that has kept prices lower. Bloomberg cautions that the pipeline "risks raising prices as much as 20 cents a gallon in the Midwest, Great Plains and Rocky Mountains."<sup>84</sup>

The bottom line: building the Keystone XL pipeline will not increase energy independence or lower gasoline prices while increasing carbon pollution when we must be lowering it instead to avoid the most severe impacts of climate change.

## Oil and gas lease and permit process reforms

In response to concerns from the oil and gas industry, the Department of Interior undertook reforms to make oil and gas leasing on public lands more efficient and transparent. The new rules provide the Bureau of Land Management with the opportunity to consider other uses of the land in order to identify the best areas for oil and gas development.

These reforms did not take effect until the start of 2011, but initial data reveal some encouraging trends. In the report "Making the Grade (Almost)," The Wilderness Society analyzed

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government data for calendar year 2011 and the first quarter of 2012, and found that there has been a dramatic reduction in litigation against oil and gas leases in most places.<sup>85</sup>

Prior to the reforms, from 2007 to 2009, 83 percent of leases offered in the intermountain West were challenged. At that time, there was little opportunity for public participation in the process without litigation. In 2011, however, only 25 percent of the leases offered were protested in the intermountain West. That's nearly a two-thirds reduction in protests in the first year, and data from the first quarter of 2012 show a continuation in that trend.

Other efforts to increase certainty for oil and gas producers by reducing the length of permitting reviews have had some success. According to a May report released by the Department of the Interior, the backlog of applications for permits to drill has been reduced by 24 percent since 2008.<sup>86</sup> Plus, the department recently announced a new "automated tracking system" that it hopes will reduce the time to review and issue a lease by two-thirds.

### Oil companies not using federal leases

Despite their demand to open fragile, previously protected places for oil and gas production, oil and gas companies are not developing many of the leases that they already hold. A huge portion of leases held for public lands and waters lack exploration or development plans according to Department of Interior data. The department found that 56 percent of the leased acres onshore in the lower 48 states are not in production or exploration. The percentage is even larger offshore, where 72 percent of leased acres are dormant.<sup>87</sup>

This simply means that big oil companies currently hold the keys to vast amounts of publicly owned resources but have chosen not to develop them right now. As of the end of fiscal year 2011, there were more than 38 million onshore acres under lease, but the industry was only actively producing on just more than 12 million acres.<sup>88</sup> The story holds true down the line, given that as of the end of fiscal year 2011, the industry was holding more than 7,000 authorized permits to drill with parcels that were unexplored or undeveloped.<sup>89</sup>

Idle leases in the Gulf of Mexico contain large amounts of oil. The tracts that are not producing oil or subject to pending or approved exploration and development plans are estimated to contain 17.9 billion barrels of "undiscovered technically recoverable resources" oil and 49.7 trillion cubic feet of UTRR natural gas.<sup>90</sup>

According to the same report from the Department of Interior, "More than 70 percent of the tens of millions of offshore acres under lease are inactive." This includes almost 24 million acres that do not have "approved exploration or development plans" in the Gulf of Mexico. This area has an estimated 11.6 billion barrels of oil and 50 trillion cubic feet of natural gas.<sup>91</sup>

In addition to the idle leases, there have been several indications that the industry is less interested in the actual resources available on public lands and waters. As the Energy Information Administration put it:

*The rapid increase in natural gas production from shale resources over the last 5 years has significantly affected natural gas prices and the relative attractiveness of Federal and Indian lands as areas for development of conventional natural gas resources.<sup>92</sup>*

As the price of natural gas dropped, there was a dramatic decline in the amount of public land nominated by the industry for leasing. Since fiscal year 2006 there has been nearly a 67 percent decline in the amount of onshore public land nominated by the industry in the Rocky Mountain States.<sup>93</sup> As one industry expert told *The Wall Street Journal*, “It is safe to say that there will be fewer natural gas wells drilled in 2012.”<sup>94</sup>

Given the current low price of natural gas, there is simply less demand from industry to drill at all, let alone on public lands. In addition, the oil and gas industry has been less focused on public lands and waters, since many of the best resources are currently located on private land. And oil companies drill where the best resources are.

### **More gasoline exports raise gasoline prices?**

While imports are down, exports of refined petroleum products are up. In 2011 the United States exported an average of 2.9 million barrels per day of petroleum products and was a net exporter for the first time since 1949. The Energy Information Administration reports that gasoline exports were more than 62 percent higher in 2011 compared to 2010.

Exports are also greater share of total fuel production. Gasoline exports are 7 percent of gasoline production in 2012, up from 5 percent in 2010. As of March 30, 2012, the United States exports an average of 956,000 barrels of diesel per day. This is a 46 percent increase from the annual average for 2010, when we were exporting 656,000 barrels a day.

