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PREPARED TESTIMONY:

CREATING AMERICAN JOBS BY HARNESSING OUR RESOURCES: US OFFSHORE AND RENEWABLE ENERGY PRODUCTION

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Chairman Hasting and distinguished members of the Committee on Natural Resources, it is an honor to speak with you today on the role of the US oil and gas industry and, specifically, the US offshore, in creating American jobs. The Committee is to be commended for examining the jobs issue when it is such a central and painful question across our country, and for focusing on the very substantial employment and job creation potential from the energy industries.

My name is John Larson and I represent IHS Global Insight, one of the world's largest economic forecasting companies with 325 economists and analysts worldwide. We provide economic and financial analysis, forecasting, and market intelligence on more than 200 countries and more than 170 industries for government and the private sector. Job creation associated with harnessing our natural resources is a function of the exploration, development, and production activities required to both find and extract those resources. Technological advances in offshore drilling have opened new areas to exploration and development, and as a result, the US offshore

is a growing component of our natural resources that represents a jobs creation opportunity. In 2010 the US offshore, primarily the Gulf of Mexico, produced 30 percent of US oil and 10 percent of US natural gas. In fact, about half of the increase in US production between 2009 and 2010 is attributable to the Gulf of Mexico. The deepwater Gulf of Mexico activity alone accounted for nearly 24 percent of the total US oil production.

As a result of the growth in exploration and production activity in the Gulf of Mexico, the region is an epicenter for a very large, technologically innovative industry. The United States currently has global leadership in this industry but faces growing global competition. In our 2010 study *The Economic Impact of the Gulf of Mexico Offshore Oil and Natural Gas Industry and the Role of the Independents* we explained that this activity contributed nearly $70 billion of economic value and nearly 400,000 jobs in 2009 to the Gulf of Mexico region alone. Jobs ranged from the mechanical engineers on the offshore platforms, to the pipefitter at the equipment supplier, to the waitress at the neighborhood restaurant. However, following the tragic events of the Deepwater Horizon accident and subsequent spill, the moratorium on offshore drilling activity temporarily halted an important part of the offshore oil and gas industry—exploration and development—while a new safety regime was developed.

With unemployment running at unusually high rates so long after a recession, jobs are the number one national issue today. To provide a starting point for the discussion, I will begin with an overview of the state of the US economy and the importance and unique role of the oil and natural gas sector to our economy overall in terms of employment creation. I will then conclude with a discussion on how the Gulf of Mexico offers a significant potential source of new jobs for a struggling US economy.

The tragic Deepwater Horizon accident rightly led to a period of reflection while regulators and industry assessed the safety and environmental aspects of deepwater activity. But stopping drilling activities also comes with a cost. Our 2011 study *Restarting "'the Engine"'—Securing American Jobs, Investment, and Energy Security* identifies the scale of the opportunity if activity had been able to return to its historical levels following the lifting of the moratorium—to the tune of 230,000 additional jobs in 2012. The government revenue impact would also be very significant for 2012. If the Gulf returned to its pre-accident role, that would mean $8.4 billion in additional federal revenues, nearly $2.6 billion in revenues for the four states in the region, and fully $740 million in additional revenues for other states as well—for instance $181 million for California.

US ECONOMIC OUTLOOK

With the latest jobs report indicating zero net jobs created in August, the economy has edged perilously close to stalling. GDP growth averaged less than 1 percent in the first half of the year, and the economy's problems cannot be explained by temporary shocks such as the tsunami in Japan or the "Arab Spring" uprisings. Recoveries following deep recessions triggered by a financial crisis are usually weak, and this one is proving no exception. Although IHS Global Insight still projects a small improvement in growth in the second half of the year, we expect a long-drawn-out, laborious recovery with only 1.5 percent GDP growth in 2011 and 1.8 percent growth in 2012. This forecast presents a weak growth outlook, not a recession, although we see recession odds as high (40 percent), since weak momentum leaves the economy highly vulnerable and less able to withstand shocks.

