

## JOE PLUMERI, CHAIRMAN & CEO, WILLIS

# RISING TO MEET THE ENERGY CHALLENGE

The Willis logo consists of the word "Willis" in a white, serif font, centered within a dark blue rectangular background. This blue rectangle is flanked by two vertical yellow bars, one on the left and one on the right.

### REMARKS PREPARED FOR DELIVERY **WILLIS ENERGY CONFERENCE,** APRIL 7, 2011

I'm honored to be inaugurating this first Willis Energy Conference, for a couple of reasons.

Willis has 17,000 people in about 120 countries. That represents a lot of technical knowledge, a lot of local knowledge, and a world of experience. As we grow, we're taking the opportunity more and more often to organize conferences like this to share the knowledge and experience we've gained over nearly 200 years at the heart of the insurance industry – and that's a very good thing for both Willis and our clients.

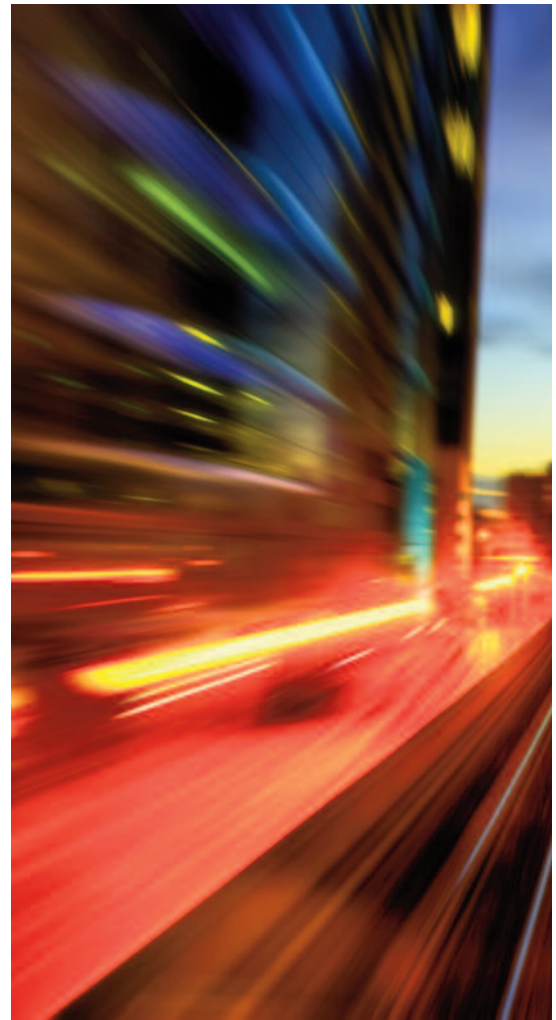
We have significant knowledge and capabilities in the energy sector, which I'll mention in the course of my remarks. And we're involved in some cutting-edge projects that we believe will help the industry move forward as it continues to orient itself toward clean energy and renewables. We're excited about the possibilities and hope you are, too.

The **second** reason I'm honored to open this conference is because this has been an extraordinary time in the energy industry. From the Gulf of Mexico in 2010 to the coast of Japan in 2011, challenges have unfolded, the likes of which we have rarely seen – and it's not over yet. Events of this magnitude require courage – the kind of courage shown, for example, by workers at the Dai-ichi nuclear plant, in pushing themselves to the limit in order to protect their fellow citizens from the threat of a meltdown.

Life hands us all different challenges. I believe that the only failure is not to rise to the challenge before you.

Courage in the face of great challenge is especially respected in this part of Texas. About 20 miles from where we gather stands the Alamo, where 135 years ago a small American garrison faced overwhelming odds against the Mexican army.

Legend has it that Lieutenant Colonel William B. Travis, leading the Americans, called his garrison together before the battle and told them, "We must die. Our business is not to make a fruitless effort to save our lives, but to choose the manner of our death." With that, he took his sword and drew a line in the sand, asking all who would stay to cross it. Apparently only one person out of the whole garrison



refused to cross the line, and he's gone down in history for all the wrong reasons. But Travis and the rest of his men rose to their challenge and left a powerful legacy in this great state.

We in the insurance and energy industries face tremendous challenges today. They are not the challenges of mortal combat faced by Travis and his troops – nothing compares with that kind of courage. But the underlying principle is as true in San Antonio today as it was 135 years ago – ***the only failure is not to face our challenges head on.***

Let's have a look at some of the challenges we face.