Big Oil companies are largely leading this export boost, selling significantly more gasoline and diesel fuels to other nations. On March 27 *The Wall Street Journal* reported two of the big five oil companies—ConocoPhillips and Shell—are “more focused on exporting U.S.-produced fuel to markets where there is greater demand.” Energy Information Administration data indicates that gasoline and diesel exports rose as their prices rose.

The Energy Information Administration also notes, “Record gasoline exports do not appear to be driving gasoline prices.” But it also points out that “Gulf Coast refiners have a competitive advantage in some world markets.” These companies make more money exporting refined products to Europe and South America than by to selling them to American citizens.

Gulf Coast refiners use West Texas Intermediate crude oil, which is now typically \$18 to \$22 cheaper per barrel than the Brent crude, which is used by European refiners. This makes U.S. refined fuels cheaper compared to European products.

Although the Energy Information Administration did not find a direct link between exports and higher gasoline prices, exporting fuel rather than selling it here could deprive us of inventory that could help ease price pressure.

The export of crude oil produced in the lower 48 states is already effectively banned. Limiting exports of refined products from petroleum produced from public lands or waters—as some have proposed—could increase the supply of gasoline and diesel fuel here and potentially reduce prices.

The United States had a ban on the export of crude oil produced in the north slope of Alaska from 1973–1995. Instead, this oil was sent to the West Coast, increasing supplies there. In 2005 the Congressional Research Service found indicators that West Coast gasoline prices were lower during the export ban: “When Alaskan oil exports ceased, the gasoline price differential between the West Coast and the national average did decline, at least for a few years.”

It is unclear whether a new ban on exports of products refined from oil from public lands and waters would make a significant difference in gasoline prices, as the Alaskan ban seemed to do for at least some time. The Congressional Research Service wrote:

*To what degree prohibiting gasoline exports would reduce prices is unclear. Some contend that there may be a decline in gasoline prices if gasoline exports were restricted. Others [such as the American Petroleum Institute] suggest there will be no decline in gasoline prices if such measures were adopted.<sup>95</sup>*

But certainly an additional domestic supply of gasoline and diesel produced from American oil on our soil and in our waters would not raise prices—and it might just lower them. The bottom line is that it makes little sense to send to other countries refined fuels made from oil produced on federal lands and waters at a time of rising gasoline prices.

### Cut tax breaks to invest in oil use reduction technologies

As previously noted, an important element of energy independence is continuing investments in the clean energy technologies of the future. One way to do that while not dramatically increasing spending would be to end tax breaks for the big five oil companies -- BP plc, Chevron Corp., ConocoPhillips, ExxonMobil Corp., and Royal Dutch Shell Group. They receive \$2.4 billion in annual tax breaks according to the Congressional Joint Committee on Taxation.<sup>96</sup> Instead of these tax breaks, this revenue should be invested in technologies to reduce oil demand and other clean energy technologies.

These special tax preferences include one designed to keep manufacturing facilities in the United States. Another was enacted way back in 1916, when it made economic sense to help the fledgling oil industry grow, but little sense today for the big five companies that routinely earn multibillion-dollar profits.<sup>97</sup>

These tax breaks serve no economic or fiscal function any longer, yet in testimony before Congress, Harold Hamm, chairman and CEO of Continental Resources Inc., said that the United States must retain tax breaks for the oil and gas industry.<sup>98</sup> This position ignores that the big five oil companies had lower oil production and fewer U.S. employees over the last half decade despite growing profits.<sup>99 100</sup>

The House of Representatives-passed budget would retain these tax breaks.<sup>101</sup> Rep. Paul Ryan (R-WI) claims that his budget would eliminate tax breaks in exchange for lower rates, but his plan doesn't specify a single tax break that it would eliminate. The House budget would also lower the top corporate income tax rate by nearly one third. A Center for American Progress Action Fund analysis estimates that the House budget's nearly one-third reduction in the corporate tax rate could lower the big five oil companies' annual tax bill by \$2.3 billion per year, based on an assessment of their 2011 financial statements filed with the Securities and Exchange Commission.<sup>102</sup>

The big five oil companies that receive these tax benefits are quite profitable. In the first half of 2012, the five big oil companies earned a combined \$62.2 billion, or \$341 million per day. The huge earnings during the first half of 2012 follows the big five companies' record profit of \$137 billion in 2011 thanks to high oil and gasoline prices. ExxonMobil, Chevron, and ConocoPhillips were the first-, second-, and 13th-most profitable public U.S. companies in 2011, respectively.<sup>103</sup>