The real casualties of this anemic recovery are the American people. Employment is still 6.86 million lower than at its previous peak in January 2008, a drop of unprecedented severity in the

post-war era. Unemployment remains stubbornly high at 9.1 percent, with 14.0 million seeking jobs. IHS Global Insight expects unemployment to remain above 9 percent until 2013, since the economy is not achieving the 2 percent-plus growth rate required to create jobs faster than trend labor force growth, let alone the 3 percent-plus growth rate that would be required to bring unemployment down sharply.

The unemployment figure, bad as it is, does not tell the full story. The broadest measure of underemployment, which includes workers who would like a job but are not currently looking plus those working part-time for economic reasons (nearly 8.8 million Americans total), edged up in August to 16.2 percent, from 16.1 percent. Equally important is the long duration of unemployment. The share of long-term unemployed (defined as 27 weeks or longer) now stands at 42.9 percent, far higher than in any other post-war downturn (the previous post-war record was 26.0 percent in June 1983). Reducing long-term unemployment is critical to the growth outlook over the next decade, because the longer potential workers remain unemployed, the less likely that they will ever get back into employment.

THE IMPORTANCE OF THE OIL AND NATURAL GAS SECTOR TO US JOBS

The oil and natural gas industry has traditionally been a significant contributor of jobs to the US economy. Although IHS Global Insight has not conducted a study on the industry in the aggregate, we have undertaken numerous studies on various subsets of the industries, which offer critical insights into the magnitude of the jobs impact associated with this sector.

- With respect to onshore oil and gas, our 2011 study on *The Economic Contribution of the Onshore Independent Oil and Natural Gas Producers to the US Economy* found

that the total industry-related employment impacts attributable to the independent operators alone contributed nearly 4 million jobs in 2010.

- With respect to the natural gas industry, our 2010 study on *The Contribution of the Natural Gas Industry to the US National and State Economies* found that with natural gas the total industry-related employment impacts to the US economy, both for onshore and offshore, was more than 2.7 million jobs in 2009.

- Finally, with respect to the offshore, our 2010 study on *The Economic Impact of the Gulf of Mexico Offshore Oil and Natural Gas Industry and the Role of the Independents* evaluated the economic contribution of the oil and gas industry in and around the Gulf of Mexico region. Here we identified a total of 400,000 jobs sustained by the oil and natural gas industry activity in Alabama, Texas, Louisiana, and Mississippi. It is important to note that this study did not consider employment impacts beyond these four states.

The oil and gas industry is one of the few bright spots in an economy struggling to find a footing for recovery. In fact, natural resources and mining is one of only two major sectors that have experienced net employment gains, with 3.6 growth overall (the other sector is education and health services, at 6 percent growth). The oil and natural gas extraction industry, a key subset of natural resources and mining, played a leading role in this growth, posting 6.9 percent growth over the same period. In 2009 the oil and gas extraction industry alone contributed 7 percent of total investment spending in the country, a level second only to the utilities industry. These impressive statistics have helped states endowed with either conventional or unconventional oil or natural gas, such as North Dakota and Oklahoma, buck national unemployment trends with unemployment at 3.2 and 5.3 percent, respectively. In fact, these

states have registered employment growth of 6.2 percent and 4.2 percent growth, respectively, over the past six months due largely to the oil and natural gas industry.

A key reason for these profound economic impacts is what economists call the "employment multiplier effect" of the industry. In conducting economic impact analyses, economists generally group jobs into three categories to help more accurately track the relationship between jobs and the industry being examined.

- **Direct jobs** are those held by individuals who are directly employed by or contracted directly with oil and gas operators.

- **Indirect jobs** are a measure of the employment levels within the goods and services industries supporting those operators. These types of jobs include employment in the supply chain, such as steel manufacturers, a pipefitter, or a rigging outfitter, or jobs in manufacturing compressors or creating software or building high-performance computers.

- **Induced jobs** capture the impact of income effects; these jobs are supported by the spending of income from direct and indirect jobs (in other words, spending by employees in the direct and indirect job categories).

