



**About this report** In BP we define 'sustainability' as the capacity to endure as a group: by renewing assets; creating and delivering better products and services that meet the evolving needs of society; attracting successive generations of employees; contributing to a sustainable environment; and retaining the trust and support of our customers, shareholders and the communities in which we operate.

Each year we aim to improve our sustainability reporting to reflect the concerns of our readers more closely and the priorities of the business more clearly.

This year, BP's performance on key sustainability issues related to our operations has been under intense scrutiny from governments, investors, civil society and the media. Our intention in producing this report has been to provide a clear and concise account of these issues and how we are responding to them. To achieve this, we have produced a shorter, more focused printed report, with heavier weighting to the chapter on responsible operations.

The printed report covers the issues that we have identified as most important for our audiences, while our online reporting covers a wider set of issues and reports on them in more depth.

### A message from Ernst & Young

We have reviewed the contents of *BP Sustainability Report 2006* to provide assurance on the information reported. This work included testing relevant management information, interviewing BP management, reviewing external media sources and visiting a sample of locations. Our conclusions, which can be found on pages 46-47, have been prepared against the main principles of the AA1000 Assurance Standard: materiality, completeness and responsiveness. Several of our specific observations have also been included on relevant pages of this report.

A glossary of key terms and acronyms used in this report appears on page 48.

BP p.l.c. is the parent company of the BP group of companies. Unless otherwise stated, the text does not distinguish between the activities and operations of the parent company and those of its subsidiaries.

### Cautionary statement

*BP Sustainability Report 2006* contains certain forward-looking statements, particularly those relating to investments in US refineries, integrity management spending in Alaska, implementation and completion of certain safety and environmental-related measures, investments in alternative energy and local expenditure in Azerbaijan. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that will or may occur in the future. Actual results may differ from those expressed in such statements depending on a variety of factors including future levels of industry product supply; demand and pricing; operational problems; general economic conditions; political stability and economic growth in relevant areas of the world; changes in laws and governmental regulations; exchange rate fluctuations; development and use of new technology; changes in public expectations and other changes in business conditions; the actions of competitors; natural disasters and adverse weather conditions; wars and acts of terrorism or sabotage; and other factors discussed elsewhere in this document and in *BP Annual Report and Accounts 2006*.

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# BP at a glance

[www.bp.com/sustainabilityworldwide](http://www.bp.com/sustainabilityworldwide)

BP operates globally, with business activities and customers in more than 100 countries and approximately 97,000 employees. We have exploration and production interests in 26 countries. Just under 40% of our fixed assets are located in the US and around 25% in the UK and the rest of Europe. We make five-year and annual plans to execute our strategy.

## Our main brands



## Strategy

### Exploration and Production

- Build production with improving returns by:
  - Focusing on finding the largest fields, concentrating our involvement in a limited number of the world's most prolific hydrocarbon basins.
  - Building leadership positions in these areas.
  - Managing the decline of existing producing assets and divesting assets when they no longer compete in our portfolio.

### Refining and Marketing

- Continue to focus on advantaged refining locations.
- Operate in retail markets where supply advantage and distinctive offers capture market share and margin, underpinned by efficiency improvements.
- Increase brand loyalty in lubricants.
- Apply advantaged technology in aromatics and acetyls, building new capacity in Asia.
- Build strong strategic relationships in the business-to-business sector.

### Gas, Power and Renewables

- Develop a leading low-carbon energy business across the value chain.
- Access cost-competitive supply.
- Capture distinctive world-scale gas market positions by accessing key pieces of infrastructure.
- Expand gross margin by providing distinctive products and services to selected customer segments and optimizing the gas and power value chains.

## Selected 2006 performance summary

### PERSONAL SAFETY – RIF<sup>a</sup>



<sup>a</sup>Recordable Injury Frequency (RIF): number of reported work-related incidents that result in a fatality or injury (apart from minor first aid cases) per 200,000 hours worked.

### PROCESS SAFETY – OIL SPILLS<sup>a b</sup>



<sup>a</sup>Total number of spills  $\geq$  1 barrel = 159 litres = 42 US gallons.

<sup>b</sup>In response to the Baker Panel recommendations, we will be developing additional metrics for monitoring process safety in 2007.

<sup>c</sup>The reduction of reported spills in 2006 compared with 2005 is principally due to divestments and to disaggregation of two non-operated upstream operations from BP's reporting.

### ENVIRONMENT – GREENHOUSE GAS EMISSIONS<sup>a</sup> (million tonnes CO<sub>2</sub> equivalent)



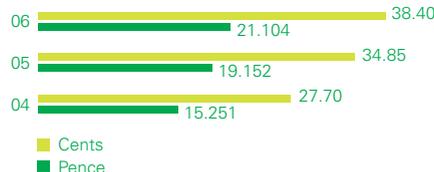
<sup>a</sup>Data is reported on an equity share basis. TNK-BP emissions are not included.

<sup>b</sup>BP divested Innovene to INEOS in December 2005.

### CAPITAL EXPENDITURE (\$ billion)



### DIVIDENDS PAID PER SHARE



### PROVED RESERVES REPLACEMENT RATIO (using SEC reserves)<sup>a</sup> (%)



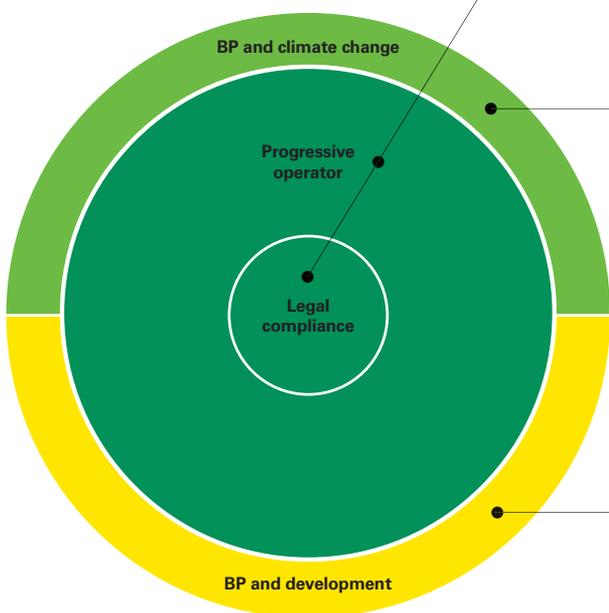
<sup>a</sup>Excluding acquisitions and divestments.

# What responsibility means for BP

[www.bp.com/bpandresponsibility](http://www.bp.com/bpandresponsibility)

This report is structured according to the framework we use in BP to describe the different aspects of corporate responsibility. According to this framework, our activities fall into two categories: those in which we have control and those where we have an influence.

Our 'sphere of control' covers our operations, while our 'sphere of influence' extends beyond our operations to many aspects of society and the environment. In this sphere of influence, we seek to take a lead in significant areas, such as climate change and development, where our experience, assets and capabilities enable us to seek to be a positive influence.



## Chapter 1: Responsible operations

Operating responsibly has two levels. At its core it requires compliance with laws and regulations. At a second, higher level, we seek to act as a 'progressive operator' by setting our own standards that go further than the law requires. We believe that a company with aspirations to succeed in the long term must have universal standards of individual and collective behaviour that are applied in every activity, everywhere around the world. In a large, diverse organization such as BP, this continues to be our primary challenge. Chapter 1 reports on our performance during 2006 and acknowledges the challenges we have faced.

## Chapter 2: BP and climate change

Climate change represents a significant challenge for our industry. Our role here goes well beyond minimizing our own emissions. It involves contributing to the policy debate, supporting research and developing new, cleaner technologies in power and transport. We are investing in power generated from renewable and alternative sources through our BP Alternative Energy business and, in 2006, we set up a business to explore, develop and market new generations of biofuels.

## Chapter 3: BP and development

Another major global issue we seek to influence positively is that of social and economic development. Our main contribution to development is typically in the form of government revenues, jobs, skills and products. We also have a wider role to play in promoting sound governance and contributing to the progress of our host communities. In Chapter 3, we report on what we are doing to fulfil that role.



Symbols such as this appear throughout the report to help indicate which section you are in.

Business is a long-term activity. Investments, especially for a company such as BP, are designed to create activities that will endure and remain profitable over decades. Every purchase in a BP service station is part of a long-term relationship with the individual customer rather than a single transaction. Our relationships with partners, suppliers, governments, staff, investors and the communities in which we operate are built on the principle of long-term mutual advantage. They are built to last.

That is why we care about the sustainability of our activities and why, throughout the company, we work to ensure that the things we do and the way we do them are genuinely sustainable.

The past two years have been difficult for BP. In March 2005, at the Texas City refinery, we suffered a tragedy in which 15 people died and many more were seriously injured. We have also experienced operational difficulties in Alaska and the potentially destabilizing effects of intense and at times unbalanced media scrutiny and criticism.

Given that context, the achievements recorded in this document, our sixteenth annual report on non-financial performance, are remarkable and a great testimony to the BP team across the world:

- An improvement in personal safety, with reported recordable injury frequency the lowest in our recorded history.
- Ongoing improvements in our environmental impact across a series of measures.
- An improvement in the development of people, including an increase in the number of women in leadership since 2000.

## Group chief executive's introduction

- And, of course, a strong financial performance allowing us to invest for the future and to reward those who trust us with their savings.

The achievements reflect the determination of the company – the board, the senior management, and approximately 97,000 staff in more than 100 countries around the world – to deliver on the promises we make and to fulfil our aspiration of creating a company which on every dimension is sustainable.

This report presents the facts, but behind every statement of fact and every item of data is a story of individuals and teams working to achieve continuous improvement, often in very tough circumstances.

- Our team in Baku, which in 2006 successfully completed the development of a 1,768km pipeline, which now brings around 600 thousand barrels of oil per day to the world market. That development took 12 years and represented not only one of the great engineering projects of our time, but also the first international investment across three complex societies and in geography that posed huge environmental challenges.
- Our team in Indonesia, which in 2006 continued the development of one of the world's great gas fields, Tangguh, working in a remote, environmentally sensitive area and requiring the greatest of care in integrating a large-scale construction process with the life of the local community.
- Our team in the BP Alternative Energy business, managing a series of dynamic, fast-growing activities, including solar, wind and the hugely promising technology of carbon capture and storage. All those activities carry the potential to help the world make the transition to a lower-carbon economy –



a transition that is essential if the risks of climate change are to be avoided and is a sustained transition which BP started some 10 years ago.

- Our team in the trading business – matching supply to demand on a daily basis and managing a fast-moving market – and in doing so helping to sustain energy security in a world disrupted by war and civil conflict.

Each one of those teams has a great story to tell, as do hundreds of other teams across every business segment and function in BP.

Sustainability is about their activity, day in and day out. Sustainability is also about the policies that underpin our work and shape every decision we take.

Policies, for instance, on business ethics and transparency that start from our firm conviction that business should be an open activity and that corruption is both a corrosive restraint on genuine development and a direct business cost that can and must be eliminated.

Our policies also guide the way in which we manage and develop the people who work for BP. Great companies will only succeed if they are free of prejudice and bigotry that can limit the development of individuals on the basis of, for example, gender, nationality, race, sexual orientation or age. What matters in every decision on employment must be merit – as measured by track record and a judgement of potential.

In all these ways, we aim to achieve the sustainability of the group and, even more important, the sustainability of the societies in which we operate. Companies are part of society and in the long term we can only thrive if society is itself thriving.

The overall story of this report therefore is one of progress and success but not without its challenges.

There is no sense of complacency in BP. The tragic events of Texas City reminded us all of the physical danger associated with the commodities with which we work and the need for the strongest processes, matched by a universal sense of personal

responsibility, in the management of risk in all our operations. This report includes a full description of all the things we are doing in response to what happened at Texas City. Our absolute determination is to learn the lessons and to ensure that, to the very best of our ability, no such tragedy can occur again.

Nor are we complacent about any of the other topics covered in this report. We recognize the risks and challenges we face. We also recognize that while we have made progress in many areas much remains to be done. Sustainability is a continuous process and the effort to attain sustainability has to begin again every day.

This year marks our fourth using the *Global Reporting Initiative (GRI) Guidelines* and the first in which we report against the new G3 guidelines. BP was an active supporter of the development of these. We believe the report represents a balanced and reasonable presentation of BP's economic, social and environmental performance.

Once again, we also report against the IPIECA/API indicators, which provide guidance on voluntary disclosure for the oil and gas industry.

BP has now sustained itself as a company for almost 100 years through periods of dramatic economic, social, political, technological and commercial change. As I believe this report demonstrates, we have achieved a great deal and we are clear and realistic in our awareness that we have a great deal still to do.



The Lord Browne of Madingley  
Group Chief Executive  
April 2007

On this page we summarize our key achievements and challenges in 2006, focusing on those with implications for our own sustainability and that of the communities and environments in which we operate.



### Achievements

**Project delivery, reserves replacement and new access** On the US Securities and Exchange Commission (SEC) basis of reserves reporting, our reserves replacement ratio was 113%<sup>a</sup>. Production from BP's new profit centres increased, with first gas from the Cannonball field in Trinidad & Tobago and In Amenas in Algeria and the start of oil production from the East and West Azeri platforms in Azerbaijan. We also made 10 new discoveries and secured new access options in Pakistan and Oman (the latter being announced in January 2007).

**Commissioning of the BTC pipeline** After 12 years of work, the 1,768km BTC pipeline delivered its first oil in June 2006. This will be the largest new non-OPEC source of oil supply to be brought on stream in 15 years. This project has also delivered social and economic benefits for communities along the pipeline corridor.

**Alternative energy business development** In 2006, we continued to develop our BP Alternative Energy low-carbon power business. We increased the production of solar cells; we developed our wind power business through acquisitions and a strategic alliance with Clipper Windpower; and with our joint venture partner, K-Power, opened a new gas-fired power station in Korea (pages 34-35).

**Biofuels and the Energy Biosciences Institute** We announced plans to invest \$500 million over 10 years to create an Energy Biosciences Institute, which will explore the application of bioscience and the production of new and cleaner energy. BP also created a dedicated biofuels business and announced a partnership with DuPont to develop a new generation of biofuels (page 36).

**LNG** In south-east China, the part-BP-owned Dapeng LNG import and regasification terminal and trunkline project in Guangdong province received its first commissioning cargo during May 2006 and commenced commercial operations in September. We also signed an understanding with Brass River LNG in Nigeria to purchase around 2 million tonnes a year of LNG, starting in 2010 for 20 years, enabling BP to supply multiple markets in the Atlantic Basin.

### Challenges

**Fatalities** In 2006, there were seven workforce fatalities. We deeply regret the loss of these lives and our aspiration remains to have no accidents and no harm to people (page 9).

**Oil spills and pipeline corrosion issues in Alaska** An oil spill of approximately 4,800 barrels occurred in our Alaska operations in March. In August, we shut down operations in the eastern part of the field following the discovery of isolated pitting corrosion and a further spill of 199 barrels from an oil transit pipeline (page 16).

**Texas City incident** External investigations continued into the Texas City explosion and fire that occurred on 23 March 2005. Investigations were conducted by the US Chemical Safety and Hazard Investigation Board and the BP US Refineries Independent Safety Review Panel, chaired by former US Secretary of State James A Baker, III (pages 10-13).

**Thunder Horse** Following a metallurgical failure during testing of subsea production equipment at the Thunder Horse production platform in the Gulf of Mexico, we decided to replace all equipment we believed could be at risk, delaying the start of operations. The equipment had passed industry standard tests but failed BP's own, more stringent, tests (page 17).

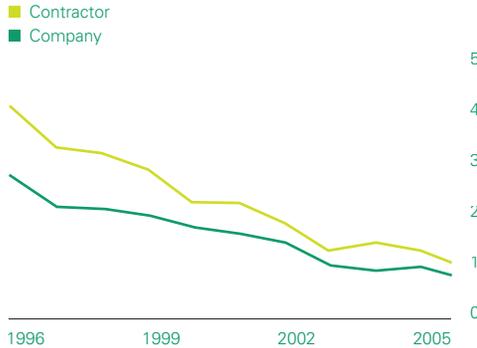
**Reputation** This year's challenges have resulted in litigation, which has led to extensive media coverage with negative consequences to the regard in which the group is held by certain parts of society. We are responding and communicating relevantly on the issues that exist, for example by publishing the report of the BP US Refineries Independent Safety Review Panel and updating the public on progress in replacing the Alaska pipelines. We are also seeking to provide a broader perspective through communications such as this report and our website, as well as through engagement with investors, customers, governments and many others.

<sup>a</sup>On a combined basis of subsidiaries and equity-accounted entities, excluding acquisitions and disposals.

# Industry in context

In 2006, energy was again a major topic of debate among policy-makers and the public, with particular concerns over safety, the security of energy supplies, increasing costs in the industry, policy developments and climate change. On these pages we set out some of the main issues the industry faced during the year. BP responds to these issues in many ways, some of which are discussed in this report and also in *BP Annual Report and Accounts 2006*.

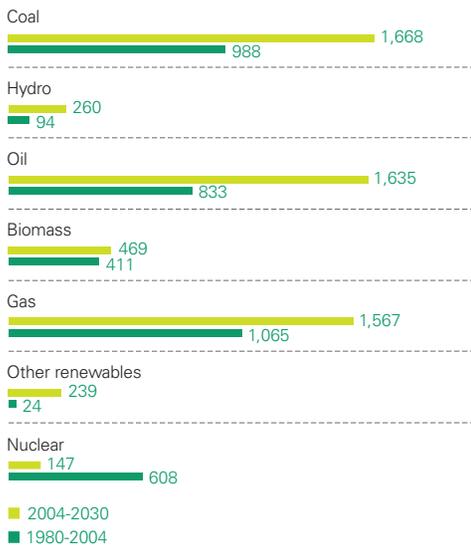
**INDUSTRY LOST TIME INJURY FREQUENCY<sup>a b</sup>**  
(fatalities and lost day work cases per million work-hours)



## Industry safety

Safety remained in the spotlight in 2006 as investigations continued into incidents at BP's Texas City refinery and at facilities owned and operated by other energy companies. As a result, companies and associations in the oil and chemicals industries are taking action to improve standards and measures on process safety. These industry-wide actions have been informed by the findings and recommendations of expert reports on safety. The BP US Refineries Independent Safety Review Panel said in its report, which assessed process safety management systems and safety culture at our five US refineries: 'All companies in the refining, chemical, and other process industries should give serious consideration to its recommendations and related commentary.' Pages 9-17 of this report provide more information on how BP is responding to this issue.

**WORLD PRIMARY ENERGY DEMAND BY FUEL  
INCREASE IN DEMAND<sup>c</sup>**  
(million tonnes of oil equivalent)



## Energy security

There was widespread concern over energy security in 2006, in part prompted by further increases in the oil price and by the geographical concentration of energy resources. Around 75% of the world's remaining proved oil reserves are located in just three regions: North and West Africa; Russia and the Caspian; and the states around the Persian Gulf. In its 2006 annual *World Energy Outlook*, the International Energy Agency said: 'The threat to the world's energy security is real and growing.' It added that, without new government action, the OECD countries would be importing two-thirds of their oil by 2030, compared with 56% today. Responding to this prospect, the G8 group of countries adopted the St Petersburg Plan of Action to enhance global energy security; the US president announced a technology-based Advanced Energy Initiative to reduce dependence on imported oil; the European Commission published a green paper on a common external energy policy; and China and India signed co-operation pacts on energy. Meanwhile, international markets in oil and gas delivered effective energy security for consumers. BP continued to invest in delivering diversified supplies of energy to the international market, with production in 22 countries. In 2006, this included \$13.1 billion of capital investment in our exploration and production segment. More on BP's actions in response to the global issue of energy security can be found in *BP Annual Report and Accounts 2006*.

<sup>a</sup>International Association of Oil and Gas Producers (OGP) *Safety Performance Indicators – 2005* data, © OGP, 2006.