Who could have predicted that open-air protests against one autocratic leader in the Middle East would ignite a movement that has toppled dictators like dominoes? We don't know right now where this story will end, but the events in Libya, Egypt and Bahrain have implications for both of our industries. We'll be hearing more on this from John Lavelle later so I won't steal his thunder.

Oil price volatility too presents its own problems – I heard a recent quote for West Texas crude at around \$100 a barrel – but this volatility can be a mixed blessing to all of us. In global financial terms the recent spike in oil prices has shown that none of us are quite out of the woods yet.

In fact it's possible that a stock market downturn prompted by higher oil prices could trigger a double dip recession, leaving less demand for oil and gas products and less premium income for our insurance markets.

And of course we've all been affected by the tragic events in the Gulf of Mexico last year. While this is no longer at the top of the news, we still don't know what the legal ramifications of the Deepwater Horizon loss will be – and we're pleased to have a team from a top law firm here to tell us more about that later this morning.

And the tragedy in the Gulf of Mexico was just one of many disasters we've faced in the last year. Natural catastrophe losses flow into essentially the same underwriting portfolios as major property/casualty losses. As we mention in our Energy Market Review – which we're going to release at the coffee break – these huge nat. cat. losses could play a part in re-shaping energy market dynamics, at least in the short term. The Deepwater spill has largely been addressed, but we haven't gotten our arms around Japan yet – and the effects could be with us for many years to come.

The rise of the so-called BRIC nations – Brazil, Russia, India, & China – while a positive development in countless ways, also creates challenges for Western energy companies. The race for economic supremacy in 2011 is now a wide open competition. This means investments in new territories and new physical environments, which by definition

increases the risk of something going wrong – whether a physical accident such as Deepwater Horizon, or a cultural clash, as a failure to meet regulatory requirements, a change of government leading to the confiscation of your assets, or the voiding of multi-million-dollar contracts for reasons you can never be certain about.

I talked before about the deep local knowledge and relationships we've acquired over 200 years in 120 countries – in Brazil, for example, in placing a program for a newly constructed Floating Production, Storage, and Offloading Unit (FPSO), we used a single local insurer with very competitive fronting charges despite a capacity requirement of more than US \$1.2 billion. And with 20 offices across China, we are the largest global broker in that country, with dedicated energy expertise in both Beijing and Shanghai. These global relationships will become more and more important as the developing world continues to grow and attract your business.

Now these may be new challenges, some of them huge, but the energy industry has faced major challenges before – and it has responded each time by changing itself, in some cases practically reinventing itself, in order to meet them.

In fact, your industry is in a constant state of evolution. If we go back to the 1980s, horizontal drilling – first rolled out here in Texas in the Austin Chalk formation – proved to be one of the most valuable technologies ever introduced into the oil business. You get higher rates of production, operating costs are lower, you don't need to drill so many wells, and previously unprofitable reservoirs are opened up. It's safe to say that the technology transformed the Exploration & Production industry, making hydrocarbon extraction easier and cheaper. But the risk of blowout – and the cost of regaining control of the well, not to mention the cost of redrilling it – was considerably increased. We had 39 blowouts recorded on the

Willis Energy Loss database in the 1970s, but more than 400 in the 1980s.

Meeting the world's energy needs calls for innovation – and you've delivered. But progress never comes alone – it always brings an uninvited guest named risk. It's our job to help protect you from that distraction – so you can continue your vital work to keep fuel flowing through the global economy and raise the quality of life.

Another challenge came with the phenomenal growth of the natural gas business in the 1990s. Through much of the decade, U.S. supplies of natural gas were abundant and readily available at prices generally below \$3 per million BTUs. Coupled with the low capital cost, quick construction and relatively straightforward permit process for gas-fired power plants, new units came to dominate capacity growth by the end of the decade. We also saw the development of Liquefied Natural Gas. Again, this progress involved new technology, which meant more losses. There were 27 gas plant losses recorded on our database in the 1980s – that number increased to 62 in the 1990s, and increased again to 100 in the 2000s. Progress never comes without risk. It must be managed, and managed well.

During the last 10 years, we've seen an unprecedented acceleration of deep water drilling activity. And now we all know what can happen when you are drilling in deep water.

