

**NOBLE ENERGY, INC.**

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**2011 Sustainability Report**

**SEE**

Our plan for a sustainable future.

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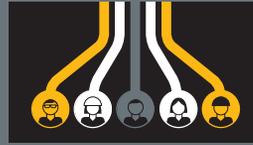
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## FORWARD-LOOKING STATEMENTS

This Sustainability Report contains forward-looking statements that describe our expectations with respect to future events. These forward-looking statements are based upon management's current plans, estimates, assumptions and beliefs concerning future events as of the date of this report. These statements, by their nature, are subject to risks, uncertainties and assumptions and are influenced by various factors. As a consequence, actual results may differ materially from those expressed in the forward-looking statements.

## REPORT ANALYSIS



Environmental Resources Management, Inc. (ERM) reviewed Noble Energy's 2011 Sustainability Report against the *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (2<sup>nd</sup> Edition, 2010), developed by the International Petroleum Industry Environmental Conservation Association (IPIECA), the American Petroleum Institute (API) and International Association of Oil & Gas Producers (OGP); and the *Sustainability Reporting Guidelines* (Version 3.1), developed by Global Reporting Initiative (GRI). ERM found that the report contents address the indicators shown in the index on page 51.



**CHARLES D. DAVIDSON**  
Chairman and  
Chief Executive Officer

**LETTER FROM OUR CHAIRMAN AND CHIEF EXECUTIVE OFFICER**

# NBL2011

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We recognize that sustainable, extraordinary performance is about more than operational and financial results. With this in mind, our purpose of *Energizing the World, Bettering People's Lives*<sup>®</sup> acknowledges our goal of delivering energy through oil and natural gas exploration and production while embracing our responsibility to be a good corporate citizen. In furtherance of our purpose, I am pleased to present our first Sustainability Report.

After a year of tremendous achievement in 2011, Noble Energy's future is NOW. Our business strategy of building a diversified portfolio of growth assets, coupled with an exploration program focused on material opportunities, has provided us with a unique platform for growth. We are committed to using this platform as a springboard to achieve sustainable, extraordinary performance.

“

*After a year of tremendous achievement  
in 2011, Noble Energy's future is*

**NOW**

– Charles D. Davidson  
Chairman and Chief Executive Officer

”



Each of our five core operating areas – the Denver-Julesburg (DJ) Basin and the Marcellus Shale onshore U.S., the deepwater Gulf of Mexico (GOM), West Africa and the Eastern Mediterranean – continue to deliver extraordinary performance. The extent of our activities in each of these areas illustrates the diversity and scale of our business, as we are now a truly global company.

Sustainability and corporate citizenship are rooted in Noble Energy's history and visible in our efforts to build trust through stakeholder engagement, act on our values, provide a safe work environment, lead our industry, respect our environment and care for our people and the communities where we operate. This report describes our 2011 accomplishments in these areas, as well as a number of ongoing initiatives.

Many of our operational highlights for 2011 include sustainability and corporate citizenship components. For example:

- Our receipt of the first post-moratorium permit for deepwater Gulf of Mexico drilling was the direct result of our work with the government and other industry leaders to implement new practices and deploy new systems designed to enhance safety and improve industry spill response and containment capabilities.
- Our emphasis on safety was also apparent in the early start-up of our Aseng floating production, storage and offloading (FPSO) project offshore Equatorial Guinea, as our contractors recorded more than 10.5 million man hours worked during construction with no major accidents and only 408 man hours lost from minor incidents.
- Our success in developing the Wattenberg field in Colorado's Denver-Julesburg (DJ) Basin in the U.S. was supported by a water management strategy focused on minimizing water used from the tributary system and a separate program to reduce the overall size of our drilling footprint.

#### Other 2011 Highlights

- We were named by the Houston Chronicle as one of Houston's "Top Workplaces," an honor we have received for two consecutive years.
- We continued to improve the governance structure surrounding our corporate citizenship processes. We formed a management committee to direct our corporate citizenship strategy and initiatives.

We also expanded the responsibilities of the Environment, Health and Safety Committee of our Board of Directors to include serving as a forum for review of our strategy and initiatives.

- We provided financial and employee support to more than 100 betterment projects within the communities where we operate (see pages 41–48).
- We continued to participate in the Carbon Disclosure Project by publicly disclosing, on a voluntary basis, information pertaining to our greenhouse gas (GHG) emissions.
- We began participating in FracFocus, a hydraulic fracturing chemical registry website that discloses information regarding chemicals used in hydraulic fracturing.
- Consistent with our Corporate Social Responsibility Policy, we continued our focus on protecting human rights through employee training and enhancing our contractor due diligence processes to address human rights practices.
- Our culture of compliance and ethics was reinforced by hiring a dedicated Chief Compliance Officer. We also saw significant employee participation in our second-annual internal Compliance and Ethics Summit.

We understand that sustainability reporting is a journey. As a company, we are committed to transparency in our interactions with stakeholders and look forward to enhancing the quality and content of our sustainability reporting in the future.

Charles D. Davidson  
Chairman and Chief Executive Officer

Our journey began in 1932 with our founder Lloyd Noble. NOW we are ready to share an important part of that journey in our first Sustainability Report.

# Journey

2011

# Our Approach to Reporting

At Noble Energy, we have been *Energizing the World, Bettering People's Lives*® since our founding in 1932. This is our first Sustainability Report, and it reflects our commitment to reporting our sustainability performance and accomplishments. We understand the importance of demonstrating our commitments and progress in these areas in a manner that distinguishes them from our operational and financial results.

## SCOPE OF THIS REPORT

Unless otherwise noted, this report covers the activities under our direct operational control during calendar year 2011. All financial data is reported in U.S. dollars. Information in this report has been subject to internal review and is believed to be correct at the time of reporting. We plan to work towards external assurance of our sustainability reporting in the future.

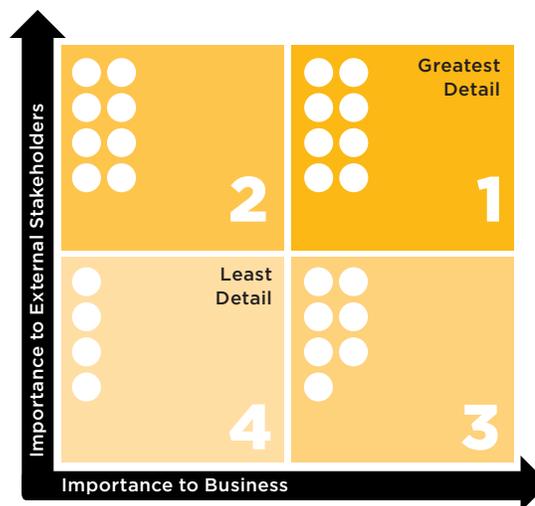
To develop this report, we utilized the *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (2nd Edition, 2010), developed by the International Petroleum Industry Environmental Conservation Association (IPIECA), the American Petroleum Institute (API) and International Association of Oil & Gas Producers (OGP); and the *Sustainability Reporting Guidelines* (Version 3.1), developed by the Global Reporting Initiative (GRI). These guidelines are generally accepted frameworks for reporting economic, environmental and social performance. Our IPIECA/API/OGP and GRI index shows which guideline elements have been reported and where they can be found (see page 51).

## OUR MATERIALITY ANALYSIS

The content of this report was determined through a materiality analysis that identified those sustainability related areas that we believe to be of greatest interest to external stakeholders and most relevant to Noble Energy's operations. Areas of potential significance were based on a review of media coverage as a proxy for stakeholder concerns and later validated through a series of stakeholder interviews. We also conducted a series of internal interviews and workshops to discuss issues of potential

significance. Stakeholder and business-derived concerns were then analyzed and plotted on a four-quadrant chart based on importance. For this report, we focused on areas of highest business significance – in particular, areas that were ranked priority one and two.

## MATERIALITY ANALYSIS MATRIX



In this report, we detail how we are accounting for the EHS and socio-economic impacts of our business while keeping true to our corporate purpose.

## STAKEHOLDER FEEDBACK

We believe stakeholder feedback is an important part of the report-development process. Representatives from nongovernmental organizations (NGOs) and analyst groups were interviewed to validate our materiality analysis and better understand what areas they felt should be addressed in the sustainability report of an oil and natural gas company. We were encouraged to find that their key concerns generally matched the areas identified in our own materiality analysis. For instance, interviewed stakeholders were interested in learning about our challenges and our successes at the corporate level through to the project level. Key matching topics included contractor management, water impact, stakeholder engagement and social investment. This information was used to help develop this report.

To provide feedback and comments on this report, please contact: [Responsibility@nobleenergyinc.com](mailto:Responsibility@nobleenergyinc.com).

1932

Lloyd Noble forms Samedan Oil Corporation (pronounced sam-ee-dan), named after his children Sam, Ed and Ann



1968

Samedan acquires its first offshore block in the Gulf of Mexico

1969

Noble Affiliates, Inc. is organized combining several companies - the primary two being Noble Drilling Corporation and Samedan

1972

Noble Affiliates begins trading as a public company on NASDAQ

1980

Noble Affiliates moves to the New York Stock Exchange and begins trading under the symbol NBL

1985

Noble Affiliates spins off drilling subsidiary Noble Drilling Corporation

1991

Production commences at Alba field (non-operated working interest) offshore Equatorial Guinea

1996

Noble Affiliates acquires Energy Development Company, adding a diverse group of U.S. and international assets

2000

Noble Affiliates announces Mari-B discovery offshore Israel

2001

Noble Affiliates announces first deepwater Gulf of Mexico discovery

Methanol production commences at Atlantic Methanol Production Company (partially owned subsidiary) plant in Equatorial Guinea

## The Noble Energy Story

“... The land must continue to provide for our food, clothing and shelter, long after the oil is gone.” – Lloyd Noble

Noble Energy’s history begins with the vision and leadership of Lloyd Noble. Lloyd purchased his first drilling rig in 1921 and quickly became one of the most successful and respected onshore drilling contractors in the United States. He demonstrated respect for communities and land, recognizing the importance of protecting our natural resources.

Lloyd’s son, Sam Noble, shared this vision for managing the business in a responsible way. Once drilling activities were complete on Sam’s own land, he was said to have walked his property with the drilling team and conveyed his gratitude by saying, “You have done a good job taking care of my place; make sure you do that everywhere you go.” We continue to embody this vision through our purpose, *Energizing the World, Bettering People’s Lives.*®

At Noble Energy, our business is about more than oil and natural gas exploration and production. It’s about improving the lives of those around us

by helping local communities grow and prosper. Our commitment to *Energizing the World, Bettering People’s Lives*® has been with us from our humble beginnings as a regional oil and natural gas producer, through our transformation into the leading global independent exploration and production company that we are today.

We continuously strive to be a better industry partner by providing our employees with opportunities to make positive contributions and by constantly challenging ourselves to find better solutions so we leave a legacy of sustainability wherever possible.

2002

Noble Affiliates changes its name to Noble Energy, Inc.

Operations commence at the Noble Energy integrated gas-to-power project in Ecuador

2004

Mari-B natural gas sales begin in Israel



2005

Noble Energy acquires Patina Oil & Gas Corporation, enhancing its onshore U.S. asset portfolio

2006

Noble Energy establishes significant presence in the deepwater Gulf of Mexico

Noble Energy acquires U.S. Exploration Holdings, Inc., expanding its position in the DJ Basin's Wattenberg field onshore U.S.

2007

Noble Energy announces Benita and Yolanda discoveries in Block I offshore Equatorial Guinea

Production commences at Dumbarton development in the North Sea (non-operated working interest)

2008

Noble Energy discovers hydrocarbon resources in the deepwater Gulf of Mexico at Gunflint

2009

Noble Energy discovers natural gas at Tamar offshore Israel

Noble Energy sanctions Aseng project offshore Equatorial Guinea

2010

Noble Energy discovers natural gas at Leviathan offshore Israel with resource estimates of 16 trillion cubic feet

2011

See Operational Highlights from 2011 on page 9

Our purpose and core values (see page 10) guide our business decisions from our boardroom to our operations. They are the driving force behind our accomplishments and will remain at our core as we continue to search for the right solutions to the world's energy challenges.

Our Corporate Social Responsibility (CSR) Policy outlines our vision for promoting a culture that respects the laws, individuals, environments and sustainability of the communities where we operate. You can view our CSR Policy at: [www.nobleenergyinc.com/CSRPolicy](http://www.nobleenergyinc.com/CSRPolicy).



1980, Noble Energy's first day of NYSE trading. Roy Butler (left center) and Sam Noble (right center).

Noble Energy is a leading independent energy company engaged in worldwide oil and natural gas exploration and production. We are an S&P 500 company with reserves of 1.2 billion barrels of oil equivalent and assets totaling more than \$16 billion at year-end 2011. Our broad asset base includes development and exploratory resource opportunities through our five core operating areas:

- 1 Denver-Julesburg (DJ) Basin
- 2 Marcellus Shale
- 3 Deepwater Gulf of Mexico (GOM)
- 4 West Africa
- 5 Eastern Mediterranean

# CORE



# Operational Highlights

We conduct our business according to the following principles:

- Manage a portfolio of superior assets
- Execute major projects with attention to excellence
- Execute a best-in-class exploration program
- Invest in people and technology
- Maintain investment and fiscal discipline
- Demonstrate leadership in EHS, compliance and corporate citizenship

## OPERATIONAL HIGHLIGHTS FROM 2011

2011 was another strong year for Noble Energy as we continued to lay the foundation for significant future growth across our five core operating areas. For example:

- We entered into a Marcellus Shale joint venture with CONSOL Energy Inc. that strengthens and rebalances our portfolio and provides a new material growth area that will impact future reserves, production and cash flows.
- We led the way back to work in the deepwater Gulf of Mexico, receiving the first post-moratorium deepwater drilling permit (see page 22), and had exploration success at our Santiago prospect.
- In the Eastern Mediterranean, natural gas production increased as we continued to support the Israeli gas market when it experienced interruptions in Egyptian supplies.
- We continued to improve our operational performance in the DJ Basin and began constructing multi-well horizontal drilling pads and centralized production facilities to minimize our surface rise and allow for more efficient operations (see page 33).
- We made significant progress on the development of our Tamar project offshore Israel.
- We completed appraisal work at the Leviathan discovery offshore Israel and made another significant discovery offshore Cyprus of an estimated 7 trillion cubic feet of natural gas.