Some of these large profits end up in their \$72 billion in cash reserves. And these five companies used 31 percent of their mid-year 2012 profits to buy back their own stock, which enriches shareholders but doesn't add to oil supplies or investments in alternative fuels or other new technologies. Even with these huge earnings and large cash reserves, however, these companies produced 6 percent *less* oil than one year ago. (see Table)

**How Big Oil spends its profit windfall**  
Profits of the big five oil companies in the first and second quarter of 2012

Company	Q1 2012, (billions \$)	Q2 2012, (billions \$)	2012 total (billions \$)	Stock buybacks as a percentage of 2012 profit	Percent change in liquids production* from Q2 2011 to Q2 2012
BP	\$5.9	\$(1.4)	\$4.5	N/A	-11%
Chevron	\$6.5	\$7.2	\$13.7	19%	-5%
ConocoPhillips	\$2.9	\$2.3	\$5.2	96%	-6%
ExxonMobil	\$9.5	\$15.9	\$25.4	42%	-6%
Shell	\$7.7	\$5.7	\$13.4	7%	-3%
<b>Total</b>	<b>\$32.5</b>	<b>\$29.7</b>	<b>\$62.2</b>	<b>31%</b>	<b>-6%</b>

\*Liquids production includes oil and natural gas liquids.  
Sources: Company profit reports

The big three U.S. publicly owned oil companies—Chevron, ConocoPhillips, and ExxonMobil—paid relatively low federal effective tax rates in 2011. Reuters reports that their tax payments were “a far cry from the 35 percent top corporate tax rate.”<sup>104</sup> It reported that ConocoPhillips paid an effective federal tax rate of 18 percent last year. In addition, ExxonMobil paid 13 percent

of its U.S. income in taxes after deductions and benefits in 2011, according to a Reuters calculation based on ExxonMobil's securities filings. Chevron paid about 19 percent.<sup>105</sup>

These tax breaks for the extremely prosperous big five oil companies make little economic sense. Instead, these funds should be invested in oil demand reduction and the clean energy technologies of the future, including electric vehicles. This reform will speed American energy independence.

*This testimony builds upon the analysis of Center for American Progress Action Fund colleagues Danielle Baussan, Richard Caperton, Jessica Goad, Christy Goldfuss, Seth Hanlon, Matt Kasper, Stephen Lacey, Rebecca Leber, Noreen Nielsen, Joe Romm, and Jackie Weidman. Any errors are the author's alone.*

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<sup>1</sup> The National Oceanic and Atmospheric Administration, "U.S. Climate Extremes Index" available at <http://www.ncdc.noaa.gov/extremes/cei/graph/cei/ytd> (last accessed September 2012).

<sup>2</sup> The National Oceanic and Atmospheric Administration, "State of the Climate National Overview" available at <http://www.ncdc.noaa.gov/sotc/national/2012/8> (last accessed August 2012).

<sup>3</sup> Andrew Freedman, "High Times: More Record Highs than All of Last Year," *Climate Central*, August 7, 2012 available at <http://www.climatecentral.org/news/more-record-highs-during-2012-so-far-than-all-of-2011-14768/>.

<sup>4</sup> Ibid.

<sup>5</sup> The National Oceanic and Atmospheric Administration, "Historical Analogs, July 2012 Drought Report," available at <http://www.ncdc.noaa.gov/sotc/drought/#det-hist-analog> (last accessed August 2012).

<sup>6</sup> Noah Buhayar, "Insurers May Have \$5 Billion U.S. Drought Cost," *Reuters*, August 21, 2012, available at <http://www.bloomberg.com/news/2012-08-21/crop-insurer-losses-may-exceed-5-billion-from-drought-s-p-says.html>.

<sup>7</sup> The National Oceanic and Atmospheric Administration, "Billion Dollar Weather/Climate Disaster, 2011" available at <http://www.ncdc.noaa.gov/billions/> (last accessed August 2012).

<sup>8</sup> Joe Romm, "Must-Read Trenberth: How to Related Climate Extremes to Climate Change," *Climate Progress*, March 25, 2012, available at <http://thinkprogress.org/climate/2012/03/25/451347/must-read-trenberth-how-to-relate-climate-extremes-to-climate-change/?mobile=nc>.

<sup>9</sup> Intergovernmental Panel on Climate Change, "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation," (2012).

<sup>10</sup> Joe Romm, "Meteorological Society: Warming is 'Unequivocal,' We're the 'Dominant Cause,' We Need 'Rapid Reduction' of CO2," *Climate Progress*, August 28, 2012, available at <http://thinkprogress.org/climate/2012/08/28/757991/meteorological-society-warming-is-unequivocal-were-the-dominant-cause-we-need-rapid-reduction-of-co2/>.