The employment multiplier measures the contribution jobs make to the economy through the indirect and induced jobs created to support an industry. The larger the multiplier, the greater the ripple effect of every dollar spent within an industry across the broader economy in terms of creating additional jobs. It is striking that, when compared with other industrial sectors, the oil and natural gas industry—on average—demonstrates one of the larger employment multipliers: for every direct job created in the oil, natural gas, and related industries, six jobs are added across

the indirect and induced impacts. This employment multiplier places the oil and gas industry ahead of such notable industries such as the financial, telecommunications, and software sectors. This remarkable employment multiplier is the result of two primary factors that drive the industry's indirect and induced job creation.

First, the oil and natural gas industry's capital expenditures on structures and equipment are very large. In addition to capital expenditures, the industry spends nearly 50 percent of revenues on materials and services, with suppliers in construction, fabricated metals, computer design services, and chemicals, and in a broad range of service sectors such as legal and financial services. However, it's not just the large capital expenditures or the wide-ranging supplier base that leads to the impressive employment multiplier. In fact, another critical reason is the strength of the domestic suppliers—the United States is a world leader in all parts of the oil and gas industry. As such, unlike some other industries in this country, there is a broad domestic supply chain—and a larger portion of the dollars spent here stay here supporting American jobs.

Second, it's not just that the industry and its suppliers are creating jobs; it is also about the quality of the jobs created. Given the technologically innovative nature of the oil and gas sector, the jobs attributed to this industry stand out from other employment opportunities. The industry has traditionally maintained high wages, even as wages in the broader US manufacturing sector suffered a decade-long decline. Americans fortunate enough to be working directly in the oil and gas sector are currently paid an average of $28.30 per hour—more than the wages paid to workers in the manufacturing, wholesale trade, education, finance, and information technology sectors, where pay ranges from $18.80 to $26.10 per hour for production, professional, and business service workers. As a result, given the relatively high wages paid directly to employees within the industry and in the various indirect suppliers' industries that support oil and natural

gas, employees have higher-than-average propensity to spend, resulting in relatively larger induced income effects for the country.

THE OFFSHORE JOBS OPPORTUNITY

Let me now address the jobs associated with the offshore oil and gas industry described in our study *Restarting "the Engine"—Securing American Jobs, Investment, and Energy Security* where we present the opportunities associated with returning the offshore to its historical levels of activity. The report, based on the data observed in the six months since the moratorium was lifted on October 12, 2010, is the first in an ongoing series of semiannual studies on the return of offshore activity to the Gulf of Mexico in the wake of the Deepwater Horizon tragedy.

The objective of the study is to create a common basis for dialogue and understanding that would be useful to both regulators and industry in realizing the size of the opportunity and developing a path forward. To accomplish this objective, we rely on our state-of-the-art economic models and databases of industries, countries, and regions. To this end, our study sets out to quantify the jobs opportunity associated with the "activity gap" that exists between two scenarios we examined: returning activity to historical growth, and maintaining the current pace.

- The first scenario, the *Proactive Recovery Scenario*, creates a benchmark of investment, production, employment, and government revenues that would arise from a return to the historical pace of plan and permit activities upon the lifting of the moratorium on October 12, 2010.
- The second scenario, the *Slow Recovery Scenario*, examines the investment, production, employment and government revenues associated with a linear

transition from the current pace of activity following the lifting of the moratorium on October 12, 2010, which achieves the historical pace of plan and permit activities after three years.

From these two scenarios, we estimate an activity gap measured as the difference between the *Proactive Recovery* and *Slow Recovery* scenarios. The activity gap represents the opportunity measured in potential jobs, GDP, and government tax revenues that can be captured through an efficient and proactive regulatory process—we define the regulatory process as the interaction between industry and regulators—by returning to historical levels of activity upon the lifting of the moratorium.

