

Chevron's Responses to Questions for the Record – June 11, 2010
Submitted by Chairman Edward Markey
U.S. House Select Committee on Energy Independence and Global Warming

- 1. Please detail the capital investments Chevron has made in oil and gas exploration in each of the last three fiscal years? Of these investments, please detail how much was spent on exploration of new fields?**

Chevron's capital expenditures for exploration in new fields over the past three years are as follows:

	<u>Millions of dollars</u>		
	<u>2009</u>	<u>2008</u>	<u>2007</u>
U.S.	\$605	\$1,305	\$736
International	<u>\$1,385</u>	<u>\$1,173</u>	<u>\$1,266</u>
Worldwide	\$1,990	\$2,478	\$2,002

These figures only reflect exploration. Over the last 5 years (2005-2009) Chevron has invested \$92 billion in the business, while earning \$84 billion.

- 2. How much money has Chevron invested in each of the last three fiscal years on research and development generally? Of these research and development investments, how much was focused on the research and development of safer offshore drilling technologies? How much was focused on technologies related to rig safety and accident prevention? How much was focused on spill response technologies? How much was focused on research regarding renewable and alternative energy sources? Please break down that investment by renewable energy type (e.g., wind, solar, etc.).**

Chevron's research and development expenses were \$603 million, \$702 million and \$510 million for the years 2009, 2008 and 2007. Additionally, because safety is embedded into every aspect of Chevron's operations, Chevron's total capital and operational expenditures, about \$45 billion annually (2008-2009) are dedicated in some manner to safety and safe operations.

These investments support Chevron's businesses globally and are focused on protecting people and the environment, ensuring reliability and efficiency, and developing emerging energy. For example, regarding deepwater activities, research and development investments support surface and subsurface equipment reliability, materials, strength and fatigue testing of riser systems, robotic subsea intervention and inspection systems, lifecycle global response management, and floating platform standards.

Examples of other focus areas for these funds include environmental performance standards, well reliability and integrity, remediation, impacts of industry activity on marine mammals, emergency management, air, water and waste technologies, and projects in emerging energy – such as next generation biofuels and advanced solar technologies – and their integration into Chevron's core businesses. These amounts are in addition to Chevron's extensive investments necessary to operate our global assets safely and reliably.

While Chevron does not conduct research on spill response technologies specifically, we have a financial and manpower involvement in oil spill cooperatives or for profit response companies. In addition, fees are paid to states including Louisiana and California for oil spill research.

3. How much has Chevron invested in deployment of renewable or alternative energy in each of the last three fiscal years? Please break down that investment by renewable energy type (e.g., wind, solar, etc.). What proportion of your revenue is currently derived from renewable or alternative energy production?

Between 2002 and 2009, Chevron committed over \$3.8 billion in investments and expenditures on projects and services to advance energy efficiency and alternative and renewable energy technologies, including geothermal, biofuels, advanced batteries, wind, and solar. Chevron expects investment and expenditure in renewable energy and energy efficiency services of \$2.3 billion between 2010 and 2012.

4. What steps do you believe the U.S. government and private industry should take to reduce the threat posed by climate change? Does Chevron support an economy wide cap on greenhouse gas emissions that includes transportation fuels? Would Chevron be able to pass any of the cost of purchasing emission allowances through to its customers? If so, what percentage would be passed through?

Chevron shares the concerns of governments and the public about climate change and recognizes that the use of fossil fuels to meet the world's energy needs is a contributor to an increase in greenhouse gases (GHGs) in the Earth's atmosphere. Efforts to address climate change must be balanced against America's energy security and economic competitiveness objectives.

Any efforts to address climate necessarily result in an increase in energy prices at the consumer and business level. This is an important factor to keep in mind as the government deliberates on the timing and scope of measures to address climate change. If the government decides to pass legislation or regulation to reduce greenhouse gas emissions, policies should be guided by principles including global engagement; energy security; energy efficiency; equitable treatment; and transparency. Any framework should be implemented at the national level, be fair to the participating sectors, and avoid duplicative regulation. With respect to cap and trade, Chevron believes that a cap and trade program could work for stationary source emissions if it is designed properly. However, we believe cap and trade is ill-suited for transportation fuels. Transportation fuels should be addressed in a separate approach outside of a cap-and-trade system. Congress has already taken action in this sector through fuels (RFS2) and vehicles (CAFE) performance standards aimed at reducing gasoline consumption and carbon.

If Congress enacted an economy-wide cap and trade program for greenhouse gas emissions, including a requirement that refineries hold allowances for both the manufacture and use of transportation fuels, it would undoubtedly lead to higher prices for all energy derived from fossil fuels, such as gasoline, diesel and aviation fuels. Some portion of the cost of acquiring allowances will be passed on to the consumer, exactly how much, however, is impossible to predict and likely to vary according to market conditions.