- In Equatorial Guinea, we brought our Aseng project online early and under budget (see page 21).
- We continued to make progress on our Alen project in Equatorial Guinea and continued exploration activities offshore Cameroon.
- We transferred our assets in Ecuador to the Ecuadorian government to maintain focus on our core operating areas.

## Noble Energy in 2011

<i>Millions</i>	
Total Revenues	\$ 3,763
Net Income	\$ 453
Total Assets	\$ 16,444
Long-term Debt	\$ 4,100
Capital Expenditures (cash basis)	\$ 3,121
Tax and Royalties to Governments	\$ 492
Number of Employees	1,876
Consolidated Crude Oil Sales (MBbl/d)	64
Consolidated Natural Gas Sales (MMcf/d)	811
Consolidated Natural Gas Liquids Sales (MBbl/d)	15
Total Proved Reserves (MMBoe)	1,209
Shareholder Ownership (% institutional)	94%

See our 2011 Annual Report for more operational highlights.

# Core Values

Our core values guide how we do business. They provide the foundation upon which trust can be built and maintained with our stakeholders.

## Integrity

Being fair, honest, ethical and transparent in dealing with all stakeholders. One's word is their bond.

## Caring

Being genuine and authentic, thinking of the needs of others. Respectful of yourself, others and the environment. Committed to make a positive impact on people and communities we touch.

## Creativity

Seeing endless possibilities. Continuously innovating to provide the fuel for sustainable, extraordinary performance.

## Wisdom

Joining of knowledge, insight and judgment leading to deliberate, thoughtful decisions that positively impact outcomes today and into the future.

## Agility

Always anticipating the need for change. Seizing opportunities by being flexible and responsive.

## Excellence

Setting the performance standard through uncompromising demand for being best in class in all we do.

## Alignment

Working as one to achieve extraordinary results.

# Building Partnerships

Our long-term success depends on our ability to build trust with our stakeholders. We believe that our core values provide the foundation upon which trust can be built.



## Communities

Wherever we operate, our goal is to be an active member of the community. We want to be the company that people trust to get the job done right. We aim to earn trust through transparency, open dialogue and treating communities with respect.

## Contractors and Joint Venturers

Our contractors and joint venturers play an important role in the business of Noble Energy. We strive to provide them with the same work environment our employees enjoy, and we hold them to the same standards. We aim to maintain clear lines of communication and exchange best practices at any opportunity.

## Employees

Employees are our ambassadors to the world. We are committed to providing a safe, secure, harassment-free workplace; engaging work; and competitive benefits. We aim to create an inclusive, creative culture where our employees are able to excel and make a difference.

## Governments

Noble Energy engages with governments in the U.S. and abroad for many purposes, ranging from our license to operate to addressing energy policy. We approach this engagement as an opportunity to solve problems and advocate positions to mutually benefit the industry, government and society over the long term.

## Nongovernmental Organizations

We seek to build partnerships and working relationships with NGOs most relevant to our business, meeting with them to discuss concerns such as human rights and environmental impacts. Sharing who we are and listening to concerns is important to us.

## Shareholders

Noble Energy engages with our shareholders regularly through our Annual Shareholders Meeting, financial reports and other disclosures. Being transparent with our shareholders and other stakeholders is important to us and one of the reasons we are sharing our sustainability story through this report.

# Corporate Governance

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We are committed to a solid foundation of integrity, reliability and transparency in our disclosures to the public. Our corporate governance structure and practices are designed to ensure that our business is conducted in the best interest of our shareholders and in compliance with our legal and regulatory obligations.

## BOARD OF DIRECTORS

Our Board of Directors (Board) underpins our corporate governance structure and represents a broad cross-section of backgrounds and experiences relevant to our business. Eight of our nine directors are non-management and independent under New York Stock Exchange (NYSE) standards.

## Leadership Structure

Our Board currently combines the role of chairman of the board with the role of chief executive officer (CEO) and maintains a separate, empowered lead independent director position to strengthen our corporate governance structure. Our Board believes this provides an efficient and effective leadership model for the Company. This approach fosters clear accountability, effective decision making and alignment on corporate strategy. Our lead independent director provides a level of checks and balances within the Board and is responsible for such areas as approving meeting agendas and working with the CEO to prioritize issues.

## Corporate Governance Guidelines

We adopted Corporate Governance Guidelines that are available on our website and provide information about our Board and corporate governance structure and practices. These guidelines cover such areas as director qualifications, responsibilities, compensation, orientation, continuing education and access to management and independent advisors; Board committees; evaluation of the Board and its committees; shareholder-director communications; management evaluation, succession and development; and stock ownership guidelines.

## Executive Sessions

The non-management directors of our Board hold executive sessions without management at regularly scheduled Board meetings and at such other times as may be set by our lead independent director. These sessions take place outside the presence of our CEO and any other employee. They are presided over by our lead independent director. This allows our non-management directors the opportunity to separately consider management performance and broader matters of strategic significance to the company. During 2011, our non-management directors met five times in executive sessions of the Board.

## Communication with our Board

We encourage shareholders and other interested parties to communicate with our Board, any Board committee or committee chair. This may be done by mail, electronically or by calling our independent, toll-free compliance line. Instructions and guidelines for such communications are provided in our Corporate Governance Guidelines.

## PUBLIC POLICY ENGAGEMENT

Senior management oversees our public policy efforts, reviewing key issues with our Board that are relevant to risk management and EHS strategies. In 2011, we hired a vice president responsible for communications and government relations to coordinate our engagement efforts and ensure consistency in policy and approach throughout the company.

In 2010, we formed the Noble Energy Political Action Committee (PAC) to promote good citizenship and further business interests that are of concern to our shareholders and employees. Our PAC contributions are publicly reported, as required by law, and totaled \$41,287 in 2011.

## BOARD COMMITTEES

Our Board has four standing committees. Each of them operates under a charter approved by our Board. These charters, along with information about each committee's composition, are available on our website.

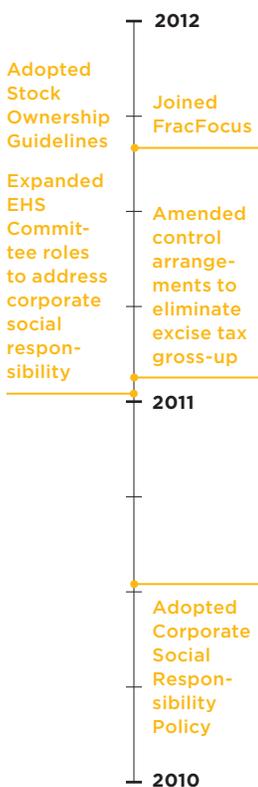
### Audit Committee

Our Audit Committee assists our Board in fulfilling its responsibility to oversee the integrity of our financial statements, our compliance with legal and regulatory requirements, the independent auditor's qualifications and independence, and the performance of our internal audit function and independent auditor. In addition to these responsibilities, the Audit Committee plays an important role in risk management by retaining and interacting with our independent auditors of financial statements and oil and gas reserves, and by holding periodic reviews with our management to address financial and related disclosures, key legal and regulatory developments, and possible enhancements to our Code of Business Conduct and Ethics.

### Compensation Committee

Our Compensation, Benefits and Stock Option Committee (Compensation Committee) reviews and approves our goals and objectives in the areas of salary and bonus compensation, benefits and equity-based compensation. The Compensation Committee evaluates our CEO's performance based on those goals and objectives and, either as a committee or together with the other independent directors, determines and approves our CEO's compensation level based on that evaluation. It also has certain responsibilities for non-CEO executive officer compensation. It further supports our risk management efforts by reviewing the Compensation Discussion and Analysis contained in our annual proxy statement, discussing disclosures with our management and reviewing our compensation program. This helps ensure that our risk management efforts remain aligned with our compensation objective, and we address potential risks that may have a material adverse effect on the Company.

## CORPORATE GOVERNANCE INITIATIVES



We maintain a Political Law Compliance Program to support our continued compliance with U.S. laws and regulations relevant to political activity. This program includes guidelines for such areas as lobbyist registration and reporting, gifts and entertainment, trade associations and retention of political consultants.

We comply with federal regulations to disclose our lobbying expenses, which totaled \$1.85 million in 2011. Lobbying expenses included such things as employee time and travel associated with lobbying activity and trade association membership. Federal issues we lobbied in 2011 included matters relating to hydraulic fracturing, Gulf of Mexico offshore liability and permitting, the Dodd-Frank Wall Street Reform and Consumer Protection Act, tax reform and Marcellus Shale operations. The full list of federal issues lobbied is available on the U.S. Senate website at <http://www.senate.gov/lobby>.

We are involved in multiple industry groups or trade associations that support our legislative and regulatory evaluation process and public policy engagement.

### RECENT CORPORATE GOVERNANCE INITIATIVES

We continually strive to enhance our corporate governance structure and practices and undertook several initiatives in 2011. On January 25, 2011, our Board adopted stock ownership guidelines

for our officers and non-employee directors. On December 5, 2011, our Compensation Committee and Governance Committee reviewed the holdings of our officers and directors, finding that all of our executive officers and outside directors were in compliance with the guidelines. Effective February 1, 2011, amendments were made to the change of control arrangements for our officers and employees for the purpose of eliminating excise tax gross-up payment obligations of the Company to those individuals.

In 2010, we adopted a Corporate Social Responsibility Policy, which is available on our website. In January 2011, we formed a management committee to direct our corporate citizenship strategy and initiatives. We also expanded the responsibility of our Environment, Health and Safety (EHS) Committee of our Board to include serving as a forum for review of our strategy and initiatives.

We continue to integrate a number of our ongoing initiatives into our corporate social responsibility program. For example, we participate in the Carbon Disclosure Project by publicly disclosing, on a voluntary basis, certain information pertaining to greenhouse gas (GHG) emissions (see page 34). In 2011, we also began participating in FracFocus, a national hydraulic fracturing chemical registry website that discloses information about chemicals used in hydraulic fracturing (see page 27).

### Corporate Governance and Nominating Committee

Our Corporate Governance and Nominating Committee (Governance Committee) takes a leadership role in providing a focus on corporate governance to enable and enhance our short- and long-term performance; engages in appropriate identification, selection, retention and development of qualified directors consistent with criteria approved by our Board; advises our Board with respect to the Board's composition, procedures and committees; and oversees the evaluation of our Board and management. It supports our risk management effort by annually reviewing developments in the area of corporate governance and our Corporate Governance Guidelines in order to recommend appropriate actions to our Board. It also reviews director independence, Board membership and committee assignments, and makes adjustments to ensure that we have the appropriate director expertise to oversee the Company's evolving business operations.

### Environment, Health and Safety Committee

We maintain an Environment, Health and Safety Committee (EHS Committee) that assists our Board in determining whether we have appropriate policies and management systems in place with respect to EHS matters, and to monitor and review compliance with applicable EHS laws and regulations. This committee also serves as a forum for the review of Company strategy and initiatives in the area of corporate social responsibility. It further supports our risk management efforts by periodically reviewing our EHS performance, annual EHS audit schedule, and key EHS legal and regulatory developments.

# Managing our Risks

Our Board, management and external consultants play an important role in identifying, assessing, monitoring and mitigating potential business risks. By proactively managing our top risks, we are better positioned to reduce losses and capitalize on opportunities.

### BOARD ROLE

Risk management is a routinely scheduled agenda item for regular Board meetings. Our chairman consults with our lead independent director to determine the topics and scope of each discussion. A number of other Board processes support our risk management efforts, such as those by which our Board reviews and approves our capital budget and certain capital projects; our hedging policy; new country entry; significant acquisitions and divestitures; equity and debt offerings; and the delegation of authority to our management.

### MANAGEMENT ROLE

Risk management efforts are overseen by our management team, and we work with outside consultants to identify, evaluate and mitigate key risks affecting our business. We maintain a Disclosure Committee to assist management in evaluating and determining appropriate disclosures, including those regarding risk, in our public filings.

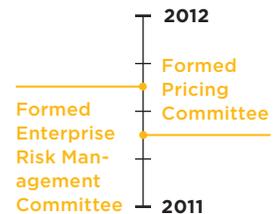
### RECENT RISK MANAGEMENT INITIATIVES

We continually strive to enhance our risk management program and undertook several initiatives in 2011.

During the year, we formed an Enterprise Risk Management Committee composed of senior-level personnel from various disciplines to assist our management in identifying, updating and mitigating risks applicable to our business. We continue to enhance our risk identification and mitigation processes in an effort to develop a more integrated and long-term risk-mitigation strategy that focuses on potential risks over the next 10 years.

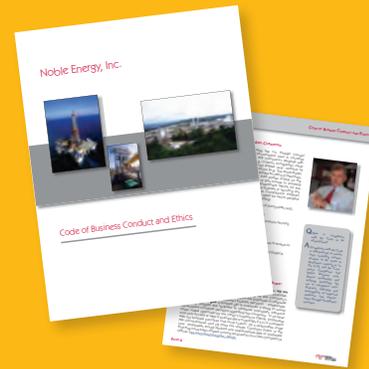
Also in 2011, our Board appointed a Pricing Committee composed of Board and management representatives to provide oversight of two debt offerings and the renewal of our credit facility. The committee played an important role in enterprise risk management by assessing financial markets and conditions to determine key pricing and other material terms of these transactions.

