

ADDRESS TO WORLD ENERGY CONGRESS – SEPTEMBER 2004

DELIVERING SUSTAINABILITY IN AN ENERGY COMPANY

Good morning.

It's a great honour to be here today at the 19th World Energy Congress in Sydney to talk about delivering energy in a sustainable way, one of the critical issues facing the world today.

BHP Billiton is unique in the resources industry in having interests pretty well across all primary fossil fuels. We have global oil and gas interests and produce oil, condensates, LPG, pipeline gas and liquefied natural gas. We also have extensive coal interests – we produce energy coal for power generation and also metallurgical coal used in the steel making industry.

While our coal and petroleum operations have unique characteristics there are certain advantages in bringing them together in one energy group. Consolidation of our energy businesses allows us to be better placed to respond in a flexible and timely manner to changes in the energy industry, allowing us to optimise value across the spectrum of energy commodities. We also feel that there are significant benefits for many of our customers to be able to talk to a one-stop shop energy company, especially one that is well equipped to meet their total energy requirements.

As the world's largest diversified resources company BHP Billiton could elect to focus on producing products and financial outcomes only, knowing that the world needs the resources we produce as they are essential to all modern societies and economies. Without materials generated by our industry, basic needs such as shelter, transportation and power would not be met.

However simply arguing that the value of our products outweighs any environmental or social impacts is not acceptable to us or to society. The concept of sustainability is therefore fundamental to the future of our businesses and has led us to look at ways to address the greenhouse challenge and minimise our environmental impacts, while also maximising the broader benefits we can bring to society.

Energy has been the key to growth in the developed world and is essential for future growth in the developing world. The question for all of us here today is how do we provide sustainable energy to support the growth of developed and developing economies without compromising the quality of life for future generations.

The world consumes some 404 quadrillion British thermal units or 68 billion barrels of oil equivalent each year as primary energy – that's nearly 200 million barrels of oil equivalent per day. Fossil fuels contribute 86% of that, while non-fossil fuels, that is, nuclear, renewables, and hydro provide the remaining 14%.

Looking to the future, and here I am drawing on a number of recent reports, in particular the Energy Information Administration's *International Energy Outlook 2004*, world energy demand will continue to grow. Overall forecasts suggest that it will grow by around 50% by 2025. While this represents a large incremental demand in absolute terms given the scale of the industry, it suggests that growth rates may on average be only around 1.8% per annum. This is only a little over half of projected global GDP growth, which I think is a pretty optimistic assumption.

All sources of energy will be in greater demand, and primary fossil fuels will meet the major share of this incremental energy demand for at least the next two decades. Within the non fossil fuel area the growth of nuclear is expected to be slow and renewables may grow rapidly but from a very low base.

Forecasts suggest that fossil fuels will still be 87% of primary energy in 2025, much the same as the 86% share today.

Where will this growth occur?

Developing countries will account for 58% of global energy growth and 30% will occur in China and India alone.

In contrast, energy markets in industrialised nations are mature, population growth is quite low, efficiency in energy use is relatively high and energy intensity (that is the consumption per unit of economic output) has fallen, as these countries have moved away from energy intensive manufacturing industries towards lighter industries and services.

Is this level of energy growth desirable; does it have to happen?

Yes, because many of the dynamics that drive that growth are already in place – the desire of developing countries to improve their economic growth and development and the global demographic trends in industrialisation and urbanisation.

- Growth in energy consumption is critical to improving the economic well being of developing nations. The World Bank has said: "...lack of energy is among the key forces slowing down poverty reduction and growth of the rural sector."
- According to the United Nations, world population will increase by one and a half billion people to 8.3 billion between 2000 and 2025, and most of this growth will occur in Africa and Asia.
- The industrialisation of the developing world will drive continued energy demand, since industries at an early phase of development tend to be heavier consumers of energy than industries in countries with a more mature stage of development.

- Urbanisation will also drive increased energy consumption – 80% of the world’s population is likely to be urban by 2050. China and India are key factors in this projection. Urban populations generally enjoy much higher incomes than rural ones – growth in per capita income is a major driver of energy demand.

It is against this growth scenario that the energy industry will be scrutinised and its activities debated in the context of sustainability.

Views on the extraction and use of energy have changed markedly over time.

There was a time when the extraction of oil and gas was seen unambiguously as a ‘good thing’. Together with coal, these fossil fuels played a key role in meeting the energy needs of the industrialising world. As the scale of consumption and development increased, however, the environmental impacts started to come into focus. With oil it was primarily about transportation and the potential for oil spills, and for coal it was about air quality. In the last thirty years energy issues have waxed and waned and as the century closed, energy issues had once again moved into the forefront of public interest around greenhouse gas issues.