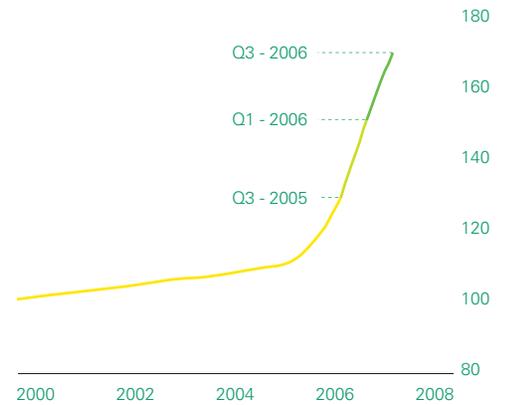
<sup>b</sup>The chart is based on the analysis of submissions by around 35 companies from operations in 70 countries.

<sup>c</sup>*World Energy Outlook*, © OECD/IEA, 2006. Figure 2.1, page 67.

## High-cost environment

The energy industry continued to operate in a high-cost environment in 2006. For exploration and production, Herold's *2006 Global Upstream Performance Review* reported that estimated finding costs rose 51% to \$4.08 per barrel of oil equivalent (boe) in 2005, compared with 2004, and the estimated overall costs of reserves replacement rose 73% to \$10.27/boe. The maximum day rate for ultra-deepwater drilling rigs increased from around \$200,000/day towards the middle of 2004 to around \$500,000/day during 2006. Costs are also rising in areas such as renewable energy. A worldwide shortage of polysilicon, the key component of solar panels, has forced up its price in recent years. These figures have played a significant role in raising concerns about the price of fuels in many of the markets in which we operate. In BP, we offset some of the cost inflation through supply chain management and technology. For example, in 2005, our North America gas business contracted for 67 rig-years of activity at around 13% below today's market rate.

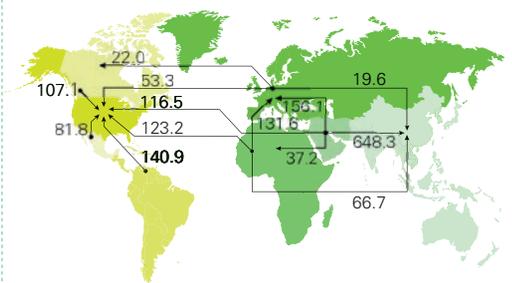
**IHS/CERA UPSTREAM CAPITAL COSTS<sup>d</sup>**  
(cost index 2000=100)



## National energy policy developments

Several factors in countries' energy policies demanded close attention in 2006. As well as climate policy, there was also much debate over relations between national governments and international oil companies. For example, during the year, Bolivia nationalized its oil and gas industry and Venezuela increased taxes on energy companies. Transparency over the revenues governments receive from energy companies and the way they spend them continued to receive scrutiny. The Extractive Industries Transparency Initiative (EITI), which promotes such transparency, continued to develop, holding its first board meeting in New York in December. BP continued to invest in many energy-rich countries, seeking to maintain positive and transparent relationships with governments and often working side-by-side with national oil companies. See page 40 of this report for more on BP's contribution to the EITI.

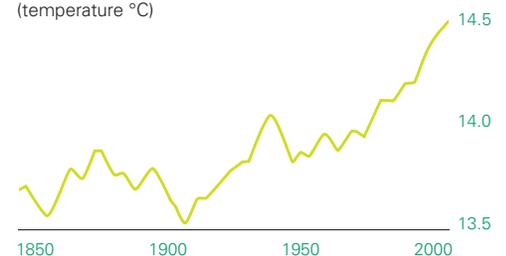
**MAJOR OIL TRADE MOVEMENTS<sup>e</sup>**  
Trade flows worldwide (million tonnes)



## Climate change

Public awareness and concern over climate change intensified during 2006. New research was published that highlighted the increasing future risks of the impacts of climate change and the growing acceptance that much of the observed warming and associated impacts result from human activity. There was also significant legislative activity, especially in Europe and the US, with California introducing legislation to reduce CO<sub>2</sub> emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050. See pages 34-37 of this report for more detail on how we engage in the policy debate and on our BP Alternative Energy and biofuels businesses.

**OBSERVED GLOBAL AVERAGE SURFACE TEMPERATURE<sup>f,g</sup>**  
(temperature °C)



<sup>d</sup>Cambridge Energy Research Associates, an IHS Company (CERA). The use of this graphic was authorized in advance by CERA.

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<sup>e</sup>Adapted from chart on page 21 of *BP Statistical Review of World Energy June 2006*. Includes movement of crude oil and products.

<sup>f</sup>Modified chart from final unedited version of *UN IPCC WG1 4th Assessment Report*. Figure SPM3, Summary for Policymakers.

<sup>g</sup>Smoothed curve represents decadal averaged values.

# The way we work

[www.bp.com/thewaywework](http://www.bp.com/thewaywework)

These pages provide a high-level overview of BP's corporate governance policies and management framework. Our corporate governance policies provide the means by which the board sets the group's direction and monitors performance on behalf of shareholders. The group's system of internal control is described in the BP management framework and covers areas such as delegation of authority, organization, management systems and risk management.

## Corporate governance

Corporate governance begins with the institutional and individual shareholders who are BP's owners. They collectively delegate authority for the direction and oversight of the company to the board. The board is accountable to shareholders for all aspects of BP's business, including financial and non-financial performance.

BP's model of corporate governance enables the board to act as representatives of shareholders, focusing on activities that are unique to it and that enable it to promote shareholders' interests – such as monitoring the activity and results of the business and providing input into strategy. This governance role is distinct from that of management.

The board goals state that the purpose of BP is business and to maximize shareholder value on a long-term basis. The board delegates authority to pursue this goal to the group chief executive (GCE) within the 'executive limitations' that define the boundaries within which the GCE and those to whom he delegates can operate. For example, these require the GCE to take into account the HSE consequences of any action.

Currently the board consists of 17 directors. Ten are non-executive directors, in line with BP's policy for non-executives to comprise a majority of the board. The board's committees monitor the performance of the GCE in pursuing goals and observing the executive limitations. These committees consist of independent non-executive directors only, free from any conflict of interest that might arise from having a management role. The executive directors are invited to attend as required.

The safety, ethics and environment assurance committee (SEEAC) monitors non-financial aspects of management activity such as those covered in this report. SEEAC met seven times in 2006. Topics discussed by SEEAC included safety and operations, pipeline integrity in Alaska, HSE performance in TNK-BP and compliance and ethics issues. During the year, the committee also considered regional risk reviews for North America, Russia and the Caspian. Progress in safety and operations management since the incident at the Texas City refinery was reviewed regularly and remains a key area of focus.

**Find out more:** [www.bp.com/governance](http://www.bp.com/governance)

## BP management framework

The group's system of internal control is described in the BP management framework. The system of internal control is the complete set of management systems, organizational structures, processes, standards and behaviours that are employed to conduct the business of the group and deliver returns to shareholders. The BP management framework also describes how activity should be delegated from the GCE to senior management and on to the front line.

Following events such as the 2005 Texas City explosion and fire and the 2006 oil spills in Alaska, we not only took specific measures to promote safety and integrity but also acted to reinforce the importance of applying the management framework across BP's businesses. A series of 'town hall' meetings were held throughout BP, led by the GCE and others, at which the principles of the framework were discussed. Training on the framework is to be incorporated in the new 'Managing Essentials' programme, which will be followed by around 20,000 leaders in BP. Group leaders are now assessed and rewarded partly on their record in implementing the framework.

At the heart of the framework is a set of principles for delegation of authority. These are developed on the basis that employees deliver enhanced performance and creativity when they understand exactly what is expected of them and the boundaries of their authority – what they should and should not do. The management framework's aim is that, every time authority is delegated, the delegator and delegate will agree several key factors: its purpose; the relevant targets; the resources allocated to it; its limitations; and the processes for monitoring performance.

The framework is also central to risk management in BP. Each component of the framework is in itself a device to respond to a particular type or collection of risks. During 2006, we strengthened our risk management processes by creating two new senior management sub-committees – the group operations risk committee and the group financial risk committee.

Fig. 1.0 shows the key elements of corporate governance and the management framework. Those on the left describe what we

aim to deliver, while those on the right describe how we aim to deliver. The system is designed to enable the business to achieve its commercial goals – through strategy, planning and execution – while operating safely, ethically and responsibly by applying values, standards and controls.

**What we deliver**

**Board goals** As described above, these set BP’s goal as maximizing shareholder value on a long-term basis.

**Group strategy** The group strategy defines the long-term framework that sets the context for the group plan and delineates the way in which the board goals will be pursued.

**Group five-year plan** This sets out how the group strategy will be achieved over a five-year period and includes risks to delivery targets, allocation of resources, and metrics and milestones used to measure progress.

**Group annual plan** This describes how the five-year plan will be implemented in the coming year.

**Segment, function and regional plans** Each segment, function and region draws up its own detailed five-year and annual plans.

**How we deliver**

**Executive limitations** As described above, these define the boundaries between the board and the GCE and those activities and conditions the board considers unacceptable. The board delegates authority to the GCE for performance within these limitations.

**Brand attributes** Our brand attributes are to be performance-driven, progressive, innovative and green.

**Group values** Group values are statements that lay out courses of action and goals, often aspirational, against which we can test our performance and shape the reputation of the group. They include aspirations to have no accidents, conduct environmentally sound operations, treat employees fairly, have an inclusive and meritocratic organization, pursue mutually advantageous relationships and promote respect for human rights.

**The BP code of conduct** The code of conduct translates certain group values into specific mandatory principles and expectations for all employees within BP (*see pages 30-31*).

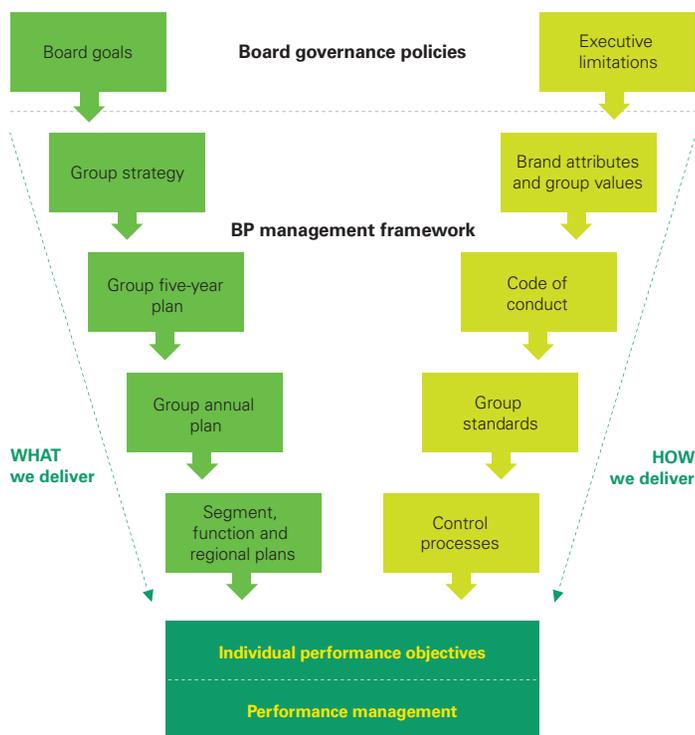
**Group standards** These set out clear expectations, processes and principles to be followed worldwide. The code of conduct and standards for driving safety, credit, business continuity planning and the group investment assessment and approval procedures are fully operational. Four others have been approved and are now being executed: control of work, integrity management, digital security and security. Three are currently being defined: marine operations, people and management information.

**Control processes** These consist of practical frameworks that enable implementation of the system of internal control.

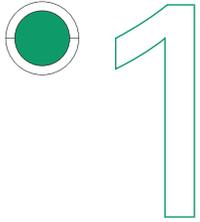
**Individual performance objectives** These define an individual’s expected contribution to deliver the annual plan. They lay down the individual’s targets, objectives, resources, activities and limitations.

**FIG. 1.0 BOARD GOALS TO INDIVIDUAL PERFORMANCE OBJECTIVES**

Translating the goals into activities and executive limitations into individual limitations



# Responsible operations



BP operations in Oklahoma, US

## BP AND SAFETY – OUR JOURNEY

**1997** BP establishes HSE framework – getting HSE right

**1999-2005** Decline in BP's injury rates – injury frequency among the lowest in the industry

### May-December 2005

BP publishes initial and final findings of internal investigation of Texas City incident

**2006** Group operations risk committee is formed

**2007** Implementation of new operating management system begins

**2004** Introduction of new group-wide driving safety standard

**23 March 2005** Texas City refinery incident

**2006** Launch of group-wide safety and operations six-point plan

**January 2007** Baker Panel report published

**2007-2010** BP to invest an average of \$1.7 billion per year on integrity and reliability across US refineries

This section of the report reviews BP's 2006 performance with respect to safety. It focuses particularly on our response to the explosion and fire at the Texas City refinery in 2005 when 15 people lost their lives, an event that we regret deeply. This page provides an overview of activity in 2006, while the following pages explain our activities in more detail. Our approach has been to improve our existing process safety practices from the operational level upwards, not only prioritizing practical steps such as relocating staff and assessing plants for major accident risks but also working towards the long-term renewal of our safety systems and capabilities.

During 2006, we undertook specific investments and targeted programmes in response to the Texas City incident as well as building more comprehensive systems for managing process safety across the group.

We have always endeavoured to improve the quality of our operations and to mitigate the HSE risks associated with them, using a long-standing management system known as 'getting HSE right' (gHSEr). During 2006, we built on the learning from more recent incidents and industry best practice to develop a new operating management system (OMS) to achieve further improvements and reductions in risk. Our goals remain unchanged: no accidents, no harm to people and no damage to the environment.

The OMS is a comprehensive system that covers all aspects of our operations, including three dimensions of safety – personal safety, process safety and the environment. BP has a strong track record on the environment and personal safety, particularly the prevention of incidents such as falls and vehicle accidents, which may result in serious injuries and fatalities.

However, we recognize that we have more to do to achieve excellence in process safety, which includes preventing accidental releases of hazardous materials from industrial processes that can have catastrophic effects, such as fires, which may result in fatalities, injuries or environmental damage. This was one of the main findings of the BP US Refineries Independent Safety Review Panel under former US Secretary of State James A Baker, III, which reported in January 2007. The panel made 10 recommendations, all of which BP will implement, in areas ranging from leadership to performance indicators (*see page 11*).

During 2006, we continued with our programme of action at Texas City, expected to cost around \$1 billion over five years, and increased spending on integrity and reliability across our five US refineries (*see pages 12-13*).

Across BP, we have introduced a programme, known within the company as the six-point plan, covering such areas as major accident risk assessments, integrity and control of work standards and improving safety competencies (*see pages 12-13*). At the same time, we are building a stronger long-term system for managing process safety within the OMS, which brings together existing processes and supplements them where necessary. These actions are organized around three strategic themes: plant, process and people (*see pages 14-15*).

In the US, we expanded the responsibilities of the chairman and president of BP America Inc. to include monitoring of our US operations to ensure compliance with regulatory and company standards. We announced an external advisory board to provide advice on compliance, safety and regulatory affairs and appointed an independent ombudsperson to investigate concerns raised by employees and contractors in North America.

## Our personal safety record in 2006

In total, there were seven workforce fatalities in the course of BP's operations during 2006. In 2005, there were 27 fatalities. We deeply regret the loss of these lives. The 2006 figure has fallen to the lowest level in nearly 20 years of reporting. This includes a reduction in driving-related fatalities, which were 14 in 2003, to two in 2006 after we implemented our driving safety standard. In 2006, our reported recordable injury frequency fell to 0.47 per 200,000 hours worked – the lowest in our recorded history.

**Find out more: [www.bp.com/personalsafety](http://www.bp.com/personalsafety)**

# The Texas City incident and initial responses

During 2006, while investigations into the Texas City incident of the previous year progressed, we continued to take action to apply the lessons learned.

[www.bp.com/texascityincident](http://www.bp.com/texascityincident)

1.2

## The incident and investigations

The incident on 23 March 2005 at Texas City occurred when a unit used to create components for unleaded gasoline was overfilled and overheated, resulting in a flow of hydrocarbon liquid to a blow-down stack of a type intended to capture small amounts of liquid from vapours vented in an emergency. As a result, the blow-down stack overflowed, emitting a cloud of vapour that was ignited by a source that has not been definitively identified. The resulting explosion and fire caused fatalities and injuries, mainly among people in and around temporary buildings used as offices nearby.

BP's incident investigation team found that the critical factors leading to the incident included failure to follow procedures, a loss of containment caused by overfilling the process tower and overheating the liquid in it, the placement of temporary trailers too close to the blow-down stack, and the design and operation of the blow-down stack. The final findings of the investigation, available in full at [www.bpresponse.org](http://www.bpresponse.org), identified a number of underlying causes related to the working environment, process safety and other management and operational behaviours and processes at the Texas City refinery.

We set aside around \$1.6 billion to resolve claims arising from the incident. We have reached settlements with family members of all who died and also settled with many more who filed claims following the accident. We reached a settlement with the US Occupational Safety and Health Administration (OSHA) resulting in the payment of a \$21.4 million penalty, an agreement to correct all alleged safety violations and the retention of experts to assess the refinery's organization and process safety systems.

We co-operated with the investigation into the incident by the US Chemical Safety and Hazard Investigation Board (CSB) and other governmental authorities investigating the incident. The CSB released its final report in March 2007.

In October 2005, following a recommendation from the CSB, we convened an independent safety review panel consisting of a group of experts chaired by former US Secretary of State James A Baker, III to assess process safety management systems and safety culture at our five US refineries.



We created a corporate function dedicated to safety and operations (S&O), with strong audit capability, headed by a senior group vice president reporting directly to the GCE.

We launched a programme of investment and improvement at Texas City called Focus on the Future, building on lessons learned from the 2005 explosion and other incidents at the refinery in 2006, including a contractor who was fatally injured when operating a man-lift, and a leak of hydrogen sulphide.

We launched a programme to address process safety across all five of our US refineries to support and complement site-based activities and we built the lessons learned into our evolving work to develop a stronger group-wide framework for managing operational matters, including safety and operations integrity.

As a result of its investigation of the Texas City refinery, OSHA conducted an inspection of BP's Toledo refinery beginning in October 2005. On 24 April 2006, OSHA issued citations to BP, alleging 39 separate violations of two different OSHA standards and seeking a total penalty of \$2.4 million. BP and OSHA have reached a settlement in principle and are working towards finalizing the documentation.

On 15 November 2006, the Indiana Occupational Safety and Health Administration (IOSHA) issued the Whiting refinery with three Safety Orders and Notifications of Penalty alleging 14 separate violations of the OSHA regulations. The total proposed penalty was \$0.4 million. BP and IOSHA have met several times to discuss a resolution of the matter and discussions are ongoing.

## The BP US Refineries Independent Safety Review Panel

The BP independent safety review panel carried on its work throughout 2006, having begun in 2005. It reported its findings and recommendations in January 2007.

The panel's remit was to assess the effectiveness of BP's corporate oversight of safety management systems and corporate safety culture at its five US refineries.

When responding to the panel's report, we said that we believed it to be 'unique in its subject matter, breadth and clarity', reflecting the extensive engagement that had taken place between BP and the panel. BP assisted the panel in completing its work.

The panel visited all BP's US refineries, commissioned independent process safety audits, interviewed more than 700 staff, including operators, refinery managers and members of the corporate leadership team. The panel was provided with over 30,000 documents and conducted an independent survey that resulted in around 7,500 responses on process safety from US refinery staff at all levels.

BP has made a commitment to implement all the report's recommendations. Many of the measures already taken or under way, as reported in this section, address the points raised. The panel itself recognized this in noting that: 'Since March 2005, BP has expressed a major commitment to a far better process safety regime, has committed significant resources and personnel to that end, and has undertaken or announced many measures that could impact process safety performance at BP's five US refineries.'

Leaders within BP were tasked with holding team meetings to discuss and to obtain feedback on the recommendations, in order to implement them more effectively. In summary, the panel's recommendations were as follows:

**1. Process safety leadership** BP's board and executive management (including its group chief executive) must provide effective leadership on and establish appropriate goals for process safety, articulating a clear message on the importance of process safety and matching that message both with the policies they adopt and the actions they take.

**2. Integrated and comprehensive process safety management system** BP should establish a management system that identifies, reduces and manages process safety risks at its US refineries.

**3. Process safety knowledge and expertise** BP should implement a system to ensure that executive management, refining line management and all US refining personnel possess an appropriate level of process safety knowledge and expertise.

