



# Ohio, BP, and the energy future

Speaker: **Bob Dudley**

Title: **group chief executive**

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Thank you very much, Joe for that generous introduction. A particular thank you to our hosts the Greater Cleveland Partnership – I very much appreciate your hospitality today.

I'd also like to welcome my good friend Joe Stanislaw, co-author of *The Commanding Heights* and co-founder of Cambridge Energy Research Associates. Many a CEO and government official around the world has benefitted from Joe's insight on economic issues – he's a great champion of Ohio and I'm very pleased he can be here today.

And thanks to you all for turning out so early in the morning. I'm grateful but not surprised. I somehow guessed people would be up early in Cleveland – a city so well known for its energy, dynamism and strong mid-west values.

Cleveland has faced challenging times, along with the rest of the country in recent years. But thanks to its extraordinary work ethic and resilience it has come through. It's not called the comeback city for nothing.

These are qualities we prize at BP. We have had our challenges too, but we're working our way back, just like this great city.

Of course Cleveland is not only famous for its human energy – but for its role as the city that gave birth to the modern energy industry.

On a grey February day in 1865, Cleveland was the scene of a curious business meeting between two partners in an oil refinery, Maurice Clark and John D Rockefeller. Clark was cautious and conservative. Rockefeller was the adventurous one. They couldn't agree on the company's direction, so they decided to hold an auction then and there for control of the business.

The bidding started at \$500, but climbed quickly to \$72,000, and Clark said he would go no higher. Rockefeller calmly bid \$72,500, and the business was his.

That led, in a few short years, to the incorporation of Standard Oil. Later, that company gave birth to the great Standard Oil of Ohio, which BP is proud to count as one of its heritage businesses.

Ohio still has an important place in America's energy landscape. And in BP's as well.

- Nearly 1,200 employees and contractors work at our refinery in Toledo, which we operate in partnership with Husky Energy.
- We are a leading marketer of BP-branded fuels in Ohio. We have more than 600 service stations in the state.
- Air BP is the leading provider of aviation fuel at Cleveland airport. We fuel around 70 per cent of the flights that take off every day.
- We play our part in the life of the community – last year we contributed over \$600,000 across Ohio in grants and donations to local organizations.
- And recently we made a new and exciting investment for BP and Ohio. Who would have thought 20 years ago, or even 5 years ago, that we would be re-entering the exploration and production business in this state? We're taking a position in the Utica and Point Pleasant Shale formation to the south and east of Cleveland.



We are here because Ohio is a great place to hire people, a great place to market our products, and a great place to develop new energy sources.

Indeed, one of the big breakthroughs was the original Standard Oil's development of low-sulfur kerosene in Lima. For a time that made Ohio's fields the nation's leading source of kerosene.

That breakthrough helped light up the night across America and then the world. It also helped to shape the great global energy market on which our way of life depends.

So Ohio played an important part in creating the energy sector we know today. And BP believes that Ohio will remain a significant contributor to the future energy world.

So what are the key features of that future and what part will the US and Ohio play in it? That's what I want to talk about this morning.

The most significant feature of that landscape is growth in energy demand, driven primarily by the developing world. On the basis of our analysis in BP, we estimate that by 2030, the world could require up to 40 per cent more energy than it does today. That's the equivalent of adding another China and another US to current demand.

Against that background, I think there are three things on which we can all agree.

First, we want the world to have enough energy to grow and develop. Second, we want that energy to come from sources we can rely on. And finally, we want it to be produced and consumed in a way that is safe and compatible with the health of the environment.

In other words, we want what I like to call the "three S's:" energy that is sufficient, secure and sustainable. So, some thoughts on how can that be achieved.

Sufficiency depends on having enough energy resources available and sufficient incentives to invest billions of dollars to produce, process and provide them to customers.

Our analysis of the data suggests there are certainly enough resources in the world to meet demand. At today's consumption rates, the world has enough proved reserves of oil and gas to meet current consumption and production needs for more than half a century – and we will find more. And of course there are limitless renewable resources.

The challenges lie more above the ground than beneath it and they are more about the ability of supply to meet demand at an affordable price.

That depends on two things – markets and infrastructure. We need open markets to channel supplies to where they are needed. And we need the transportation infrastructure and to ensure sufficient supplies are available.

The lesson of history, especially recent history, is that where competition flourishes, suppliers build infrastructure. They also develop technology and pursue innovation to gain competitive edge. There is a chain reaction from competition to innovation and investment and then to increased supply and affordability.

And there is no better example of this in action than the US shale revolution. I think it is one of the most important developments in the industry for many decades. And it is no accident that this has happened in one of the most competitive business environments in the world. I'll come back to this in a moment.

Similar principles apply in the area of energy security. Competition leads to a diversity of supply and diversity provides security through opening up multiple sources of energy.