<sup>11</sup> America's Climate Choices: Panel on Advancing the Science of Climate Change, National Research Council. "Summary." *Advancing the Science of Climate Change*. (Washington, DC: The National Academies Press, 2010).

- <sup>12</sup> “Berkeley Earth Project: Financial Support,” available at <http://berkeleyearth.org/donors/> (last accessed August 2012).
- <sup>13</sup> Richard Muller, “The Conversion of a Climate-Change Skeptic,” *The New York Times*, July 28, 2012, available at [http://www.nytimes.com/2012/07/30/opinion/the-conversion-of-a-climate-change-skeptic.html?\\_r=2&pagewanted=all](http://www.nytimes.com/2012/07/30/opinion/the-conversion-of-a-climate-change-skeptic.html?_r=2&pagewanted=all).
- <sup>14</sup> U.S. Energy Information Administration, “Worst Drought in decades could affect U.S. energy markets,” August 28, 2012, available at <http://www.eia.gov/todayinenergy/detail.cfm?id=7730#>.
- <sup>15</sup> Juliet Eilperin, “Climate change challenges power plant operations,” *The Washington Post*, September 9, 2012, available at [http://www.washingtonpost.com/national/health-science/climate-change-challenges-power-plant-operations/2012/09/09/42b26b8e-f6a5-11e1-8b93-c4f4ab1c8d13\\_story.html](http://www.washingtonpost.com/national/health-science/climate-change-challenges-power-plant-operations/2012/09/09/42b26b8e-f6a5-11e1-8b93-c4f4ab1c8d13_story.html).
- <sup>16</sup> Edward L. Morse and others, “Energy 2020: North America, the new Middle East?,” *Citi Group*, March 20, 2012, available at <http://fa.smithbarney.com/public/projectfiles/ce1d2d99-c133-4343-8ad0-43aa1da63cc2.pdf>.
- <sup>17</sup> National Weather Service, “U.S. Seasonable Drought Outlook,” September 6, 2012, available at [http://www.cpc.ncep.noaa.gov/products/expert\\_assessment/seasonal\\_drought.html](http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html).
- <sup>18</sup> U.S. Energy Information Administration, “What are the energy-related carbon dioxide emissions by source and sector for the United States?,” June 22, 2012, available at <http://www.eia.gov/tools/faqs/faq.cfm?id=75&t=11>.
- <sup>19</sup> Henning Gloystein and Alessandra Prentice, “Natural Gas Flaring Rises Globally, Fueled by U.S. Shale Boom,” *Reuters/The Huffington Post*, May 3, 2012, available at [http://www.huffingtonpost.com/2012/05/03/natural-gas-flaring-rises-globally\\_n\\_1474838.html](http://www.huffingtonpost.com/2012/05/03/natural-gas-flaring-rises-globally_n_1474838.html).
- <sup>20</sup> Ibid.
- <sup>21</sup> Clifford Krauss, “In North Dakota, Flames of Wasted Natural Gas Light the Prairie,” *The New York Times*, September 26, 2011, available at [http://www.nytimes.com/2011/09/27/business/energy-environment/in-north-dakota-wasted-natural-gas-flickers-against-the-sky.html?\\_r=1&pagewanted=print](http://www.nytimes.com/2011/09/27/business/energy-environment/in-north-dakota-wasted-natural-gas-flickers-against-the-sky.html?_r=1&pagewanted=print).
- <sup>22</sup> Global Gas Flaring Reduction, “Estimated Flared Volumes from Satellite Data, 2007-2011” *The World Bank*, June 14, 2012, available at <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTGGFR/0,,contentMDK:22137498~menuPK:3077311~pagePK:64168445~piPK:64168309~theSitePK:578069,00.html#1>.
- <sup>23</sup> Edward L. Morse and others, “Energy 2020: North America, the new Middle East?.”
- <sup>24</sup> Natural Resources Defense Council, “Leaking Profits: How the Oil and Gas Industry Can Reduce Pollution, Conserve Resources, and Make Money by Preventing Methane Waste,” March 2012, available at <http://www.nrdc.org/energy/files/Leaking-Profits-FS.pdf>.
- <sup>25</sup> J. Marshall Adkins and Pavel Molchanov, “Yes, Mr. President, We Believe We Can Drill Out Way out of this Problem,” Raymond James and Associates, April 2, 2012, available at [http://www.raymondjames.com/AdvisorSitesFiles/PublicSites/silentKthoughts/files/Yes\\_Mr\\_President.pdf](http://www.raymondjames.com/AdvisorSitesFiles/PublicSites/silentKthoughts/files/Yes_Mr_President.pdf).
- <sup>26</sup> Ibid.
- <sup>27</sup> Elio Ohep, “U.S. Oil Import Dependence: Going Down No Matter What,” *Petroleumworld*, May 29, 2011, available at <http://www.petroleumworld.com/sunopf11052901.htm>.