**4. Process safety culture** BP should involve relevant stakeholders to develop a positive, trusting and open process safety culture within each US refinery.

**5. Clearly defined expectations and accountability for process safety** BP should clearly define expectations and strengthen accountability for process safety performance at all levels in executive management and in the refining managerial and supervisory reporting line.

**6. Support for line management** BP should provide more effective and better co-ordinated process safety support for the US refining line organization.

**7. Leading and lagging performance indicators for process safety** BP should develop, implement, maintain and periodically update an integrated set of leading and lagging performance indicators for more effectively monitoring the process safety performance of the US refineries and work with other organizations to develop a consensus set of such indicators for use in the refining and chemical processing industries.

**8. Process safety auditing** BP should establish and implement an effective system to audit process safety performance at its US refineries.

**9. Board monitoring** BP's board should monitor the implementation of these recommendations including engaging an independent expert to report annually to the board on BP's progress in implementing the recommendations for at least five years. The board should also report publicly on the progress of such implementation and on BP's ongoing process safety performance.

**10. Industry leader** BP should use the lessons learned from the Texas City tragedy and from the panel's report to transform the company into a recognized industry leader in process safety management.

# Improving process safety management

[www.bp.com/processsafety](http://www.bp.com/processsafety)

1.3

## Action at Texas City

At the Texas City refinery, the Focus on the Future programme was introduced during 2006 by a new site leadership team. This includes investments in renovating units, modernizing controls, installing a new maintenance management system and improving alarms. The programme also covers:

- Extensive mechanical renovation.
- Creation of a new command centre with interactive audio/visual links to the units, which was manned 24 hours a day during the recommissioning start-ups in 2006.
- Removal of more than 200 temporary buildings and structures from the site.
- A new office building for more than 400 Texas City workers who can work outside our plant fence line.
- The start of construction of a new employee services building to include facilities for learning and development and operations training departments, including unit training simulators and nine training rooms; the medical department; some of the site's security team; the incident management team; and site union official offices.
- Refurbishment and safe start-up of the 43km steam system.
- Early implementation of the new BP control of work standard and the integrity management standard, which together govern every aspect of how work is conducted on the site.
- Improvement of procedures used when units are being restarted. These include pre-start-up safety reviews, written handover reports and a requirement for supervisors to be present for all start-ups.
- Updated procedures to prepare for emergencies, including unit-by-unit evacuation drills and development of accountabilities for sounding alarms.
- Enhanced training programmes for all employees, including induction courses for new hires. Leadership development and other training programmes are expected to amount to 300,000 training hours annually.
- A range of measures to promote workers' health.

**Find out more:** [www.bp.com/texascityactions](http://www.bp.com/texascityactions)

## Action across US refineries

In addition to the programme at Texas City, we are investing to improve the process safety performance of all five of BP's US refineries. These investments are increasing spending from \$1.2 billion in 2005 to an average \$1.7 billion a year from 2007 to 2010.

Across the refineries, by January 2007, more than 250 buildings had been moved out of high-risk zones, over 120 had been removed from low-risk zones and 1,300 people had been relocated from on-site trailers. We are establishing 'engineering authorities' for each refinery, as well as ensuring appropriate standards on technical aspects of design, operation and maintenance are applied, and rebuilding our in-house workforce of subject matter experts from 35 in 2005 to more than 150 by the end of 2007.

We have earmarked \$200 million for 300 external experts to conduct comprehensive audits and redesigns of process safety systems. These are targeted for implementation by the end of 2007.

The US refineries are among the first set of businesses in which the new OMS (*see pages 14-15*) is being implemented, starting in 2007.

## Action across BP – the 'six-point plan'

Across the group, throughout 2006, we continued to implement the improvements begun following the Texas City tragedy and supplemented them with new measures as necessary.

Our approach has been to focus on urgent issues first, through a targeted 'six-point plan' that identifies the key priorities for investment and action across the BP group.

As the urgent actions are concluded, we continue to develop and implement longer-term plans, centred around the OMS framework and improvements in capabilities and culture.

During 2006, the six-point plan was widely communicated within BP through various channels including visits, interviews, team meetings and articles. The GCE and senior leaders led 'town hall' meetings, visited business units around the world and highlighted safety in a video viewed by around 45,000 of our employees. The six points are as follows:

1. We are removing **blow-down stacks** handling heavier-than-air light hydrocarbons and moving **temporary buildings** away from potential hazards, preparing to do so where it was not possible by the year end. By the end of 2006, 15 out of our 18 blow-down stacks were no longer in use. Across BP, we have introduced and implemented a requirement to have no occupied temporary buildings in high-risk areas. During 2006, we continued to remove or vacate occupied portable buildings within hazardous areas. While this work is virtually complete for our major facilities, ongoing reviews have identified additional buildings elsewhere that need to be either removed or vacated, for example, along the BTC pipeline route in Azerbaijan.

2. We have conducted **major accident risk assessments (MARs)** at plants and acted on their findings. By the end of 2006, 12 MAR assessments had been completed in the exploration and production segment, 21 in refining and marketing and two in gas, power and renewables. The remainder were due to be completed in early 2007.

3. We are introducing two **new group standards** which provide detailed requirements on control of work and integrity management. By March 2006, these had been issued and implementation is under way.

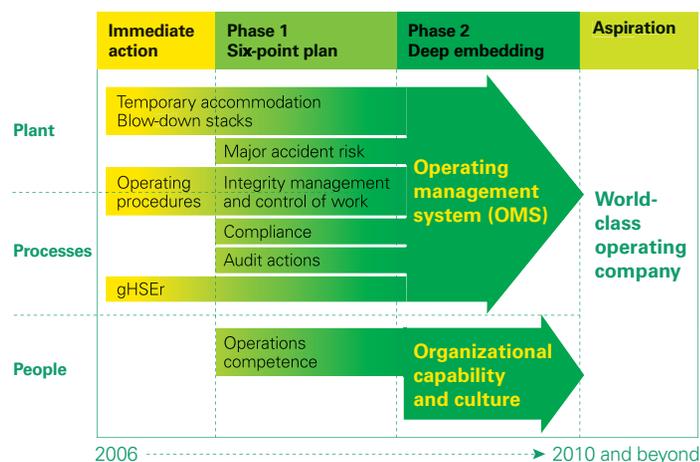
4. We are improving the processes by which our operations seek to maintain **compliance with laws and regulations** on health, safety and the environment. These included the implementation of the health, safety, security and environmental (HSSE) compliance framework, which requires each business to assess and enhance its compliance programme according to a five-step process, ranging from risk assessment to management review and certification. In BP, this programme of implementation is known as Project Emerald. By the end of 2006, all US businesses had made significant improvements to their HSE management systems and were continuing to implement the framework. Elsewhere, businesses are assessing their current compliance programmes and developing plans to meet the requirements of the framework.

5. We took action to **close out findings from past audits**. By the end of the year, data had been reviewed and each segment had a process in place to track closures.

6. We acted to **build competence** among teams in areas of safety and process operations through training and development. By the end of 2006, three groups had been identified for particular attention – leaders, HSE professionals and operational technicians. The first pilots in a new training and development programme called Operating Essentials will take place in 2007 (see page 15).

Fig. 1.1 shows key elements in the plan to improve process safety at BP.

FIG. 1.1  
PATH TO A NEW MANAGEMENT SYSTEM



**Specific observation from Ernst & Young**

We interviewed management at sites visited to understand their oversight of safety and operational integrity. At each location, we saw evidence that management are targeting actions from the 'six-point plan'. At several sites we saw evidence that information on progress with safety and operational integrity activities is now being collated and reported to GORC. However, we noted variability in the level of detail and presentation of information within these reports.

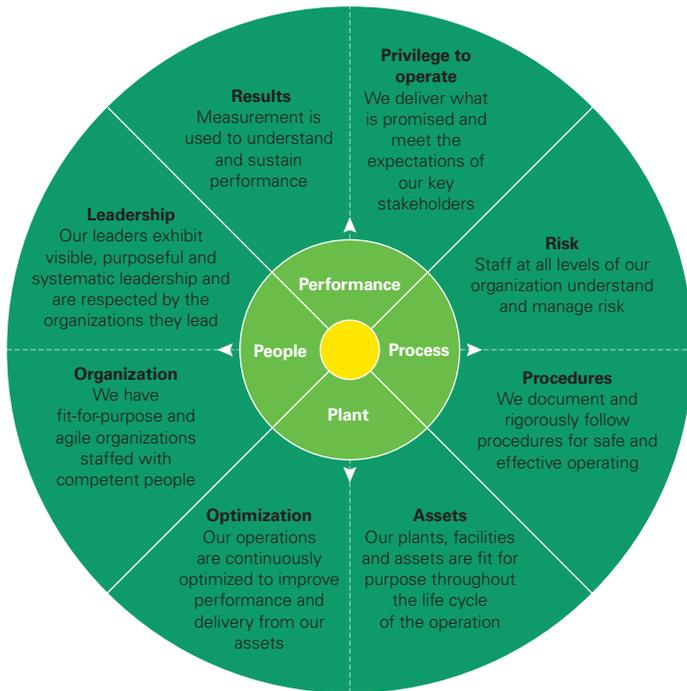
## Improving process safety management *continued*

### Building enduring improvements in process safety

We are taking action to improve process safety management for the long term through a series of measures, including the creation of a new OMS which brings together existing processes and supplements them where necessary. Processes covered include group standards, control processes, practices and guides.

In order to provide effective leadership on process safety, we have formed a new senior executive team – the group operations risk committee – to oversee process safety and integrity management.

FIG. 1.2  
THE OMS FRAMEWORK



**Processes and plant – a new OMS** The new OMS will apply to all operations by the end of 2010 and includes safety, integrity, environmental management and health. The OMS is aligned with the International Organization for Standardization's (ISO) systematic processes to assist continuous improvement.

Each site will have its own local OMS, based on a consistent group-wide framework. The local OMS will set out the plans and processes through which the framework will be implemented at local level.

The system provides a pattern for assessing performance and improving business processes through a cycle with four key stages: plan, perform, measure, improve.

The aim of the OMS is to have consistent standards of design, construction, operating procedures and maintenance that help to ensure the reliability and integrity of our plants.

The OMS framework provides clear guidance in what we have defined as the eight elements of operating in BP: risk; procedures, assets, optimization, organization, leadership, results and privilege to operate (*see Fig. 1.2*).

In 2007, we started a first phase of implementation of the OMS at a number of businesses, including all five US refineries, as well as seven other major upstream and downstream sites around the world.

The existing framework for managing HSE issues, 'getting HSE right', will be incorporated into the new system as it comes into force. All operations are required to implement their OMS by the end of 2010.

**Organizational capability** At the same time as developing the OMS, we have sought to develop greater awareness of hazards in the workplace and to improve the competence possessed by our employees in safety and integrity.

We are analysing the prevailing attitudes and behaviours using our employee survey – the People Assurance Survey (PAS) – as well as more detailed surveys looking specifically at safety culture.

We are using well-established tools, including processes based on the concept of the 'High Reliability Organization'. These are designed to help organizations proactively generate improved ways of working rather than simply reacting to events.

We are committed to improving capability in safety and operations at all levels, from apprentice to executive. This encompasses both individual competence and the optimal deployment of qualified staff. Programmes designed to assess and improve capabilities are being developed, covering learning, development, succession and renewal. Priority groups for these programmes are leaders of multiple sites and operations, operations leaders, managers, supervisors, operators, technicians and HSE professionals. Pilot programmes for leaders, managers and supervisors under the title Operating Essentials will begin in 2007. These include a Fundamentals of Process Safety training and development course available for all operating staff, starting with engineers and supervisors. Also during 2006, we assessed capabilities of people in key leadership posts and programmes for these priority groups will begin in 2007.

**Health** We have a strategy to promote employees' health that is aligned with the wider S&O programme. Our objective is to have:

- Healthy plants – work places that are healthy and energizing.
- Healthy processes – through which people make decisions that protect and improve their health in their work.
- Healthy people – among our employees (see page 29) and contractors and in local communities.

**Find out more at [www.bp.com/health](http://www.bp.com/health)**

**Auditing our performance** We are working to strengthen our internal safety and operations audit system. We have developed a new group-wide audit capability focused on safety and operations, led by an externally recruited expert, and intend to increase the audit team's workforce from just under 40 in 2006, to more than 70 in 2007.

During 2006, we developed a new audit process that will feature an annual facility risk review to help target the units to be audited. We piloted the audit process at six sites in 2006 and at least 29 units are expected to be audited in 2007.

Operations are required to create processes to close out actions arising from S&O audits within agreed timescales. The corporate audit team will track these actions and verify that they have been completed.

**FIG. 1.3**  
**WORKFORCE FATALITIES**



During 2006, we took action to address several specific issues relating to the physical integrity of plant and pipelines, including two spills in Alaska. More generally, we also launched our integrity management standard and worked towards supplementing the well-established performance indicator for oil spills with new process safety-related indicators, as recommended by the Baker Panel.

## Oil spills and corrosion issues in Alaska

During 2006, two incidents occurred in our operations at Prudhoe Bay, Alaska. In March, a small undetected hole in a pipeline led to a spill of around 4,800 barrels and in August the eastern part of the field was shut down as a precaution following the discovery of isolated pitting corrosion that resulted in a spill of 199 barrels from an oil transit pipeline, of which an estimated 23 barrels spilled on to the tundra and approximately 176 barrels were collected in portable spill response tanks. We have cleaned up all oil from both spills.

The first spill occurred when oil leaked from a pipeline that transfers oil from a processing plant in the Western Operating Area of the oil field to the Trans Alaska Pipeline System. The cause was identified as corrosion in a 5km section. The section was removed from service and oil directed into another pipeline as a bypass.

US and State of Alaska investigations of the incident have been initiated and subpoenas have been issued, including a Federal Grand Jury subpoena. We committed to take enhanced and more rapid action to inspect pipelines. Inspections carried out after this incident revealed no significant concerns until August, when several instances of corrosion and a small spill were revealed in a 5km section of transit pipeline in the Eastern Operating Area (EOA) of the field. This was shown through an inspection by a 'smart pig', a device that travels through the pipeline and detects impacts of corrosion using electromagnetic sensors.

We shut down production in the EOA as a precaution while tests were carried out on all oil transit pipelines in the operating area. Technicians performed thousands of inspections to check the pipelines and no significant further corrosion was discovered.

In September 2006, BP executives testified before the US House of Representatives and the US Senate, committing to run further smart pigs in the pipelines and continue investigations into the corrosion. Following the inspection of the transit lines, regulators gave permission for production to be resumed and the eastern part of the field was restarted in September, 44 days after the discovery of the spill. Total production was restored to more than 400,000 barrels per day by the end of October.

We have now confirmed sufficient integrity of the transit lines using smart pigs, in addition to other inspection tools. To provide further assurance and plan for an extended field life we have, for current operations, committed to replacing the entire crude oil transit line system of around 25km, starting in 2007. We are continuing to investigate the corrosion discovered in 2006.

In total, we have committed to invest more than \$550 million (net) on integrity management in Alaska over the next two years, including nearly \$200 million in 2007, a three-fold increase from 2004 levels.

We have retained two of the world's foremost corrosion experts and an expert with large infrastructure asset management expertise to advise us. They will independently review these programmes. In Alaska, a post of technical director has also been created to provide independent assurance of integrity management. More than a dozen additional permanent staff have been taken on to support integrity-related activities and we have significantly increased the size of our contractor workforce to carry out inspections and effect repairs where required.

All BP-operated oil transit lines in the Prudhoe Bay field have now been included in the US Department of Transportation's Pipeline Integrity Management Programme.

The appointment of US District Court Judge Stanley Sporkin to act as an independent ombudsperson for US employees is intended to provide further assurance that workers' concerns about these issues – or any other operational issues – will be investigated and resolved.

### Specific observation from Ernst & Young

We interviewed a sample of front-line operational staff at Prudhoe Bay and discussed integrity management, safety and communications with management. There were mixed views among those interviewed as to whether there is a positive, trusting and open environment with effective lines of communication between management and the workforce. However, they did highlight the increased focus and investment in 2006 on process safety, integrity management and recruitment of new employees.

### Replacing subsea equipment at Thunder Horse platform

During 2006, at the Thunder Horse field in the Gulf of Mexico, a failure occurred in a weld during pre-commissioning tests of the subsea equipment. The equipment had passed the normal industry standard tests but failed when we were carrying out more rigorous and prolonged tests. A second piece of equipment failed a subsequent test.

As a result, we decided to retrieve and replace all the subsea components we believed could be at risk and this will delay the start of operations. The platform is the largest production drilling quarters semi-submersible platform in the world, designed to push several areas of technology to new limits by operating in water around 6,000 feet deep and producing oil from some of the highest-temperature and highest-pressure reservoirs in the Gulf of Mexico.

### Shipping

During 2006, we continued to expand our shipping fleet of operated and time-chartered vessels in order to provide more protection against the risk of a major oil spill. All vessels on BP business are subject to our HSSE requirements. The fleet transformation is ahead of the international requirements for the phase-out of single-hulled vessels.

By the end of 2006, we managed 57 international vessels, compared with 52 at the end of 2005. Our fleet consists of 42 medium size crude and product carriers, four very large crude carriers, one North Sea shuttle tanker, seven LNG carriers and three new LPG carriers. All these ships are double-hulled.

BP has 100 hydrocarbon-carrying vessels above 600 deadweight tonnes on time charter, of which 83 are double-hulled and three are double-bottomed. All of these vessels are enrolled in BP's Time Charter Assurance Programme. To transport the remainder of the group's products, BP spot charters vessels, typically for single voyages. The vessels are always vetted prior to use. In addition, BP also operates other regional, specialist and miscellaneous craft.

BP Shipping has improved its reported recordable injury frequency record on its operated and time chartered fleet from 0.97 in 2001 to 0.30 in 2006. BP Shipping has also launched SafeShips, an education and information programme highlighting safety for our seafarers and shore staff. It covers a wide range of safety-related topics, including risk assessments, operations safety, best practices and safety by design.

### Oil spills

BP's operations report any spills greater than one barrel, which includes all loss of primary containment (LOPC) incidents, even when engineering barriers are in place to prevent the oil from reaching the environment or when the oil is immediately recovered. During 2006, across BP, the overall number of spills of one barrel of oil or more decreased to 417, from 541 in 2005.

While there was a small underlying performance improvement, this decrease was principally due to changes in the number of operations reporting data, including the sale of Innovene<sup>a</sup>. The corresponding volume of oil spilled was 2.2 million litres, of which 0.4 million litres was unrecovered, compared with the 2005 total of 4.4 million litres spilled, of which 1.2 million litres was unrecovered.

As part of implementing our integrity management standard, we have started to record LOPC incidents involving gas releases as well as oil spills and we plan to report this data in future when baseline data is fully established. This is one of a number of additional metrics that have been, or will be, introduced to address process safety, in line with the recommendations of the Baker Panel report.

FIG. 1.4  
PROCESS SAFETY – OIL SPILLS<sup>b,c</sup>



<sup>a</sup>Innovene: this business represented the majority of our olefins and derivatives business and was sold to INEOS in December 2005.

<sup>b</sup>Total number of spills  $\geq$  1 barrel = 159 litres = 42 US gallons.

<sup>c</sup>In response to the Baker Panel recommendations, we will be developing additional metrics for monitoring process safety in 2007.

<sup>d</sup>The reduction of reported spills in 2006 compared with 2005 is principally due to divestments and to disaggregation of two non-operated upstream operations from BP's reporting.

# Environmental management

[www.bp.com/environment](http://www.bp.com/environment)

1.5

One of BP's group values is to seek to drive down the environmental impact of its operations by reducing waste, emissions and discharges and by using energy efficiently. 2006 saw the culmination of two years' work to clarify and strengthen the processes and requirements that we apply to our new projects. These are brought together in a new group practice called environmental requirements for new projects (ERNP), launched in 2006. Implementation of ERNP aims to ensure that we design, build and operate all our new projects to consistent and high environmental standards.

## Reporting on environmental management

Over the next four pages, we explain the development and details of the new practice as well as reporting on our performance in 2006. The performance requirements include analysis of key emissions, including GHGs, and energy efficiency. In-depth analysis and commentary on our environmental performance at a local level are available on our website.