There are some who cling to the concept of 'energy independence' which was much debated the 1970s.

But I think that we have learned since that true energy security doesn't come from barricading yourself from the rest of the world and hoping you strike oil or gas. In fact that's a prescription for insecurity. Imagine the problems Japan would have had last year if she had been in a state of so-called energy independence when the Fukushima disaster struck. As it was, Japan has a long history of importing liquefied gas and was able to dial up the volume of imports.

It was Winston Churchill, the man who converted the British Royal Navy from coal-fired ships to oil-fired ships, who made the definitive observation on this issue. He was criticized for substituting domestic British coal for overseas oil, but he responded that his country should be dependent, as he put it, "on no one quality, on no one process, on no one country, on no one route, and on no one field." He added: "Safety and certainty in oil lie in variety and variety alone."

I believe these words are still true today and they apply not only to oil but to energy in general. The best path to energy sufficiency, security and sustainability is found in a diverse energy portfolio, one consisting of traditional fossil fuels as well as alternatives. That portfolio is best provided through a dynamic global market that ensures the free flow of resources around the world.

In fact, pro-competitive policies support energy security by boosting both domestic production and access to global markets. And they have helped America become less dependent on imports, without resorting to protectionism.

For three years running now, the US has seen the largest increase in oil production outside of the OPEC grouping, more than 16 per cent since 2008. Oil output in 2011 was the highest seen since 1998, and it has continued growing robustly this year. The Department of Energy tells us that net US oil imports have fallen by a third, from the 2005 peak of 12.5 million barrels per day to around 8.5 million last year.

In terms of natural gas, a few years ago the United States was set to become a net importer. But, today, the US is the world's largest natural gas producer, estimated to have 50 to 100 years' worth of domestic supply. Indeed, soon the US may be exporting liquefied natural gas to the world.

Onshore, the game changer has been the development of unconventional oil and gas, such as the Utica formation or the remarkable Bakken formation of North Dakota which has been responsible for that state surpassing Alaska in oil production and now ranking second only to Texas.

Offshore, we anticipate that the deep-water Gulf of Mexico will continue to grow in importance. For our part, BP expects to continue investing at least \$4 billion a year in the Gulf of Mexico over the next 10 years, maintaining our position as the Gulf's leading investor, leaseholder and producer.

## BP and Ohio

But our investment in the Gulf of Mexico is only one part of our commitment to the US.

Ohio and the Midwest more broadly are important players in BP's effort to ensure energy sufficiency and security in the years ahead.

Our Toledo refinery has been a part of the life of that city for 93 years, since 1919. And, since 2008 we have operated it in partnership with Husky Energy.

It produces around six million gallons of product every day, including enough gasoline to fuel every car in the Cleveland-Akron area.



In the last two years alone, we have invested over half a billion dollars in the Toledo refinery, making it more efficient, cleaner and more competitive.

Our joint venture with Husky Energy will also develop the Sunrise field in Alberta, Canada, which will give the refinery a reliable source of North American crude and ensure the facility's future for years to come.

Next door in Indiana, we are approaching the final stages of a multi-billion dollar modernization of our refinery in Whiting, which will enable it to take advantage of abundant resources from the north. It is the largest industrial project in that states history. Coincidentally, there's an Ohio tie there, too – Whiting was originally constructed in 1889 to process crude from Lima.

Still further west along Interstate 90 is Chicago, the historic home of Amoco, another of our heritage companies and the one that I joined many, many years ago.

The Chicago area hosts about 3,500 employees, who support many key businesses. These include our US refining and fuels research centre, where we develop cleaner-burning fuels; and most visibly, our East of Rockies Fuels Value Chain which manages sales and marketing activities through 9,500 BP-branded gas stations stretching from Minnesota to Florida.

But it isn't all refining and retailing. As I said earlier, we are also returning to exploration in this region, right here in Ohio.

Nearly four months ago, we announced an agreement to lease about 84,000 acres in Trumbull County for future oil and gas production in the Utica and Pt. Pleasant shale formation.

We are in the very early stages of evaluating this prospect, but the Ohio Department of Natural Resources estimates a recoverable shale potential of as much as 5.5 billion barrels of oil and 15.7 trillion cubic feet of natural gas.

We have a project team on the ground here in Ohio that is advancing a plan to safely appraise the resources. We will set up our offices in Warren.

In the coming months, we expect to acquire seismic surveys, prepare a development plan and survey land for initial wells to be drilled next year. And we will be doing this in accordance with environmental best practices and keeping the communities informed along the way.

It is critical that people living near oil and gas operations, as well as the public at large, have as much information as possible about our activities so they can satisfy themselves that we are working safely.

