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BEFORE THE

U.S. SENATE COMMITTEE ON FINANCE
SUBCOMMITTEE ON ENERGY, NATURAL RESOURCES AND INFRASTRUCTURE

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Thank you, Chairman Bingaman, Ranking Member Bunning and Members of this Committee, for the privilege of contributing to today's discussion of proposed oil and gas industry tax policy changes. My name is Kevin Book and I lead the research practice at ClearView Energy Partners, LLC, an independent research and consulting firm here in Washington, D.C. that serves institutional and corporate energy investors.

The Wisdom of Looking Ahead in the Midst of Crisis

I want to begin, Mr. Chairman, by expressing my appreciation that this Committee is willing to examine the opportunities of the future even as it tackles the daunting challenges of the present. This, after all, is no ordinary moment in U.S. history. Job losses continue to mount even though the pace of decline appears to be slowing. Home prices remain depressed despite potentially auspicious inventory reductions. U.S. national debt grows relative to GDP despite hopes that record-low interest rates might inspire expansionary, new investment. Given these and many other jarring indicia of economic malaise, I am grateful that you and your colleagues remain committed not only to helping this industrial economy recover from a blistering recession, but also to powering its future with secure, economic and sustainable fuel sources and energy technologies.

Demand Moves Quickly

This foresight is critical, in my view, given the long lead-times and substantial capital outlays associated with energy investments. Energy supplies can take years – even decades – to come online, but recent events reveal how quickly demand patterns can shift.

A little over one year ago, the global oil system was running at nearly 99% of its capacity and price levels reflected real and anticipated scarcity. Today, as a result of economic collapse, and due – in part – to OPEC cooperation without modern precedent, we estimate production at less than 94% of global capacity. Accordingly, EIA data reveal record stockpiles of oil, oil products and natural gas, and U.S. electric power demand trends suggest that 2009 will bring the greatest year-on-year contraction in more than five decades.

Supply was tight last year, but the 2008 energy crisis was largely economic, not physical, in nature. Instead of lines at the pump, Americans endured holes in their pockets. Superficially, aggregate data suggest this "price crisis" is largely over: on a national average basis, our estimate of U.S. "consumer energy leverage" (the share of disposable income that goes to electricity, home heating and gasoline) fell from almost 12% in July 2008 to approximately 8.25% in July 2009, only slightly above the high end of the historical range.

In short: prices have fallen, but the way we got there is nothing to celebrate, nor is it likely to be sustainable.

Business-as-Usual was Brisk

As they industrialize, developing economies seek more energy from every source, but the rapid growth in Chinese demand for crude oil and oil products made headlines for years because, by some projections, it was on pace to soak up global excess capacity in less than a decade. Figure 1 presents recent trend data, distilled from the July 2009 IEA *Oil Market Report.* By IEA's projections, rapid Chinese demand growth could resume during 2010 at near-peak levels. More sobering: even the current recession did not stop demand growth entirely.

Figure 1 – IEA China Demand Forecasts (Top) and Percentage Growth (Bottom), July 2009 vs. July 2008

Year/IEA Report Year, (A)ctual and (P)rojected

Product, kbbl/d	2006/08	2007A/08	2008P/08	2008A/09	2009P/09	2010P/09	Δ08A vs P
LPG & Ethane	701	669	644	653	734	766	9
Naphtha	756	812	855	768	809	846	-87
Motor Gasoline	1,221	1,257	1,415	1,493	1,572	1,684	78
Jet & Kerosene	259	280	305	292	309	327	-13
Gas/Diesel Oil	2,415	2,576	2,843	2,837	2,624	2,759	-6
Residual Fuel Oil	791	744	688	603	606	631	-85
Other products	1,068	1,204	1,211	1,246	1,328	1,301	35
Total Products	7,213	7,542	7,962	7,892	7,982	8,315	-70