Arguably the benchmark definition on sustainability comes from Gro Harlem Brundtland, as chair of UN World Commission and Environment and Development. In 1987 she said sustainable development was ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’.

This definition has been heavily debated since and has evolved into the concept of achieving a sustainable balance between economic, environmental and social performance. In our company we have embraced this concept in a number of fundamental statements which define the way we do business – we call this the BHP Billiton Charter, and I will talk more about that later. As the industry has taken up the concepts around sustainability, a closer relationship has developed with all sectors of society on these issues.

- Our employees want assurance that their company is performing in an environmentally and socially responsible way;
- Local communities want information about the safety and siting of plants, environmental issues and about job opportunities and other local benefits;
- Investors want information that might impact the security and return of their investment;
- Regulators want to know about compliance with national and international laws;
- Governments want to know about both the short and long-term contributions to the economy;
- NGOs want to know about how operations take into account social and environmental issue; and
- The media want to know the stories of success and failure.

As a result the energy industry has and will come under greater scrutiny. In particular we must expect continued discussion around climate change in general and in particular the role of fossil fuels in the future energy mix.

So what are my views?

If we accept the desirability of energy growth, it is essential that the enabling technology is developed to support this growth in a sustainable way. These technologies range from low or zero emissions for fossil fuels to renewable energy sources such as wind and solar. And like all new technologies, these will take time to mature and be deployed in a cost effective manner.

As a society it is also critical to pursue many different low emission technologies, avoiding the risks associated with picking winners and enhancing overall supply security. Our focus as a company is on the management of emissions but we recognise that diverse energy sources are a key part of a sustainable energy future. The International Energy Agency has said:

“In order to increase the resilience of the energy system, the diversification of energy choices should be pursued not only in relation to risks in the economic dimension, but also in the environmental and the social dimensions.”

So how do we manage the transition to a low emission future?

Of the fossil fuels, gas emits 60% of the CO₂ that coal does for the same output of energy. This is significant, and leads us to conclude that if gas can continue to make inroads into power generation then gas can play a significant role in reducing greenhouse gas emissions.

Coal is abundant, easy and safe to transport and store, and it is a relatively affordable fuel source. New coal-fired plants are already significantly cleaner than they were in the past and improvements continue. For example clean coal technologies such as IGCC (Integrated Gasification Combined Cycle) plants deliver a high level of pollutant removal and thermal efficiency approaching that of existing gas-fired CCGT (Combined Cycle Gas Turbine) plants. Further improvements in IGCC technology after 2010 are likely to lead to lower installed costs, and thereby improve the attractiveness of coal.

Safe and effective capture and sequestration of CO₂ emitted in the consumption of fossil fuels is being evaluated, for example through the FutureGen project in the US. These technologies could ultimately lead to zero emission fossil fuel electricity generation, including from coal.

It is not a question or choice between renewable energy OR fossil fuels, they can and need to coexist if we are to meet energy needs in a sustainable way that does not compromise economic benefit. What we are seeking is a low emission future and we believe society can have that while continuing to use fossil fuels.

In the context of advances in technology I am always reminded of just what the industry can deliver when I look at the development of the offshore oil and gas industry.

The offshore industry pioneered platform development in relatively shallow water depths and overcame the challenges of operating safely in difficult marine conditions. Progressively, through incremental advances the oil industry now successfully tackles development infrastructure in ultra deepwater such as encountered in the Gulf of Mexico. I think this analogy is important – it demonstrates what the industry can deliver when there is a commitment and an economic incentive.

So what does the sustainability agenda mean to BHP Billiton at a practical level? Yes, we monitor and engage in the high level debate, we express views around the issues and we seek to influence policy. But how do we live “sustainability” at a day-to-day level?

This is best illustrated by giving some real examples of how BHP Billiton as both a producer of and user of energy is acting to ensure sustainability is part of its business.

Sustainability for our company is captured in the BHP Billiton Charter.

The Charter is a number of statements that express our aspirations for the way we do our business in relation to our external stakeholders. In practice, sustainability for BHP Billiton covers a broad range of topics including transparency of information, business ethics, health and safety of our employees and contractors, social issues around local communities, local environmental matters around the extraction of resources and local and global approaches to the use of energy.

At BHP Billiton we have been proactive along with a number of other energy and resources companies in providing information and promoting greater transparency. In addition to our normal financial information we report across a broad spectrum of our non-financial activities in our Health, Safety, Environment and Community Report, which we have aligned to the Global Reporting Initiative (Sustainability Reporting Guidelines). We have been included in the Dow Jones Sustainability Index and the FTSE4 Good global index for our performance in these areas.

From the BHP Billiton Charter we have characterised a number of aspects of sustainability by the words ‘Zero Harm.’ We aspire to achieve a goal of Zero Harm to people and Zero Harm to the environment.