But we also know that, while the Deepwater Horizon disaster has given the industry pause, this will only be temporary. As the causes of the problem are figured out and better ways developed to manage the risks inherent in deepwater drilling, production will again become a way of life. In fact, despite significant progress in developing renewable and other alternative energy sources, recent research from the industry reminds us that oil and gas will constitute the

majority of the world's energy supply over the next 25 years. Net importers such as America will struggle to boost their domestic supplies of oil and gas, and are likely to give the go-ahead for more deepwater exploration and production, even in the light of recent events.

We're going to discuss the implications from a risk management perspective in some detail over the next two days, but for now let me mention our Wellsure® Program, which we initiated in 1997. It's the result of a special alliance between Boots & Coots Services, the world's premier well control company; Global Special Risks, a leading international Managing General Agent; Willis; and Underwriters at Lloyd's of London. The product is a unique bundled package that includes a full range of Boots & Coots' well control prevention and post-response services, as part of our clients' Operators Extra Expense (OEE) insurance package.

Boots & Coots is written into the policy to provide these services for the purpose of delivering a non-intrusive risk management program to our energy clients. The services are designed to ease the burden of emergency response, and manage and control costs. Since Boots & Coots is recognized as the leader in blowout control and has a long legacy of emergency response, there is no better prevention, response and restoration program than Wellsure.

Another technology that is now accelerating is the harvesting of shale and other unconventional gasses – in fact, it's on the cover of Time magazine this week. The Department of Energy tells us that unconventional natural gas production will account for 46% of total U.S. production by 2020. Does this make America the "Saudi Arabia of shale gas," as some have said? Maybe. But the development of shale gas reservoirs also carries a very different risk profile from conventional drilling. Tight rock formations, low permeability, the extensive use of horizontal drilling and hydraulic fracturing – it's an expensive and risky business. There are all manner of things that can go wrong – pipe bending, failure of pipe casings, surface valve failure, not to mention the risk of injury and damage to the

environment. Will a general liability policy cover everything that might be thrown at the operator of a shale gas well? Will operators need an enhanced pollution policy? Will a conventional “control of well” insurance become much more expensive? What about the threat to brand and reputation? I’ll share some thoughts on that in a few minutes.

Finally, there is the nuclear industry. After the terrifying mis-steps at Three Mile Island and especially Chernobyl, we’ve had 25 years of slow but steady progress in nuclear power.

And then came March 11 and Fukushima and the Dai-ichi nuclear plant. The drama in Japan is still unfolding, but there are three implications far beyond Japan that we know right off the bat:

**First**, the cause of nuclear energy has been set back quite a few years, as people from all walks of life question the viability of having nuclear plants in areas of potential seismic or severe storm and tidal activity, or locations anywhere near major population centers – which are the very places such plants are geared to serve.

**Second**, this will reinforce the need for oil and gas to meet our energy needs for decades to come, while also placing more attention on efficiency and safe alternatives.

And **third**, in light of the instability in the Middle East, extra emphasis will be put on developing domestic sources of energy, which in the U.S. will mean deepwater drilling and shale gas development.

So these are the big stories in the energy industry. What’s been going on in the world of insurance and risk management? Well, our record in recent years has been pretty good. For example, during the recent financial crisis, it wasn’t insurance companies that were going to the wall – 295 banks failed, but not a single insurance company. (And in case you’re thinking AIG, I want to point out that it was not the insurance part of AIG that blew up, it was the Financial Products shop that they built alongside it.)

It’s interesting to compare the immediate aftermath of 9/11 with that of the situation in the insurance markets after Katrina and Rita

in 2005. After 9/11 there was a crisis of confidence in the insurance industry, with major withdrawals from the Property Casualty arena and triple-digit rate increases in many sectors. But after hurricanes Katrina and Rita, insurance companies were able to recapitalize pretty quickly, with very limited consequences. Although the market for Gulf of Mexico windstorm risk would never be the same again, capacity for the rest of the energy portfolio decreased by only 5% or so in 2006 and actually started increasing again the next year.