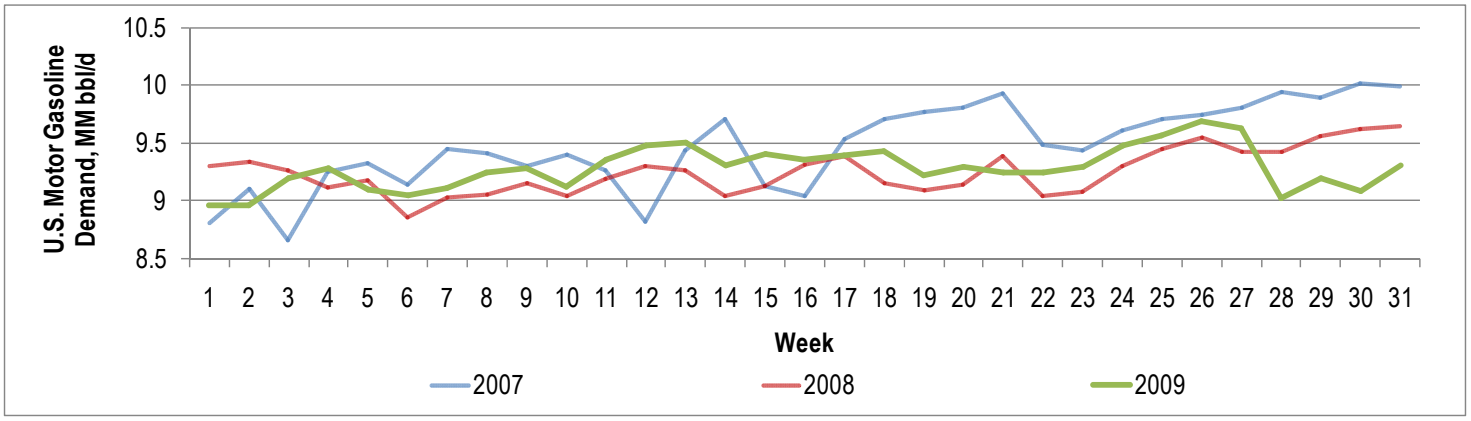
Product, kbbl/d	2007ΔA	2008ΔA	2009ΔP	2010ΔP
LPG & Ethane	-4.56%	-2.39%	12.40%	4.36%
Naphtha	7.41%	-5.42%	5.34%	4.57%
Motor Gasoline	2.95%	18.77%	5.29%	7.12%
Jet & Kerosene	8.11%	4.29%	5.82%	5.83%
Gas/Diesel Oil	6.67%	10.13%	-7.51%	5.14%
Residual Fuel Oil	-5.94%	-18.95%	0.50%	4.13%
Other products	12.73%	3.49%	6.58%	-2.03%
Total Products	4.56%	4.64%	1.14%	4.17%

Source: ClearView Energy Partners, LLC using IEA data

By the same token, the most dramatic change in global liquids (oil, oil products and alternatives) demand came not from China, but from the U.S. driver, as presented in Figure 2. The combination of demand contraction (motorists driving less) and destruction (drivers buying higher-efficiency automobiles) has led to 2009 weekly gasoline consumption levels 5-10% lower than comparable weeks during the 2007 peak year.

Notwithstanding Chinese demand growth, the U.S. driver still represents about 11% of global liquids demand, a critical "swing factor".

Figure 2 – U.S. Motor Gasoline Demand, 2009 vs. 2008 and 2007, MMbbl/d, thru July



Source: ClearView Energy Partners, LLC using data from MasterCard Advisors

The Risks of Ignoring the Long-Term Trend

Because of this "swing" factor, the U.S. is unlikely to feel the pinch of high prices for several more years, even as economic recovery builds. This would be welcome news, but no reason to ignore long-term trends.

If the Obama Administration's proposed vehicle GHG targets are met by automakers by improvements in fuel efficiency, we estimate that U.S. motor gasoline demand could peak in 2012 or 2013 and begin a slow decline thereafter. This could be a favorable outcome, but it may not necessarily usher in an enduring era of supply security or low prices for two reasons. First, by that time, the U.S. may have achieved most of its feasible, near-term efficiency gains even as developing world demand grows. Second, much of the contraction in global oil demand that came from economic weakness could reverse – and grow – if 2010 brings a brisk recovery.