### RISK MANAGEMENT INITIATIVES



Our Code of Business Conduct and Ethics reflects our commitment to conducting business in a manner consistent with the highest ethical standards wherever we operate. Available on our website, our Code of Business Conduct and Ethics and related programs set policies to guide legal and ethical standards of conduct, delineate specific consequences for non-compliance, and provide a mechanism for administering the Code and ensuring compliance. The Code and website also provide a toll-free, 24-hour multi-lingual hotline to report potential incidents of non-compliance. Over the years, the Company has investigated and taken corrective action in response to hotline reports on such matters as abuse or misuse of Company assets, harassment and substance abuse. Our Code has been translated into several languages to ensure its accessibility to every Noble Energy employee and contractor.

Effective November 1, 2011, our Board adopted a revised Company Code of Business Conduct and Ethics that includes several new policies and changes to improve its readability. These changes occurred in conjunction with our annual review of the Code.



### COMPLIANCE AND ETHICS

Our commitment to compliance and ethics is an important aspect of our risk management program, and an integral part of our Company culture. We maintain a Compliance and Ethics Program that is grounded by our Code of Business Conduct and Ethics and supported by a number of subject-specific programs.

#### Compliance and Ethics Program

Our Compliance and Ethics Program provides management commitment, leadership and oversight; education and training; monitoring and auditing; and additional resources. We also maintain a number of subject-specific compliance and ethics programs. Examples include our Antitrust Law Compliance Program, Anti-Boycott and Export Control Law Program, Disclosure Law Compliance Program, Marketing Law Compliance Program and Political Law Compliance Program. Given the global nature of our operations, our Anti-Corruption Compliance Program is discussed in the next section.

In 2005, we formed a Compliance and Ethics Committee, comprised of senior-level personnel from different operational and functional disciplines. It is tasked with assisting our management in identifying, developing and implementing appropriate policies and management systems to support our overall objectives in the areas of compliance and ethics.

#### Anti-Corruption Compliance Program

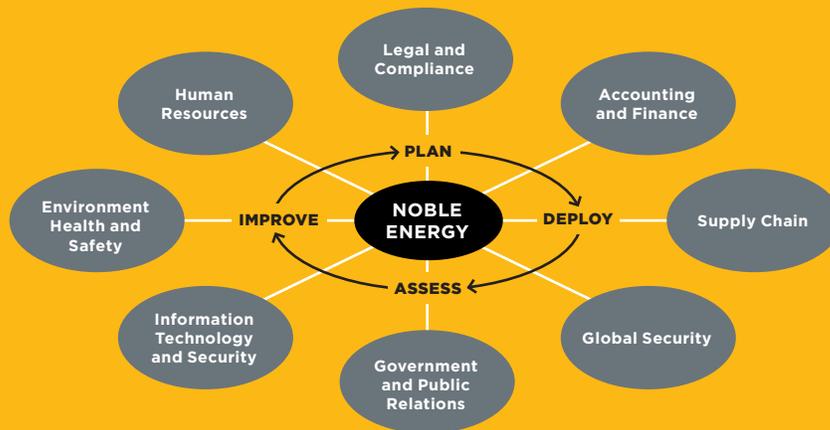
Our Policy Regarding Anti-Corruption prohibits employees and third parties acting on behalf of Noble Energy from offering, promising or paying money or anything of value, either directly or indirectly, to a government official or representative for the purpose of improperly obtaining or retaining business or securing any improper advantage. Our Anti-Corruption Compliance Program supplements this policy, providing practical guidance in such areas as identifying “red flags” or warning signs, and governing the receipt or donation of gifts or charitable contributions.

Anti-corruption compliance training is required for Company employees and consultants who travel outside of the U.S. for business; communicate on behalf of Noble Energy with non-U.S. government officials, companies or individuals; are responsible for initiating due diligence; or have other job duties related to compliance with our Anti-Corruption Compliance Program. Our training includes basic and advanced courses, taught both live and online. In 2011, 251 employees or contractors received in-person anti-corruption training, and another 99 employees or contractors took this training online.

Another way we effectively manage anti-corruption risk is by conducting risk-based, anti-corruption due diligence on international contractors according to our Guide to Commercial Due Diligence. During 2011, these practices were expanded to require field-contractor response to human rights and security-related questions.

In November 2011, over 90 key compliance and operations leaders participated in our second-annual internal Compliance and Ethics Summit to further

integrate and promote compliance awareness and understanding. This diagram emphasizes how effective compliance ties to our business.



The Extractive Industries Transparency Initiative (EITI) supports enhanced governance in resource-rich countries through the disclosure and authentication of company payments and government revenue receipts from oil, gas and mineral development. Noble Energy supports this voluntary initiative to develop good governance in producing countries by improving transparency of payments in the extractive industry. At year-end 2011, Noble Energy was not operating in any EITI-compliant countries.

**Recent Compliance and Ethics Initiatives**

We continually strive to enhance our compliance and ethics programs. In furtherance of this effort, we hired a dedicated Chief Compliance Officer (CCO) in 2011 to assume compliance responsibilities that previously were held by the Chief Financial Officer.

In June 2011, we revised our Policy Regarding Anti-Corruption to prohibit facilitating payments. While the Foreign Corrupt Practices Act (FCPA) provides an exception for facilitating payments under certain circumstances, our policy now is to prohibit such payments except in emergency situations to avert an imminent threat to the health, safety or welfare of the employee, the employee’s family or a co-worker.

We held our second-annual internal Compliance and Ethics Summit in November 2011. This summit provides a forum for management to reinforce our

compliance efforts and an opportunity for employees to hear about and discuss key trends and developments. The program includes presentations by internal and external speakers on a variety of compliance and ethics topics.

**ASSESSING BUSINESS OPPORTUNITIES**

Our New Ventures team is continually in search of new opportunities around the globe to explore for and develop oil and natural gas resources. This cross-functional group focuses on technical feasibility, commercial attractiveness and above-ground risks when considering entry into a new region. Any new country entry must first undergo this risk assessment, receive Board approval and undergo review again on an annual basis. This process improves our management of above-ground risks in areas such as security, corruption, EHS and corporate social responsibility.

The EHS Strategic Planning and Communications and Government Relations teams are a part of the New Ventures team and work to identify EHS concerns, as well as social and political risks associated with new ventures. They provide recommendations for operations teams to implement to minimize risk of social and environmental impacts, cultivate relationships within local communities, and establish collaborative relationships with governments.

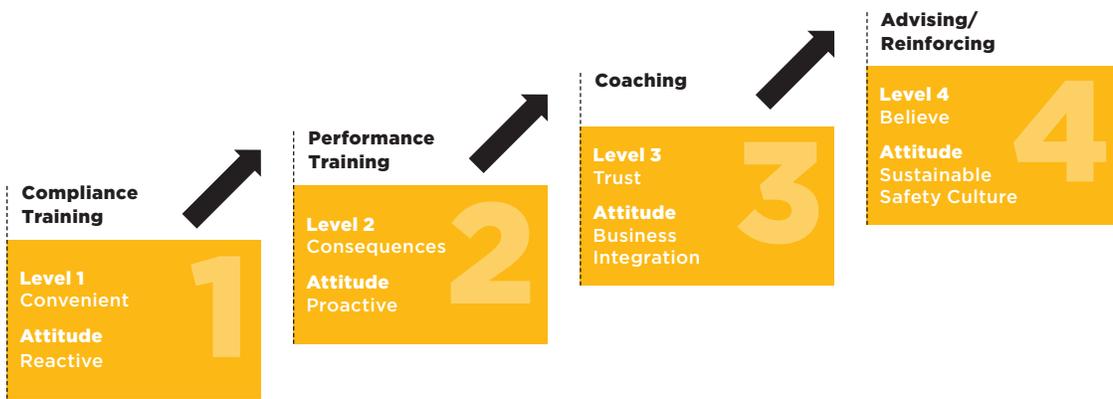
**COMPLIANCE AND ETHICS INITIATIVES**



## EMPLOYEE SAFETY PERFORMANCE

We analyze employee safety performance trends and develop programs to address critical issues. For example, in 2009–2010, we launched a Hands Campaign to address hand-related injuries. In 2010, we launched a Hazard Hunt Campaign to address struck-by/caught-between incidents. Both campaigns provide on-site coaching for hazard awareness, recognition and risk management.





# Providing a Safe Work Environment

Our commitment is to maintain a sustainable safety culture that fosters the development of a safe, efficient and environmentally sound workplace. Our Global Environmental, Health and Safety Management System (GMS) incorporates legal requirements and best practices to protect the environment, health and safety of our employees and communities.

## ACHIEVING A SUSTAINABLE SAFETY CULTURE

Following a series of acquisitions in the mid-2000s, we recognized the need to establish a more consistent safety culture across our operations. We conducted a series of site-specific safety analyses for each of our operations, finding sites at different levels of safety maturity. While some sites exhibited excellent safety behavior and commitment, safety culture needed improvement at other sites. As a result, we began conducting a series of training sessions in 2008 to engage in dialogue with our employees about the importance of proactive safety leadership rather than reactive behavior.

## GLOBAL ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT SYSTEM

Noble Energy depends on our GMS to foster EHS leadership and establish clear and consistent expectations for how we manage EHS risks in operations worldwide. The GMS framework integrates standards from a number of industry and regulatory sources, such as the Occupational Safety and Health Administration (OSHA), the International Labour Organization, the Canadian Standards Association, the Environmental Protection Agency and the World Bank. We review the GMS framework on an annual basis and ensure that it receives a third-party review every other year to maintain consistency with EHS laws and regulations, and industry best practices.

# GEMS

## Global Environmental, Health and Safety Management System

A consistent framework for the management of EHS issues is necessary to protect the environment and the health and safety of our employees and communities. Our GMS incorporates legal requirements and best practices under an umbrella framework consisting of 14 elements:

### Prepare

1. Management Commitment and Employee Participation
2. Legal Aspects and Document Control
3. Safe Work and Operating Practices
4. Process Safety and Environmental Information
5. Emergency Preparedness and Community Awareness

### Execute

6. Safety and Environmental Training
7. Contractor Safety Management
8. Pre-startup Review
9. Management of Change
10. Risk Assessment and Management

### Verify

11. Performance Monitoring and Measuring
12. Incident Reporting, Analysis and Corrective Action
13. Management System Compliance Audit

### Perform

14. Operational Integrity and Continual Improvement

## SAFETY AND ENVIRONMENT COUNCIL

We established a Safety and Environment Council, as well as Area Safety Committees and EHS Champions, to assist employees in meeting their EHS responsibilities and to provide them with opportunities for continual improvement. The council comprises dedicated representatives from various areas of operations who periodically meet to share experiences, issues and concerns. The council fosters a safe, healthy and environmentally responsible workplace. Within each specific area or region, dedicated employees participate in an Area Safety Committee tasked with improving team EHS performance. Representatives from each Area Safety Committee serve on the Safety and Environmental Council. EHS Champions are volunteer posts assumed by area-specific employees who are dedicated to improving EHS initiatives and policy compliance on a daily basis.



Within the GMS, we developed Safe Work and Operation Practices covering Company plans, procedures and strategies for the protection of personnel and the environment. They are periodically reviewed to support continual improvement and include applications such as our Standard Operating Procedures, Job Safety Analysis and Hazardous Communication Program. Our contractors follow their own Safe Work and Operation Practices, but those practices must meet Noble Energy's general requirements.

Under the Emergency Preparedness and Community Awareness element of the GMS framework, incident-management plans are also developed and implemented for each of our operations, as well as at the corporate level. The plans contain provisions for dealing with unanticipated emergencies, and assign authority and duties to ensure that emergency response is timely and effective. Plans cover such areas as:

- Business Continuity
- Incident Management
- Oil Spill Contingency
- Spill Prevention, Control and Countermeasure
- H<sub>2</sub>S Contingency
- Hurricane Evacuation
- Coast Guard Emergency Evacuation

### EMPLOYEE ENVIRONMENT, HEALTH AND SAFETY PARTICIPATION

We promote a “stop work” culture among our employees and contractors. Any person engaged in operations at one of our facilities has the authority and duty to stop work in response to observed dangers to personnel or the environment, or violations of governmental regulations. Periodic stop work drills are conducted to remind and empower employees and contractors to act on this responsibility whenever they feel it is necessary.

We depend on EHS initiatives that require active participation by employees, such as our management of change, pre-startup review, risk analysis, standard operating procedures and job safety analysis initiatives, as well as near-miss reporting and training. In support of these initiatives, we established a GMS Rewards Program to recognize employees who have been identified as leaders in safety.

Additionally, our North America Northern Region conducts biannual Safety Summits. Each Summit is led by the senior vice president of the Northern Region to reinforce expectations and deliver key messages about EHS leadership. Every district manager in the Northern Region of our U.S. operations is required to present their district's performance, including ongoing challenges and EHS gaps. We plan to extend this program to our other core operating areas in the future.

### ENVIRONMENT, HEALTH AND SAFETY TRAINING

A robust training program is essential for supporting a sustainable safety culture. Our training program applies a variety of training methods, such as computer-based training, site-specific training, safety alerts and field-safety orientation. We estimate that operational positions receive at least 25 hours of safety training a year, and office-based employees receive approximately seven hours of safety training a year. We are in the process of integrating our training metrics into a new tracking system.

In 2010, we began providing “Advanced Safety Leadership” training to our field employees and supervisors. This two-day training course focuses on safety communications, encourages employee involvement and engagement, and emphasizes safe operations as a key business objective.

### EMPLOYEE SAFETY

Our employees worked over 3.5 million hours and had only four recordable incidents – two of which were lost-time incidents – achieving a total recordable incident rate (TRIR) of 0.22.

### CONTRACTOR SAFETY

In 2011, our contractors worked more than 11.6 million man hours and achieved a TRIR of 0.88 with 12 lost-time incidents. In 2010, Noble Energy contractors logged more than 9.8 million man hours and achieved a TRIR of 0.70 with nine lost-time incidents.