For example, in each well we drill in the United States, we use multiple layers of protection, including steel piping encased in cement. We also support state-level regulation, including Ohio's recent decision to enhance its regulatory structure. Our plan is to operate to the highest standards based on the best available science, and I would encourage everyone in the industry to do the same.

We will bring to this project decades of experience in developing America's natural gas resources. Our North America Gas unit already operates across a vast area of the US, stretching from the onshore US Gulf Coast through the Rocky Mountains, with a presence in seven of the leading US gas basins.

The benefits of success will extend far beyond the payroll, to land owners, contractors, vendors, local businesses, and the public via taxes that support public services. Our intention is to be a good neighbour, to support the community and to hire locally whenever possible.



New sources of domestically-produced oil and natural gas represent good news for the energy sufficiency and security of Ohio and the US. But the wider use of natural gas, along with investments in refinery modernization and alternatives, will also help with the third “s:” sustainability.

Natural gas is the cleanest burning fossil fuel. It is also highly versatile, useful in power generation as well as the manufacturing industry that is so important to Ohio’s economy.

Our concern for environmental sustainability also drives our commitment to the development of alternative energy sources. I am very proud of our alternative energy portfolio, in which we have invested over \$7 billion since 2005. Four billion of that has been spent here in the US, where we are focusing on wind power and advanced biofuels.

We have 13 wind farms operating in the US, with more than a thousand turbines spinning with nearly 2000 megawatts of capacity – enough to light cities the size of Cleveland and Columbus. And while we don’t yet have any sited in Ohio, we believe there is potential here and we are actively exploring the possibilities.

In terms of biofuels, we are involved in developing advanced cellulosic fuels in the US that don’t use food crops but do deliver big reductions in greenhouse gases. Our intention is to make these fuels at scale and enable them to become a really important home grown source of transportation fuel for America.

## Safety

Along with the three “S’s” of sufficiency, security and sustainability, there is of course a fourth “s” that is key to the future, and that is “safety.”

Everyone here, of course, is aware of the events of 2010 in the Gulf of Mexico, and all that we have been doing since then to help restore the Gulf Coast economy and environment. Less well-known perhaps is what we have done in the company by way of response since then.

One of the first actions I took as group chief executive was to establish a new Safety and Operational Risk Organization, whose head reports directly to me. This new organization includes hundreds of experts – many recruited from other high-risk industries such as airlines and nuclear power – deployed across our operating businesses to guide, advise, and if necessary, intervene.

We have shut down platforms and operations to ensure we are operating to the highest possible standards, and we have rejected rigs from contractors that fail to meet those. In the Gulf of Mexico and elsewhere, we have put in place voluntary performance standards that go beyond existing regulatory requirements.

We know full well that our success depends on safety. Safety is good business.

## BP in the US

In fact, safety is the first our three strategic priorities along with building trust and growing value. And nowhere do those priorities come together more forcefully than right here in the United States.

That’s because the US, even with all the challenges of doing business here, remains the biggest and freest economy in the world. It is also blessed with enormous untapped energy resources. For those reasons, we didn’t abandon the US market in 2010, even though some analysts assumed we would have no choice but to do so. That would have meant walking away from employees, retirees, shareholders and customers – millions of Americans who in one way or another count on us.



So, the US is important to BP, but BP is also important to the US. But rather than stand here and explain why, I would much rather show you. So if you'll indulge me I'd like to do something a little bit unusual and show you a short animation on BP's role in the US.

Every time I see that, I am more and more proud of the people who work I work with in this country. It also reminds me that the kind of investments we are talking about will require the services of many more smart, skilled, and motivated people.

Oil and gas jobs have been a notable bright spot in the national economy. The Wall Street Journal analysed figures provided by the Bureau of Labor Statistics and they found that the number of US oil and gas jobs has increased some 80 per cent since 2003, to a total of 440,000. In fact, oil and gas account for a remarkable one in five net private sector jobs created during that period. I know there is even more potential.

Clearly, encouraging the development of US energy resources is good for the economy of this state and of the national as a whole. And while US energy security is ultimately best guaranteed by a global energy market, BP projects that domestic energy development, along with increasing efficiency, will result in the US supplying over 90 per cent of its own energy needs by 2030. And North America as a whole will be energy self-sufficient.

## Conclusion

As you can see, the future is bright and we are bullish on America and Ohio.

The combination of abundant natural resources, free market policies, technological innovation and a skilled and dedicated work force are what make Ohio and this country attractive to companies like ours.

In closing, I'd like to thank the people of Ohio who have worked with and supported us over the decades. From all that I have seen on this visit, the spirit that helped build and nurture the early energy industry and the Standard Oil Company of Ohio remains alive and well.

I am confident that our industry, with Ohio's help, can not only support the economy with jobs, but help lead our economy and our society towards a future where energy is indeed sufficient, secure and sustainable.

Thank you very much for your attention.