And during the last 10 years, the insurance market for energy risks has become increasingly sophisticated. Some would say this has been both good and bad for buyers. Bad because insurers now need much more thorough underwriting information and are less inclined to commit professional suicide than they were in the 1980s and ‘90s. But good because the market is a lot less volatile, making it that much easier to control risk management budgets. It’s also easier for buyers, their brokers and insurers to develop risk partnerships. In the Energy Market Review we’re about to release, we say there may well be a link between the much improved overall loss record in the downstream sector in recent years and the deployment of fresh engineering expertise from insurers and brokers into companies’ risk mitigation strategies. Insurers have also sharpened their underwriting methodologies since 9/11 – the models they’re now using bear no resemblance to the techniques of the past, and many more pairs of management and regulatory eyes are watching what underwriters are doing than they ever did in the past. I guess that makes life a lot harder for us brokers, and sometimes the turnaround time from the market can seem frustratingly slow for all of us. But if you are a shareholder in an insurer, in general terms you’d be pretty happy with the way the industry has performed in recent years.

So, as the insurance industry has sharpened its act, perhaps it’s not so surprising that following the financial

crisis in 2008 it is increasingly seen as a good place to put capital.

OK, so the energy insurance market has gotten more sophisticated and has plenty of capacity. That's great. But is buying more coverage always the answer? Are traditional products enough to meet the risks and challenges the energy industry faces? Clearly not.

I'd like to focus the remainder of my remarks on two risks that don't always get the attention they deserve, but can have a powerful effect on your company: brand and reputation risk and sustainability. Let's start with reputation.

For many of the world's largest corporations, brand and reputation are one and the same. When one thinks of Disney, or Coca-Cola, or McDonalds, or Goldman Sachs – the brands of these great companies *are* their reputations, and vice versa. We only need to look at BP and Toyota as recent examples of great corporations that faced a crisis and are working very, very hard to restore their reputations.

We have Goldman on the screen, but there are many examples. Rolls Royce lost 11% of its market capitalization – about US\$2 billion in value – in the 48 hours after one of its engines exploded on a Qantas flight last November. That loss was temporary, but it illustrates that the risks inherent in *any* industry have the potential to seriously damage reputation and brand. Traditionally, insurance has not offered much protection for these risks. Coverage is narrowly defined – product recall, for example – and limits are very modest.

It is critical to understand that this kind of event – a corporate reputation catastrophe – *is not rare* – and that we as risk advisers must address *these* kinds of catastrophes as well as natural ones. Phil Ellis is about to convince you of that – Phil heads a dedicated Willis division called **Structured Risk Solutions** that

we created in January 2009 to deliver three core products to Willis clients:

1. Objective, actuarial-based risk modeling, analysis, and recommendations made within the same financial framework as other key investments
2. Natural Catastrophe modeling and analysis
3. Alternative risk transfer solutions that draw on non-traditional markets

These products enable our clients to determine the optimum risk retention and risk transfer structure, minimizing their Comprehensive Cost of Risk. I think some of his data will surprise you, as it did me.

Since Phil will speak to Reputational Risk in the context of what we're doing about all types of corporate catastrophes, I'll leave it at that and conclude with a few thoughts on sustainability.

You can't talk about energy without talking about sustainability. The oil and gas industry is arguably the most exposed of any industry to corporate and environmental sustainability issues. At every turn, the future of your business is put at risk.

It is put at risk by legislation; by environmental issues; by political instability; by security of supply; by technology; by new rivals in emerging markets; by a new industrial revolution centred on clean energy; by extreme weather events, which are occurring with more severity than ever before; and really, by a new way of thinking about the life of a corporation as embedded in the community.

Ultimately, when we talk about sustainability at Willis, we're talking about whether our business will exist in the future. ***Will we be here next year? In 10 years? In 50 years?***

It's too easy to define sustainability only as your impact on the environment. You plant a few trees, write your Corporate Responsibility report, and you wash your hands of it till next year.

The environment is critical, but sustainability is about much more than that. ***It's an envelope within which the health of the company is secured.*** It's achieved by managing all the risks I just mentioned, and more. To reflect that, we actually refer to it as ***Commercial Sustainability.***

Assuming a company has a viable business model and good management, commercial sustainability is about protecting the operation – creating a cone of safety within which that business can flourish and prosper without distraction by the risks it faces – whether legal risk, operational risk, environmental risk, political risk, reputational risk, terrorism risk, legislative risk, and so on.

Guess whose job it is to ensure the sustainability of your great business model? It's my job... it's Mark's job... it's Phil's job... and 17,000 other Willis people in 120 countries – working hand in hand with you or your Chief Risk Officer. ***It's our job to anticipate and plan for the inevitable risks of your enterprise, in a way that allows you to achieve the greatest possible success for the long term.***

Now that's a different way to look at sustainability – but to me, it's a more ***useful*** way – because it encompasses all the issues that businesses have to get right in order to survive.