**Find out more:** [www.bp.com/environmentalmappingtool](http://www.bp.com/environmentalmappingtool)

## The new ERNP practice

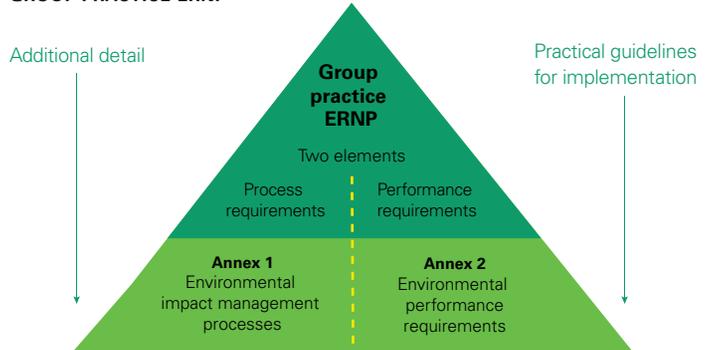
The ERNP originated in work commissioned by the group chief executive in 2004 around sensitive areas. In 2005, we expanded the scope of this work to embrace all of BP's new projects, beyond just sensitive areas, as we developed a far more integrated approach to environmental management and performance.

In 2006, this approach was approved as a group practice, part of the new OMS, defining the environmental impact management processes and requirements to which BP will operate. We intend that all new projects in BP will use the practice by the end of 2007. The practice was developed primarily for major projects<sup>a</sup>, where the potential for environmental impact is often the greatest. However, it also applies to smaller projects that may have the potential for similar levels of impact in environmentally sensitive areas.

### Specific observation from Ernst & Young

We have seen copies of the new environmental requirements for new projects (ERNP) and a number of sites we visited were aware of them. Staff interviewed in the Russia Offshore and US LNG businesses had been consulted in the development of the requirements. The US LNG business had retrospectively reviewed the requirements against their Crown Landing project activities.

FIG. 1.5  
GROUP PRACTICE ERNP



There are two key elements:

- A set of nine environmental impact management processes that are undertaken at different times in the life of a project.
- A series of 12 environmental performance requirements that cover the different aspects of environmental performance, ranging from energy efficiency to local community impacts.

### Annex 1 – Environmental impact management processes

1. Screening and categorization
2. Environmental assessment
3. Consultation and disclosure
4. Compliance
5. Resourcing and contracting
6. Residual impacts
7. Environmental management system
8. Assurance and lessons learned
9. Reporting

### Annex 2 – Environmental performance requirements (EPR)

- EPR-1** Air quality
- EPR-2** Community disturbance
- EPR-3** Cultural property
- EPR-4** Drilling, completions and workover wastes and discharges
- EPR-5** Energy efficiency
- EPR-6** Environmental liability prevention
- EPR-7** Flaring and venting
- EPR-8** Marine mammals
- EPR-9** Ozone-depleting substances
- EPR-10** Physical and ecological impacts
- EPR-11** Waste management
- EPR-12** Water management

<sup>a</sup>A major project is where BP's share of capital investment exceeds \$100 million.

The ERNP has undergone extensive consultation within BP and externally. A key stakeholder in this process was F&C Asset Management, an institutional shareholder, which provided the original environmental challenge to BP in 2004. F&C Asset Management now says:

The process that BP launched to produce its environmental requirements for new projects was unusual in three ways. First, the company admitted that its procedures needed revision. Secondly, it undertook extensive consultation with parties who were at times very critical. Thirdly, it has produced a tangible result and not simply hot air.

The new requirements bring much greater clarity about how BP intends to plan projects and operate in or near ecologically-sensitive areas. They are not perfect, but they are the best I have seen from the sector. The guidelines should give reassurance to investors that BP understands the emerging risks associated with biodiversity and ecosystem management.

However, the challenge will be in implementation. In the light of recent performance, BP needs to convince its critics that in a company of such size, it is able to turn good headquarters' policies into effective operational practice.

**Dr Robert Barrington** Director of Governance and Sustainable Investment, F&C Asset Management

### Screening and categorization

The scale of the risk is assessed through the first of the nine processes, screening and categorization.

Category A status is given to any project that has the potential to have significant or irreversible environmental impacts. Since these projects present the highest level of management challenge, they are subject to a rigorous process throughout their life.

Projects in World Conservation Union (IUCN) category areas I-IV will automatically be designated as Category A under ERNP. In 2006, BP did not make any new decisions to explore or develop in any new IUCN category I-IV designated areas.

**Applying the practice** As part of the development of the practice, we have used the screening process at some of our existing projects in Indonesia, Angola and Sakhalin, Russia. All are new greenfield exploration and production projects and each has its own environmental sensitivities. Although the projects were already in progress in these locations, applying screening in retrospect confirmed that they are all Category A.

We will seek to influence joint-venture decisions in line with the ERNP practice and offer practical support to partners in its implementation.

### TNK-BP

TNK-BP is among the largest oil producers operating in Russia. It is a joint venture with 50% ownership by BP. In 2006, its third full year of operation, the company continued to develop its external disclosure. TNK-BP environmental data is not included in the BP data presented in this report. There is, however, detailed disclosure of its strategy, upstream and technology, downstream, gas, people, HSE, finance, projects and community activities on its website at [www.tnk-bp.com/press/publications](http://www.tnk-bp.com/press/publications).

### Environmental management in shipping

As one of our efforts to reduce energy consumption and emissions, in 2006 BP Shipping continued the process started in 2005 to build four dual-fuel diesel electric propulsion LNG carriers. These consume around 30 to 40 tonnes per day less fuel than conventional steam-turbine propulsion systems and therefore provide significant reductions in emissions. They are expected to be delivered in 2007 and 2008.

We have installed equipment to monitor actual stack emissions on one of our ships to understand the issue better and develop emission reductions. In 2006, we began to evaluate two new technologies to reduce emissions of volatile organic compounds (VOCs) from cargoes. These are reflective hull and deck paint, which reduces such emissions by lowering cargo tank temperatures, and the Venturi system, which captures VOCs and reinjects them into the cargo.

# Environmental management: our performance

[www.bp.com/environmentalperformance](http://www.bp.com/environmentalperformance)



On these pages we discuss and report on our environmental performance in the areas covered by our 12 environmental performance requirements. These are the requirements for businesses that BP controls, as set out in our new ERNP practice, described on pages 18-19.

**Energy efficiency and GHG emissions** BP is committed to delivering continuous commercial business improvement and greenhouse gas reductions through energy efficiency. Many of 2006's efficiency gains result from continued implementation of the seven-year \$450-million energy-efficiency programme that began in 2004 and enables businesses to carry out sustainable energy-reducing activities, cutting costs as well as GHG emissions. Since 2001, we have been tracking the underlying growth in BP emissions from our business growth and comparing it to the emission reductions achieved across our operations. After five years, we estimate that some 11 million tonnes (Mte) of growth has been offset by around 6Mte of sustainable reductions. We now estimate that, since BP began focusing on its internal GHG emissions performance in 1998, nearly \$2 billion of net present value has been created from reduced procurement or increased production. We also judge our overall energy-efficiency performance in various business sectors through normalized GHG per unit of production performance against a 2001 baseline.

Our total 2006 operational GHG emissions of 64.4Mte of CO<sub>2</sub> equivalent<sup>a</sup> on a direct equity basis were some 2.4Mte lower than in 2005, when they were 66.8Mte (excluding Innovene's 2005 contribution). The growth of our business generated an extra 1.3Mte of emissions, but this was offset by continuing efficiency projects that delivered 1.2Mte of reductions.

The combined effect of acquisitions and divestments, temporary operational variations and reporting protocol changes accounted for a 2.5Mte decrease.

In the exploration and production segment and the refining business, our performance in 2006 was 24.2teCO<sub>2</sub>e/mboe<sup>d</sup> and 915teCO<sub>2</sub>/kbduEDC<sup>bcdde</sup> respectively. This reflects increasing GHG intensity within our mature upstream assets and lower availability of our refining assets when compared with 2005. Our petrochemicals businesses maintained their 2005 performance levels with further efficiency gains in aromatics and acetyls, offset by increased production from our energy-intensive olefins and derivatives assets in Asia.

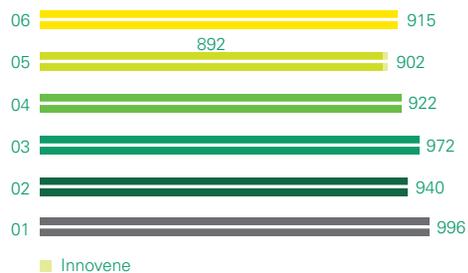
**Flaring and venting** Our goal is to minimize flaring and venting to reduce the production of GHGs. Where production or operational venting cannot be eliminated, the underlying goal is to use efficient flaring to convert as much of the hydrocarbon as possible to CO<sub>2</sub>.

**Air quality** Some emissions from our operations have a potential impact on local air quality, including sulphur dioxide, nitrogen oxides and non-methane hydrocarbons. Our goal in managing these emissions is to understand the impacts they may have on local and regional ambient air quality. BP seeks to avoid, prevent and reduce air emissions in order to mitigate the potential for effects on human health and harm to the environment.

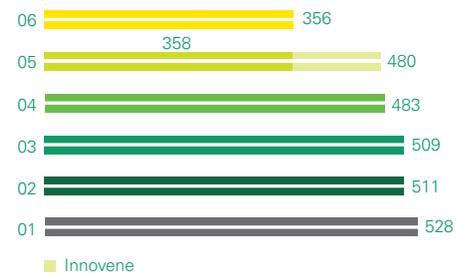
**FIG. 1.6**  
**EXPLORATION AND PRODUCTION**  
**GHG INTENSITY**  
(tonnes CO<sub>2</sub>e/mboe)<sup>c e</sup>



**FIG. 1.7**  
**REFINING AND MARKETING**  
**GHG INTENSITY**  
(tonnes CO<sub>2</sub>e/kbduEDC)<sup>c d e</sup>



**FIG. 1.8**  
**PETROCHEMICALS**  
**GHG INTENSITY**  
(tonnes CO<sub>2</sub>e/kte)<sup>c e</sup>



<sup>a</sup>BP's reported GHG emissions include methane emissions, converted to the quantity of CO<sub>2</sub> that would create an equivalent warming effect.

<sup>b</sup>The refining GHG emissions have been rebased back to 2001 to remove the emissions from the Carson cogeneration facility, which is now managed by the BP Alternative Energy business.

<sup>c</sup>Direct GHG emissions per unit of production are measured in tonnes of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) per thousand barrels of oil equivalent (mboe) for exploration and production, per thousand barrels a day (kbd) for refining and per thousand tonnes (kte) for chemicals.

<sup>d</sup>uEDC – utilized equivalent distillation capacity – is used globally in the refining industry as a normalized measure of production.

**Ozone-depleting substances** We are planning to eliminate the use of specific ozone depleting substances (ODS) to comply with the Montreal Protocol on Substances That Deplete the Ozone Layer, an international agreement designed to protect the stratospheric ozone layer. We plan to end our use of ODS before it is required by international and national obligations. Emissions of ODS have occurred as a result of using certain types of fire-suppression equipment, as losses from refrigeration equipment, or as unintended by-products of our manufacturing of the chemical purified terephthalic acid.

**Physical and ecological impacts** Our goal is to manage the physical and ecological impacts of our onshore and offshore operations effectively and consistently. We aim to act in an environmentally responsible manner while we plan, build, operate and decommission our facilities.

**Community disturbance** We seek to ensure minimum disturbance to communities in order to foster good relations and be a good neighbour in the vicinity of our onshore facilities.

**Cultural property** At any site where we are considering operating, we will carry out an assessment of local sites of cultural importance – or ‘cultural property’ – designed to ensure that we minimize any negative impacts and maximize positive impacts. This is particularly significant when sites are in, or close to, sensitive areas.

**Marine mammals** Where there may be potential to harm or disturb marine mammals, we seek to ensure that the likely impacts of our activities are assessed and that appropriate mitigation measures are implemented. This assessment and mitigation may exceed government requirements.

**Water management** We use fresh water from many sources for cooling, steam generation and industrial processing. Our goal is to use water more efficiently, reducing the impact on local communities and the environment. We take an integrated approach to water management, where other environmental effects are considered and emphasis is placed on preventing pollution and minimizing impacts at source.

**Drilling/discharges** Our goal is to eliminate the onshore disposal of drill cuttings and fluids to pits and landfills. In offshore projects, we seek to eliminate the discharge of aqueous

and non-aqueous based fluids, cuttings contaminated with such fluids and discharges of all other chemicals used in the drilling, completion and workover of a well, once a recirculation system has been established. We also prohibit the use offshore of diesel-based drilling fluids.

**Waste management** Our activities generate a variety of solid and liquid wastes, including oily sludges, waste chemicals, spent catalysts and construction debris. Our goal is to manage waste in a manner that will not pose harmful risks to the workforce, local communities or the environment. We try to avoid or eliminate waste, using a life-cycle approach, from project design through to decommissioning.

**Liability prevention** We try to minimize or prevent liability for remediation by acting to avoid damage to the land while using it. We seek to ensure that prevention needs are designed into core work processes and equipment standards, both in new plant and in the design of operating processes at existing sites. This applies to our onshore operations, as well as those offshore operations that have potential to create environmental liabilities as a result of the transfer of materials to onshore locations.

#### 2006 ENVIRONMENTAL PERFORMANCE SUMMARY<sup>e f</sup>

Environmental parameters	2006 performance	2006 compared to 2005 (% decrease or increase)
Direct GHG emissions	64.4Mte	-4
Primary energy consumption	1.03 billion GJ	-1
Non-GHG air emissions	527kte	-8
Flaring of hydrocarbons (E&P)	1,241kte <sup>g</sup>	-6
Fresh-water withdrawal	342Mm <sup>3</sup>	-13
Discharges to water	71kte	+64
Hazardous waste disposed	270kte	+49

An explanation of some variances between 2005 and 2006 data can be found in the trends and interpretation section of this report (see page 45). Additional information can also be found online.

**Find out more: [www.bp.com/environmentalperformance](http://www.bp.com/environmentalperformance)**

<sup>e</sup>Direct GHG emissions performance is presented on a BP equity share basis (excluding TNK-BP) whereas all other environmental performance data reflects the gross (100%) emissions from operations under BP's control.

<sup>f</sup>The 2005 data, for comparison with 2006 environmental performance summary, has been adjusted for the Innovene divestment and the disaggregation of non-operated facilities.

<sup>g</sup>Flaring-of-hydrocarbons data is from the exploration and production business only.

# Decommissioning and remediation

[www.bp.com/  
decommissioningandremediation](http://www.bp.com/decommissioningandremediation)

1.7

When projects reach the end of their life cycles, we follow an approach designed to exercise responsible stewardship of the environment and leave a positive legacy in which sites can have a productive future use. Significant developments in 2006 included progress in decommissioning the North West Hutton platform in the North Sea and a series of platforms in the Gulf of Mexico. We also reached important milestones at a major redevelopment project in the UK and continued remediation activity across our global portfolio.

## Decommissioning

**UK North Sea** BP's proposals for decommissioning the North West Hutton platform in the North Sea were approved in early 2006 by the UK government following a lengthy period of consultation with interested parties, including a formal public consultation process in the UK. Dialogue with stakeholders was also extended to European governments during this period under the OSPAR convention framework, which sets out guiding principles on North Sea decommissioning.

North West Hutton is the first large North Sea installation to be dismantled and therefore sets an important precedent. In developing the approach to be followed, we evaluated safety, environmental, technical, economic and social factors. The approach involves removing the entire topsides and steel jacket to the base – 30,000 tonnes of a 38,000 tonne structure – but leaving the footings in place and allowing the seabed to recover naturally. This was agreed by a panel of independent experts as the best environmental solution. The removal of the platform is scheduled to start in 2008 and be completed by 2009.

Dismantling and disposal onshore are expected to be complete by 2010, with a target of reusing or recycling 97% of the materials. We intend to use the lessons learned from this project to build the industry's capability for future decommissioning challenges.

**Find out more:** [www.bp.com/northwesthutton](http://www.bp.com/northwesthutton)

**Gulf of Mexico Shelf** During 2006, we continued to decommission assets in the Gulf of Mexico Shelf – its shallow-water area – that were destroyed or damaged by the hurricanes of 2005. These included 13 damaged platforms and seven downed platforms, which were among more than 100 affected energy industry assets in the area. We excluded these assets from a sale of properties in April 2006 and are taking action to comply with the US Minerals Management Service's requirements to dismantle, restore and abandon the sites. This work includes safely plugging and abandoning wells and pipelines, removing potential hazards to shipping and recovering and disposing of hydrocarbons and hazardous materials. Decommissioning of the damaged platforms is scheduled to continue into 2008, while the dismantling, restoration and

abandonment of the downed platforms is not expected to be completed before 2011.

## Remediation

BP's remediation specialists deal with more than 4,000 sites, from small retail locations to old mining properties. We are managing sites where the estimated financial liability for environmental impacts is around \$2 billion. In 2006, we spent around \$350 million on remediation projects.

**Llandarcy, UK** In one flagship remediation project, we are working with partners to turn a former refinery site at Llandarcy, Wales, into one of the largest brownfield developments in Europe, with an aspiration to build 4,000 homes. The project took a major step forward in October 2006 when detailed planning permission was granted by Neath Port Talbot County Borough Council for the first pilot development of 194 homes, named Coed Darcy. Agreements have been signed with a developer and construction is scheduled to begin in 2007. Other partners consulted have included the Welsh Assembly Government and the Prince's Foundation for the Built Environment.

**Find out more:** [www.bpdarcy.com](http://www.bpdarcy.com)

## Prevention

BP's remediation team's efforts include advising BP-operated businesses on best practices for the prevention of environmental liabilities. We have also shared some of these practices among industry groups such as the Petroleum Environmental Research Forum, contributing to the dialogue on steps that can reduce our collective environmental impact.

BP's remediation specialists deal with more than 4,000 sites, from small retail locations to old mining properties.

Throughout 2006, we took action to continue the development of our security risk management strategy in several innovative ways. In particular, we issued a new security standard with mandatory requirements for all our businesses, upgraded our risk management tool, participated in many international discussions and widened our application of the Voluntary Principles on Security and Human Rights.

## Managing security

Our new security standard mandates key security delivery expectations and accountabilities for all our businesses, regions and functions.

This standard is being supported by the formation of a new security risk management function, which unites the various teams formerly responsible for different aspects of security, including group security, digital security, business continuity planning and crisis management.

Our business security risk management tool, Getting Security Right, which ranks risks and creates response plans, has been upgraded to reflect the changing needs of the businesses in an increasingly unstable world.

We have continued to use our travel alert system, adjusting it where necessary to reflect changes in our assessment of risks and to protect our business travellers.

We have kept up our readiness to support all personnel through maintaining and regularly testing our global crisis and emergency response plans.



## Sharing knowledge and engaging others

We have continued to engage key decision-makers in national governments and organizations such as NATO through participation in industry security committees and through direct relationships. These have led to our involvement in formulating and reviewing legislation, regulation and guidelines, particularly in the area of critical infrastructure protection in the European Union (EU).

In Azerbaijan, where the full BTC pipeline export system was completed in June 2006, we facilitated direct dialogue between local community members and government security providers by convening inter-agency security committees.

## The Voluntary Principles on Security and Human Rights

BP is one of the founding members of the Voluntary Principles on Security and Human Rights (the VPs), designed to help companies in the extractive industries maintain the safety and security of their operations within a framework that upholds respect for human rights. Over the past five years, our primary implementation has been in the Caspian region and Indonesia. Having recognized BP's leadership, external stakeholders have challenged the company to extend the initiative to other key areas of operations.

Responding to this challenge, we have initiated a two-year project to deliver the business tools and processes needed to implement our commitment to the VPs worldwide. This included appointing a full-time security and human rights specialist in 2006.