### EMPLOYEE AND CONTRACTOR SAFETY DATA

	2009	2010	2011
Total Lost-time Incidents	17	10	14
Total Recordable Incidents	37	37	55
Combined (TRIR)	0.67	0.56	0.72
Total Days Away from Work Incident Rate (DWIR)	0.31	0.15	0.18

### CONTRACTOR SAFETY STANDARDS

We recognize the role of our contractors in achieving EHS excellence and expect them to operate in accordance with our safety standards. Examples of our efforts in this area include:

- Contractors must disclose their EHS performance as part of the prequalification process.
- Contractor symposiums are held to review policies and expectations.
- Pre-construction meetings are held to address safety issues.
- Safety coordinators are stationed on offshore rigs for ongoing guidance and support.
- A contractor management initiative is underway to standardize the contractor life-cycle for both domestic and international contracts.
- Contractors are expected to complete a Noble Energy safety orientation to access our jobsites. In the U.S., we request contractors complete safety training programs such as Safe Land or Safe Gulf.

### SAFETY PERFORMANCE

We set corporate safety goals and objectives that apply to our employees and contractors. Safety metrics are reviewed as part of our compensation program.

Measured metrics include lost-time incidents, total recordable incidents, fatalities, as well as near-misses, first-aid-required incidents, work-related illness, equipment damages, vehicle damages, fire, unintentional discharges and days of restricted duty at work, as defined by OSHA standards for consistent benchmarking.

If a health or safety incident occurs during field activity, it is reported to an internal incident hotline to initiate a response, including any regulatory reporting requirements.

In 2011, an engine fire that occurred during maintenance operations resulted in the death of a contract worker on a supply vessel. In the aftermath of that incident, we worked with the contractor to understand the causes of the accident, and incorporated those learnings into our practices to minimize the risk of a similar incident.

### SECURITY

Our growing and diverse asset portfolio presents unique security challenges, which we address on a case-by-case basis to ensure the safety and security of our employees and the communities where we operate. We believe security needs should be

integrated into project planning. Our Corporate Social Responsibility Policy reflects our commitment to provide security in a manner consistent with international human rights. We are guided by the Voluntary Principles on Security Standards and Human Rights, a set of principles developed in a multi-stakeholder initiative comprising NGOs, governments and companies.

In 2011, we created a central function that focuses on managing security risk. This group conducts security-risk assessments to help us better understand the sociopolitical environments of the areas in which we operate. We also actively engage with governments, including U.S. officials, to assess and identify potential risks and threats. We created an Information Security Committee within our security group to address the growing risk of cyber threats.

While Noble Energy does not directly employ any public security forces, we may employ private security guards if we determine there are significant security risks, or if mandated to do so by the host government. For example, recognizing security challenges in Israel, we hired a private security firm to secure our assets and safeguard our employees. We have protocols for interacting and maintaining effective communication with Israeli public security forces.

ATLANTIC  
OCEAN

AFRICA

Aseng is a crude oil development project on Block I offshore Equatorial Guinea. Noble Energy holds a 38 percent working interest and is the technical operator of the project. The Aseng development includes five horizontal wells flowing to a floating production, storage and offloading (FPSO) vessel, where the production stream is separated. The oil is stored on the Aseng FPSO until sold. Natural gas and water are reinjected into the reservoir to maintain pressure and maximize oil recoveries. See our 2011 Annual Report for more details.

GULF OF  
GUINEA

Equatorial  
Guinea

## Excellence at Aseng

Breakthrough execution and best-in-class safety performance enabled us to achieve first production in November 2011 – seven months ahead of schedule and 13 percent under budget.

Extensive communication, planning and testing were employed to enable early identification and mitigation of potential delays. We ensured peer reviews and third-party assessments of our schedule, budget and engineering plans, and we made our weekly management meetings open to our partners and the government. Transparent communication with all key stakeholders was an important contributor to our success.

A schedule was developed to optimize the movement of drilling rigs, subsea equipment, surface equipment and installation vessels. Each piece of equipment was rigorously tested at key intervals during construction.

Another contributor to our success at Aseng was our commitment to implementing safety-leadership cultures at sites where our contractors work outside of our operational control. Undoubtedly, the single most labor-intensive task at Aseng was the construction of our FPSO. Approximately 2,000 workers were on site to construct our FPSO, along with approximately 8,000 other workers from different countries working on other projects at the shipyard. We worked closely with the shipyard's management to ensure that a commitment to thinking and acting safely was integrated into our project. The motto "safety starts with me, together we care" quickly took hold as each individual embraced his or her responsibility for safety. Safety information was disseminated daily, and monthly award ceremonies were held to recognize the best safety observations

and behaviors. These award ceremonies had the added benefit of raising morale, while reinforcing a collective dedication to safety. More than 10.5 million man hours were spent during the construction phase, with no major accidents and only 408 man hours lost for minor incidents.

We are very proud that contractor activity for the construction of the Aseng FPSO was recognized for best-in-class safety performance. During the construction of the FPSO in Singapore, the shipyard builder received an award from the Government of Singapore for its outstanding safety program. This unrivaled dedication to safety kept construction moving safely and efficiently.



## Leading the Way Back to the Gulf

The Macondo incident in the Gulf of Mexico affected the entire oil and natural gas industry. The subsequent deepwater drilling moratorium not only halted ongoing deepwater drilling operations in the Gulf, but also stopped the approval process for new drilling permits. We saw the moratorium as an opportunity to take a solutions-based approach in working with the federal government in the face of uncertainty.

The 2010 Macondo spill resulted in a number of fundamental changes to deepwater drilling, including heightened regulatory scrutiny, more stringent operating and safety standards and enhanced engineering requirements. These included additional requirements to subsea blowout preventer testing procedures that required a number of technical changes.

Realizing the industry would require new and innovative equipment and procedures to contain a subsea blowout, Noble Energy collaborated with government officials, energy companies and service providers to assess emergency response systems and determine what enhancements were needed. Noble Energy then brought together a unique consortium of 24 independent deepwater energy companies to see how we could best address the post-spill criteria and comply with the new rules. The Helix Well Containment Group was formed in a shared mission to develop a new approach to deepwater spills. Noble Energy worked with government officials, energy companies and service providers to enhance the overall safety of deepwater drilling operations through third-party certification of well designs and blowout preventer testing. We also made special arrangements during the moratorium to retain our drilling rigs and crews to ensure operational readiness.

Noble Energy experts have since been deployed to train others on these new tools and procedures. Noble Energy also chaired the Helix group's technical committee and volunteered our technical expertise to write a regional Gulf of Mexico well-containment plan and develop a well-containment screening tool.

In February 2011, we secured the first post-moratorium deepwater drilling permit, allowing us to restart our deepwater Gulf of Mexico activities. Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) Director Michael Bromwich stated: "This permit represents a significant milestone. ... [It] was issued for one simple reason: [Noble Energy] successfully demonstrated that it can drill its deepwater well safely and that it is capable of containing a subsea blowout if it were to occur."

Technical breakthroughs and operational readiness were key to the permit approval, but our innovative effort to unite regulators and industry partners behind a common goal was also fundamental to leading the way back to work in the Gulf of Mexico.





In 2011, we conducted a baseline assessment of our current procedures and looked for ways to make improvements in a number of areas. As a result, we strengthened relationships with our emergency response contractors, enabling us to more closely align contract requirements to the specific needs of our operations.

## Offshore Operations and Emergency Preparedness

As a result of the lessons learned from the 2010 Gulf oil spill, Noble Energy enhanced its approach to emergency response, particularly in the areas of subsea well containment, oil spill response and shoreline-protection capabilities. We also looked beyond our spill response and planning activities to improve our overall emergency preparedness plans and processes.

We are a member of several international organizations that seek to share equipment and resources in the event of a spill, including the Oil and Gas Operators Emergency Resource Allocation Group in Equatorial Guinea.

Practice and awareness are other essential elements of emergency preparedness. In 2011, we conducted four international response drills in addition to multiple U.S.-based exercises conducted with the Helix Well Containment Group.

One of the most significant and successful improvements to our offshore procedures was the integration of Noble Energy's offshore management systems with the management systems of our drilling contractors. As a result, our internal management system requirements for offshore activities now harmonize global EHS principles into a single methodology, which includes Safety Case Guidelines. We now operate at standards that place stronger emphasis on contractor compliance in developing a project-specific EHS management system, which further reduces risks associated with drilling activities.

On each of our deepwater wells, we conduct a risk-analysis process called "Drill Well on Paper" (DWOP) to ensure shared understanding and alignment among our employees, drilling contractors and service companies. DWOP has proven successful, as it brings multiple groups together behind a single goal. We see this as a critical safety investment.

Over the next three years, we plan to implement an "All Hazard" approach to emergency-response planning. This effort will require a hazard vulnerability assessment, which will be undertaken at the business-unit level. This process will create a comprehensive preparedness, response and recovery architecture that utilizes the National Fire Protection Administration (NFPA) 1600 – Standard on Disaster/Emergency Management and Business Continuity Programs. NFPA 1600 is a broad-based consensus standard developed for the public and private sectors, as well as NGOs. It is designed to be applicable both in the U.S. and internationally.



One of the most significant and successful improvements to our offshore procedures was the integration of Noble Energy's offshore management systems with the management systems of our drilling contractors.

# Responsible



As part of the analysis that we conducted to determine the content of this report, we identified three environmental focus areas: onshore oil and natural gas development (including hydraulic fracturing), water management and air emissions.

# Respecting our Environment

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We are committed to conducting our business in a manner that protects the environment, health and safety of our employees and communities. To achieve this, we work to comply with EHS laws and apply reasonable standards where laws do not exist. By adhering to this approach, we strive to minimize injuries and incidents while protecting the environment.

## **ENVIRONMENTAL COMPLIANCE**

Our EHS Compliance and Risk Group facilitates GMS, EHS and operational integrity audits, utilizing third-party consultants where appropriate to ensure compliance with regulations. Each year, we determine which sites and processes will be audited using a risk-based approach that focuses on identifying specific regulatory or process-related risks.

In addition, we promptly investigate potential incidents of non-compliance with local, state or federal requirements. In 2011, alleged violations of environmental regulations resulted in the payment of \$78,200 in civil fines and penalties.

## **DEVELOPING ONSHORE OIL AND NATURAL GAS RESOURCES RESPONSIBLY**

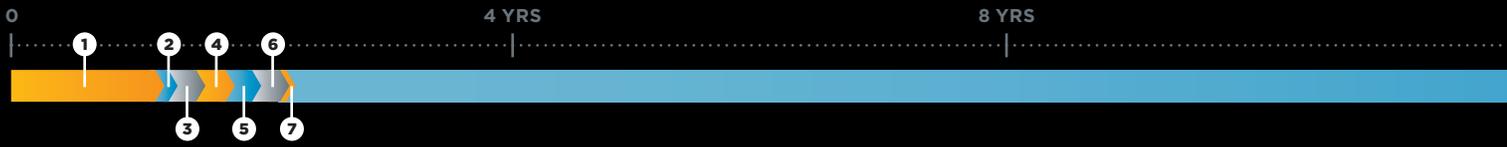
In the last few years, public concerns have been raised about the possibility of the chemicals used in fracturing fluids reaching ground and surface water supplies. We require our site operators to adhere to strict construction standards and best management practices to avoid potential environmental impacts during onshore natural gas development.

We work to reduce risks to water supplies, the environment and human health. Our practices include managing our water resources (see pages 29–31), ensuring proper installation of our wells (see pages 25–28), and conducting well completion activities, including hydraulic fracturing (see pages 26–28).

## **Ensuring the Integrity of our Wells**

Well integrity is an initial line of defense against water contamination. The pre-drilling subsurface evaluations conducted by our geologists and engineers are used to determine the depths of formations that contain underground drinking water, the proximity of that water to potential oil and natural gas intervals, and the integrity of the confining layers above and below the target completion zone. Our engineers then design a casing and cementing plan that shows how the well will be constructed. This plan is peer reviewed.

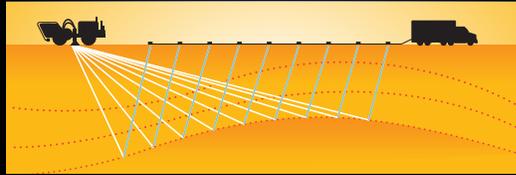
In accordance with best management practices, we utilize multiple strings of casing and cement to prevent gas migration or drinking water contamination. We monitor our pump pressures and fluid returns during the cementing process to ensure adequate coverage of cement across the production and groundwater



**1. Land Acquisition**

We acquire a lease or similar rights that allow for oil and natural gas exploration and development. Terms vary and can contain stipulations or mitigation measures to protect various resources. (Duration: one month to a year or more)

**2. Seismic**



We conduct seismic surveys to determine the location of geologic formations capable of producing oil and natural gas. Seismic testing is done by sending sound waves into the earth that bounce back to the surface and are recorded by geophones or electronic recorders. (Duration: a few weeks to one month)

**3. Site Due Diligence**

We conduct due diligence by performing on-the-ground surveys to identify existing environmental or social issues to be addressed in our permit applications. (Duration: a few weeks to two months)

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**4. Site Permitting**

We obtain state and federal permits to authorize the drilling and operation of a new well. (Duration: varies by state or U.S. federal property)



**5. Site Preparation**

Once permits are received, roads are upgraded or constructed to access the site. Well pads are constructed to locate the drill rig and associated equipment. (Duration: weeks to months)

**6. Drilling**

Our geologists and engineers evaluate subsurface conditions to design the well, which includes an analysis of formations that contain underground drinking water. During the drilling process,

zones. At various stages of the drilling and completion process, mechanical integrity of the casing and cement is tested to ensure proper installation. We also have well control procedures in place to prevent events, such as loss of well control, from occurring.