It's actually a new way of thinking about insurance – an evolution from Risk Management to Commercial Sustainability – which is ensuring that you thrive and grow despite your risks.

Having said that, I do realize I'm speaking to the energy industry, and not only is the environment an important aspect of sustainability – it is one of the greatest challenges facing the industry today. So let's talk about it for a few minutes, in that context.

We know that fossil fuels account for around 60% of the global climate change impact of greenhouse gas emissions.

Scientists warn that if the Earth's average temperature warms about three and a half degrees Fahrenheit more than it is today, the change could become irrevocable – and they say in order to avoid that, emissions need to be cut in half by 2050. That's at the same time when the global economy, despite the financial woes of the past few years, is more than tripling.

It's probably safe to conclude that burning oil and gas the way we have in the past isn't sustainable.

Willis is at the forefront of the clean energy revolution. Working with the European energy firm Vattenfall and Scottish Power, we are the broker for the world's most ambitious offshore wind project to date located off the coast of East Anglia, which will deliver enough clean energy to light some five million British homes, equal to about 10% of household energy needs.

Another promising new technology that we've been active in is Carbon Capture and Storage. Many of you in the room know better than I the technical details of how this works, but basically a chemical process "scrubs" the CO<sub>2</sub> that would've been released into the air, and then it's pumped into the ground and sealed up.

We have some experience with this. Our client Cenovus operates the Weyburn oilfield in Saskatchewan, which has been in operation since 1954. For more than a decade, Cenovus has been injecting CO<sub>2</sub> into mature oilfields in an environmentally responsible way to maximize output and then seal carbon dioxide underground that otherwise would have been vented to the atmosphere.

Willis has also been selected as the risk consultant to the world's largest Carbon Capture and Storage demonstration plant, to be located at the Longannet power station in Scotland. It will be operational in 2014.

This coal-burning plant is owned by Scottish Power and puts out enough power to keep the lights on in two million British homes. It is the second largest coal power station in the UK, and also one of the dirtiest – it is Scotland’s largest source of environmental pollution, pumping out four million tons of carbon emissions per year. If successful, the Carbon Capture and Storage unit will eliminate 90% of these emissions, **equivalent to taking one million cars off the road.**

Of course, as we’ve seen with every other new technology, this is not without its risks.

Working out the risks linked to burying all this gas in the ground is just one part of the puzzle. Because no one has ever done this on such a large scale, no one really knows how to price the potential risks. And that’s where we come in as well. To store carbon underground, the European Union requires “financial provision” at the start of injection, to cover the possibility of the carbon somehow escaping as well as to fund the carbon abatement payments they make. In this field, there is no market, so we’ve been asked to create the market and to develop the market model that will determine the price.

It’s one thing to build it and model it and say it’s going to work, but, ultimately, if you can’t protect all the assets and limit the liabilities then you have nothing more than clever ideas. If we don’t turn these ideas into a reality then everyone in this room will feel the squeeze. But if we get it right, it’ll be good news for both of our industries, as well as our environment and our economy.

And that’s one more reason why insurance is critical to sustainability. We’re helping to unlock the capital necessary to not only test new technologies like this one, but to scale them up so that our global economy can continue to grow without inflicting serious damage on our planet.

So to return to the question I began with: Will we rise to the challenge before us?

The record shows we’ve risen to every other challenge we’ve faced. Each time, we’ve made difficult decisions and changed ourselves to better meet changing conditions and changing opportunities.

In doing so, we’ve found new ways to provide the energy on which our quality of life depends, while managing the risks.

So will we rise to the challenge again? Will we be here next year? In 10 years? In 50 years? Absolutely. But we’ll be here in ways that we’re only just starting to imagine...

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*Willis Group Holdings plc is a leading global insurance broker. Through its subsidiaries, Willis develops and delivers professional insurance, reinsurance, risk management, financial and human resource consulting and actuarial services to corporations, public entities and institutions around the world. Willis has more than 400 offices in nearly 120 countries, with a global team of approximately 17,000 Associates serving clients in virtually every part of the world. Additional information on Willis may be found at [www.willis.com](http://www.willis.com).*