<sup>28</sup> U.S. Energy Information Administration, “Short Term Energy Outlook: U.S. Crude Oil and Liquid Fuels,” September 11, 2012, available at [http://www.eia.gov/forecasts/steo/report/us\\_oil.cfm](http://www.eia.gov/forecasts/steo/report/us_oil.cfm).

<sup>29</sup> Heather Zichal, “We Can’t Wait: Driving Forward with New Fuel Economy Standards,” The White House Blog, November 16, 2011, available at <http://www.whitehouse.gov/blog/2011/11/16/we-can-t-wait-driving-forward-new-fuel-economy-standards>.

<sup>30</sup> U.S. Energy Information Administration, “What is Driving U.S. Gasoline Consumption,” September 6, 2012, available at <http://www.eia.gov/oog/info/twip/twip.asp>.

<sup>31</sup> Ibid.

<sup>32</sup> Edward L. Morse and others, “Energy 2020: North America, the new Middle East?,”

<sup>33</sup> National Highway Traffic Safety Administration, “CAFE – Fuel Economy” available at <http://www.nhtsa.gov/fuel-economy> (last accessed September 12, 2012).

<sup>34</sup> Michael Wayland, “GM: Chevrolet Volt sales in 2012 already surpass last year; on track to sell nearly 18,000,” available at [http://www.mlive.com/auto/index.ssf/2012/07/gm\\_chevrolet\\_volt\\_sales\\_in\\_201.html](http://www.mlive.com/auto/index.ssf/2012/07/gm_chevrolet_volt_sales_in_201.html) (last accessed September 2012).

<sup>35</sup> Promoting Electric Vehicles Act, S. 948, 112th Congress . 1 Sess.(Government Printing Office, 2011) was introduced in the Senate to provide incentives for rapid electric vehicle development. The bill, S. 948, sponsored by Sens. Lamar Alexander (R-TN) and Jeff Merkley (D-OR), would help communities create electrification infrastructure and provide grants for companies to electrify their fleets. Bill information available at <http://thomas.loc.gov/cgi-bin/query/z?c112:S.948.IS>: The Electric Drive Vehicles Deployment Act, H.R. 1685, 112<sup>th</sup> Congress. 1 Sess., introduced by Reps. Judy Biggert (R-IL) and Ed Markey (D-MA), implements incentives for both electric vehicles and infrastructure. It would extend tax credits for residential and commercial electric vehicle infrastructure that is set to expire. Information about this bill can be found at <http://thomas.loc.gov/cgi-bin/query/z?c112:H.R.1685.IH>:

<sup>36</sup> U.S. Energy Information Administration, “Electric Power Monthly,” July 2012, available at [http://www.eia.gov/electricity/monthly/current\\_year/july2012.pdf](http://www.eia.gov/electricity/monthly/current_year/july2012.pdf).

<sup>37</sup> American Wind Energy Association, “American wind power reaches 50-gigawatt milestone,” Press release, August 7, 2012, available at [http://www.awea.org/newsroom/pressreleases/50\\_GW\\_milestone.cfm/](http://www.awea.org/newsroom/pressreleases/50_GW_milestone.cfm/).

<sup>38</sup> Ibid.

<sup>39</sup> U.S. Department of Energy, “20% Wind Energy by 2030,” December 2008, available at <http://www1.eere.energy.gov/wind/pdfs/42864.pdf>.

<sup>40</sup> Solar Energy Industries Association, “U.S. Solar Market Insight,” September 7, 2012, available at <http://www.slideshare.net/SEIA/us-solar-market-insight-report-q2-2012>.

<sup>41</sup> U.S. Energy Information Administration, “Electric Power Monthly.”

<sup>42</sup> Kenneth Bosson, “Renewable Energy Sees Explosive Growth During Obama Administration,” Renewable Energy World.com, August 29, 2012, available at <http://www.renewableenergyworld.com/rea/news/article/2012/08/renewable-energy-sees-explosive-growth-during-obama-administration>.

<sup>43</sup> Stephen Lacey, “Wind Manufacturer Plans 165 Layoffs in Pennsylvania due to Congressional Inaction on Key Tax Credit.”