During 2006, training in various aspects of the VPs has been delivered in our businesses, either by BP professionals or third parties, in Pakistan, Angola, Azerbaijan, Georgia, Indonesia and Colombia, as well as within the TNK-BP joint venture in Russia. In 2006, our Tangguh project in Papua, Indonesia, put into operation a system of community-oriented policing. This is part of our Integrated Community Based Security system and was inaugurated by the Indonesian police, demonstrating acceptance of our approach at the highest levels. The system was implemented with partners at the Islamic University of Indonesia, Human Rights Centre, known locally as Pusham UII.

# Engaging with communities

[www.bp.com/dialogueandengagement](http://www.bp.com/dialogueandengagement)

1.9

Developing businesses in complex cultural or socio-economic conditions presents real challenges. In 2006, we reviewed the way we manage the social impact of our operations and are currently producing improved social requirements for new projects that are expected to be completed in 2007 and then rolled out across the group.

## Social requirements for new projects

The new social requirements will help to promote better management of our impacts on communities around the world. By assessing the socio-economic impacts of our projects, including human rights and conflict issues, at an earlier stage in the project life cycle, we hope to offer greater direct benefit to local communities affected by our operations.

The requirements also aim to help us build local relationships based on mutual advantage and enhance our reputation as a responsible operator.

**Social risk categories** The new requirements will categorize social risks posed by new infrastructure projects under three categories indicating increasing levels of risk. Projects in the highest social risk category will follow closely defined social performance requirements. The requirements will apply equally to all projects worldwide, providing a firm framework but also allowing businesses enough flexibility to adapt to local cultural and socio-economic conditions.

Existing guidelines on other topics (including child and forced labour, security and human rights, revenue transparency and HIV/AIDS) will be combined with new requirements covering project social risk categorization, social impact assessments, community engagement, community investment, resettlement and issues relating to indigenous people, to provide greater consistency and a single point of reference for project teams.

**Linking social and environmental requirements** Social and environmental issues are often interlinked and best tackled in unison. We aim to use our new social requirements in parallel with BP's environmental requirements for new projects (see pages 18-19), and in the long term to integrate the two sets of requirements into one.

Several NGOs, independent academics and other specialists who have worked with BP employees directly involved in managing the social impact of major projects have provided valuable feedback on the draft social requirements for new projects. The new International Finance Corporation standards have also provided a useful reference point.



Dialogue with members of a fishing community in Trinidad & Tobago helped us to understand the impact of our seismic activities on their livelihoods.

## Building dialogue with local communities

Our licence to operate rests in part on our ability to deliver mutual benefit for people living in local communities. Two of BP's group values are particularly relevant to communities: building mutually advantageous relationships, and respecting the quality of life and economic and social progress of communities.

In Azerbaijan, Georgia and Turkey, community engagement continued following completion of the BTC and South Caucasus pipelines. Regular meetings with local communities along the route allowed us to keep residents informed and listen to their ongoing concerns. We continue to receive and respond to grievances.

The Tangguh project team worked with Papuan NGOs in Indonesia, hosting workshops on human rights, revenue management, governance, capacity building and community development.

In Trinidad & Tobago, dialogue with members of the fishing community at Mayaro in 2005 helped us to understand the impact of our seismic activities on their livelihoods. We supported safety at sea training and worked with them to develop a framework for interaction that includes a process for raising grievances and a forum to address issues.

In Alaska, community engagement continued on several fronts. Around 185 presentations, made to explain the new Gas Pipeline Fiscal Contract, were attended by more than 7,000 Alaskans. We also co-ordinated the Prince William Sound Community Liaison Program to ensure effective communication links in the event of an oil spill, and the Alaska Community Advisory Board to report on our community investments.

In the US, BP and the NGO America's Wetland, in partnership with the states of Alabama, Louisiana, Mississippi and Texas, supported a symposium in New Orleans to help us understand the threat our operations might pose to coastal wetlands and also explore the economic, cultural and public safety implications of our presence in the area.

In British Columbia, Canada, we held 'open house' discussions in six Aboriginal and non-Aboriginal communities near our proposed Noel development to communicate our plans for the project and to listen to local concerns. The British Columbia regulatory authority has the responsibility for granting permits for the Noel development and it tries to ensure companies such as BP are responding to stakeholder concerns. To date, we have received favourable feedback on our public engagement efforts from representatives of the government, the regulatory authority, Aboriginal people and other stakeholders. The Noel

project public engagement plan is part of a pilot project in developing AccountAbility's AA1000 Stakeholder Engagement Standard, a proposed worldwide standard for stakeholder engagement.

### External advisory panels

The Caspian Development Advisory Panel (CDAP), which provides independent assessment of the BTC project, published its third report in February 2006. The report and our response were both presented to NGOs and government representatives in Brussels. The panel commended BP and BTC's efforts to meet high project standards. Dialogue with NGOs and other stakeholders continued throughout the year, with the panel due to issue its final report in 2007. The panel says: 'The projects have generally lived up to an array of exacting environmental and social standards accepted by BP and its partners during the project-design phase. The companies' performance has been subjected to comprehensive monitoring – by the World Bank, private-sector financial sponsors and others – and has, with few exceptions, been found compliant with these project standards.'

The Tangguh Independent Advisory Panel (TIAP) assesses the non-technical risks associated with the Tangguh LNG project in Indonesia. Following a visit to Indonesia in November 2006, the panel's fifth report was published in March 2007. The report is circulated to government and civil society representatives in Indonesia and also discussed by NGOs, investors and others in London and Washington DC. The panel says: 'Support for the project at the national level and among Papuans is broad... Although real challenges still exist, Tangguh has the potential to become a recognized world-class model for energy development, having a positive effect on both indigenous communities and the broader environment.'

CDAP and TIAP reports are available on [www.bp.com](http://www.bp.com).

Talented people are key to our future as a sustainable company. It is essential for BP to attract, develop, engage and retain high performers at all levels. This is more necessary now than ever before because of the current shortage of specialized talent in our industry. We are particularly focused on building and developing our local capability in new and emerging markets and we shape our organizational reviews and strategic resourcing plans accordingly.

We foster an inclusive work environment, offering opportunities for all, based on merit. We emphasize equal opportunity and diversity and inclusion (D&I) in our human resources (HR) processes.

BP currently employs approximately 97,000 people, in around 100 countries. This section highlights just some of our people-related activities during 2006.

## Attraction and recruitment

BP, in common with most major companies in the sector, faces the demographic challenge of many employees with key skills nearing retirement in the next four to 10 years. This, together with competition from other sectors, has led to enhanced competition for staff across the industry. We have therefore strengthened our human resourcing plans and recruitment methods to support our different businesses and regions and augmented our recruiting teams.

We have enhanced our focus on graduate recruitment, with particular emphasis on those with technical capability – over 60% of graduate recruits are engineers or scientists. In particular, the number of graduates recruited in the US and UK has increased by around 90% compared with 2005. In the UK, 26% of all graduates were women. In the US, this figure was 35% while 34% of graduate hires came from ethnic minorities.

Our internship programmes also provide a valuable talent pool for us. Our UK programme won two national awards during the year, from Target and the National Council for Work Experience.

Our exploration and production recruitment plans in particular require global reach, and we are sourcing candidates from all over the world. We have formed a new global employment company, BP Services International, to help us recruit from countries where the exploration and production business does not operate.

FIG. 1.9  
GRADUATE RECRUITMENT (%)



Candidates recruited through this UK-registered company sign up for an international career, with the prospect of moving location every three or four years. To date, we have hired people from Nigeria, Tunisia, Cameroon, Thailand, France, Italy and India to fill posts in Azerbaijan, Angola, Trinidad, Russia and the UK.

An independent research study into diversity, carried out in 10 countries critical to our operations, should further help us recruit diverse talent for placement throughout BP. Country-specific reports on diversity are available to all our recruiters. We have also improved the strategies used to attract local leaders and other employees in emerging economies where our newer profit centres are located. For example, in Azerbaijan, 72% of our professional staff are now nationals, 4% ahead of our 2006 target.

## Developing our people

We use a variety of methods to help our people develop their capabilities throughout their careers – from e-learning coursework through to international assignments. Specific training and development activities are mandatory for some groups and we encourage every employee to complete at least five training days a year.

The Discover BP programme offers those who are newly hired into the organization an overview of the group, how it works and how they can contribute to the business quickly.

In 2006, we updated our BP management framework training programmes for senior level leaders to focus on safety and operations, BP strategy and expectations and provide further emphasis on practical implementation. We also commenced the

design of a two-part Managing Essentials programme, which is intended to provide clarity for all BP managers on what is expected of them in their roles, including accountabilities, expectations and performance management. This is expected to be piloted in 2007.

As part of our approach to deepening the capability and skillsets of our employees, we are encouraging them to stay in roles for longer – typically at least two years. We have adjusted our internal resourcing processes and job posting systems to support this longer tenure, greater line manager involvement in career development and an open and transparent internal job market.

### Developing inclusive leadership

We identify and accelerate the development of high-potential people – our future leaders – through career advancement programmes offered at segment, function and group level. We aim to increase the proportion of women and employees from outside the UK and US participating in these programmes.

Succession planning and data collection processes are in place at group and segment level. These help us to assess the current and future strength and depth of talent, create individual development plans and develop leadership for the BP of tomorrow.

Since we started to track the composition of our group leadership in 2000, the percentage of women leaders has increased from 9% to 17%, while the number of leaders from outside the US or UK has increased from 14% to 20%. We have tracked the number of group leaders from US or UK racial minorities since 2000, reporting an increase from 4% to 5% overall, with an increase in the US from 7% in 2003 to 12% in 2006, where specific programmes have helped to spotlight the development of racial minorities.

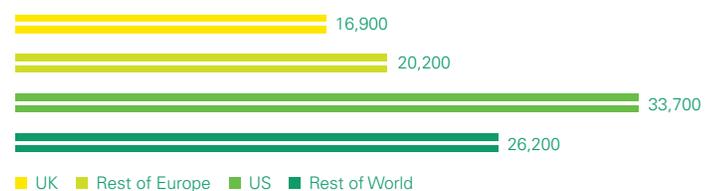
Executive reward packages are based on individual contributions towards the goals set by our board. As part of a standard approach, executives' performance is evaluated against their performance contract and a survey among direct reports and peers. The survey takes into account eight behavioural expectations – among them, safety, our group values and code of conduct.

We believe our reward packages strike the appropriate balance, rewarding individual performance but also reflecting group performance, with awards made in both cash and shares. Policy governing reward is established by the remuneration committee of the board.

FIG. 1.10  
DIVERSITY OF GROUP LEADERSHIP<sup>a</sup> (%)



FIG. 1.11  
EMPLOYMENT BY REGION (at 31 December 2006)



### Specific observation from Ernst & Young

On our visit to the Dimlington terminal in the North Sea we saw how management had decided to supplement the biennial group employee survey with their own site-specific questionnaire. This had been carried out to enable site management to include the views of contractors, who comprise a significant proportion of the workforce. We saw how the results of this survey had led to specific objectives being set for the site management team in order to address areas of concern.

<sup>a</sup>Group leadership in 2006 includes the top 622 positions in BP.

## Our people *continued*

### Employee satisfaction and engagement

Seventy-three per cent of BP employees responded to a group-wide People Assurance Survey (PAS) conducted in 2006 – a similar response rate to that of the previous survey in 2004.

Group-wide results were generally positive and the Employee Satisfaction Index (ESI) – our primary people metric – increased by 2% to 66% favourable, a significant improvement for a company of our size and the highest recorded since PAS started. When compared with external norms maintained by the survey vendor, employee satisfaction in BP is broadly in line with the external benchmark across all industries and 2% above the benchmark for our sector. Survey results were strongest in the areas of performance, innovation and safety, while those for diversity and inclusion increased by 3% on 2004 levels, with eight of nine D&I questions producing the most favourable response rates to date. The introduction of a new safety index produced positive results and attracted, at group level, the highest scores in the survey.

The biggest improvements in ratings came in response to questions about BP's loyalty and commitment to employees (up 6%), employees' commitment and loyalty to BP (up 4%), the level of consistency between management statements and actions (up 4%) and employees' willingness to raise issues through our concerns service OpenTalk (up 4%).

In some other areas, scores for 2006 were not as positive. For example, there was a decrease of 4% overall in ratings related to corporate reputation. Additionally, survey scores on

### Specific observation from Ernst & Young

While we did not see any new group-wide initiatives during 2006, we continued to see a commitment to promoting diversity and inclusion at sites visited. For example, we saw that diverse selection panels and candidate slates were widely used for recruiting senior staff. In Castrol India and the Power Americas business in the US, we were told that recruiting agencies were encouraged to put forward a diverse range of candidates for roles.

pay, benefits and recognition continue to be the lowest rated area at 56%, despite a 2% increase from the previous survey.

The results of PAS are most useful at a local level. Managers are expected to review the results with their teams and develop action plans in response. Employee confidentiality is essential to the success of PAS and, even at team level, feedback sessions are structured to respect this fact. To date, more than 2,000 separate PAS reports have been distributed throughout the company to stimulate discussion and further employee engagement.

### Building diversity and inclusion

Our code of conduct, distributed to all BP employees, states that the company will not discriminate against anyone on the basis of race, gender, age, disability, sexual orientation or identity.

Our leadership team plays an important part in promoting our commitment to D&I. In March 2006, our group chief executive and board of directors attended a ceremony in New York to accept the prestigious Catalyst Award for diversity and inclusion, which recognized BP's efforts to develop a global workforce.

Our stance against discrimination and harassment and our support for an inclusive work environment for all, including the black, gay, lesbian and transgender communities, were recognized by the Human Rights Campaign in its annual *Buyer's Guide*.

We support a number of organizations that advance women and minorities in the workplace in the US, where 34% of our employees are from racial minorities. These include the Executive Leadership Council and its Leadership Institute – both dedicated to advance the potential of African Americans – Working Mother Media and the Centre for Work Life Policy.

In France, BP and other companies signed the *Charte Diversité de l'entreprise* along with the French government, stating our commitment to cultural, ethnic and social diversity in our operations there. Signatories of the charter have pledged to actively encourage pluralism and diversity, initiate constructive social dialogue and help to improve industrial relations by using non-discriminatory policies and practices in the recruitment, development and promotion of staff. We are working with companies in Germany and the German government to establish a similar charter there.



### Building a healthy workforce

Our strategy for health promotes improved business performance through healthy people – in which we include both BP employees and those affected by our operations – healthy plants and workplaces, and processes designed to lead to better decisions about health at work.

We are putting this strategy into practice by introducing targeted common practices consistently across the group. Our short-term priorities are to get the basics right and improve capability, compliance, consistency and communication at all levels. In the longer term, our focus will be on managing the consequences of demographic change, reducing the impact of health on productivity and controlling employee healthcare costs.

Our occupational health and HR teams are currently working

together to build our occupational health capability at every level. Core competencies are being defined for health professionals and we are filling gaps in our capabilities, focusing particularly on fast-growing regions such as Asia. For example, we recruited nine industrial hygienists in 2006.

We address specific risks to individual health – for example, musculoskeletal, hearing and stress-related illnesses – as well as wider risks, such as an influenza pandemic. Our medical teams contribute to the business continuity plans we create to counter such threats.

Stress has been highlighted as a concern through several channels, including illness reports, management discussions and our employee assistance programme. Feedback from our 2006 PAS suggests that balancing work and home remains a concern for up to 25% of our managers. Our stress risk assessment programme, Stress Tools, is now being extended to cover Europe, Asia and Africa to help us identify underlying causes of stress and develop strategies to reduce the risk they present.

In line with recent regulatory changes in Europe, we are updating the guidance we provide to help employees reduce noise-induced risks to their health.

We are planning to use audits to assure our health performance and specialist health auditors are being recruited for the safety and operations audit team.

The Operating Essentials training programme, currently under development, is expected to include modules on health in order to ensure that it is considered in the day-to-day work of employees and contractors.

BP took a leading role in two industry initiatives on health during 2006:

- We chaired the Energy Institute's Human Factors Working Group as it produced a report on 'effective fatigue management'. Recommendations included examining 'sleep contracts', which include stipulations on how much sleep employees require before attending work.
- We co-chaired a project run by the International Petroleum Industry Environmental Conservation Association to standardize health measures used in corporate reports.

**Find out more: [www.bp.com/health](http://www.bp.com/health)**

We believe that complying with laws, regulations and our internal code of conduct is central to our sustainability as a business. In 2006, we continued to strengthen our compliance and ethics programmes following the launch of the BP code of conduct in 2005. In particular, we rolled out a compliance risk management programme, which includes tools that enable teams to identify and prioritize the risks they face.

## The BP code of conduct

Our code of conduct represents BP's commitment to integrity, defining what is expected of every BP employee in five areas: health, safety, security and the environment; employees; business partners; governments and communities; and company assets and financial integrity. It is a company-wide framework that sets out how we should behave when faced with choices about our behaviour at work, ranging from basic rules on safety to detailed expectations regarding competition and anti-trust issues. It was developed in line with international best practice and shows employees where to find more detailed standards on specific issues. For example, it directs readers to information on BP's non-harassment policies on the BP intranet.

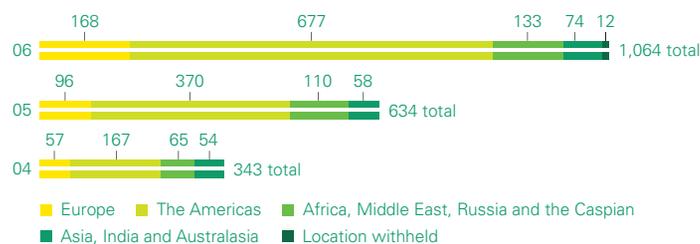
## Raising concerns

Employees or contractors who are concerned that laws, regulations, standards or the code of conduct may be being breached, including safety-related issues, can raise concerns through our independent confidential helpline, OpenTalk. Individuals can contact OpenTalk using a multilingual phone line or via fax, e-mail or letter, 24 hours a day, seven days a week. All reports are initially handled by an independent organization before being forwarded to the appropriate person within BP. Concerns are passed to a regional ombudsperson - a senior BP manager - who will arrange a response, possibly including an investigation. BP will not tolerate retaliation against anyone who raises an OpenTalk case or is named in one. Any allegation of retaliation is investigated and, if substantiated, disciplinary action will be taken against those responsible.

There has been a continued rise in OpenTalk cases since the launch of the code in 2005. In 2006, we ran a campaign to raise awareness of the service and a record number of cases was raised, totalling 1,064 in 56 countries. The 2006 PAS showed that 86% of BP employees are aware of OpenTalk and 67% felt they could report a concern without fear of reprisal. The most common concerns raised in 2006 were people management issues, compliance with health and safety regulations and conflicts

FIG. 1.12

### OPENTALK CASES



Employees or contractors who are concerned that laws, regulations, standards or the code of conduct may be being breached, including safety-related issues, can raise concerns through our independent confidential helpline, OpenTalk.

of interest. Another avenue for raising concerns was opened in the US in September 2006 when BP America's president and chairman appointed former US District Court Judge Stanley Sporkin to be BP America ombudsperson. This followed concerns raised in Alaska and elsewhere. His role is to serve as a neutral and supportive adviser whom employees and contractors can confidentially contact at any time to report any suspected breach of compliance, ethics or the code of conduct, including safety concerns.

## Managing and certifying compliance and ethics

During 2006, we rolled out a new compliance risk management programme, which includes questionnaires used by teams to identify the specific points on which they need to comply with laws, regulations and the code of conduct. The programme also

includes a tool that teams can use to prioritize the risks they face and focus on mitigating them.

We also carried out the annual compliance and ethics certification process that is one indicator of compliance. Every year, each business or functional team is asked to produce a certificate indicating the extent to which it has complied with laws, regulations and the code of conduct. Under this process, line managers certify the behaviour of teams under their direction, following a team discussion. The certificates include details of any breaches of compliance and report progress on any issues raised the previous year. This process continues to the GCE, who signs a certificate for the whole group and reports to the board's safety, ethics and environment assurance committee.

In 2006, 642 people – 32% employees, 68% contractors – were reported dismissed for unethical behaviour or non-compliance with applicable laws or regulations. This number excludes some dismissals from the retail business, including those for minor or immaterial incidents. The main reasons for dismissal were health, safety and security breaches, incidences of theft and misuse of company property. Sixty-nine suppliers' contracts were either terminated or not renewed during the year on the same basis. The main causes of these contracts being terminated were breaches of BP's HSE policies. The increase in dismissals compared with 478 cases in 2005 is mainly due to an increase in contractor dismissals for HSE-related issues. This increase in recorded contractor dismissals was in part a result of additional clarity around the classification of contractor dismissals within the certification process.