High prices do tend to provoke efficiency gains. We estimate that CY2009 U.S. motor gasoline demand will average about 8.9-9.0 MMbbl/d, and demand destruction from organic (non-cash-for-clunkers) vehicle scrappage may already account for as much as 200,000 bbl/d of the 300,000 bbl/d decline from the 2007 demand peak. There may be more ahead, too, with as much as 500,000 bbl/d of additional U.S. demand destruction possible in the event that economic recovery releases more pent-up vehicle demand and creates a spike in passenger car scrappage similar to the one that arrived during the late 1970s. This could play a big role in keeping pump prices lower for longer.

On the other hand, it isn't just about cars. The buyers of export nations' goods accounted for a large fraction of global liquids consumption. As purchases slowed in the West, factories shut down in the East, reducing oil demand. Less manufacturing activity meant less shipping, paring back demand from every type of freight hauling, many of which rely on diesel fuel and other "middle distillates". In July, IEA projected that North American middle distillates demand will have contracted approximately 730,000 bbl/d between 2007 and 2009. Adding in cutbacks in China, this implies that nearly one million barrels per day used for making stuff and hauling stuff disappeared from the global oil system just in the U.S. and China alone! (See Figure 3).

The problem is: unlike an old clunker cast onto the scrap heap, yesterday's consumers are still around to purchase tomorrow's goods (even if credit is tighter), and they are likely to be growing in number.

Figure 3 – Net Demand Impact of China Growth and OECD North America Contraction vs. 2006 Demand, kbbl/d

Country/Region	2006A	2007A	2008A	2009P	2010P-High*	2010P-Low*
China	7,213	7,542	7,892	7,982	8,315	8,315
OECD North America	25,250	25,530	24,180	22,940	23,169	22,252
Net Δ vs. 2006	--	609	-391	-1,541	-979	-1,896

* CVEP scenarios: "High" is 1% growth in 2010; "Low" is 3% contraction in 2010

Source: ClearView Energy Partners, LLC using IEA data

Supply Challenges Haven't Disappeared, Either

The most explicit types of geopolitical risk are likely to contribute only modestly to energy prices – if at all – during the remainder of 2009 and 2010. Even so, other factors may set up a precarious future for global supply. First and foremost, stark financial circumstances can inject a "slow bleed" into global supply, particularly as smaller, higher-cost producers cut back their spending because they cannot profitably produce "marginal" barrels of oil or cubic feet of natural gas at today's prices.

In addition, a combination of internal politics and financial shortfalls could still lead to a downside supply surprise from the "usual suspects", especially:

- Mexico, where the Cantarell field is declining faster than expected and offshore investment is lagging;
- Iran, where budget challenges may lead to underinvestment in maintenance of producing fields;
- Nigeria, where MEND may continue the self-defeating pursuit of greater oil revenues share by scaring away investment;
- Russia, where taxes may starve maintenance cap-ex and bring faster-than-expected production declines; and
- North America, where tax policy can play a pivotal role in shaping long-term investment decisions.

Notably, with the exception of Nigeria, each "game changer" revolves around government policy choices.

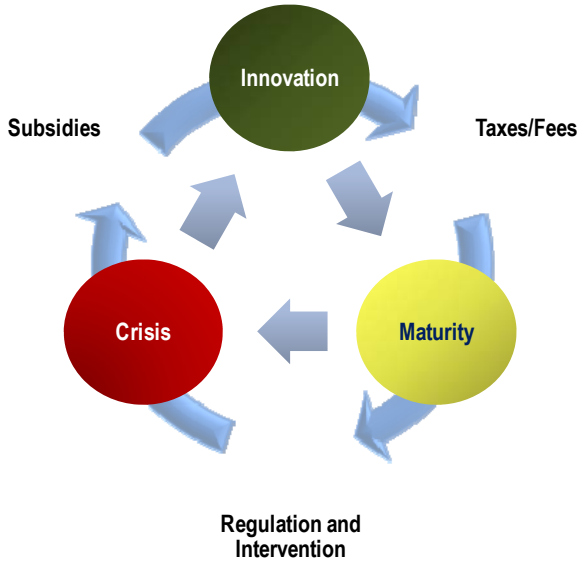
The Impact of Energy Policy Volatility on Private Companies