- <sup>44</sup> Nick Juliano, "Reid hopes for pre-election extenders vote; Republicans say it's unlikely," *E&ENews*, September 11, 2012, available at <http://www.eenews.net/eenewspm/2012/09/11/3>.
- <sup>45</sup> Joe Romm, "Clean Energy Stunner: Renewable Power Tops Fossil Fuels for First Time," *Climate Progress*, November 26, 2011, available at <http://thinkprogress.org/climate/2011/11/26/376250/clean-energy-renewable-power-tops-fossil-fuels-for-first-time/>.
- <sup>46</sup> Jack Perkowski, "China Leads The World In Renewable Energy Investment," *Forbes*, July 27, 2012, available at <http://www.forbes.com/sites/jackperkowski/2012/07/27/chinaleads-the-world-in-renewable-energy-investment/>.
- <sup>47</sup> Tom Steyer and John Podesta, "We Don't Need More Foreign Oil and Gas," *The Wall Street Journal*, January 24, 2012, available at <http://online.wsj.com/article/SB10001424052970203718504577178872638705902.html>.
- <sup>48</sup> Chris Cottrell, "German renewables output hits record high in H1," *Reuters*, July 26, 2012, available at <http://www.reuters.com/article/2012/07/26/germany-renewables-idUSL6E8IQ1A720120726>.
- <sup>49</sup> Richard Caperton and Matt Kasper, "The Romney-Ryan Ticket: Ceding the Energy Future," (Washington: Center for American Progress Action Fund, 2012) available at: <http://www.americanprogressaction.org/wp-content/uploads/2012/09/RomneyUEnergyInvestments-2.pdf>.
- <sup>50</sup> U.S. Energy Information Administration, "Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2011," March 2012, available at <http://energy.gov/sites/prod/files/eia-federallandsales.pdf>.
- <sup>51</sup> Marc Humphries, "U.S. Crude Oil Production in Federal and Non-Federal Areas," (Washington: Congressional Research Service, 2012) available at [http://www.eenews.net/assets/2012/04/03/document\\_gw\\_01.pdf](http://www.eenews.net/assets/2012/04/03/document_gw_01.pdf).
- <sup>52</sup> Emily Pickrell, "Gulf of Mexico deep-water rigs likely to reach record by 2014," *FuelFix*, July 30, 2012, available at <http://fuelfix.com/blog/2012/07/30/gulf-of-mexico-deep-water-rigs-likely-to-reach-record-by-2014/>.
- <sup>53</sup> U.S. Department of the Interior, "Oil and Gas Lease Utilization, Onshore and Offshore, Updated Report to the President," May 2012, available at <http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&pageid=296238>.
- <sup>54</sup> The Press Association, "Eventful Meeting for BP's Losses," *The Guardian*, April 11, 2012, available at <http://www.guardian.co.uk/uk/feedarticle/10192214>.
- <sup>55</sup> The U.S. Bureau of Land Management, "Federal Land Policy and Management Act," available at <http://www.blm.gov/flpma/> (last accessed September 12, 2012).
- <sup>56</sup> U.S. Department of the Interior, "Oil and Gas Lease Utilization, Onshore and Offshore, Updated Report to the President."
- <sup>57</sup> Eric Lipton, "Drillers in Utah Have a Friend in a U.S. Land Agency," *The New York Times*, July 27, 2012, available at [http://www.nytimes.com/2012/07/28/us/politics/bureau-of-land-managements-divided-mission.html?\\_r=1&pagewanted=all](http://www.nytimes.com/2012/07/28/us/politics/bureau-of-land-managements-divided-mission.html?_r=1&pagewanted=all).
- <sup>58</sup> CBC News, "Breaking down the prices of gasoline," April 4, 2012, available at <http://www.cbc.ca/news/canada/story/2012/04/04/f-gas-prices-explainer.html>.
- <sup>59</sup> Rex Nutting, "Gingrich's Gaseous Argument," *The Wall Street Journal*, March 10, 2012, available at [http://online.wsj.com/article/SB10001424052970204781804577267690888223980.html?grcc=d3ac29ddb30893064f601ae86aa5b960Z9&mod=WSJ\\_hps\\_sections\\_personalfinance](http://online.wsj.com/article/SB10001424052970204781804577267690888223980.html?grcc=d3ac29ddb30893064f601ae86aa5b960Z9&mod=WSJ_hps_sections_personalfinance).