During the production phase, we continuously monitor flow rates and annular pressures, and we regularly inspect the wellhead assembly and other equipment for leaks, corrosion or damage.

**Hydraulic Fracturing**

Hydraulic fracturing has been used in the oil and natural gas industry for decades to extract economical amounts of oil and natural gas from reservoirs. Recent technological advances have enabled more efficient well completions within geological formations that were not viable producing zones even a few years ago. This allows for the recovery of oil and natural gas reserves from a number of new areas.

Geologic formations may contain large quantities of oil or natural gas, but have a poor flow rate due to low permeability. Hydraulic fracturing is conducted to create a flow path for hydrocarbons. After a well has been drilled and steel pipe has been cemented

a drilling crew drills down while pumping water and additives (drill mud) to cool the drill bit and flush drill cuttings to the surface. Multiple layers of steel pipe, called casing, are inserted into the full length of the well and cemented in place to protect fresh water formations (see page 28). (Duration: a few days to several months)

#### 7. Well Completion (and Hydraulic Fracturing)

After the well is drilled, the drilling mud is replaced with completion fluid, and an electrical current is sent into the well casing to shoot small holes through the casing and into the geologic formation. Fracturing fluid is prepared on location by sourcing water from a storage pond or tank to a hydration unit and blender that gels the fluid and mixes it with sand and some chemicals. The fluid is then pumped into the well at a high pressure, creating fractures in the rock deep underground. (Duration: a few hours to several days)



#### 8. Production and Partial Site Reclamation

After the drilling and fracturing of the well are complete, the completion crew runs the necessary packers, tubing and production tree to enable commercial production. During production, multiple "workovers" – such as cleaning, repair and maintenance activities to increase or restore declining production – may be performed over the life of the producing well. Once the well is producing oil and/or natural gas, areas of the well site that are no longer needed are reclaimed. Reclamation activities can include reducing the size of the well pad and revegetation. (Duration: 10 to 20 years)



#### 9. Well Plug and Abandonment and Final Reclamation

When the producing well is no longer economically viable, it is plugged by pumping cement into the well. The well heads are removed and the site is abandoned according to regulatory requirements. (Duration: a week to several months)

These steps provide a generic depiction of our operational process for U.S. onshore oil and natural gas exploration and development.

in place, a mixture composed primarily of water, sand and a small amount of chemicals is injected at a high pressure into rock formations to create a flow path (or fracture) for trapped oil and natural gas. The sand keeps fractures open, allowing oil and natural gas to flow into the well. The fracturing fluids are normally recovered during the initial stage of well cleanup and are disposed of according to state or federal regulation. Some water is also produced from returned fracturing fluids or from natural formations. Flowback fluids are managed through a variety of mechanisms, including underground injection, treatment and recycling.

The hydraulic fracturing operation can take a few hours to a day and is performed by personnel trained to monitor pump pressures, fluid volumes and annular pressures with state-of-the-art recording instruments. If, during hydraulic

fracturing activity, abnormal pressure responses indicate a potential for mechanical failure or fracture growth outside of the production zone, the job is stopped and corrective action taken.

We have had no impacts to groundwater from hydraulic fracturing. Out of a total 7,479 wells in the DJ Basin Wattenberg field, including 506 wells drilled in 2011, all were successfully hydraulically fractured.

#### Disclosure of Hydraulic Fracturing Fluids

Noble Energy is an active member and participant in FracFocus, a national hydraulic fracturing chemical registry website. We began voluntarily disclosing the chemicals used at Noble Energy wells through FracFocus in mid-2011, registering 370 of our wells online by the end of the year.

# 506

Total DJ Basin Wattenberg field wells drilled and successfully fractured in 2011

# 370

Noble Energy registered wells with FracFocus

# How deep is our well?

Deeper than the deepest part of the Grand Canyon (6,000 feet)

# 1.3x

The height of the tallest tree in the world, Sequoia Redwood (379.1 feet)

# 21x

The height of the Empire State building (1,454 feet)

# 5.5x

Rig Size Not to Scale

Aquifer

Layers of protective steel and cement are used to ensure water aquifers remain undisturbed.



## GROUNDWATER PROTECTIVE LAYERS

- 1 Cement Layer 1
- 2 Conductor Casing
- 3 Cement Layer 2
- 4 Surface Casing
- 5 Cement Layer 3
- 6 Intermediate Casing
- 7 Cement Layer 4
- 8 Production Casing

At various stages of the drilling and completion process, mechanical integrity of the casing and cement are tested to ensure proper installation. We use best management practices installing and cementing the multiple strings of casing necessary to prevent gas migration or drinking water contamination.

1,000'

2,000'

3,000'

4,000'

5,000'

6,000'

7,000'

8,000'

Target Oil and/or Gas Zone

Fracturing

Horizontal Well

\*This graphic represents a generic depiction of our onshore well depth and casing.



Two of our core areas: the DJ Basin (left) and the Marcellus Shale (right), along with our other onshore U.S. operations, use hydraulic fracturing for the production of oil and natural gas.

## Respecting Water Resources

We recognize the importance of water quality and availability. Developing energy resources can require large volumes of water, and significant energy is needed to access, treat and deliver water. With increasing demand for energy and water, we are actively managing and conserving water resources to minimize the impact of our operations.

### Life-Cycle Water Management Strategy

Water is used during many oil and natural gas activities, including drilling and completion of new wells, maintenance and upgrades on existing wells, site construction and sanitary purposes.

In 2011, Noble Energy implemented a Life-Cycle Water Management program for our DJ Basin operations focused on responsible sourcing, transport, use, treatment, recycling and disposal of water resources. This program supplements our ongoing efforts to collaborate with communities as we work to minimize consumption, properly dispose of produced water, and test and implement new water-treatment and -reuse technologies to address potential environmental and community impacts. We employ professionals with expertise in water resources to work with the community to achieve water management objectives. Efforts are underway to implement this strategy globally. The complete range of water management operations addressed by this program is described on page 30.

### Our Water Use in 2011

In 2011, our U.S. operations used an estimated 19 million barrels of water – approximately 7 million of these barrels were reused during subsequent drilling and maintenance activities.

While over 12 million (of the 19 million) barrels of water were obtained from public supplies, we are seeking to reduce our acquisition of municipal or public supplies as part of our water management strategy (see page 30).

We also continue to evaluate the viability of alternative water sources (such as brine aquifers) to minimize our use of public supplies.

In 2012, we participated in the Carbon Disclosure Water Project as we continued to enhance measurement and transparency of our water use.

### U.S. Sources of Water

Barrels



\*Water is recycled and reused from Noble Energy produced water

In 2011, Noble Energy implemented a Life-Cycle Water Management program for our DJ Basin operations, reflecting our commitment to responsible sourcing, transport, use, treatment, recycling and disposal of water resources. We plan to expand this program to all of our onshore operations.

**1 Assess Demand**

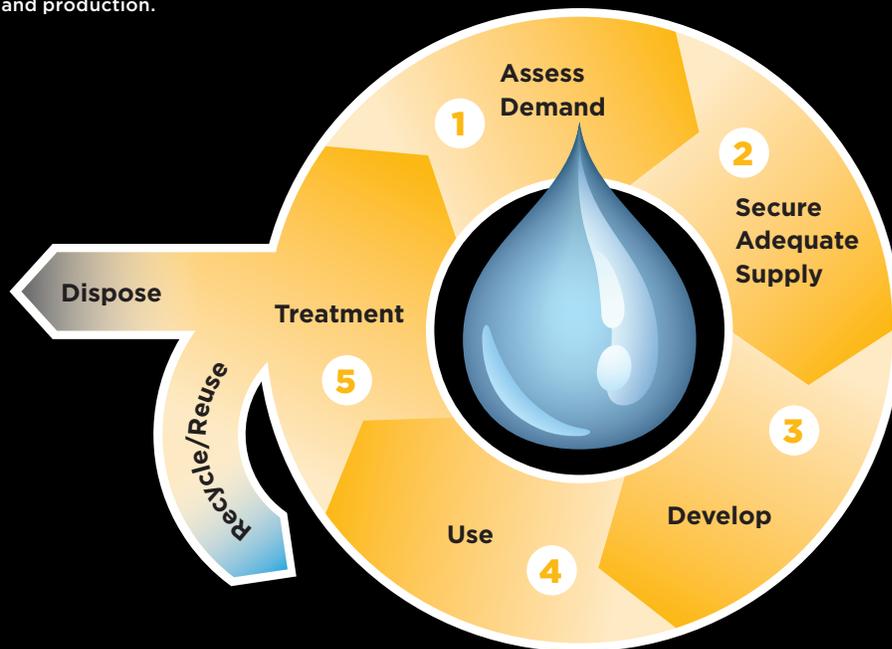
Our geologists and engineers identify multi-year water demand for drilling and production.

**2 Secure Adequate Supply**

Our approach to securing water rights seeks to strike a balance between effective, long-term and reliable water supply planning to meet our operational demands with the economic, social and environmental needs of landowners and surrounding communities. We work with local landowners to secure necessary water rights and use water resources in compliance with applicable laws and regulations.

**3 Develop**

Once we secure water, we develop water transport and storage infrastructure. Transportation and storage infrastructure – such as pipelines, pumping facilities, tanks and ponds – are designed to meet the specific physical and operational circumstances in each area of operation.



**5 Treatment, Recycling and Reuse**

We apply proven water treatment, recycling and reuse processes to treat wastewater captured as flowback and water produced during operations\* to reduce the amount of fresh water we consume and minimize our “hydrologic footprint.” These water management efforts optimize capital, water acquisition and transportation costs; minimize the amount of residual wastewater that is typically disposed of in deep injection wells; and contribute to reducing our impact on the environment and community.

**4 Use**

Water is used in drilling, well completion (which includes hydraulic fracturing – see page 26) and workover activity. Site-specific water requirements can fluctuate based on a number of factors and are coordinated with water management teams and field personnel to ensure adequate supply. Effective water management also includes an accurate measurement and reporting system.

\* Over the lifetime of an oil or natural gas well, water is regularly brought to the surface in the form of either flowback water or produced water. Flowback: water injected into the well during drilling that returns to the surface. Produced water: naturally occurring, highly saline water that can be produced (come to the surface) during the well’s life cycle.

DJ Basin Wattenberg field in Colorado



UNITED STATES



## Applying our Water Management Strategy in the DJ Basin

Our Wattenberg field in the DJ Basin of Colorado is our largest onshore U.S. asset. This area utilized an estimated 8.5 million barrels of water in 2011. In an effort to secure adequate water and avoid competing with public water supplies, we source water from systems that are unsuitable for drinking purposes. This includes brine aquifers, grey water or produced water.

We also reduce the quantity of water transported by truck to each site by strategically locating storage ponds and tanks, and utilizing pumps and pipelines as alternative means of water delivery. These water-supply facilities help reduce our overall footprint by serving multiple sites and reducing the number of truck trips needed to transport water. In fact, in 2011, we reduced our truck mileage by approximately 5 million miles in the Wattenberg field, yielding an annual reduction of 58,000 tons of carbon dioxide (CO<sub>2</sub>) emissions.

Our engineers and operations staff for the DJ Basin are continually identifying and assessing opportunities to conserve water. Enhancements implemented since fourth quarter 2010 resulted in a 10 percent reduction in the volume of water consumed per well in the region.

### **COLORADO ENERGY WATER CONSORTIUM**

In 2011, Noble Energy entered into a collaborative agreement with Colorado State University, the state government, industry partners and environmental NGOs to study the nexus between energy and

water-related issues. Our initial \$250,000 contribution established the Colorado Energy Water Consortium. Noble Energy experts will participate in each research project, serve on the Consortium's board of directors and coordinate activities with other energy companies. The Consortium will also include engineering corporations, environmental organizations and government agencies. We are seeking ways to expand this multi-stakeholder approach to research water and energy issues in the other regions where we operate.

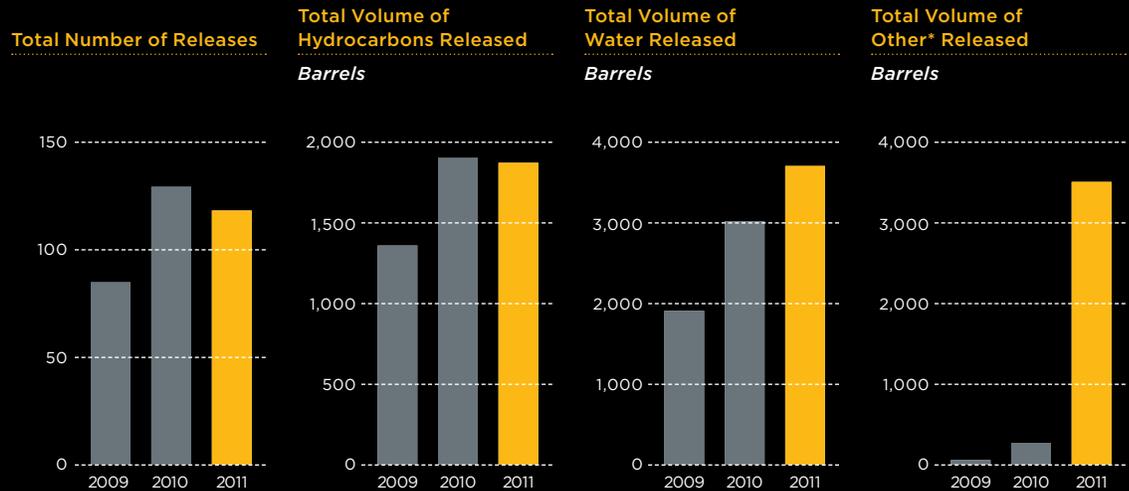
Initial activities of this group include the implementation of a Water Intensity Study and Geographic Information System (GIS) analysis of water quantity and quality in the Wattenberg field. The Consortium also outlined research projects to analyze water use during horizontal well fracturing activities and associated impacts to the local environment and communities in the Wattenberg field. In addition, they will analyze impacts of other energy and exploration activities on water resources in the field, such as the full life-cycle of water procurement, use, treatment, recycling and disposal.