As I indicated previously, US unemployment remains stubbornly stuck above 9 percent, and although the US economy is technically out of the Great Recession, growth has been very slow, indeed perilously close to stalling. Our IHS Global Insight forecast now anticipates a long and painful return to healthy rates of unemployment. This economy is in desperate need of engines of growth to create demand, add jobs, and generate income. Our analysis demonstrates that restoring activity in the Gulf of Mexico is one such engine. Specifically, our study found that if the pace of activity in the Gulf had returned to its previous historical levels upon the lifting of the moratorium:

- Potentially nearly 230,000 additional jobs in 2012 alone would be generated including (26,000 direct jobs, 61,000 indirect jobs, and 141,000 induced jobs. This represents a significant number of national jobs, particularly when total job creation for the third quarter has fallen to an average of only 42,000 per month.

- As these workers spend their new income, induced jobs are created at the

businesses that provide consumer household goods and services—a sector that has continued to suffer as households cut back in light of decreased jobs, sharp declines in home equity, and very tight credit conditions. All of that spending works to generate tax revenue to government at all levels. We estimate that these contributions have the potential to add $12 billion in new tax revenues, with $8.4 billion as federal revenues generated from personal and corporate income taxes and lease royalties, and $3.3 billion attributable to personal and corporate taxes at the state level.

Of course, Louisiana and Texas lead in potential gains, with roughly 70,000 jobs to each state and over $2.5 billion combined in new tax receipts. However, while 151,000 of these jobs are associated with the Gulf states, the employment effects across the nation caught our attention as we completed the analysis. In total, more than one third, or 80,000, of the total jobs created are generated outside of the four Gulf states. Industry suppliers are located across the United States—from shipbuilders in Maine to software firms in Silicon Valley. The additional spending from incomes generated is also spread across the entire country. For instance, 14,000 new jobs in California provide almost $200 million in new tax revenue for the state in 2012, a state in the midst of severe fiscal constraints. Similarly, New York tax collections would be increased by over $100 million.

CONCLUSION

In summary, the opportunities to a US economy suffering from stubborn unemployment and severe fiscal crises are substantial. Restoring the offshore oil and gas activity in the Gulf has the potential to create jobs, increase tax revenues, boost economic growth, and increase our energy

security. It represents one important element in an overall strategy to restore the health and vitality of the American economy.

John W. Larson is the Global Industry leader for the Public Sector industry in IHS Global Insight's Public Sector Services Group and is the lead of the Federal Government Services industry vertical. In this capacity, Mr. Larson has led the economic analysis and impact assessment on a wide range of critical policy issues covering energy, healthcare, and government entitlement programs. With more than 15 years of experience in serving both private and public sector clients and delivering award-winning solutions—such as the application of predictive analytics in a due diligence context for the Department of Energy alternative energy loan guarantee program and the design and implementation of fraud framework techniques for the United States Postal Services' Office of Inspector General—Mr. Larson brings his deep knowledge of the intersection between government policy, economic theory, econometric modeling, and data analytics to inform policymakers and shape policy decisions.

Mr. Larson has developed extensive expertise in transforming traditional government data systems that support many of the policy programs throughout the public sector into sources of critical information. By integrating these transactional level databases with other third-party data and proprietary IHS data, Mr. Larson is able to conduct data mining, econometric modeling, and statistical analysis to reveal transformative insights that lead to more effective government policies and procedures. Additionally, Mr. Larson has extensive expertise in the integration of data to create policy simulation tools and to generate policy impact scenarios and forecasts.

In his work, Mr. Larson has addressed critical business questions through microsimulation tools that predict individual behavioral patterns, forecast market shares, and anticipate rarely occurring events, such as loan defaults, medical recovery, or fraud activities. Before joining IHS in 2005, Mr. Larson held positions at Deloitte & Touche, IBM, PricewaterhouseCoopers, and Price Waterhouse, providing data-driven analytical solutions.

Mr. Larson holds a Bachelor of Arts degree in economics and history and a Masters of Public Policy from the Thomas Jefferson Program in Public Policy, both from the College of William and Mary.