- <sup>60</sup> “More U.S. drilling didn’t drop gas prices,” *Associated Press*, March 21, 2012, available at <http://www.mysanantonio.com/business/article/No-dip-in-price-with-more-drilling-3425467.php>.
- <sup>61</sup> Peter Van Doren and Jerry Taylor, “It’s not Obama’s Fault that Crude Oil Prices have Increased,” *The Cato Institute*, March 2, 2012, available at <http://www.cato.org/publications/commentary/its-not-obamas-fault-crude-oil-prices-have-increased>.
- <sup>62</sup> Jessica Goad, “Gov. Romney and Rep. Ryan Want to Drill, Slash, and Sell Our Nation’s Public Lands” (Center for American Progress Action Fund, September 2012).
- <sup>63</sup> Bob Marshall, “Conservation Update: Romney Energy Plan Would Give Drilling Control on Federal Lands to States,” *The Conservationist* blog, August 24, 2012, available at <http://www.fieldandstream.com/blogs/conservationist/2012/08/conservation-update-romney-energy-plan-would-givedrilling-control-fed>.
- <sup>64</sup> Phil Taylor, “Contractors group critical of Romney plan to hand permitting to states,” *E&E News*, September 11, 2012, available at <http://www.eenews.net/Greenwire/2012/09/11/2>.
- <sup>65</sup> Cory Nealon, “Defense Department Opposes Most Offshore Drilling in Virginia,” *The Daily Press*, May 18, 2010, available at [http://articles.dailypress.com/2010-05-18/news/dp-nws-navy-drilling-20100518\\_1\\_drilling-offshore-mexico-oil-spill](http://articles.dailypress.com/2010-05-18/news/dp-nws-navy-drilling-20100518_1_drilling-offshore-mexico-oil-spill).
- <sup>66</sup> Ibid.
- <sup>67</sup> Ibid.
- <sup>68</sup> Randal Yaakey, “Federal agency hears concerns about Gulf oil drilling,” *Panama City News Herald*, April 4, 2012, available at <http://www.newsherald.com/articles/drilling-101686-federal-agency.html>
- <sup>69</sup> Congressional Budget Office, “Potential Budgetary Effects of Immediately Opening Most Federal Lands to Oil and Gas Leasing,” August 9, 2012, available at [http://www.cbo.gov/sites/default/files/cbofiles/attachments/08-09-12\\_Oil-and-Gas\\_Leasing.pdf](http://www.cbo.gov/sites/default/files/cbofiles/attachments/08-09-12_Oil-and-Gas_Leasing.pdf).
- <sup>70</sup> Kathy Castor, “Castor Files Amendment to Transportation Bill to Protect Jobs and Florida’s Economy,” Press release, February 14, 2012, available at <http://castor.house.gov/news/documentsingle.aspx?DocumentID=280415>.
- <sup>71</sup> The Outer Banks Chamber of Commerce, “Outer Banks, North Carolina Vacation Info” available at <http://www.outerbankschamber.com/main/outer-banks-north-carolina-vacation-info/> (last accessed August 2012).
- <sup>72</sup> Congressional Budget Office, “Potential Budgetary Effects of Immediately Opening Most Federal Lands to Oil and Gas Leasing.”
- <sup>73</sup> Energy Information Administration, “Impact of Increased Access to Oil and Natural Gas Reserves in the Lower 48 Federal Outer Continental Shelf,” available at <http://www.eia.gov/oiaf/aeo/otheranalysis/ongr.html> (last accessed September 12, 2012).
- <sup>74</sup> U.S. Energy Information Administration, “*Analysis of Crude Oil Production in the Arctic National Wildlife Refuge*,” May 2008, available at [http://www.eia.gov/oiaf/servicertp/anwr/pdf/sroiaf\(2008\)03.pdf](http://www.eia.gov/oiaf/servicertp/anwr/pdf/sroiaf(2008)03.pdf).
- <sup>75</sup> Anne Mulkern, “As high gas prices loom, new Congress faces pressure on drilling,” *Greenwire News*, January 4, 2011, available at <http://www.eenews.net/Greenwire/2011/01/04/archive/2?terms=ken+green>.
- <sup>77</sup> Letter from the United States Environmental Protection Agency to Jose W. Fernandez and Kerri-Ann Jones, U.S. Department of State, June 6, 2011.

<sup>78</sup> Energy Information Administration, “Diesel Fuel Explained,” April 13, 2012, available at [http://www.eia.gov/energyexplained/index.cfm?page=diesel\\_prices](http://www.eia.gov/energyexplained/index.cfm?page=diesel_prices).

<sup>79</sup> Anthony Swift, “Keystone XL: A Tar Sands Pipeline to Increase Oil Prices,” (Washington: Natural Resources Defense Council, 2012).

<sup>80</sup> “Video: Markey questions if Keystone will really aid in US economic, national security,” Energy and Commerce Subcommittee hearing, December 2, 2011, available at <http://www.youtube.com/watch?v=VucRPHJtvGU>.