## ONSHORE SPILL PREVENTION AND RESPONSE

Our Spill Prevention, Control and Countermeasure Plans outline necessary mechanical integrity testing, site design, inspections, training and response procedures. If a spill occurs during field activity, personnel are trained to call our incident hotline to initiate an incident response, including any regulatory reporting requirements. If the problem is something that can be fixed safely and immediately, we proceed with this course of action. If the spill is large enough to require remediation, we excavate the soil where the spill occurred, test it, verify that all contaminated soil has been collected and haul it to an approved landfill. We then replace the remediated area with clean soil.

Noble Energy tracks all spills over one barrel and reports any spills that trigger the state reporting threshold, or that extend outside secondary containment and reach water.

## U.S. REPORTABLE SPILLS



We are committed to a baseline water sampling program.

### Protecting Surface and Groundwater Resources

We utilize secondary spill-containment techniques to protect against contamination in the event of a spill during drilling activity, as well as additional storm water controls to manage runoff. At locations where we are past the drilling phase and are producing, we rely mainly on secondary containments, such as steel rings and liners underneath newer tank batteries, to limit the potential for contamination. To prevent the migration of fracturing fluids, we construct the wellbore with multiple layers of casing (see page 28) to maintain a buffer of more than one foot of steel and cement (total thickness varies based on the geologic conditions of the region) between the wellbore and the surrounding rock. We employ this process to help ensure that onshore natural gas development activities do not pose a meaningful risk to water supplies.

Additionally, prior to drilling selected oil or natural gas wells in the DJ Basin, we hire third-party environmental consultants to assess the baseline water quality at existing water wells. The primary

oil and gas constituent we test water for is methane. Methane is the most abundant component of natural gas and, as such, serves as an indicator of potential oil and gas contamination. We also test for a range of water quality parameters, such as total dissolved solids, as well as benzene, toluene, ethylbenzene and xylenes. This information is then shared with landowners to establish a baseline condition for the existing groundwater. If we suspect a risk of impact to groundwater from our activities, we proactively sample nearby water wells.

As we begin operating in the Marcellus Shale in 2012, we will work with our joint venture partner, contractors and service companies to develop community partnerships and initiatives to address local water-related concerns. We also plan to conduct baseline assessments of drinking water quality and quantity to measure domestic and stock water wells within 2,500 feet of our wells. See pages 29–31 to read about our approach to managing water supply and quality.

# Wildlife Restoration and Management

As part of our commitment to preserving the environment in the Piceance Basin, we partnered with the Colorado Department of Wildlife to develop a regional management solution to minimize and mitigate the impact that our 19,000-acre natural gas development project will have on local wildlife.

The plan includes designing our drilling activities to source multiple wells from one pad, minimizing surface disturbance. We are also committed to educating our employees and contractors on wildlife-friendly practices, and working with landowners to protect wildlife. To support wildlife restoration activities, Noble Energy contributed a total of \$150,000 during 2010–2011 to the Battlement Mesa Reservoir Restoration Project to restore the native cutthroat trout habitat. We also contributed \$30,000 to the Colorado Mule Deer Association to be used on a six-year project for habitat restoration on the Western Slope of the Rocky Mountains.



In central Wyoming, we partnered with a natural resources consulting firm to analyze the nesting habits of the sage grouse

to identify additional ways we could minimize the disruption of its nesting habitat. The study identified factors important for determining sage grouse nest success, including nest site characteristics and weather conditions.



## REDUCING OUR DRILLING FOOTPRINT

In late 2011, we initiated the EcoNode Centralized Facilities program at our well sites in the DJ Basin. This allows our engineers to place operational facilities on a central site away from the wells. The program uses advanced engineering and operating designs that provide a highly automated, safe and environmentally protective facility. Water for multiple wells can be pumped from a single location, enabling the efficient collection of produced fluids. Utilizing pipelines to transport fluids significantly reduces surface disturbances for water facilities, while also reducing truck traffic and subsequent air emissions. With up to 32 wells operating on a single EcoNode, our land footprint may be reduced by



more than 70 percent. We combined the best in horizontal drilling technology, which by itself has increased efficiency and reduced our environmental footprint, with a level of centralization that consolidates operational activities. In addition to reducing our physical drilling space, the program minimizes air emissions, water consumption and road use. The increased efficiency also raises production yields, while reducing the time and cost of our operations.

By reducing our physical footprint and centralizing our activities, we minimize our impact on the land and cut costs by:

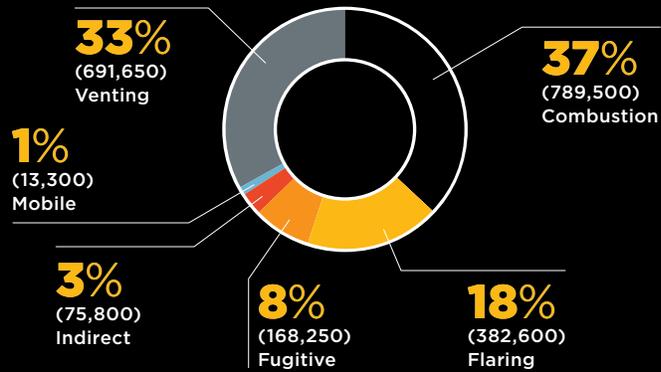
- Collecting oil, water and natural gas in a unique gathering system that maximizes hydrocarbon recovery
- Capturing all the flash gas from the single EcoNode rather than burning it off
- Requiring less equipment and maintenance
- Recovering significantly higher volumes of hydrocarbon fluids through improved pipeline strategies.

EcoNode Centralized Facilities may reduce our land footprint by

**70%**

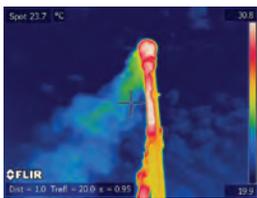
## 2011 NOBLE ENERGY CO<sub>2</sub>e EMISSIONS BY SOURCE CATEGORY

Metric tons CO<sub>2</sub>e



### THREE FOCUS AREAS FOR REDUCING EMISSIONS

- Reducing flaring
- Preventing leaks
- Converting vehicles and drilling rigs to run on natural gas



Infrared cameras capture images like this that show heat, allowing technicians to identify potential leak points (e.g., loose gaskets, etc.) that cannot be ascertained with visual examination alone.

### REDUCING GREENHOUSE GAS EMISSIONS

Noble Energy established a Climate Change Committee composed of company employees to organize, evaluate and advise executive management on climate change and GHG emissions issues.

Our GHG emissions reduction strategy includes emissions inventory, reducing emissions and operation/building reduction initiatives.

#### Emissions Inventory

Since 2006, we have recorded our annual direct and indirect GHG emissions, and we integrate this data into our Environmental Information Management System to improve its accuracy.

#### Reducing Emissions

We seek to reduce GHG emissions in our operations through techniques such as green well completions (where gas is separated from the flowback liquid and can be transferred to sales sooner than standard flowback operations), utilizing lift systems to reduce venting, and maintaining a fleet of hybrid and natural gas vehicles.

#### Operation/Building Reduction Initiatives

Designing better emission controls, consolidating wells and making investments in the research and development of new green technologies are a few of the ways we apply our innovative spirit to the task of further reducing our GHG emissions. For example, between 2008 and 2010, Noble Energy replaced 3,200 high-bleed pneumatic valves with more efficient ones. This initiative alone reduced our annual GHG output by more than 220,000 metric tons.

Additionally, since 2009, Noble Energy has participated in the Carbon Disclosure Project (CDP), which seeks to motivate investors, corporations and governments to measure, manage and reduce emissions and mitigate the impacts of climate change. Details of our CDP efforts are available on our website.

In 2012, we will file our first GHG-emissions report according to the standards set forth in the U.S. Environmental Protection Agency's (USEPA) Mandatory Greenhouse Gas Reporting Rule. Although we have been calculating our GHG footprint for the last six years, the USEPA's new calculation methods require additional monitoring, recordkeeping, reporting and data management. We are adjusting our calculations of GHG emissions to align with USEPA requirements.

#### Flaring Reductions

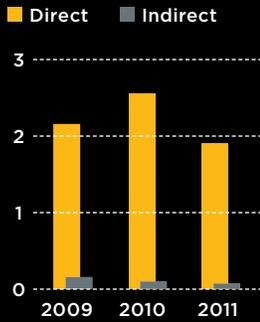
In 2011, flaring accounted for approximately 18 percent of our annual GHG emissions. This 13 percent increase over 2010 was primarily due to expanded activities in the DJ Basin, where the majority of our storage tank emissions are flared.

Flaring, or the burning of natural gas, may be necessary for safety, technical or commercial reasons. In the DJ Basin, we perform green well completions on all of our horizontal wells. This minimizes uncontrolled venting during flowback and maximizes recovery to sales.

Through our Vapor Recovery Unit (VRU) program, we have already made great strides in capturing gas that would otherwise be flared. In 2011, we installed 50 VRUs in the DJ Basin, bringing the total

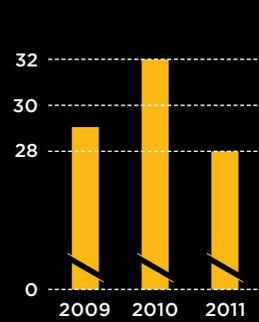
### GHG DIRECT AND INDIRECT EMISSIONS

Million metric tons



### GHG NORMALIZED EMISSIONS

Metric tons CO<sub>2</sub>e/MBOE



### GREENHOUSE GAS FOOTPRINT

In 2011, our cumulative (direct and indirect)\* CO<sub>2</sub>e totaled 2.12 million metric tons,\*\* a 25 percent decrease from 2010. The bulk of this decrease in CO<sub>2</sub>e emissions was the result of efforts to streamline our business through operational changes and divestitures. On an intensity basis, we achieved a 13 percent reduction in cumulative emissions per thousand barrels of oil equivalent when compared to 2010. The majority of this decrease can be attributed to operational efficiency gains and emission reductions resulting from upgrading the pneumatic devices in our production equipment.

\* The collection of the activity data and the scope one and scope two emissions calculations were completed based on the American Petroleum Institute Compendium of Greenhouse Gas Emissions Estimation Methodology for the Oil and Gas Industry [API 2004].

\*\* Data represents best available information at the time of publication.

number of operational VRUs to 70. These units recovered approximately 926 million cubic feet of gas in 2011, which is equal to a net emissions reduction of 3,000 metric tons of CO<sub>2</sub>.\*

#### Proactive Maintenance

Proactively identifying maintenance opportunities can also reduce GHG emissions and costs while increasing the quantity of natural gas available for sale. Since 2005, we have been a member of the USEPA's Natural Gas STAR program, which provides a voluntary framework for oil and natural gas companies to implement technologies and practices to reduce methane emissions (a GHG contributor). Through this framework and our own efforts in this area, we have achieved a cumulative methane emissions reduction of approximately 842.6 million cubic feet since 2008.

We regularly survey our work sites to detect and correct maintenance inefficiencies, often using specially designed infrared cameras to proactively identify maintenance opportunities that cannot be seen with the naked eye. In 2011, we surveyed 275 sites and identified 471 maintenances opportunities, saving 38.405 million cubic feet of gas and reducing GHG emissions by nearly 13,000 metric tons in the process.

#### Utilizing Natural Gas

When combusting natural gas, emissions of pollutants such as sulfur oxides, nitrogen oxides and carbon compounds are greatly reduced compared to other fuels. With these characteristics, utilizing natural gas can help address climate change by reducing our carbon footprint. Should renewable resources, such as wind or solar power, become more prevalent,

natural gas-fired electric plants will provide an alternative backup to maintain consistent energy supply. Natural gas accounted for approximately 61 percent of our total 2011 sales volumes.

Our significant natural gas discoveries offshore Israel are paving the way for meeting energy needs by supplying this affordable, cleaner-burning fuel. Between 2004 and 2011, increased natural gas usage in Israel has resulted in savings of at least \$7 billion in energy costs and eliminated an estimated 17 million metric tons of CO<sub>2</sub> emissions. That's the amount produced by an entire year of electricity generated by fossil fuels in Israel, and the equivalent of removing every vehicle from the road in Israel for 15 months.

We seek to employ new, more environmentally friendly technologies to reduce the amount of GHGs emitted. As part of our GHG emissions reduction strategy, we have converted 15 of our fleet trucks in the DJ Basin to run on compressed natural gas (CNG). We also continue to work with industry peers, trade associations, local governments and the public to advocate for the infrastructure necessary to support a move toward natural gas as a transportation fuel by supporting local demand for natural gas fueling stations (see page 43).

#### Managing Other Air Emissions

In addition to the initiatives outlined above, we do not use, produce or consume any ozone-depleting substances in our operations. Our combined emissions of volatile organic compounds, sulfur dioxide and nitrogen oxides can be found in the data table at the end of this report.



In addition to converting our vehicles to natural gas, we have outfitted two of our drilling rigs to run on liquefied natural gas (LNG), and we plan to have two additional dual-fuel (diesel and LNG) rigs in operation by the end of 2012. Each LNG rig reduces daily fuel costs by between \$1,000 and \$1,500, and – compared to traditional diesel rigs – significantly reduces toxic and carcinogenic pollutants, reduces particulate matter emissions by as much as half, and reduces nitrogen oxide and volatile organic hydrocarbon emissions by more than 50 percent. We are working with our contractors and suppliers to educate them about the benefits of converting to LNG.

\* Inventory GHG emissions do not consider reductions caused by VRUs due to difficulty in quantifying exact emissions reduction.

# Team



Our growth and operational success would not be possible without the dedication and technical excellence of our people.