Energy tax policies are part of the broader system of fees and subsidies by which governments monetize, and manage the utilization of, their natural resources. As a vast oversimplification, during most of the 150-year history of the oil industry, the government energy policy toolkit has consisted of three basic elements:

1. **Performance-based subsidies** for desired outcomes and surcharges or penalties to discourage unwanted outcomes, either explicit (e.g. producer credits), or via tax/accounting mechanisms (e.g. depletion allowances, accelerated depreciation);
2. **Payments for resource rights**, including (a) bid bonuses [which are received at auction]; (b) rental payments [received as long as the leaseholder continues to lease the resource]; and (c) royalties [paid out in proportion to production, if it occurs]; and
3. **Regulation and intervention** to establish price or cost ceilings, cushions or collars (e.g. loan guarantees, countercyclical payments and windfall taxes).

In an ideal world, governments might strive to tailor these incentive mechanisms for fuels and energy technologies to their maturity by subsidizing innovation, taxing mature technologies and intervening at, or prior to, the onset of any supply or environmental crisis, as presented in Figure 4.

Figure 4 – Energy Policies and Energy Technologies are Both Cyclical in Nature – but the Cycles Don't Always Match Up



Source: ClearView Energy Partners, LLC

In practice, this theoretical ideal can be difficult or impossible to achieve: inadequate subsidies for innovative technologies may limit their diffusion; excessive taxation of mature technologies may deter necessary reinvestment; and overzealous regulation of access to, or the selling price of, natural resources could deter innovation and investment. Several factors may contribute to this disconnect.

The not-so-inconsequential problems of time and timing: many energy policy decisions tend to be made on an annual or biennial basis, but energy investment decisions can require years of planning and years further for execution and profitability. Cautious companies may plan to survive price volatility by earning sufficient returns in later years to offset losses in early years, even on a discounted cash-flow basis. Investment also generally continues throughout the life of an energy project. As a result, profits from greater-than-expected production may reflect a high level of ongoing investment and innovation rather than blind luck or a "windfall".

States competing with states. Although corporate decision-makers may prefer to work in their home nations, private companies invest in regions and nations where resources and policies deliver the highest, risk-adjusted return on invested capital for shareholders. The global energy industry is by no means a perfectly open or perfectly level playing field, but, at some level, nations compete for energy companies that will help them maximize the value of their resources. Large resources can encourage greater risk tolerance by firms that hope to capture the benefits of scale. By contrast, political and policy volatility can undermine the attractiveness of favorable royalty rates.

Firms competing with states. Last, many of the energy companies that are the most vulnerable to poorly-timed government actions may be the private entities that must compete with partially or wholly state-owned and/or state-funded entities. In this context, energy policy volatility within market democracies can be considerably more damaging to private companies than to their state-owned competitors.

Implications of the Proposed U.S. Oil & Gas Policy Changes

On August 25, 2009, the Office of Management and Budget published its *Mid-Session Review*. Figure 5, on the following two pages, summarizes projected impacts of the energy-related policies within President Obama's FY2010 Budget Request, using the revenue "scores" presented within the appendices to the *Review*.