<sup>81</sup> Daniel Weiss, “Why the ‘Keystone Vision’ is an Economic Mirage,” February 22, 2012, available at: <http://thinkprogress.org/climate/2012/02/22/429981/keystone-vision-economic-mirage/>.

<sup>82</sup> Ensys Energy, “Keystone XL Assessment,” The U.S. Department of Energy Office of Policy and International Affairs, December 23, 2010, available at <http://keystonepipeline-xl.state.gov/documents/organization/182421.pdf>.

<sup>83</sup> Ibid.

<sup>84</sup> Bradley Olsen, “Keystone Oil Pipeline Seen Raising Gas Prices in Midwest: Energy,” *Bloomberg*, February 29, 2012, available at <http://www.bloomberg.com/news/2012-03-01/keystone-oil-pipeline-seen-raising-gas-prices-in-midwest-energy.html>.

<sup>85</sup> The Wilderness Society, “Making the Grade: Oil and Gas Drilling Report Card,” July 24, 2012, available at <http://wilderness.org/resource/making-grade-oil-and-gas-drilling-report-card>.

<sup>86</sup> U.S. Department of the Interior, “Oil and Gas Lease Utilization, Onshore and Offshore,” May 2012, available at <http://www.doi.gov/news/pressreleases/upload/Final-Report.pdf>.

<sup>87</sup> Ibid.

<sup>88</sup> The Wilderness Society, “Making the Grade: Oil and Gas Drilling Report Card.”

<sup>89</sup> Ibid.

<sup>90</sup> U.S. Department of the Interior, “Oil and Gas Lease Utilization, Onshore and Offshore.”

<sup>91</sup> The Wilderness Society, “Making the Grade: Oil and Gas Drilling Report Card.”

<sup>92</sup> U.S. Energy Information Administration, “Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2011.”

<sup>93</sup> The Wilderness Society, “Making the Grade: Oil and Gas Drilling Report Card.”

<sup>94</sup> Associated Press, “Drillers cut natural gas production as prices drop,” *The Wall Street Journal*, February 12, 2012, available at <http://online.wsj.com/article/AP3e0b9812cd1c44829710ea9dba98efec.html>.

<sup>95</sup> Daniel Weiss, “Tapping America’s Unconventional Oil Resources for Job Creation and Affordable Domestic Energy: Technology and Policy Pathways,” Testimony before the House Committee on Science, Space and Technology, April 17, 2012, available at [http://www.americanprogressaction.org/wp-content/uploads/issues/2012/04/pdf/weiss\\_testimony.pdf](http://www.americanprogressaction.org/wp-content/uploads/issues/2012/04/pdf/weiss_testimony.pdf).

<sup>96</sup> The Joint Committee on Taxation, *Estimated Budget Effects of S.2204, The “Repeal of Big Oil Tax Subsidies Act”* (March 23, 2012).

<sup>97</sup> Seth Hanlon, “Big Oil’s Misbegotten Tax Gusher” (Washington: Center for American Progress, 2011).

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<sup>98</sup> Richard Rubin, “Continental’s Hamm Says U.S. Must Keep Tax Breaks for Oil,” *BusinessWeek*, June 12, 2012, available at <http://www.businessweek.com/news/2012-06-12/continental-s-hamm-says-u-dot-s-dot-must-keep-tax-breaks-for-oil-gas>.

<sup>99</sup> Daniel J. Weiss and Jackie Weidman, “Is Big Oil Rigging Gasoline Prices?” (Washington: Center for American Progress, 2012).

<sup>100</sup> Natural Resource Committee Democratic Staff, *Profits and Pink Slips: New Report Details How Big Oil is Cutting Jobs, Not Creating Them* (Government Printing Office, 2011).

<sup>101</sup> House Budget Committee, *The Path to Prosperity: A Blueprint for American Renewal* (Government Printing Office, 2012).

<sup>102</sup> Zack Colman, “Democrats say Romney beholden to ‘Big Oil,’” *The Hill*, July 26, 2012, available at <http://thehill.com/blogs/e2-wire/e2-wire/240523-democrats-liberal-group-attack-romney-gop-on-oil-subsidies>.

<sup>103</sup> CNN Money, “Fortune 500,” *CNN*, May 21, 2012, available at [http://money.cnn.com/magazines/fortune/fortune500/2012/full\\_list/](http://money.cnn.com/magazines/fortune/fortune500/2012/full_list/).

<sup>104</sup> Kim Dixon, “Analysis: Gas price spike revives fight over energy taxes,” *Reuters*, March 26, 2012, available at <http://www.reuters.com/article/2012/03/26/us-usa-tax-bigoil-idUSBRE82P0DX20120326>.

<sup>105</sup> Ibid.