We have a team of 136 compliance and ethics leaders (CELs) who have continued embedding the compliance and ethics programme in their business areas through activities such as promoting awareness of OpenTalk and supporting the annual compliance and ethics certification process.

### Suppliers and ethics

BP's processes are designed to choose suppliers carefully and on merit, avoiding conflicts of interest and inappropriate gifts and entertainment. We expect suppliers to comply with all legal

requirements. Where possible, contracts include a requirement to act consistently with the code of conduct when working on our behalf.

### Political activity

BP continues to apply a policy that the group will not participate directly in party political activity or make any political contributions, whether in cash or in kind. BP specifically made no donations to UK or other EU political parties or organizations during 2006. BP continues to engage in policy debate on subjects that are of legitimate concern to the group, its staff and communities in which it operates. We do this by processes, such as lobbying, that are regulated by law.

### Compliance in trading

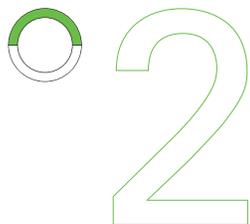
BP has taken a number of steps to improve compliance performance within its supply and trading function following regulatory investigation of alleged price manipulation in the US.<sup>a</sup> The independent review, commissioned by BP, of the compliance approach in the group's US trading organization has been completed. A number of recommendations have been made in regard to the design and effectiveness of the compliance processes and procedures. BP is fully implementing these recommendations. The existing compliance function is being integrated into the group compliance and ethics function to provide more independent oversight over trading activities.

### Specific observation from Ernst & Young

Interviews with US-based employees indicated that people were familiar with the introduction of the ombudsperson, Judge Sporkin. However, while some employees explained that they would be happy to use this new avenue or OpenTalk to raise issues of compliance, there were some concerns expressed by others about the confidentiality of these mechanisms.

<sup>a</sup>For more details please see the legal proceedings section of *BP Annual Report and Accounts 2006*, available at [www.bp.com/annualreport](http://www.bp.com/annualreport).

# BP and climate change



BP Solar has expanded manufacturing capacity in India, Spain and the US

## BP AND CLIMATE CHANGE – OUR JOURNEY

**1997** BP publicly acknowledges, at Stanford, the need for precautionary action to cut GHG emissions after exiting the Global Climate Coalition

**February 2006** BP announces hydrogen power plant with carbon capture in California

**November 2006** BP Solar doubles manufacturing capacity worldwide from 100MW to 200MW compared with 2004

**By 2012** BP goal to have improved energy efficiency by 10-15% versus 2001 baseline

**1998** BP sets target to cut GHG emissions from our operations to 10% below 1990 levels by 2010. BP achieves this target nine years early, in 2001, by introducing energy efficiency projects and cutting flaring of unwanted gas

**June 2006** BP pledges \$500 million to establish Energy Biosciences Institute research programme

**December 2006** BP is involved in wind power projects in the US, that have a potential generating capacity of 15,000MW

**By 2015** BP goal to have invested \$8 billion in BP Alternative Energy business and to have delivered GHG reductions of 24Mte a year

Our track record for action on climate change stretches back to 1997 and we are widely known as the first oil company to publicly acknowledge the issue. Today, we take precautionary action to limit GHG emissions and work to combat climate change in four areas.

**Managing GHG emissions from our operations** We first set voluntary targets to reduce emissions from our operations in 1998 and achieved these original goals ahead of schedule. We still take action to reduce these emissions by using energy more efficiently and through many other projects (*see page 20*).

**Developing new low-carbon energy businesses** In response to increasing demand for energy with a lower-carbon footprint, we have made a major commitment to develop low-carbon sources of energy. In 2005, we launched BP Alternative Energy, a business that provides low-carbon power generation solutions (*see pages 34-35*). In 2006, we launched a biofuels business that will provide low-carbon solutions for transport (*see pages 36-37*).

We fund a significant amount of research on ways of providing low-carbon energy. For example, in 2006, we announced an investment of \$500 million over 10 years to establish the Energy Biosciences Institute. The institute will carry out radical research to probe the emerging secrets of bioscience and apply them to the production of new and cleaner energy, principally fuels for road transport. It will also pursue bioscience-based research in three other key areas: the conversion of heavy hydrocarbons to clean fuels; improved recovery from existing oil and gas reservoirs; and carbon sequestration.

While we are rapidly increasing our supply of low-carbon energy, we also recognize that the world will continue to need significant quantities of conventional hydrocarbon-based energy to maintain improvements in living standards and economic development for some decades to come. We estimate our customers' CO<sub>2</sub> emissions from the conventional hydrocarbon products we sell were 539Mte in 2006<sup>a</sup>. Figures produced on the same basis for 2005 and 2004 were 570Mte and 606Mte respectively.

**Raising public awareness** Carbon was a theme of our corporate advertising in several countries throughout 2006 and the carbon calculator on our website was expanded. In the UK, we launched

our targetneutral™ emissions offset programme and also produced materials on climate change for use in schools in the UK.

**Engaging in the policy debate** Climate change remains high on the global policy agenda. In November 2006, the UK government published the Stern Review, a detailed assessment of climate change economics. The review endorses the view that, in order to reduce the risks of the worst impacts of climate change, the CO<sub>2</sub> equivalent of GHG concentration in the atmosphere should be limited within the range 450-550 parts per million (ppm). To achieve this, global GHG emissions will need to peak well before 2050 and reduce rapidly to significantly below current levels after that, despite continuing economic development worldwide. We support this view and its implications for future GHG emissions and await the publication of the authoritative UN IPCC 4th Assessment Report during 2007 to further inform our thinking.

We participate in the policy debate in many jurisdictions, arguing in favour of mandatory emission caps and policies that set a price for carbon in a way that can change behaviour and encourage innovation.

In the EU, we are contributing to the policy debate related to future phases of the EU emissions trading scheme. At the end of 2006, 19 of our operating sites were covered by the scheme, accounting for around one-fifth of our global operational GHG emissions.

In the US, the state of California introduced legislation during 2006 that sets long-term mandatory targets to reduce emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050. We committed publicly to work with the state's governor to develop workable, market-based strategies to deliver these reductions. BP's GCE stated: "Having an emissions market will help California achieve the lowest-cost solutions and spur innovation of new technologies supporting lower greenhouse gas emissions."

<sup>a</sup>Estimated product emissions based on BP's 2006 total reported production rates of natural gas (8,417 million cubic feet per day), natural gas liquids (172 thousand barrels per day) and BP's share of refinery throughputs (2,198 thousand barrels per day).

The risks associated with climate change are well documented and widely debated. We support precautionary action on GHG emissions. We also believe that the growing consensus to take action on climate change gives us an opportunity to take the lead in developing, promoting and marketing alternative energy solutions.

In 2005, we launched BP Alternative Energy, a business that provides low-carbon energy solutions for power generation. Today, BP Alternative Energy is a profitable business with a large project portfolio in place and more than 150 new people recruited in 2006.

In 2006, BP Alternative Energy made progress in four low-carbon technologies: solar, wind, hydrogen power and gas power.

## Solar

The expansion of our manufacturing facilities in India and Spain helped double our production capacity from 100MW in 2004 to 200MW, keeping us on track to triple capacity from 2005 levels by 2008. During 2007, expansion of solar-cell capacity is expected to continue at our Madrid and Bangalore facilities, alongside a \$70-million project to expand casting capacity at Frederick, US.

We made good use of technology to manage the silicon supply issue: developing a new silicon growth process, Mono<sup>2</sup>, which increases cell efficiency significantly in comparison with traditional solar cells. Used in combination with other BP Solar advances in cell process technology, Mono<sup>2</sup> cells are expected to be able to produce approximately 7% more power than conventionally manufactured cells. We also teamed up with the California Institute of Technology to launch a multi-million dollar research programme to explore a radically new way of producing solar cells, based on the growth of silicon on nanorods, which could improve efficiency and make solar electricity much more competitive. In Germany, we signed a co-operation agreement with Crystal Growth (IKZ) to develop a process for depositing silicon on glass that has the potential to reduce the amount of silicon feedstock used in cell production.

In Australia, we are part of a consortium that is delivering the

Solar Cities initiative for the federal government. The programme demonstrates how solar power can contribute to providing sustainable energy in urban locations across the country, and provides help for consumers to save money on their electricity by using energy more efficiently or generating their own.

## Wind

We already operate two wind farms in the Netherlands and now have a number of other projects in development. In the US, we have bought leading wind power developers Greenlight Energy and Orion Energy, and formed a strategic alliance with Clipper Windpower, to jointly develop wind projects in the US. We now have interests in a land bank of development projects with a potential total generating capacity of some 15,000MW, one of the largest US wind power portfolios.

A long-term supply agreement, also with Clipper Windpower, has secured options for us to purchase Clipper Turbines with a total capacity of 2,300MW.

We plan to begin construction on five wind power generation projects in the US in 2007. Located in four states – California, Colorado, North Dakota and Texas – the projects are expected to deliver a combined generation capacity of some 550MW.

## Hydrogen power

In hydrogen power, we are pursuing a new strategic relationship with General Electric to accelerate the development of the technology and the deployment of the concept. Progress on our proposed plants at Peterhead, Scotland, and Carson, California continued. The planning application for the Peterhead plant was submitted and we were awarded \$90 million in US Federal Investment credits on the Carson project.

We believe that our focus on carbon storage and carbon 'gasification' technologies will both prove valuable in many different applications in the long term. In addition to short-term hydrogen power opportunities, they could be used to produce fuels and other chemical products from a range of primary energy sources.

## Gas power

Our joint venture with SK Corporation to build a combined-cycle gas turbine power station in South Korea saw operations start at the 1,074MW Kwangyang plant (K-Power) in 2006 – currently the most efficient gas-fired power plant in the country. The project was completed on time, under budget and with no recordable safety incidents. We also started construction of a 250MW steam turbine power generating plant at our Texas City refinery in the US. The plant will reduce emissions and improve operating efficiency. Looking ahead, we also have approval to construct a 520MW co-generation facility at Cherry Point, US.

## Building low-carbon power capacity worldwide

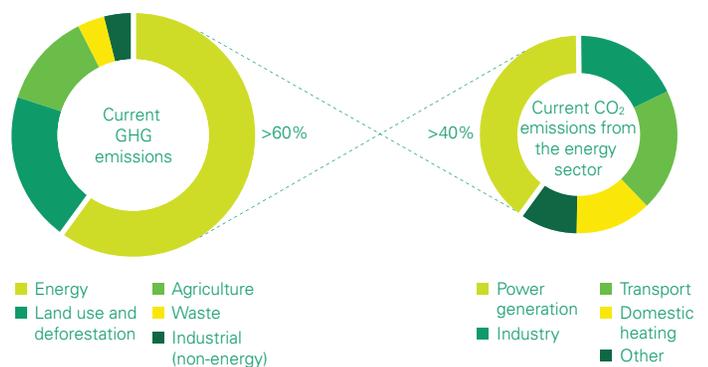
We believe that businesses and policy-makers must take four critical factors into account in order to build low-carbon power capacity faster. First, businesses and governments must work together to invest in the development and deployment of low-carbon fossil fuel technology; second, mechanisms that set a price for CO<sub>2</sub> should be established; third, investment is required to construct an effective electricity distribution infrastructure; and finally, efforts are needed to raise consumer awareness of the low-carbon energy alternatives.

Find out more: [www.bpalternativenergy.com](http://www.bpalternativenergy.com)

### Specific observation from Ernst & Young

The rapid growth of BP Alternative Energy has provided particular challenges, including the increased demand for HSSE resource to support the growth and needs of this business. The HSSE team in Power Americas highlighted their extensive oversight of the Cedar Creek wind project and the challenge posed by the lack of standard public consultation and environmental requirements for wind projects in the US. They outlined their intention to develop clear, standardized processes for dealing with these matters in the future.

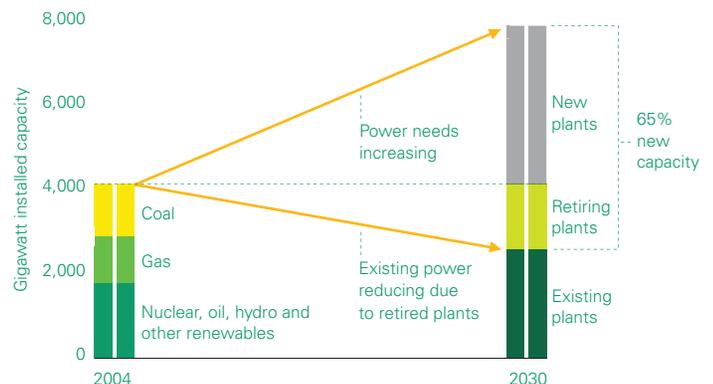
FIG. 2.1  
POWER ON AVERAGE ACCOUNTS FOR MORE THAN 40% OF THE ENERGY SECTOR'S CO<sub>2</sub> EMISSIONS



Electricity generation (power) is the largest single source of man-made CO<sub>2</sub> emissions. Power contributes twice the emissions of all forms of transport combined.

Source: WRI, IEA WEO 2006

FIG. 2.2  
NEARLY TWO-THIRDS OF POWER PLANTS NEEDED FOR 2030 ARE YET TO BE BUILT



There is a window of opportunity to act, with two-thirds of the generation capacity required to meet power demand in 2030 yet to be built.

Source: IEA WEO 2006



One consequence of the growth in global population and prosperity is an increase in demand for mobility. Meeting this demand and managing its consequences presents a major challenge to BP and the world.

The resources needed to support mobility, such as land, raw materials and energy products are generally finite, the emissions produced by transport contribute to climate change and may also adversely affect human health. In addition, dealing with waste generated from transportation is a significant issue, while lack of mobility sharpens the divide between rich and poor.

In its *Mobility 2030* report, the World Business Council for Sustainable Development (WBCSD) set out seven goals: reduce GHGs; improve local air quality; improve road safety; reduce noise; manage congestion; narrow the mobility divide; and improve mobility for all. We helped to develop *Mobility 2030* and are involved in its promotion.

## Biofuels

We believe that biofuels will make a major contribution to global energy supply in future, helping to reduce demand for fossil-derived hydrocarbons and support reductions in GHG emissions. Biofuels such as E10 (gasoline containing 10% bioethanol) are already available and are a good starting point, despite concerns about their ability to meet the growing appetite for biofuels, GHG efficiency and their impact on food crops.

We are also developing advanced biofuels – woody crops to produce butanol and ethanol and oily crops such as jatropha for diesel. These can provide higher energy content, better fuel economy and lower GHG emissions. Advanced biofuels can reduce the need to divert land needed for food crops when they are derived from biomass grown on land unsuitable for food production. While worldwide demand for biofuels is expected to grow at 15-20% a year, the technology for advanced biofuels is 5-10 years away. Our strategy takes into account the need to acquire new capabilities and in the meantime gain access to conventional biofuels.

We set up a dedicated biofuels business in 2006 and announced plans to invest \$500 million over 10 years in a new

Energy Biosciences Institute. Early in 2007, BP announced that it had selected the University of California, Berkeley, and its partners the University of Illinois at Urbana-Champaign and the Lawrence Berkeley National Laboratory to take up this challenge.

We also launched a partnership with DuPont, adding its biotechnology expertise to our energy experience to work to develop a new generation of biofuels, including those based on biobutanol.

During the year, we established a jatropha demonstration project in India with The Energy Resources Institute and joined the Roundtable on Sustainable Palm Oil in Asia. In the US, we blended 2,718 million litres of ethanol into gasoline and strengthened our position as one of their largest blenders of biofuels. In Australia, where we are working towards producing renewable diesel fuel from tallow, we continued to supply ethanol to retailers in Queensland and New South Wales and we have a number of projects under way as part of a move to supply around two-thirds of the Australian government's 350-million litre annual biofuels target by 2010.

## Targetneutral™

Targetneutral was launched in the UK in August 2006. The scheme aims to educate motorists and to encourage them to reduce their CO<sub>2</sub> impact. As a final step they can neutralize their remaining emissions by subscribing to a non-profit making partnership that funds environmental carbon reduction projects. We funded the scheme and are covering ongoing costs, but will not profit from contributions. Targetneutral was developed in consultation with Forum for the Future and other leading NGOs and is advised and monitored by an independent advisory and assurance panel chaired by Jonathon Porritt, founder director of Forum for the Future, who says: "Forum for the Future is very supportive of what BP is doing through targetneutral. The scheme should help raise awareness of the links between driving and climate change."

**Find out more: [www.targetneutral.com](http://www.targetneutral.com)**

In the EU and the US, we continued to lobby for the introduction of effective policies to support the development and wider availability of biofuels for transport.

**Find out more:** [www.bp.com/biofuels](http://www.bp.com/biofuels)

### Cleaner fuels and lubricants

In 2006, we introduced BP Ultimate fuels to South Africa and Russia at significant levels. In Russia, our Ultimate gasoline has a sulphur level of 50ppm compared with the industry specification of 150ppm. In the US, we have been active in the rollout of Ultra Low Sulphur Diesel, which is expected to have a positive impact on local air quality and associated health problems.

We worked with several partners to develop lubricants that support improvements in engine construction and emissions systems that are intended to improve fuel efficiency and reduce pollution. We have also developed longer-lasting driveline fluids

that reduce total oil volumes over a vehicle's lifetime and improve fuel efficiency by up to 1.5%.

Closer co-operation between lubricants development and manufacturing processes has resulted in significant energy and resource savings during the blending of lubricants.

A cross-functional internal manufacturing audit carried out in the US during 2006 confirmed that the dispersant polymer additive (DPA) used as a core component in our multigrade lubricants is manufactured using less energy than comparable alternatives and hence creates a CO<sub>2</sub> benefit. The audit concluded that DPA used in BP products has reduced GHG emissions by between 25,500 and 27,000 tonnes during 2006.

### Urban mobility

We are supporting a project at Tsinghua University in China to investigate the challenges for mobility presented by the rapid growth of cities, especially in Asia. The first phase, completed in March 2006, demonstrated the need for an integrated approach across many disciplines. The second phase involves development of this thesis and associated policy recommendations as well as practical approaches to implementation.

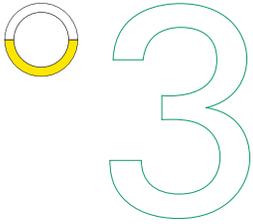
In Istanbul, we are supporting EMBARQ, the World Resources Institute Centre for Sustainable Transport. EMBARQ's aim is to build partnerships between government, business and civil society to develop sustainable solutions to urban mobility issues. Our involvement will help us learn more about how a city tackles transport issues and the role we can play in support.

### Mobility for Development

The WBCSD *Mobility 2030* report acknowledged, but did not address in detail, the issues of mobility in the developing world. We are now supporting a new WBCSD project, Mobility for Development, which aims to raise awareness of mobility as a driver of economic development, examine ways to close the mobility divide and promote debate leading to mobility solutions in developing countries. The results of this project are scheduled for publication in 2008.



# BP and development



Education investment is focused in specific areas, including energy and the environment

## BP AND DEVELOPMENT – OUR JOURNEY

- |   |  |   |  |   |   |   |   |  |  |   |
|---|--|---|--|---|---|---|---|--|--|---|
| <b>2000</b> BP is a founding supporter of UN Global Compact | <b>2000</b> Voluntary Principles on Security and Human Rights launched | <b>2001</b> Community investment strategies developed for BP's business in Azerbaijan, Colombia and Trinidad & Tobago | <b>2002</b> BP joins the Global Business Coalition on HIV/AIDS | <b>2002</b> Tangguh Independent Advisory Panel is formed to provide monitoring of BP gas project in Papua | <b>2002</b> UK government announces launch of Extractive Industries Transparency Initiative (EITI). BP pledges commitment | <b>2003</b> Caspian Development Advisory Panel is formed to provide independent monitoring of BTC pipeline construction | <b>2004</b> BP supports economic diversification through first-time local platform fabrication in Trinidad & Tobago | <b>2005</b> Community investment strategy announced – commitment to spend around \$500 million in each five-year cycle, with a focus on education, enterprise and energy | <b>2005</b> BP pledges \$14 million to establish the Oxford Centre for the Analysis of Resource-Rich Economies at the University of Oxford | <b>2006</b> The Supplier Finance Facility is established in Azerbaijan, with the International Finance Corporation, to assist SMEs with financing |
|---|--|---|--|---|---|---|---|--|--|---|

# Our role in development

[www.bp.com/development](http://www.bp.com/development)



We try to meet the social and economic challenges faced by the countries and communities in which we operate. We expect to encounter these challenges more frequently as our production portfolio in non-OECD countries expands and we increasingly market products to new consumers in those countries.