We are proud to have been rated one of Houston's Top Workplaces by the Houston Chronicle in both 2010 and 2011. In this comprehensive survey, U.S. payrolled employees responded to questions in six areas: direction, execution, conditions, managers, career and pay/benefits. With 97 percent of our Houston-based employees participating in this survey in 2011, Noble Energy outperformed the benchmark top-25 large employers in Houston for employee opinions on confidence in leadership, company direction and company values and ethics.



## Caring for our People

We are committed to a sound strategy for employee recruitment and development, and we foster a team-oriented culture that rewards innovation. We recognize that each employee plays an important role in helping us achieve sustainable, extraordinary performance.

### RECRUITMENT AND RETENTION

Recruiting and retaining the next generation of energy industry leaders is a vital part of our business strategy. Our employment decisions are based on job-related qualifications, skills and previous work experiences. We do not make any hiring, promotion, termination or other job-related decisions on the basis of age, race, color, sex, religion, national origin, sexual orientation, citizenship status, veteran status, marital status, pregnancy, disability (where the applicant or employee is qualified to perform the essential functions of the job with or without reasonable accommodation), genetic information or any other characteristic protected by law.

We actively recruit from colleges across the nation to attract top talent for career positions and internships. In 2011, we expanded our recruitment efforts by participating in 31 different events on various campuses. We have also begun recruiting former junior military officers to meet future leadership needs.

We seek to provide college interns with challenging positions and the opportunity to learn from experienced mentors, interact with various levels of management and contribute to the Company's success. In addition to project work, our internships may include field trips, formal training and participation in community projects.

We view employee retention rates as a reflection of how well we are meeting our employees' needs. In 2011, our voluntary employee turnover rate was 6.9 percent. Overall, our company-wide turnover has remained in the single digits for the previous three years.

### EMPLOYEE BENEFITS

In addition to providing a quality work environment, we pride ourselves on the benefits we offer our employees. We provide a competitive benefits package, which includes healthcare coverage, life insurance, disability pay and retirement plans. We also offer flexible spending accounts for health care or dependent care, as well as health club membership reimbursements and a wellness program.

## 2011 U.S. GENDER DIVERSITY

Job Categories	Female %	Minority %
Executive/Senior-level Officials and Managers	6.3%	0.0%
First/Mid-level Officials and Managers	13.7%	7.4%
Professionals	36.0%	17.0%
Technicians	70.0%	19.0%
Administrative Support Workers	90.2%	25.2%
Craft Workers	8.3%	8.3%
Operatives	0.0%	9.7%



We emphasize continued learning and provide development opportunities. We offer a host of instructor-led internal and external courses to give our employees the tools they need to grow in their careers.

Our contributions to pension and other post-retirement benefit plans totaled \$29 million in 2011. The investment return on plan assets has tended to follow market performance, with the actual return on plan assets totaling a loss of \$1 million in 2011. Our qualified defined benefit, or retirement plan, was closed to new participants on May 1, 2006. Employees hired after May 1, 2006, are instead eligible to participate in an enhanced 401k plan. Employment packages vary by country, but our goal is to provide competitive benefits to our employees wherever we operate.

### Our Health is Our Energy

We partnered with Provant Health Solutions to offer a comprehensive wellness program, Our Health Is Our Energy, available at no cost to our U.S. employees. This program helps employees understand their health risk factors, provides tools to make positive choices to improve their long-term health, and rewards healthy behaviors through incentives such as discounts on individual health insurance premiums. We are working on initiatives to host wellness activities in Equatorial Guinea and Israel in 2012.

### CAREER DEVELOPMENT AND TRAINING

At Noble Energy, we constantly challenge ourselves and our employees to think and act strategically through:

- Breakthrough leadership that achieves the unachievable
- Innovation that changes the world of energy
- Aligning our stakeholder relationships in a manner that positively impacts all

We invest in our people and strive to maximize their personal growth and success while ensuring that we have the capacity and competencies to achieve our business objectives. Our performance-review process is designed to align employee performance objectives with department objectives in order to maintain goals and metrics for performance that are SMART (Specific, Measurable, Attainable, Relevant and Time-bound). Employees meet with their managers to get feedback on their performance and create objectives that align with the Company and their department. During these meetings, employees and their supervisors recognize accomplishments and discuss ways to improve individual performance, including development opportunities.

In addition, we emphasize continued learning. We demonstrate our commitment in this area by offering a host of instructor-led internal and external courses to give our employees the personal development tools they need. In 2011, 1,185 employees (63 percent of total employees) participated in personal development classes sponsored by Noble Energy. Other development opportunities we offer include rotational assignments and on-the-job training. We support continued education and professional certifications, as well as staff participation in industry and professional organizations. See pages 46–47 to read about how we recruited, retained and trained our Equatoguinean employees to make a significant contribution not only to Noble Energy, but also to the skill base of their local communities and the country's workforce as a whole.

## EMPLOYEE GENDER DIVERSITY

United States



67% 33%

Equatorial Guinea



67% 33%

Israel



65% 35%

### Leadership Training: Supporting Breakthrough Thinking

We have training and mentorship programs, such as Essentials of Leadership, a five-module training program that focuses on building foundational leadership skills. Additionally, the MANE Event (Managing at Noble Energy) provides managers with tools, techniques and resources that are specific to Noble Energy. These sessions cover topics such as recruiting and managing performance. Given our potential for continued growth as a Company and the corresponding need to fully develop our key talent and leadership, we recently implemented the LEAD (Learn, Excel, Achieve, Develop) program, an accelerated leadership track.

### Local Hiring

We recognize the important impact we have on local communities as a source of jobs and economic growth. In both our U.S. and international operations, we strive to hire local workers to support our operations whenever possible. We are committed to seeing our local workforces continue to grow in size, and to strengthen good relationships with communities.

Since opening our offices in Malabo, Equatorial Guinea in 2004, the proportion of jobs held by EG nationals has reached 73 percent, and Equatoguineans hold approximately 23 percent of our management positions. Noble Energy provides its EG national employees with career advancement opportunities such as: on-the-job training; online learning; self-study; overseas training; and work assignments, where appropriate, at our corporate office in Houston.

In 2011, we placed even greater emphasis on local recruitment and the development of existing national employees. This resulted in a 39 percent increase in total national employment over 2010, with Equatoguinean staff in leadership roles. We also launched a local internship program, and announced plans to develop a Leadership and Supervisory Skills program in 2012.

### DIVERSITY AND NONDISCRIMINATION

We aim to create an inclusive culture in which our employees are able to excel and express their opinions. In 2011, we launched a special program to broaden the understanding across the Company of the importance of diversification and inclusion. This program also seeks to teach and encourage the use of specific methods for resolving conflicts, increasing effective listening skills, improving communication and motivating and engaging employees from all backgrounds. These tools are becoming increasingly vital given the natural diversification that has come by way of our significant global expansion. Since it was introduced in 2011, more than 1,050 employees (56 percent of total employees) have participated in this program. We will continue to make this training available to our employees in 2012 and beyond, and implement a series of one-day inclusion workshops for managers.

In 2011, women accounted for approximately 33 percent of our total U.S. workforce and 36 percent of our professional employee base. Two of our nine executive team members are women. Outside the U.S., women represent 39 percent of our total international workforce.

Minorities represented about 15 percent of our total U.S. workforce and 17 percent of our U.S. professional employee base.

### NATIONAL WORKFORCE

Israel  
79%

Equatorial Guinea  
73%

## LEAD

The LEAD program (Learn, Excel, Achieve, Develop) provides unique development opportunities on our accelerated leadership track.

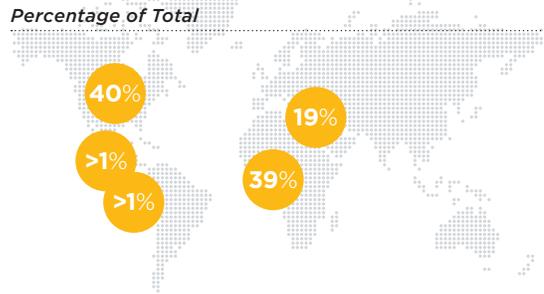
**SOCIAL INVESTMENTS**

In 2011, our social investments were focused on infrastructure development, environmental protection, education, workforce development and community betterment.

# Improve

**2011 CONTRIBUTIONS TO SOCIAL INVESTMENTS BY REGION**

U.S. Dollars	
Ecuador	\$ 13,000
Equatorial Guinea	\$ 3,058,000
Israel	\$ 1,530,000
Nicaragua	\$ 27,000
United States	\$ 3,161,000
<b>TOTAL</b>	<b>\$ 7,789,000</b>



# Bettering People's Lives

At Noble Energy, our business is about more than exploration and production. It's about improving the lives of those around us by helping local communities grow and prosper. It's about providing our employees with opportunities to make positive contributions and constantly challenging ourselves to find better solutions. It's about continuously striving to be a better industry partner and leaving behind a legacy of sustainability wherever possible.

**INTERNATIONAL HUMAN RIGHTS FRAMEWORKS**

All Noble Energy employees are expected to treat community stakeholders with respect and dignity. Our respect for human rights is reflected in this approach, and codified in a number of our policies and procedures. For example, our Corporate Social Responsibility Policy commits Noble Energy to promote the rights set forth in the United Nation's Universal Declaration of Human Rights, abide by the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, and provide security in a manner consistent with international human rights. Additionally, our Code of Business Conduct and Ethics includes policies regarding equal employment opportunity and nondiscrimination, which are applicable everywhere we operate.

In 2010, we began providing our employees with human rights training that includes a review of international human rights frameworks and case study examples. During 2011, three of these

training sessions were conducted for Houston employees involved in activities in Equatorial Guinea, and two additional sessions were conducted in Equatorial Guinea for in-country employees and office contractors.

**SOCIAL INVESTMENTS**

In the U.S., we are a proud supporter of United Way, contributing more than \$200,000 in 2011 and consistently ranking among the top donor companies in Houston. We support research, programs and services for people living with multiple sclerosis as a Platinum Sponsor of the MS150, the largest cycling fundraising event in the United States. As part of our commitment to educational advancement, we have a long-standing relationship with Junior Achievement. A partnership among business, community, educators and volunteers, Junior Achievement teaches the key concepts of work readiness, entrepreneurship and financial literacy to young people throughout greater Houston.



In 2011, our Community Activity Committees gave funds to more than 45 organizations such as:

- Food banks
- Shelters
- Hospitals
- Health care centers
- Schools
- Community centers

As part of our continued evaluation of an acreage position offshore Nicaragua, we began meeting with local community members prior to conducting any seismic surveys to educate them about offshore oil and natural gas operations. We also supported the refurbishment of 11 schools beginning in 2009, improving the education environment of more than 2,500 students.

11  
Refurbished schools

13  
Constructed water wells



Listening to and working with our stakeholders enables us to understand and respond to their concerns.

U.S. employees can submit grant requests to our Community Activity Committees, which give funds to eligible nonprofit organizations that provide education, health or basic life services. Our employees often make these charitable contributions even more meaningful by organizing volunteer events during work and personal time. For example, our Ardmore, Oklahoma, office organized two volunteer-service days in 2011 for employees to spend the workday painting rooms and planting flower beds at the Family Shelter of Southern Oklahoma.

At our corporate headquarters in Houston, the Finance Department has built a special relationship with Aldine Y.O.U.T.H., a grassroots organization that specializes in youth and family development. Employee volunteers helped the group refurbish their resale shop, sort donations, collect holiday gifts and school supplies, and much more. As part of our commitment to Aldine Y.O.U.T.H., Noble Energy also sponsored a two-acre wooded park.

Across Weld County and the Denver-Metro area of Colorado, we have provided support for a number of organizations, including Cerebral Palsy of Colorado, Denver Health Foundation, Tennyson Center for Children and Weld Food Bank. Noble Energy is the title sponsor of FORE! Our Kids Golf Classic, the Tennyson Center's largest fundraiser of the year. We also are a platinum sponsor of the Stone Soup, Weld Food Bank's Fundraising event, which encourages cooperation and strength in numbers to address the problem of hunger in the Weld community.

Internationally, we tailor our investments to help local communities address their own development priorities. Investment decisions are typically made at the business unit level, subject to established investment guidelines, and are informed by

community engagement. As our operational footprint expands into increasingly complex economic, social and political environments, our investment strategy is maturing accordingly. We are in the process of implementing a community investment strategy that is directly linked to our overall CSR objectives to better align our operations and business objectives with the needs of local communities.

We also contribute time and funds in support of Medical Bridges, an organization that procures medical supplies and equipment for providers of charitable medical care in developing countries. Our volunteers packed shipments that were sent to Sri Lanka, Equatorial Guinea and Ecuador, and we continue to look for sponsorship opportunities in other countries.

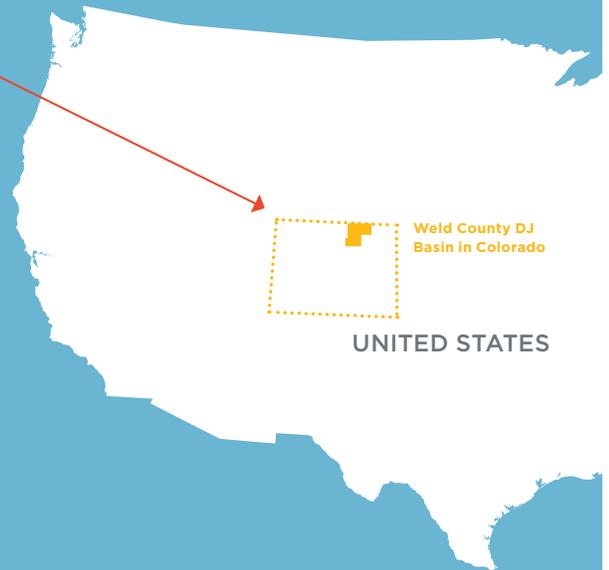
#### COMMUNITY ENGAGEMENT

We are committed to responsible engagement with local stakeholders. Listening to and working with our stakeholders enables us to understand and respond to their concerns. We seek to engage with communities early in project development. This allows us to assess and respond to community concerns before our operations begin. It also ensures that the long-term social investments we make have the most desirable and meaningful impacts at the local level. Efforts are underway to develop formal guidelines for community engagement that will be applied across our global operations. Of course, one standardized approach will not work in every situation. As a result, we tailor appropriate engagement activities for each situation and aim to enhance our relationships as a result.