- 5. Is it the view of Chevron that the world oil market is a free market where oil prices are dictated solely by supply and demand? If no, what other factors determine the global price of oil?**

Many factors influence the price of oil, including global supply and demand, perceptions of market trends, geopolitical instability, commodity investments, and the valuation of the dollar.

- 6. How many offshore leases does your company hold under the Deep Water Royalty Relief Act that are not subject to the suspension of royalty relief based on market price? How much does Chevron project to avoid in royalty payments on these leases over the next five years and over the next twenty-five years?**

Chevron has 51 OCS leases which were purchased between 1996 and 2000 pursuant to the Deep Water Royalty Relief Act. Chevron made 7 commercial discoveries on these leases (Blind Faith, Tahiti, Perdido, Jack-St Malo, Big Foot, Tonga-Caesar, and Tubular Bells), where we expect to invest over \$21.0 billion (Chevron's share) to fully develop.

Chevron will not avoid any royalty payments and will make royalty payments to the US government according to the provisions of the Deep Water Royalty Relief Act. Projections of prospective royalties are conditional on future prices and production levels.

In 2008-2009, Chevron paid \$690 million in royalties to the US government.

- 7. What impact would drilling by Chevron in the U.S. Atlantic and Pacific Outer Continental Shelf areas previously under moratoria have on U.S. motor gasoline prices in 2020 and 2030? What impact would it have on total U.S. oil production and consumption?**

We cannot predict what will happen to crude or gasoline prices. They are determined by supply, demand, competition and other factors. Directionally, however, increased supply should decrease the price of oil and products derived from oil like motor gasoline. Over the long term opening new areas for oil and gas exploration will lead to new domestic supplies, which will reduce imports and benefit our economy.

- 8. In responses to post-hearing questions posed by this committee in 2008, Chevron stated that "Mandates, subsidies, and tariffs can distort market forces by picking artificial winners and reducing the incentive for innovation." In light of these comments, does Chevron support the elimination of the oil and gas subsidies identified in the President's Budget Request for Fiscal Year 2011?**

Chevron stands by our response. Chevron indicated then, and still believes today, that in the current market environment, new tax incentives are not needed for oil and gas exploration. In making capital investment decisions, Chevron, like other corporations, has relied upon long standing provisions of the tax code, such as the dual capacity foreign tax credit, and expensing of IDCs and tertiary injectants. Those provisions should be retained. The proposed tax increases on the oil and natural gas industry from eliminating these provisions will result in less capital available for new investments which develop new energy supplies, reducing U.S. oil and gas production, energy security and U.S. jobs.

U.S. oil and natural gas companies pay considerably more in taxes than the average manufacturing company. The industry's 2008 global income tax expenses (as a share of net income before income taxes) averaged 53.2%, compared to 32.2% for the S&P Industrial companies. For 2006-2008, the major energy producing companies paid or incurred over \$280 billion of income tax expense.

9. How many deep water oil rigs does Chevron operate in the Gulf of Mexico; how many does it operate around the world? In which countries are these rigs located? What are the major differences in regulatory, royalty and tax policies between these countries that affect your operations and how do they compare to the United States?

Chevron currently has three deep water drillships under contract in the Gulf of Mexico. We have another seven deep water drilling rigs in operation around the world, including two in Australia, two in Angola and one each in Brazil, Canada and Nigeria.

Contracts globally are either concessions or production sharing contracts (PSCs). Concessions are similar to the US regime in which tax and royalty payments are made to the host government. In a PSC, we typically take on all exploration risk and receive a variable share of production to recoup our investment, as well as earn a fair return, when the exploration is successful. The host government in this case receives its share of production as well as tax revenues.

Because tax and royalty rates vary significantly among countries, and a company's share of production varies significantly over time in a PSC, it is difficult and potentially misleading to compare fiscal regimes at a single point in time. Companies will invest in projects as long as the combination of fiscal terms over the life of the project will produce an acceptable rate of return in the context of risk taken.

10. What is the maximum worst-case spill scenario Chevron is prepared to respond to from offshore oil operations in the Gulf of Mexico? Please outline the emergency plans you have in place to deal with deep water blowouts.

Chevron's principal focus is on preventing spills. Everything begins with a fundamental commitment to performing all tasks in a safe manner. We understand there is inherent risk in what we do. Risk mitigation is our business. Every employee knows the two principles we base our work on – "Do it safely or not at all" and "There is always time to do it right." In terms of measures to prevent blowouts, we have confidence in our well designs and have the right procedures and equipment in place.