Our policy of Zero Harm is interpreted and applied through a codified set of management systems that form part of our fundamental business, and which are tracked, reported and audited. We believe in the maxim that if you are not measuring it you are probably not managing it.

Our aspiration of Zero Harm means we must make progress on environmental issues including climate change and other environmental impacts. BHP Billiton is both a user and a producer of fossil fuel energy products. So we create greenhouse gas emissions in our operations and we sell fuel products to customers who subsequently emit carbon as those products are consumed. As a responsible corporate citizen, we are giving consideration to both sources of emission.

From a very practical perspective we demonstrate our commitment through actions. For example, the management of emissions from our operations is being tackled in a number of ways, including the:

- Introduction of a target to reduce the greenhouse intensity of our products (CO₂ per unit of production) by a further 5 percent - this follows the achievement of a 12% intensity reduction over the 5 year period to 2000;
- Introduction of carbon pricing sensitivity analysis in the consideration of our decisions for new products and investments that would emit more than 100,000 tonnes of CO₂ equivalent per year;
- Funding of research into geological sequestration of CO₂ and the development of low emission coal technology. Specifically in Australia we are active in the government facilitated CO₂ cooperative research centre, which is looking at specific sequestration technical issues and pursuing a route to a demonstration project.

I am pleased to say that our greenhouse gas intensity has fallen by nine percent since the introduction of our new target. Now we are assessing what more we should do and we are developing an additional target based on energy efficiency.

A real example of how we are actively putting specific projects in place to reduce greenhouse emissions in our operations is underway now at our Illawarra Coal mine in NSW. Innovative technology will allow the mine to recover methane gas from very low concentrations in ventilation air. Through a process of flameless combustion combined with high efficiency heat exchangers it will produce high-pressure steam to generate 6 megawatts of electricity. This is equivalent to producing the electricity requirement for 20,000 homes or removing emissions from 45,000 cars. This project is being implemented with the support of the Australian Greenhouse Office.

The CO₂ emissions from our operations are only small when compared with those generated from the combustion of our products by our customers, so we must be attentive to those emissions for sound and obvious business reasons. We are actively working with customers and supporting or engaging with a number of research programmes such as Coal 21 in Australia, aimed at technology solutions to lower emission usage of coal, and the CO₂ Cooperative Research Centre in Australia, directed at the geosequestration of carbon dioxide. We are also considering involvement in a number of other clean coal technology programs including Futuregen in the USA.

Moving to a slightly different aspect of our business, we believe that to be a sustainable operation it is paramount that the communities where we operate value us.

The company owns and operates a diverse range of businesses in different countries and different cultures around the world. We also recognise the importance of assisting in the development of communities. Overall we aim to spend 1% of our pre-tax profit (three year rolling average) on community programs where we operate. Last year we spent 1.3%, or US\$ 46 million.

The nature of our engagement with the community is best illustrated by reference to an example.

In Pakistan our Zamzama gas plant operation is located in the district of Dadu, approximately 500 kilometres north of Karachi in Sindh Province. The area lacks basic infrastructure and has limited educational facilities or opportunities. Our community development programme aims to facilitate the empowerment process and improve the quality of life for the disadvantaged people living in the area of our facilities. Following a consultation period with the local community where they advised us of their critical needs, we engaged with a local NGO to facilitate the provision of an education service. The sense of ownership within the community and their desire to take responsibility will mean that the benefits from this work will be sustained well into the future – long after the Company is no longer there.

These are only of a few of the examples I could cite where we are active in the pursuit of sustainable development and I would encourage you to review our HSEC Report on our website if you would like to look at further examples of our policy in practice.

In accordance with our Charter, we will continue to pursue our activities in a culture that recognises we have responsibilities beyond the bottom line. While our shareholders are critical stakeholders, and while we will strive for a strong financial performance, our financial performance will not be sustainable if we do not continue to address social and environmental responsibility in our operations.

Clearly the path to sustainability for the energy industry has significant challenges, however, the track record of innovation within our industry gives me confidence that we have the ability to meet these challenges. Within BHP Billiton our diversity provides a base from which we can transfer learnings and best practice from one area to another. Our work with industry associations provides the opportunity to work collaboratively to further enhance the industry's performance.

However, the path to sustainability is not the responsibility of energy producers alone. Primary energy consumers and their governments will need to work with us to assure society that their energy needs can be met without compromising the health of their economies or the needs of future generations. By working together we can ensure that the huge capital flow that will be necessary to meet the future energy infrastructure needs is provided in a timely way and in a manner that seeks to minimise environmental impacts and maximises the social benefits. We

must strive for economic prosperity for all, whether in the developed or the developing world. The actions we take in the next 20 years to develop the technologies necessary for the sustainable use of fossil fuels, and to promote the uptake of these technologies, will determine the success of our industry and our society over the balance of this century and beyond.

Thank you.