Business has an increasingly recognized role in helping to improve the social and economic conditions of the countries in which it operates. Our industry can make a valuable contribution in many ways: through tax revenues generated and paid to governments; by investing in education and training and improving employment opportunities for nationals; by promoting revenue transparency in the extractive industries; and by providing affordable energy products to rural communities. In this section of the report, we focus on what we are doing in these areas.

**Promoting good governance** Good governance is not only crucial in ensuring a positive development outcome for host countries but also in improving global energy security. Our exploration and production projects generate significant tax revenues for governments and have the potential to distort local and national economies. Consequently, we have participated in relevant policy developments, such as the Extractive Industry Transparency Initiative, and we also fund research to support better management of resource revenues (*see page 40*).

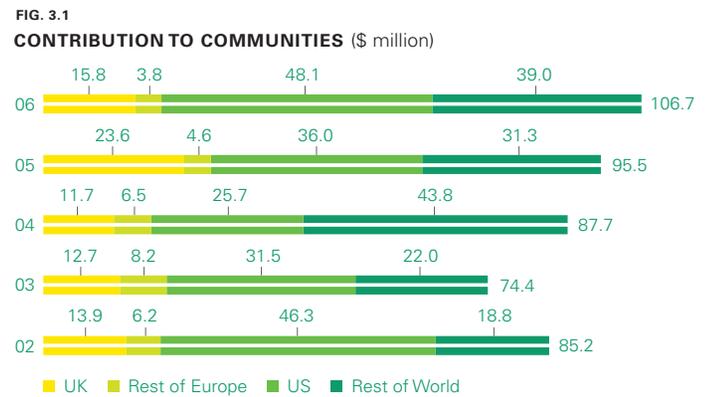
**Creating jobs and stimulating local enterprise** Developing local supply chains is one of the key areas in which our business can contribute positively to development, with potential for enhanced capability and economic and employment benefits. For example, we can help local people develop their skills by hiring and training them. We can also support economic growth by buying products and services from local suppliers (*see page 41*).

**Creating value through education and training** Supporting education is one of the most enduring actions we can take to build mutual advantage for BP and our host communities. In 2006, we continued to support a number of programmes focusing on curriculum development in disciplines critical to our business. We also promote access to basic education and

learning linked to energy and the environment (*see page 42*).

**Energy products that help local people** Our consumer businesses can sell affordable products that help people improve their standard of living, such as motor, heating and cooking fuels. Trying to understand what we can contribute in emerging consumer markets remained a theme for our refining and marketing business in 2006 (*see page 43*).

**Our contribution to communities** We have a responsibility to support communities that are affected by our business. This involves planned community investment in areas relevant to our business, such as enterprise development, education and access to energy. We also help governments and communities manage humanitarian crises through our work with key relief agencies and by matching our employees' voluntary work and personal donations – to charities of their choice – with company contributions. In 2006, our contribution to communities was \$106.7 million, compared to \$95.5 million in 2005 (*see page 44*).



## Promoting good governance

[www.bp.com/  
promotinggoodgovernance](http://www.bp.com/promotinggoodgovernance)



A growing proportion of our business takes place in countries that are heavily dependent on oil and gas revenues. Our investments typically stretch over decades, so we have a clear interest in host countries' development.

Transparency and good governance reflect our values and our commitment to generate mutual advantage. We have to understand the economic and social impact of the investments we make. Without care, that impact can be negative, shifting relative prices and disrupting the established balance of local economies. The 'resource curse' is not inevitable and we have an interest and role in trying to ensure that the wealth created through the development of resources is used effectively.

**Participating in transparency initiatives** There are currently two key international transparency initiatives under way: the Extractive Industry Transparency Initiative (EITI), which promotes the transparency of revenues paid to governments by extractive industries; and the International Monetary Fund's (IMF) Reports on the Observance of Standards and Codes (ROSCs) concerned with the broader transparency and good governance of government finances, including extractive sector revenues as well as public spending<sup>a</sup>.

As a leading contributor to the development of EITI, we had a representative on its international advisory group. This body was replaced by the EITI board at the Oslo conference in October 2006. We are also represented on this board. We continue to support reporting under EITI standards in Azerbaijan and are also engaged with IMF staff working on ROSCs.

**Supporting relevant research** We have endowed a chair in economics at the University of Oxford and provided an initial five years of funding to establish the Oxford Centre for the Analysis of Resource-Rich Economies (OxCARRE). The objectives of OxCARRE are to carry out original, objective research and to act as a global knowledge network, through which best practice can be shared.

Professor Tony Venables, the chief economist of the UK Department of International Development, is the first BP Professor of Economics and he is also the director of OxCARRE.

**Using our influence** We publish the *BP Statistical Review of World Energy* every year, providing accurate, unbiased data on global energy that can be used by policy-makers and businesses all over the world. We engage with host country governments to discuss our analysis of energy market developments and,

where appropriate, other issues, including those related to the management of revenues from oil and gas resources. In Azerbaijan, such engagement has led us to support the development of an economic model held and managed by the State Oil Fund that contributes to economic policy and analysis.

### Human rights

We recognize that our operations can bring about major changes to societies and communities. Particularly, but not exclusively, in developing countries, these changes can have significant impacts on people's lives.

Some of these potential impacts may affect human rights. BP supports the Universal Declaration of Human Rights (UDHR) and many of the rights and freedoms identified in the UDHR are especially relevant to BP, in our role as a major employer, investor and energy provider.

BP's *Human rights guidance* note, published in 2006, describes our approach to human rights. It is published in full on our website. The guidance note has been used as the basis for human rights training in a number of BP's businesses and functions.

**Find out more:** [www.bp.com/humanrights](http://www.bp.com/humanrights)



<sup>a</sup>[www.imf.org](http://www.imf.org)

# Enterprise development

[www.bp.com/enterprisedevelopment](http://www.bp.com/enterprisedevelopment)



With our global supply chains worth more than \$40 billion per year in non-hydrocarbon expenditure, we can make an important contribution to host countries and communities by encouraging local enterprise. Our choice of local suppliers can create much-needed jobs, wealth and stability.



Developing a robust local supplier base can bring benefits both for host communities and our business. It helps local enterprises to develop capability, while local people benefit through employment and by developing skills to support sustainable economic growth. Investments in fixed assets also bring benefits, acting as a catalyst for the development of new local enterprises. For us, enterprise development can often shorten and stabilize our supply chains – in some cases reducing costs. A local supplier base also helps us to build constructive relationships with local communities.

Our focus is on developing businesses with the potential to succeed in the long term beyond the energy sector. We are developing a strategic approach to local supply chain development, linking to the needs of our different businesses and driven by the individual features of local markets. Consequently, we are developing tools and processes to improve supplier selection, development and performance management in emerging economies.

**Enterprise development in Angola** In Angola, where, along with Sonangol, we lead the industry group responsible for helping local companies become more competitive, we worked with the US NGO, Citizens Development Corps, to set up the Centro De Apoio Empresarial business support centre in September 2005. The centre was launched as part of the Angolan government's national participation development project, to help smaller Angolan companies do more business with the energy sector.

Since launch, the centre has provided 39 separate training programmes, attracting 547 participants, while 11 of the centre's clients have been awarded 15 energy-sector contracts. In September 2006, a BP-sponsored event brought together 35 energy sector companies and invited 100 local enterprises to explore business opportunities.

**Enterprise development in Azerbaijan** In Azerbaijan, our efforts to do business with more local companies and increase the value of contracts awarded to them are ongoing. By 2010, we and our co-venturers aim to spend an extra \$250 million annually on local content in Azerbaijan, bringing our total spend through locally owned companies to over \$500 million a year. In 2006, we relaunched the Enterprise Centre in Baku, which supports local enterprises and their participation in contracts with BP and our co-venturers.

During 2006, the Regional Development Initiative focused mainly on establishing enterprise development projects. A number of programmes were initiated, including the Supplier Finance Facility with the International Finance Corporation, which helps SMEs and microbusiness to obtain finance, and a major SME and microfinance lending programme with the European Bank for Reconstruction and Development (EBRD).

On behalf of our co-venturers, we also signed an important agreement with the EBRD to support private-sector development in Azerbaijan and Georgia.

**Community investment** We use some of our community investment funds to help local people increase their income by developing their current economic activities or initiating new ones. In 2006, initiatives of this kind were run in many different countries around the world.

**Find out more:** [www.bp.com/communityinvestment](http://www.bp.com/communityinvestment)

Education provides lasting benefits by transforming individuals and society and contributing to future development. We have been involved in educational programmes for many years and, in 2006, contributed to more than 320 education programmes in around 30 countries.

Our education investment supports primary and secondary education, undergraduate and postgraduate research and study, continued professional development, community-based learning and capacity building at a local level (see page 41).

We focus our investment in specific areas, such as energy and the environment, basic education and education for business, including engineering, science and technology, mathematics, economics and law. In the US, we continue to raise environmental awareness through A+ for Energy, which has awarded \$6.5 million in grants and scholarships to more than 5,400 teachers in California and Texas and helped more than 211,000 students since 2003. In 2006, we announced plans to expand A+ for Energy to Alabama, Illinois, Indiana, New Mexico and Ohio in the US and Alberta in Canada. We also work with partners to support development programmes in English language leading to internationally recognized qualifications.

**Delivering education in partnership** We work with others to maximize the effectiveness, relevance and sustainability of our investments both locally and internationally.

In 2006, we contributed to and worked with the British Council to shape the UK-India Education and Research Initiative, a partnership between governments, private sector companies and educational institutions that aims to significantly enhance collaboration between India and the UK in the fields of higher education and research, school engagement, educational policy and professional and technical skills development.

We have worked with the Chinese Ministry of Education and WWF for nearly 10 years to make environmental education an integral component in China's national school curriculum through the Environmental Educators Initiative (EEI) – reaching an estimated 200 million schoolchildren to date.

In Georgia, the International School of Economics in Tbilisi brings together international academic institutions, business and foundations to promote excellence in postgraduate study in economics and research across the region. BP participates on the board of the institution and has pledged \$2 million to help establish an international faculty.

We also support a number of long-term academic research projects with higher education and research institutions around

the world. For example, in 2006, we announced an investment of \$500 million over 10 years to establish the Energy Biosciences Institute (see pages 33 and 36).

**Creating the right education programmes** We take steps to initiate dialogue with relevant groups, such as teachers, business and governments. The Carbon Footprint Toolkit, an online educational resource for 11-16 year olds in the UK, was developed in consultation with teachers who advised on curriculum focus and design. More than 60% of secondary schools in the UK have ordered the toolkit since its launch in November 2006. BP also established an education advisory panel in 2006, bringing together leaders in education to support the development of our education programmes worldwide.

**Monitoring our impact** In 2006, our investment in education was \$64 million, compared with \$50 million in 2005. We try to ensure that our contribution achieves long-term results. From 1982 to 1994, BP contributed \$8.4 million to the University of Chicago School Mathematics Project (UCSMP) to upgrade the teaching of mathematics in US schools. In 2006, 24 years after its inception, research has shown the impact of UCSMP in providing K-12 curricula and materials, now used by around 3.5 to 4 million students in all 50 US states. Improvements will continue as the elementary and secondary curricula are now in their third edition.

**Find out more:** [www.bp.com/education](http://www.bp.com/education)

### Specific observation from Ernst & Young

During our visit to BP Zhuhai we saw evidence of partnerships with the Chinese Education Bureau. These included the BP Environmental Summer Camp, run to help raise awareness of environmental issues among school children, and a road safety programme, also for school children. The business has also helped to fund university scholarships in partnership with the Education Bureau.

Energy is a major factor in improving standards of living for residents within rural communities. We help to improve access to energy through business development opportunities or community investment, in partnership with host governments, the private sector, NGOs and international aid agencies.

In Georgia, we support the government's social and economic development agenda, along and beyond the pipeline routes. A key part of our investment is in the Regional Development Initiative, which includes access to energy as a key theme.

**Biomass and LPG** In 2006, we created a new business in India to provide safer, cleaner and affordable energy to consumers. Following intensive market research, we developed an energy solution for cooking that gives consumers the option to use LPG, biomass or both. This cooking solution also uses a stove that is safer, more efficient and cleaner than traditional wood-burning methods.

The business model for this cooking solution is based on empowerment of local entrepreneurs and community-based organizations to distribute the product.

Tests show that using the BP stove instead of traditional open wood-burning stoves significantly reduces carbon monoxide and particulate emissions – key indicators of indoor air pollution. By the end of December 2006, we had reached 13,000 Indian households. In 2007, we intend to build on this foundation by expanding our business in India, developing an alternative energy solution in African markets and by launching two new research projects in Asia.

A similar approach has been tested in South Africa. Following a successful pilot scheme, our LPG business is scaling up its operations to market a cleaner, affordable energy alternative for low-income communities. We aim to convert 100,000 South African households to this new option by 2008. As in India, the project places great emphasis on safety and cleaner energy, as well as the development of a local distributor network, which also supports the economic growth of the black community in the country.

**Solar** Our solar business continues to promote and develop solar energy as a source of power for rural communities, with potential to improve the quality of life by providing energy for lighting, refrigeration and to pump water. 2006 saw the implementation

of the second phase of the Solar Power Technology Support Project (SPOTS), valued at \$26 million. SPOTS is a joint undertaking of the Philippines government, the Spanish government and BP Solar. This second phase aims to expand coverage to 44 agrarian communities in the remote areas of Mindanao and Visayas, where we hope around 250,000 villagers will receive access to lighting, refrigeration and clean water.

In 2006, BP Solar also continued its work with the Sri Lankan Ministry of Agriculture Development to provide solar-powered irrigation systems to farmers in Sri Lanka. These irrigation systems are expected to help increase the farmers' yields and their income.

The Sustainable Agriculture Water Management Project (SAWMP), valued at more than \$16 million and which received a commendation in BP's 2006 group internal awards programme, is helping to improve access to water in the 'dry zones' of Sri Lanka. Solar-powered drip-irrigation systems provide water to these dry areas while avoiding soil erosion, improving water management and helping to boost farm productivity. After one year, farmers are already reaping the benefits of SAWMP – reporting significantly increased yields and the potential to produce two or three separate crops in one year.



# Five-year performance data

	2002	2003	2004	2005	2006
<b>Financial and operating</b>					
Total hydrocarbons produced (thousand barrels of oil equivalent per day)	3,519	3,606	3,997	4,014	<b>3,926</b>
Total refinery throughputs (thousand barrels per day)	2,774	2,723	2,607	2,399	<b>2,198</b>
Total chemicals production <sup>a</sup> (thousand tonnes)	11,166	12,392	13,358	14,076	<b>14,064</b>
Shop sales (\$ million)	5,171	5,708	6,061	6,083	<b>5,814</b>
Replacement cost profit <sup>b,c</sup> (\$ million)	5,691	12,432	15,432	19,314	<b>22,253</b>
Taxes to governments – comprising income taxes and production taxes paid (\$ million)	4,255	6,614	8,595	11,995	<b>17,690</b>
Dividends paid to shareholders (\$ million)	5,264	5,654	6,041	7,359	<b>7,686</b>
Benefits to employees					
– including wages, salaries, share-based payments, benefits and pensions (\$ million)	7,524	8,639	9,965	10,746	<b>10,351</b>
Spending on suppliers and contractors <sup>d</sup> (\$ million)	30,200	33,800	37,600	36,400	<b>44,600</b>
Contracts terminated or not renewed due to non-compliance or unethical behaviour	n/a	29	41	77	<b>69</b>
<b>Safety and operational integrity<sup>e</sup></b>					
Fatalities – employees	3	5	4	1	<b>0</b>
Fatalities – contractors	10	15	7	26	<b>7</b>
Days away from work cases (DAFWC) <sup>f</sup> – workforce	272	239	230	305	<b>188</b>
Days away from work case frequency (DAFWCF) <sup>f</sup> – workforce	0.10	0.09	0.08	0.11	<b>0.083</b>
Recordable incidents – workforce <sup>f</sup>	2,012	1,604	1,513	1,471	<b>1,067</b>
Recordable incident frequency (RIF) <sup>f</sup> – workforce	0.77	0.61	0.53	0.53	<b>0.47</b>
Hours worked – employees (million hours)	250	247	241	242	<b>207</b>
Hours worked – contractors (million hours)	276	280	330	313	<b>244</b>
Number of oil spills – loss of primary containment	761	635	578	541	<b>417</b>
Volume of oil spilled <sup>g</sup> (million litres)	3.5	3.8	5.7	4.4	<b>2.2</b>
Volume of oil unrecovered <sup>g</sup> (million litres)	1.1	1.4	1.5	1.2	<b>0.4</b>
<b>Environment<sup>e</sup></b>					
Direct carbon dioxide (CO <sub>2</sub> ) <sup>h,i</sup> (million tonnes)	76.7	78.5	76.8	73.2	<b>59.3</b>
Indirect carbon dioxide (CO <sub>2</sub> ) <sup>h,i,j</sup> (million tonnes)	11.4	10.4	9.9	13.9	<b>10.1</b>
Direct methane (CH <sub>4</sub> ) <sup>i</sup> (million tonnes)	0.27	0.24	0.23	0.23	<b>0.24</b>
Direct greenhouse gas (GHG) <sup>i</sup> (million tonnes CO <sub>2</sub> equivalent)	82.4	83.4	81.7	78.0	<b>64.4</b>
Flaring (exploration and production) (thousand tonnes of hydrocarbons)	1,735	1,342	1,343	1,514	<b>1,241</b>
Sulphur dioxide (SO <sub>2</sub> ) (thousand tonnes)	169	151	126	124	<b>106</b>
Nitrogen oxides (NO <sub>x</sub> ) (thousand tonnes)	242	220	215	218	<b>196</b>
Non-methane hydrocarbons (NMHC) (thousand tonnes)	322	269	245	298	<b>225</b>
Discharges to water (thousand tonnes)	126	57	57	46 <sup>k</sup>	<b>71<sup>k</sup></b>
Fresh water withdrawal (million cubic metres)	n/a	517	493	479	<b>342</b>
Hazardous waste <sup>l</sup> (thousand tonnes)	214	171	159	237	<b>270</b>
Environmental and safety fines (\$ million)	27.5	7.0	4.8	56.0	<b>2.5</b>
<b>Employees<sup>m</sup></b>					
Number of employees – group	115,200	103,700	102,900	96,200	<b>97,000</b>
Number of employees in group leadership	622	609	610	606	<b>622</b>
Women in group leadership (%)	13	15	15	17	<b>17</b>
People from UK and US racial minorities in group leadership (%)	3	4	4	5	<b>5</b>
People from beyond the UK and US in group leadership (%)	16	18	19	20	<b>20</b>
OpenTalk cases	n/a	258	343	634	<b>1,064</b>
Dismissals for non-compliance and unethical behaviour <sup>n</sup>	132	165	252	478	<b>642</b>
<b>Contribution to communities<sup>e</sup> (\$ million)</b>					
UK	13.9	12.7	11.7	23.6	<b>15.8</b>
Rest of Europe	6.2	8.2	6.5	4.6	<b>3.8</b>
US	46.3	31.5	25.7	36.0	<b>48.1</b>
Rest of World	18.8	22.0	43.8	31.3	<b>39.0</b>

<sup>a</sup>Aromatics and acetyls and olefins and derivatives production reported within Refining and Marketing. 2002 to 2005 restated to reflect the transfer of three equity-accounted entities (with olefins and derivatives production) from Other businesses and corporate to Refining and Marketing.

<sup>b</sup>Replacement cost profit reflects the current costs of supplies. The replacement cost profit for the period is arrived at by excluding from profit inventory holding gains and losses.