In those rare instances where there is a problem, Chevron has an emergency management process to respond to all emergency incidents in the Gulf of Mexico, including oil spills. Chevron response plans, which meet the requirements of federal and state regulations, are designed to coordinate with government agencies and integrate the efforts of Chevron, contractors, and other industry resources. Drills of these plans are conducted on routine basis. These plans include the following resources:

- Crisis Management Teams - executive level teams created to manage large scale emergencies in the GOM OCS associated with drilling, production operations, or pipelines. These teams will be normally located in either Covington, LA or Houston, TX.

- Incident Management Team – A team with approximately 120 trained members utilizing a state of the art command center. This team is located in Covington, LA.
- Source Control Teams – A team with approximately 75 trained members that focus on well control in the OCS deepwater and shelf. These teams are located in Covington, LA and Houston, TX. These teams are supported by service contracts with specific well control consultants.
- Chevron operated shore bases and heliports located across the Gulf Coast area of Chevron’s operations provide logistical staging for response efforts. In addition, Chevron owned aircraft throughout the Gulf provide emergency response air assets.
- Chevron worldwide response teams include response trained management and technical experts who can mobilize on short notice to any location in the world to provide assistance.
- Established response co-ops (Clean Gulf Associates, Marine Spill Response Corporation) and pre-arranged service contracts with oil spill response organizations (e.g., chemical dispersant companies, operational consultants, wildlife management, oil spill and air dispersion modeling, toxicology, chemistry, fire fighting, communications, shipping and salvage, etc.) provide spill mitigation capability.

In terms of measures to prevent blowouts, we have confidence in our well designs and have the right procedures and equipment in place. Chevron has drilled over 75 deepwater wells in the Gulf of Mexico and over 300 globally; Chevron drilled its first well in water over 1000 feet in 1987 and has never had a deepwater blowout.

11. What dispersants does Chevron have stores of and why were they selected? How much of each formulation do you have? Where are such stores kept? What are the logistical and implementation challenges, if any, associated with changing type of dispersant?

In the U.S., Chevron relies on our oil spill cooperatives such as the Marine Spill Response Corporation to hold regional stores of dispersants approved for response use. Alternative dispersants must be:

- Available in sufficient quantity, and within the needed timeframe, for the incident in question;
- Must be listed in the National Contingency Plan;
- Must be of similar effectiveness or better; and
- Must be compatible with standard application equipment.

12. Does Chevron conduct any evaluations regarding the efficacy or the toxicity of dispersants and if so what are the results?

EPA requires toxicology tests and reports for all dispersants that are approved on the National Contingency Plan Product Schedule, the authorized list of dispersants. Chevron does not conduct such research independently. We have supported joint industry-agency efforts to better understand these issues, the results of which are publically available and have helped agencies make informed decisions about which materials to consider for approval in various plans.

13. Does Chevron believe that Corexit is the most effective EPA-approved dispersant for south Louisiana crude oil to respond to the current spill in the Gulf of Mexico? Does Chevron have a financial interest in or other relationship with any companies that manufacture or sell an EPA-approved dispersant?

We have not reviewed the basis for the Joint Incident Command choice of dispersant for the current spill, nor would we second-guess the federal and state on-scene commanders' decision in a particular case. We surmise this was a decision undertaken in collaboration with and at the approval of the government agencies, including the final approval of the Federal On-Scene Coordinator in the Joint Incident Command setting, and involving dispersants authorized by EPA for oil spill response purposes, taking into account a variety of important factors such as availability, effectiveness on the particular oil, toxicity, and local ocean conditions.

Chevron does not have a financial interest in Nalco Holding Company, manufacturer of Corexit. Nalco supplies specialty chemicals to Chevron's refineries for water treatment, process chemistry, corrosion inhibition, and fuel additives. In addition, there are 10 other manufacturers of EPA approved dispersants, Chevron does not have a financial interest in any of these companies.

14. What recommendations does Chevron have for improving the safety of offshore drilling and the efficacy of oil spill response?

We support the recommendations of the Joint Industry Task Force (JITF) provided to Secretary Salazar which we were involved in developing. We need to ensure uniform high standards are developed and implemented by the entire industry. These include the following areas of focus:

- Health, Safety & Environment
- Procedures related to mechanical loads, cementing practices, barriers, and well displacement procedures;
- Secondary BOP control systems;
- BOP testing and test data;
- Acoustic systems and other secondary control systems; and
- Remotely operated vehicles (ROV).

On the matter of spill response, Chevron is supporting a joint API/NOIA initiative to partner with government agencies and other experts to review and examine the ongoing oil spill response and make recommendations for enhancements to subsea and surface oil spill response protocols.