Figure 4 – Energy-Related Revenue Impacts of the President's Budget Request from the *Mid-Year Budget Outlook*

Program Area	Revenue Year											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	5Y	10Y
Could affect some oil, gas and refining companies												
Repeal LIFO method of accounting for inventories			-2,992	-6,748	-8,082	-8,431	-8,590	-8,545	-8,630	-9,036	-17,822	-61,054
Defer deduction of expenses, except R&E expenses, related to deferred income		-3,295	-5,594	-5,822	-6,012	-6,150	-6,206	-6,363	-6,598	-6,869	-20,723	-52,909
Likely to affect international oil companies												
Modify tax rules for dual capacity taxpayers		–275	–474	–503	–535	–563	–592	–623	–651	–681	–1,787	–4,897
Identified as oil/gas-specific												
Levy tax on certain offshore oil and gas production		-500	-500	-500	-600	-600	-600	-600	-700	-700	-2,100	-5,300
Repeal enhanced oil recovery credit												
Repeal credit for oil and gas produced from marginal wells												
Repeal expensing of intangible drilling costs		-1,399	-1,789	-1,115	-835	-749	-562	-279	-153	-113	-5,138	-6,994
Repeal deduction for tertiary injectants		-5	-9	-9	-8	-7	-6	-6	-6	-6	-31	-62
Repeal exception to passive loss limitations for working interests in oil and natural gas properties		-2	-5	-6	-6	-6	-6	-6	-6	-6	-19	-49
Repeal percentage depletion for oil and natural gas wells		-351	-835	-1,022	-1,053	-1,086	-1,124	-1,160	-1,189	-1,215	-3,261	-9,035
Repeal domestic manufacturing tax deduction for oil and natural gas companies		-757	-1,310	-1,392	-1,464	-1,531	-1,600	-1,670	-1,745	-1,823	-4,923	-13,292
Increase geological and geophysical amortization period for independent producers to seven years		-45	-169	-262	-251	-198	-143	-86	-46	-35	-727	-1,235
Identified as energy-specific												
Repeal ultra-deepwater oil and gas	-20	-40	-50	-50	-50	-30	-10				-210	-250

Program Area	Revenue Year											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	5Y	10Y
research and development program												
Identified as increased return on mineral leasing												
Abandoned Mine Lands (AML) Payments to Certified States	-142	-164	-208	-210	-206	-90	-90	-94	-158	-161	-930	-1,523
Fee on nonproducing oil and gas leases	-122	-121	-115	-107	-109	-112	-114	-116	-119	-121	-574	-1,156
Repeal Energy Policy Act fee prohibition and mandatory permit funds	-42	-32	-33	-33	-33	-33	-9	-9	-9	-9	-173	-242
Identified as climate-specific												
Dedicated to climate policy (clean energy technologies)			-15,000	-15,000	-15,000	-15,000	-15,000	-15,000	-15,000	-15,000	-45,000	-120,000
Dedicated to making work pay tax credit			-62,158	-62,502	-62,826	-63,093	-63,461	-63,818	-64,130	-64,554	-187,486	-506,542

Source: ClearView Energy Partners, LLC, OMB

Above all, energy policy is about trade-offs. Many of the tax incentives for conventional energy production and refining on the books today have been in force for decades. Some, like intangible drilling cost deductions, are believed to date back to the latter half of the 19th Century and certainly to the 1926 Internal Revenue Code. Section 199 deductions and accelerated G&G amortization schedules are of a relatively recent vintage, but these benefits still have two characteristics in common with longer-lived mechanisms:

1. In general, most of these policies encourage U.S. petroleum supply security; and

2. Most of these policies appear to be predicated upon the recognition that oil and gas exploration, production and refining requires long-term capital commitments; in short, vast amounts of cash – much moreso than manpower and steel – are a primary factor of production.

The President's Budget Request proposes to rescind or modify several of these policies. As an analyst of energy economics and the policies that shape it, it is not my place to debate the merits of these changes. Moreover, I am honored to appear on a panel of many distinguished witnesses who are likely to make strong and credible arguments on both sides of each issue. Instead, I want to highlight some of the potential, unintended consequences that could result from the enactment of the proposed changes to frame them as a trade-off between short-term fiscal stabilization and long-term economic growth.