<sup>c</sup>Financial information for 2003-2006 is under International Financial Reporting Standards. Financial information for 2002 is on a UK GAAP basis. UK GAAP information for 2002 reflects the adoption by the group of Financial Reporting Standard No. 17 'Retirement Benefits' (FRS 17) with effect from 1 January 2004.

<sup>d</sup>Sourced from an internal supplier management system. 2006 data is not on a like-for-like basis to previous years as the definition of third party spend has evolved to become more inclusive. Data coverage is estimated to be around 95% of BP's supplier and contractor base. This system does not form part of the financial reporting system used to produce BP's financial statements.

<sup>e</sup>Quantitative performance indicators have been chosen, with external input, to reflect the most important sustainability issues for BP. Data is reported here only from operations under BP management control, except in footnote i. We use consistent processes that seek to provide acceptable estimates to enable year-to-year comparisons.

<sup>f</sup>DAFWCF and RIF are the annual frequency per 200,000 hours worked. Prior to 2003, data included both illnesses and injuries. From 2003, only injuries are reported.

<sup>g</sup>Oil spills are defined as any liquid hydrocarbon release of more than or equal to one barrel (159 litres, equivalent to 42 US gallons).

<sup>h</sup>Direct GHG emissions are the physical emissions from BP's sources. Indirect GHG emissions are a consequence of the import by BP of steam and electricity from third-party sources.

<sup>i</sup>BP share of emissions from operations on an equity share basis. TNK-BP emissions are not included.

<sup>j</sup>Prior to 2005, reported indirect emissions are lower because the BP CO<sub>2</sub> protocol previously allowed credit for exported power.

<sup>k</sup>Does not include discharges in new category of discharges to third-party treatment at 8,000 and 7,000 tonnes in 2005 and 2006 respectively.

<sup>l</sup>Data prior to 2005 have been restated to correct inadvertent overstatements of hazardous waste at the Whiting refinery, US.

<sup>m</sup>Employees are defined as individuals who have a contract of employment with a BP group entity.

# Trends and interpretation

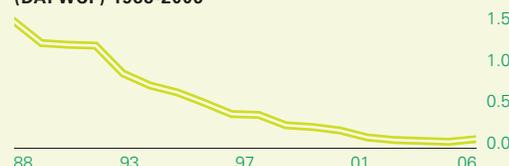
**Financial and operating** BP distributed around \$23.4 billion to investors in 2006 via a 10% increase in the per-share dividend and share buybacks of \$15.7 billion. We have paid out a total of \$32 billion of dividends over the past five years. During this period, dividends per share in dollar terms have grown around 63%. In 2006, BP paid around \$17.7 billion of taxes to governments. This included about \$13.7 billion paid in income taxes and around \$4 billion paid in production taxes (see page 40).

## TOTAL SHAREHOLDER DISTRIBUTION THROUGH DIVIDENDS AND SHARE BUYBACKS (\$ billion)



**Safety and operational integrity** The seven fatalities in 2006 resulted from three control of work-related incidents, two driving-related incidents and two other incidents. Over the past eight years, road traffic accidents have been the largest single cause of workforce fatalities (30%). A review of our reporting boundaries, to bring greater consistency to HSE data reporting, has impacted several indicators. The reclassification led to our DAFWCF increasing and we failed to meet our 10% improvement target based on our underlying performance; but our reported spills (417) were lower in 2006, principally due to divestments and to disaggregation of two non-operated upstream operations from BP's reporting. We are developing a number of leading indicators, such as process safety metrics, which will be reported in future years (see pages 9 and 16-17).

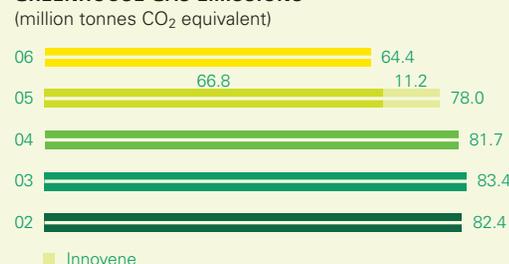
## LONG-TERM PERSONAL SAFETY PERFORMANCE (DAFWCF) 1988-2006



Days away from work case frequency (DAFWCF) is the annual frequency (per 200,000 hours) of reported injuries that result in a person (employee or contractor) being unable to work for a day (shift) or more. For a full understanding of the underlying data on reported DAFWCF, please refer to our website.

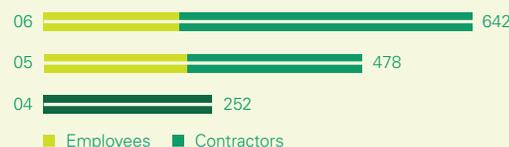
**Environment** The difference in GHG data from 2005 to 2006 has been largely due to the divestment of Innovene in 2005. Our 2006 direct operational GHG emissions were lower than 2005 levels, due to a number of factors, including delayed start up at Texas City, lower production levels and real sustainable reductions. The other main changes in 2006 were: an increase in discharges to water due to our increased deepwater drilling in Gulf of Mexico; an increase in hazardous waste disposal due to clean up activities at Buncefield terminal; a decrease in fresh water withdrawal primarily related to our sale of Innovene and Pasadena; and the decrease in non-methane hydrocarbons due to improved reporting and a reduction in BP Shipping emissions. All our major sites, except two – Texas City refinery and an acetlys plant in Malaysia – are certified to the ISO14001 international standard on environmental management. More detail on these issues and on fines and penalties paid by BP can be found online.

## GREENHOUSE GAS EMISSIONS



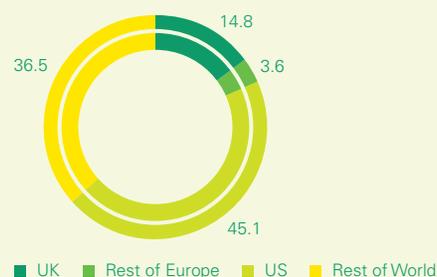
**Employees** In 2006, 642 people – 32% employees, 68% contractors – were reported dismissed for unethical behaviour or non-compliance with applicable laws or regulations. This number excludes some dismissals from the retail business, including those for minor or immaterial incidents. In 2005, the number was 478 people – 45% employees, 55% contractors (see page 31).

## DISMISSALS FOR NON-COMPLIANCE AND UNETHICAL BEHAVIOUR<sup>1</sup>



**Contribution to communities** In the Asia Pacific region, Africa, the Caspian and Russia, contributions have increased from \$31.3 million in 2005 to \$39.0 million in 2006. Our reported data does not include our contribution as partners of the BTC and SCP pipeline projects – \$3.2 million in 2006. UK expenditure was \$15.8 million. Part of our UK commitment in 2006 was the endowment of a chair in economics and creation of a research centre, both at the University of Oxford (see page 40). US expenditure included a contribution to A Place of Our Own, an education programme that targets ethnic minority children and prepares them to enter kindergarten, helping to develop social, emotional and cognitive skills. This aligns with our plans to commit around 50% of our annual community investment to promoting education (see page 42).

## BP'S CONTRIBUTION TO COMMUNITIES BY REGION 2006 (%)



<sup>1</sup>Excludes some dismissals from the retail business, including those for minor or immaterial incidents.

<sup>2</sup>From 2005 the process required that dismissals were identified as either employee or contractor.

# Independent assurance statement to BP management

[www.bp.com/externalassurance](http://www.bp.com/externalassurance)

*BP Sustainability Report 2006* (the Report) has been prepared by the management of BP p.l.c., who are responsible for the collection and presentation of information within it. Our responsibility, in accordance with BP management's instructions, is to carry out a limited assurance engagement on the Report, in order to provide conclusions in relation to Materiality, Completeness and Responsiveness and also to include specific observations from our work in relevant sections of the Report.

Our responsibility in performing our assurance activities is to the management of BP p.l.c. only and in accordance with the terms of reference agreed with them. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any reliance any such third party may place on the Report is entirely at its own risk.

## What did we do to form our conclusions?

Our assurance engagement has been planned and performed in accordance with the Institute of Social and Ethical AccountAbility's AA1000 Assurance Standard and the International Federation of Accountants' ISAE3000<sup>9</sup>. The Report has been evaluated against the following criteria:

- Adherence to the principles of Materiality, Completeness and Responsiveness as set out in the AA1000 Assurance Standard.
- The application of the Global Reporting Initiative *G3 Sustainability Reporting Guidelines* (the Guidelines).

In order to form our conclusions we undertook the steps outlined below.

1. **Interviewed a selection of BP executives and senior managers** to understand the current status of safety, social, ethical and environmental activities and progress made during the reporting period.
2. **Reviewed BP's approach to stakeholder engagement** through interviews and reviewing selected associated documentation. For more information on how we use stakeholder views in the design and delivery of our assurance process, please go to [www.bp.com/externalassurance](http://www.bp.com/externalassurance).
3. **Conducted a high-level benchmarking exercise** of the material issues and areas of performance covered in the environmental and social reports of BP's peers.
4. **Reviewed a selection of external media reports and selected group-level documents** relating to safety, social, ethical and environmental aspects of BP's performance, to test the coverage of topics within the Report.
5. **Reviewed information or explanation about the Report's data, statements and assertions** regarding BP's sustainability location performance. As part of this, we undertook 12 location visits to give coverage across business segments, key material issues and the geographies in which BP operates. For more information on the locations visited and the process used for selection, please go to [www.bp.com/externalassurance](http://www.bp.com/externalassurance).

6. **Reviewed HSE, community investment and ethics dismissals data samples and processes** to test whether they have been collected, consolidated and reported appropriately at group level and the locations visited. We also reviewed leadership diversity data at group level.
7. **Reviewed BP's processes for determining material issues to be included in the Report.**
8. **Reviewed whether BP's reporting has applied the GRI G3 Guidelines to a level described on page 48.**

### Level of assurance

Our evidence gathering procedures have been designed to obtain a limited level of assurance on which to base our conclusions. The extent of evidence gathering procedures performed is less than that of a reasonable assurance engagement (such as a financial audit) and therefore a lower level of assurance is provided.

### Limitations of our review

The scope of our work was limited to a sample of 12 visits from approximately 120 locations. Our stakeholder engagement activities were limited to attendance at two events.

Our review of data processes included the following data sets: HSE, community investment, ethics dismissals and group leadership diversity data. Our review of these data processes at operations level was limited to the 12 locations visited.

## Our conclusions

On the basis of our review and in accordance with the terms of reference for our work, we provide the following conclusions on the Report in relation to each of the main AA1000 Assurance Standard's principles (Materiality, Completeness and Responsiveness) and in relation to the GRI G3 Guidelines. Our conclusions should be read in conjunction with the above section on 'What did we do to form our conclusions?'

### Materiality

**Has BP provided a balanced representation of material issues concerning BP's sustainability performance?**

Based on our review:

- With the exception of the subject area listed below, we are not aware of any material aspects concerning BP's sustainability performance that have been excluded from the Report.
- We consider that BP could have covered the following subject area in more depth in the Report:
  - Influencing the performance of joint ventures in relation to sustainability issues. Additional work has been undertaken to identify issues relating to joint ventures but content is still limited.
- Nothing has come to our attention that causes us to believe that BP management has not applied its processes for determining material issues to be included in the Report, as described in *Further information* (page 48).

<sup>9</sup>International Federation of Accountants' International Standard for Assurance Engagements Other than Audits or reviews of Historical Financial Information (ISAE3000).

### Completeness

Does BP have complete information on which to base a judgement of what is material for inclusion in the Report?

Based on our review:

- We are not aware of any material issues excluded or misstatements made in relation to the information on which BP has made judgements in respect of the content of the Report.
- We are not aware of any material reporting units that have been excluded in BP management's review of safety, social, ethical and environmental performance.
- We have reviewed information or explanation on the statements on BP's sustainability activities presented in the Report and we are not aware of any misstatements in the assertions made.

#### *HSE and community investment data*

- We are not aware of any material reporting units that have been excluded from the group HSE or community investment data.
- Nothing has come to our attention that causes us to believe that HSE or community investment data has not been properly collated from information reported at operations level.
- We are not aware of any errors that would materially affect the group HSE or community investment data.

#### *Ethics dismissals data*

- With the exception of the exclusion of ethics dismissals data for the retail business, we are not aware of any excluded reporting units or other material omissions in relation to the ethics dismissals data.
- Nothing has come to our attention that causes us to believe that ethics dismissals data has not been properly collated from reporting units through the group's annual compliance and ethics reporting system.

#### *Leadership diversity data*

- Nothing has come to our attention that causes us to believe that leadership diversity data has not been collated properly from group-wide systems.

### Responsiveness

How has BP responded to stakeholder concerns?

Based on our review, with the exception of the items listed above, we are not aware of any additional issues of stakeholder interest that are not currently included in the Report's scope and content.

### GRI

Does the Report meet the requirements of the C+ application level of the GRI G3 Guidelines?

Based on our review, including consideration of the Report, BP's social and environmental web content and elements of the *BP Annual Report and Accounts 2006*, nothing has come to our attention that causes us to believe that BP management's assertion that their sustainability reporting meets the requirements of the C+ application level of the Guidelines is not fairly stated.

## Selected observations on particular aspects of our engagement

Our observations and areas for improvement will be raised in a report to BP management. Selected observations are provided below. Additional specific observations regarding progress made and areas for improvement can be found in appropriate sections of the Report and at [www.bp.com/sustainability](http://www.bp.com/sustainability). These observations do not affect our conclusions on the Report set out above.

- BP's process for determining material issues for inclusion within the Report has been further refined, providing more clarity about the selection of issues for print and online content.
- The Report explains that BP is using additional indicators to measure integrity management performance. BP should consider including such indicators in future reporting.
- Documentation of the greenhouse gas emissions data collection, assumptions and assurance activities was in place at the operational sites visited. However, as in previous years, the completeness of documentation to support other HSE parameters is varied.
- We have observed policies, programmes and discrete activities aimed at addressing issues raised through stakeholder engagement. Observations on progress in these activities are provided in several sections of the Report. It is recognized that the response taken is BP's judgement and may not always be consistent with the expectations of all stakeholders.

## Our independence

As auditors to BP p.l.c., Ernst & Young are required to comply with the independence requirements set out in the Institute of Chartered Accountants in England & Wales (ICAEW) Guide to Professional Ethics. Ernst & Young's independence policies, which address and in certain places exceed the requirements of the ICAEW, apply to the firm, partners and professional staff. These policies prohibit any financial interests in our clients that would or might be seen to impair independence. Each year, partners and staff are required to confirm their compliance with the firm's policies.

We confirm annually to BP whether there have been any events, including the provision of prohibited services, that could impair our independence or objectivity. There were no such events or services in 2006.

### Our assurance team

Our assurance team has been drawn from our global environment and sustainability network, which undertakes similar engagements to this with a number of significant UK and international businesses.

### ERNST & YOUNG

Ernst & Young LLP  
London  
April 2007

# Further information

*BP Sustainability Report 2006* forms part of our non-financial performance communications.

*BP Sustainability Report 2006* covers BP group activities in the period 1 January 2006 to 31 December 2006. We aim to report on all aspects of our business, including our share of joint ventures where the venturers have direct ownership interest in, and jointly control, the assets of the venture. Where appropriate, we also seek to provide an overview on activities where we have only joint control over entities along with other partners, such as TNK-BP, and where we have significant influence, such as BTC.

This report is aimed at our shareholders, employees, governments and JV partners, academics, NGOs and other parties or individuals with a working interest in the company.

We continue to assess the reactions of readers to the content and presentation of our report via surveys, interviews, benchmark studies and workshops. Feedback in 2006 indicated a general satisfaction with the majority of readers' needs.

Our approach to identifying issues for inclusion in our group report continues to be driven by our materiality approach, combining an inside-out view of the group's key issues with the outside-in perspective of external observers. This year, we have continued to improve our processes, including improvements in issue classification and definition.

*BP Sustainability Report 2006* continues to report using the Global Reporting Initiative (GRI) guidelines. This year we are transitioning from 'in accordance' reporting with the previous 2002 guidelines towards alignment with the G3 guidelines released in October 2006, to which we report at C+ level. We see this transition taking two reporting cycles while we collect and prepare new information for the G3 guidelines. A full table showing how we address the GRI guidelines is available at [www.bp.com/gri](http://www.bp.com/gri).

**Find out more: [www.bp.com/ourapproachreporting](http://www.bp.com/ourapproachreporting)**

## Sustainability reporting structure

BP communicates non-financial commitments and performance at group, country and site levels in both print and online media.

### Group level

*BP Sustainability Report 2006* is available in English, German, Mandarin Chinese, Russian and Spanish and BP's HSE performance data, presented as interactive charts.

[www.bp.com/sustainability](http://www.bp.com/sustainability)  
[www.bp.com/hsechartingtools](http://www.bp.com/hsechartingtools)  
[www.bp.com/sustainabilityworldwide](http://www.bp.com/sustainabilityworldwide)

### Country level

Reporting on our operations in Azerbaijan, Georgia, Germany, New Zealand, Southern Africa and Trinidad & Tobago.

[www.bp.com/countrysustainabilityreports](http://www.bp.com/countrysustainabilityreports)  
[www.bp.com/worldwide](http://www.bp.com/worldwide)

### Site level

Verified site reports and a focus on air quality, access to water and water quality, biodiversity and waste management.

[www.bp.com/sitereports](http://www.bp.com/sitereports)  
[www.bp.com/environmentalmappingtool](http://www.bp.com/environmentalmappingtool)  
[www.bp.com/casestudies](http://www.bp.com/casestudies)

## Glossary of terms

BTC	Baku-Tbilisi-Ceyhan pipeline
CO <sub>2</sub>	Carbon dioxide
ERNP	Environmental requirements for new projects
GCE	Group chief executive
GHG	Greenhouse gas
GRI	Global Reporting Initiative
HSE	Health, safety and the environment
HSSE	Health, safety, security and the environment
Innovene	Business sold by BP to INEOS in December 2005
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
NGO	Non-governmental organization
OMS	Operating management system
RDI	Regional development initiative
SCP	South Caucasus Pipeline
SME	Small and medium-sized enterprise

## Other useful web addresses

<a href="http://www.bp.com">www.bp.com</a>	Information about the BP group
<a href="http://www.bp.com/sustainabilityreporting">www.bp.com/sustainabilityreporting</a>	Download BP Sustainability Reports
<a href="http://www.bp.com/casestudies">www.bp.com/casestudies</a>	Examples of our activities around the world
<a href="http://www.caspsea.com">www.caspsea.com</a>	Caspian Development Advisory Panel
<a href="http://www.bp.com/tiap">www.bp.com/tiap</a>	Tangguh Independent Advisory Panel
<a href="http://www.bp.com/texascityincident">www.bp.com/texascityincident</a>	Texas City refinery incident
<a href="http://www.bp.com/caspian">www.bp.com/caspian</a>	BTC pipeline project
<a href="http://www.bp.com/indonesia">www.bp.com/indonesia</a>	BP in Indonesia and the Tangguh LNG project
<a href="http://www.tnk-bp.com">www.tnk-bp.com</a>	TNK-BP
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## Contact details and acknowledgements

Your feedback is important to us.  
You can email the Sustainability Reporting team at [dbickerton@bp.com](mailto:dbickerton@bp.com)  
or send us your feedback online at [www.bp.com/sustainabilityfeedback](http://www.bp.com/sustainabilityfeedback).  
You can also telephone +44 (0)20 7496 4000 or write to Brand and Group Communications at:  
BP p.l.c., 1 St James's Square, London SW1Y 4PD, UK.

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### 1 [www.bp.com/annualreport](http://www.bp.com/annualreport)

*BP Annual Report and Accounts 2006* gives details of our financial and operating performance.

### 2 [www.bp.com/annualreview](http://www.bp.com/annualreview)

*BP Annual Review 2006* summarizes our financial and operating performance.

### 3 [www.bp.com/financialandoperating](http://www.bp.com/financialandoperating)

*BP Financial and Operating Information 2002-2006* includes five-year financial and operating data.

### 4 [www.bp.com/statisticalreview](http://www.bp.com/statisticalreview)

*BP Statistical Review of World Energy*, published in June each year, reports on key global energy trends.



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