1. **A LIFO-to-FIFO change** would not uniquely impact energy companies, but a transition from a last-in, first-out to first-in, first-out system of inventory accounting, paired with the expectation of higher prices, could motivate commercial refiners to reduce their operating inventories ahead of its effective date, potentially flooding the market with crude, artificially depressing prices for the short-term and hurting the economics of higher-cost, alternative technologies. In addition, refiners might be motivated to hold leaner working inventories, potentially creating greater price volatility in the event of any future supply disruption. The ramifications of this change could be particularly pronounced in light of long chronology of U.S. LIFO

inventory practices, which date back to the 1939 Internal Revenue Code.

2. **Deduction deferrals, dual capacity tax rule changes and unraveling "inversions"** all have the potential, to create cash-flow challenges or competitive disadvantages for the international companies likely to make investments supporting U.S. energy security and greener fossil energy production. Another possible outcome could be the "re-domiciling", rather than the repatriation, of potentially-impacted international operating companies and, with them, jobs and taxable profits.

3. **A 13% Gulf of Mexico** surtax applied to production from Central Gulf of Mexico leases sold between 1998 and 1999 could lead to negative energy security consequences without substantially improving gross receipts to the U.S. Treasury. Drilling a well to produce ultra-deepwater resources in the lower and middle Miocene and lower Tertiary trends, more than one hundred miles from shore, can cost hundreds of millions of dollars. If, as many respected E&P analysts suggest, the real production cost of oil from these wells falls in the $50-70/bbl range, the expectation of this 13% surtax (as much as about $9/bbl) could deter higher-cost projects today. At minimum, production at a future date would diminish the present value of royalties received – possibly more than the 13% taxes. Far more vexing, changes to lease life or royalty rates could also diminish bid bonuses in future auctions, because leases that cost more per barrel to produce might be worth less, in present value terms, to private companies. This may be especially true for companies that value the "optionality" of having ten years to complete their planning decisions.

4. **Rescinding Intangible Drilling Cost (IDC) deductions and percentage depletion exemptions** could have the effect of diminishing the working capital available to fund new and continuing domestic investment in oil and gas production. Similarly, longer geologic and geophysical cost amortization periods and higher well permitting costs could present further deterrents to new production. Whether or not a well comes up dry or meets its breakeven production volumes, exploring and preparing for drilling imposes explicit costs on E&P companies. Average costs per well for U.S. oil and gas production remain in the $1.5 to $2 million range, despite retracement in land rig day rates. Production volumes could slow considerably without this deduction, and the cash squeeze for independent producers already facing margin compression due to low Henry Hub prices for natural gas could put some of them out of business. If past is any precedent, further industry consolidation could be the result of independent company bankruptcies.

5. **Repealing the "Section 199" deductions** created by the American Jobs Creation Act of 2004 would impose a *de facto* 2.1% tax increase on U.S. oil, gas and refining companies, assuming a 35% corporate tax rate. Some companies are well-insulated against small tax increases by virtue of their debt structures, cash positions and cost structures. Others, including some of the companies currently undertaking high-cost, innovative and environmentally-friendly production and refining projects, could be much more severely impacted by this change. Another particular area of concern may be the domestic refining sector, a business that has long lived and died by razor-thin margins. According to BP, 2008 global refining margins were approximately $6.52/bbl, the lowest full year in five years, and margins during the second quarter of 2009 were even worse, at about $4.98/bbl. In this environment, 2% is a big deal, particularly given the looming prospect of carbon surcharges that could erode about $2.40/bbl of that margin (this assumes 19.36 $lbCO_2e/gal$, $\$10/MtCO_2e$ GHG prices and a 35% tax rate).

Conclusion

Mr. Chairman, current oil and gas tax policies embody the energy strategies and value judgments of past generations of lawmakers and regulators. These energy policies can and should change just as the economic circumstances and the energy technologies they govern are likely to change. I remain optimistic that this Committee and this Congress will continue to craft energy policy that reflects practical and well-considered trade-offs even as the nation charts a predictable course towards an "ideal" energy policy future. After all, at this point in our nation's economic history, it seems equally irrational to demonize the taxes that will fund government operations as it is does to demonize the fossil energy that will power our economic recovery.

This concludes my prepared statement. I will look forward to any questions at the appropriate time.