See pages 43–48 to read about our engagement and social investment efforts in the DJ Basin, Equatorial Guinea and Israel.

## SMART ENERGY PLAN

In the DJ Basin of Colorado, we are proud to be an active member of the Weld County Natural Gas Coalition and support their Smart Energy Plan to promote the use of natural gas as an alternative transportation fuel. By seeding local demand for natural gas fueling stations, we are helping build infrastructure to enhance the ability of cars, trucks and vehicle fleets throughout Colorado to utilize natural gas. In further support of the Smart Energy Plan, we are also converting our truck fleet to run on compressed natural gas (CNG) by introducing CNG pickups as older pickups reach end of service. As of 2011, we had 15 super-duty trucks running on CNG in the DJ Basin. While our remaining truck conversions are wholly dependent on the availability of CNG fueling stations, our goal is to convert all the trucks in our fleet to CNG.



## Community Engagement in the DJ Basin

We are a leader in DJ Basin community development, which we have demonstrated through our efforts to enhance local educational, health and business-development opportunities.

In Weld County, located in the DJ Basin, we seek opportunities to contribute to the local economy by participating in the Leadership Council of Upstate Colorado Economic Development, a public/private nonprofit economic development organization that supports the county's retail, service and professional sectors. We participate in meetings to learn how we can better contribute to their vision for a sustainable economy that creates wealth, preserves the quality of life, and improves the standard of living for area residents. In 2010, the group set a goal to create 5,000 new jobs in five years. Noble Energy has since created more than 200 jobs, and we expect to add approximately 250 to 300 jobs to that total. Our commitment is to invest \$8 billion in the DJ Basin over the next five years.

We believe that community engagement helps us ensure successful operations at each and every location. It is important to us that we understand the perspectives of our stakeholders and engage in open dialogue with them about our activities.

Because our onshore operations involve heavy trucking activities that can have a negative impact on roads and drivers, we partnered with the Weld County Department of Public Works to provide the county with funds needed to support road maintenance,

including a \$170,000 donation that helped the county complete a \$500,000 project to pave a 1.5-mile road impacted by heavy truck activity. We also discussed with town board members ways to compensate for expected traffic increases in advance of our office opening in Greeley. Local stakeholders applauded our approach as an example of how collaboration between local authorities and energy companies should work.

With more than 7,500 producing wells in the county, planning for emergency situations is a top priority. In 2011, we contributed \$25,000, along with training and equipment, to the Mountain View Fire Protection District to ensure they were prepared to respond to potential fires in oil and natural gas fields.

To support and encourage interest in science in education, Noble Energy became a sponsor of the Frontiers of Science Institute in 2011. Several Noble Energy employees also volunteer their time to review student projects and teach them how oil and natural gas is produced. This includes tutorials on geology, drilling, hydraulic fracturing, completions, and job opportunities within the industry.



In 2011, we hosted a tour of a natural gas powered drilling rig for a dozen members of the Weld County Natural Gas Coalition. We conducted several site tours in the DJ Basin to showcase our operations to community groups, media and regulators.

# Invest

ATLANTIC OCEAN

AFRICA

Equatorial Guinea



## RECENT PROJECTS IN EQUATORIAL GUINEA

Approximate U.S. Dollars

ASET Scholarship, per year budget	\$ 1,500,000
Bitika School	\$ 500,000
Bioko Island Malaria Control Project*	\$ 10,400,000
El Porvenir and Atepa Water-wells Construction, each	\$ 45,000
GEGEO Graduate Scholarships, per year 2008-2011	\$ 225,000
Instituto Nacional de Enseñanza Inem Rey Malabo Library	\$ 715,000
ITNHGE Scholarship, per year	\$ 900,000
Nuestra Señora de Africa	\$ 330,000

\*Noble Energy's total contribution since 2003



Our guiding principles outline the key objectives for each project we support.



## Strategic Development in Equatorial Guinea

Since 1990, Noble Energy has explored for and produced oil and natural gas offshore the Republic of Equatorial Guinea. The successes of our operations in Equatorial Guinea rely on a strong local workforce and healthy, stable communities. We make strategic community investments to improve quality of life, enhance educational opportunities, protect the environment and support critical national infrastructure priorities.

### STRATEGIC COMMUNITY INVESTMENT

Since 2008, Noble Energy, along with our co-venturers (Glencore Exploration, GEPetrol, Atlas Petroleum and Osbourne Resources) have invested \$1 million per year in social projects through our Community Investment Program in Equatorial Guinea. This joint fund will increase to \$1.5 million in 2012 and \$2 million in 2013. These social investments are budgeted and managed by Noble Energy as a part of our contractual obligations with the government.

Proposed social projects are presented to Noble Energy by the Ministry of Mines, Industry and Energy, or through direct correspondence with the project applicant. All proposals are vetted by the national government and Noble Energy’s selection committee.

Guiding principles outline the key objectives for each social project we support. In 2011, we took a number of steps to further improve how we select, implement and monitor these projects to maximize sustainability. To increase transparency in the project-selection process and improve the quality of applications that we receive, we developed application guidelines and selection criteria that will be published in 2012. We also established a selection committee to evaluate proposals based on project management capability, positive impact and sustainability.

## COMBATING MALARIA



Through an innovative public-private partnership developed locally, we are actively engaged in the Bioko Island Malaria Control Project to combat and reduce the transmission of the malaria parasite. Since 2003, Noble Energy has contributed more than \$10.4 million to the overall \$44 million program, which has led to:

# 55%

Reduction in the malaria parasite in children under the age of 15

### Providing Clean Drinking Water

In 2008, we completed two community water-well projects to provide clean water to the communities of El Porvenir and Atepa. Prior to the installation of these wells, many lower- and middle-income families relied on their children to travel many miles to secure drinking water. By providing safe access to treated water, this project filled an urgent community need. We continue to monitor and assist with the maintenance of these wells, and plan to complete two more water-well projects by the end of 2012 that will benefit more than 350 people in remote communities.

### Enhancing Educational Opportunity

Inadequate infrastructure and an increasing student population have created a pressing need for new educational facilities, particularly within Equatorial Guinea's primary and secondary school system. Since 2008, we have funded and managed the execution of a number of school construction and rehabilitation projects to meet this need and improve the quality of the learning environment for local youth.

Some of these projects include:

- Six new classrooms at the Nuestra Señora de Africa school in Mongomo, which will accommodate an additional 200 students.
- Six classrooms and an administration room to adequately serve the 200 students at the Cruces School in Riaba.

- A two-story library with a computer lab and study areas that will serve more than 3,000 secondary schoolchildren at the Instituto Nacional de Enseñanza Media Rey Malabo school (expected completion in 2012).
- The design and development of the first public children's park in Malabo – planned in partnership with the City of Malabo and the country's Ministry of Public Works and Infrastructure. The completed park will include a playground, soccer field, picnic areas and green space (expected completion in 2013).

### CULTIVATING A STRONG, LOCAL WORKFORCE

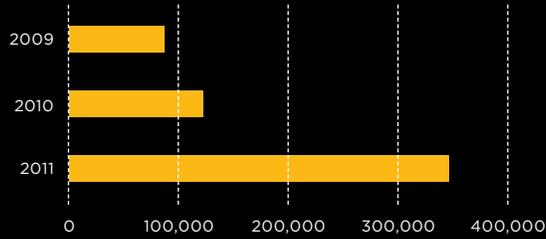
In 2004, the government established the Instituto Tecnológico Nacional en la Industria de Hidrocarburos de la República de Guinea Ecuatorial (ITNHGE) to help train Equatoguineans working within the oil and natural gas industry. Noble Energy is an active participant in ITNHGE programs, having sponsored 25 students who trained to become production operators, mechanical technicians, and instrumentation and electrical technicians during ITNHGE's first three phases beginning in 2008. To help build on ITNHGE's early success, Noble Energy continues to sponsor students in ITNHGE training programs, and is helping finance the construction of a new ITNHGE campus in Mongomo. Additionally, each Noble Energy sponsored graduate of ITNHGE receives an additional 18 months of intensive technician training and hands-on experience at the Aberdeen Skills and Enterprise Training (ASET) College in the United Kingdom. The first group of graduates from the ASET is now working on the Aseng FPSO project and future groups will also work on the FPSO and other projects.



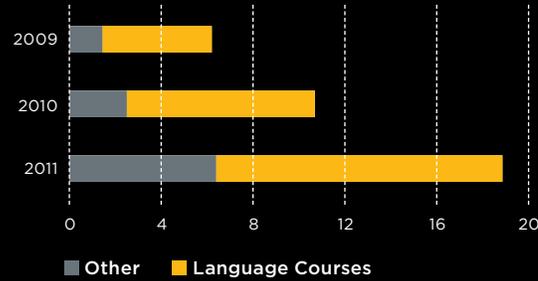
Construction of the Instituto Nacional de Enseñanza Inem Rey Malabo library.

**EQUATORIAL GUINEA  
TRAINING EXPENDITURES**

Approximate U.S. Dollars



**EQUATORIAL GUINEA  
AVERAGE NUMBER OF TRAINING DAYS**



Noble Energy also provides academic scholarships to Equatoguinean students enrolled in universities in the United States and Malaysia. We are a founding partner of the Equatorial Guinea GEOscience program (GEGEO), a collaborative project between the University of South Carolina and the National University of Equatorial Guinea to provide training and scholarships for students earning their bachelor's degrees in Geology and Engineering at the University of South Carolina. In 2010 alone, 50 GEGEO students successfully completed introductory engineering courses, eight graduated from South Carolina with bachelor's degrees in either geology or engineering, and 20 earned industry internships.



Equatorial Guinea GEOscience program graduates (2008-2011).

In late 2010, following a comprehensive advertisement and selection process in which more than 1,000 applications were received, 10 individuals were selected by the Universiti Teknologi Petronas (UTP) in Malaysia to receive six years of fully sponsored undergraduate-level education in fields such as

Petroleum Engineering, Mechanical Engineering, Electrical and Electronic Engineering and Business Information Systems. The program includes two years of intensive English and foundation-skills training, and three to four years of undergraduate-level studies. Two of the 10 scholarship recipients made the Dean's List within their first year of study.

Noble Energy is proud to support higher learning and career advancement opportunities because they contribute to the development of a strong local workforce.

**Local Contractor Development**

Developing a local contractor base helps Noble Energy ensure the timely and effective delivery of services. Whenever possible, we not only hire local contractors but provide them with training in areas such as defensive driving and, if necessary, English. We plan to develop additional training programs to better enable local companies to compete for contracts, and we are working alongside one of our subcontractors to provide sponsorship of a local contractor-development program. We currently use more than 150 local contractors for services such as security, house-keeping, catering, transportation and logistics, and we are in the process of implementing a system to track local-supplier spending. We also encourage our multinational contractors to support local-supplier development by including local content requirements in requests for proposals and bid evaluations. All of our long-term service contractors must develop a local hiring plan in coordination with the Ministry of Mines, Industry and Energy Director General of National Content.



Graduates of the National Hydrocarbons Institute of Technology in Equatorial Guinea. They go on to pursue studies at the International Oil and Gas Training Academy in Aberdeen, Scotland.

ATLANTIC  
OCEAN

AFRICA

MEDITERRANEAN SEA

Israel

MIDDLE EAST

Offshore Eastern Mediterranean  
discoveries Mari-B, Tamar, Cyprus  
and Leviathan

## Social Investment in Israel

Our success in offshore exploration activities has contributed to an energy revolution in Israel. Production at Mari-B began in 2004, and the natural gas processed there now fuels a significant portion of Israel's electricity generation. In 2009, we made a major discovery at Tamar, which is estimated to hold enough natural gas to meet Israel's domestic energy needs for decades. In 2010, we made the largest discovery in our history at Leviathan. It has the potential to turn Israel into a leading regional exporter of natural gas. While these discoveries are important for Israel's energy independence and economic growth, we also want our presence there to bring about positive impacts at the community level.

In 2011, we partnered with the Israel National Museum of Science, Technology and Space (MadaTech) – Israel's premier institution of science and technology education – to build a science park at its facility. This engagement with one of Israel's most popular museums creates a connection between our business values and goals and the science and technology we employ every day to achieve those goals. The Noble Energy Science Park opened in Haifa in October 2011, allowing visitors to interact with the very scientific principles and technologies that are shaping the world around us. Between 2012 and 2016, we will invest \$4 million in the park's continued development and maintenance.

In February 2011, we became a major private sponsor of the Youth Futures program, a Jewish mentoring program that provides paid mentors to disadvantaged elementary school children to enhance their educational and social development.

Our efforts with Youth Futures have thus far focused on four cities, including Lod, a town with a large Arab and immigrant population where the robust volunteer program we helped start is already strengthening ties across a number of socioeconomic and cultural levels.



MadaTech Science Park

# Performance Data

## HEALTH AND SAFETY

	2009	2010	2011
<b>Hours Worked</b>			
Employees	2,615,752	3,436,714	3,614,934
Contractors	8,447,991	9,777,675	11,587,249
<b>Total Hours Worked</b>	<b>11,063,743</b>	<b>13,214,389</b>	<b>15,202,183</b>

### Lost-time Incidents

Employees	5	1	2
Contractors	12	9	12
<b>Total Lost-time Incidents</b>	<b>17</b>	<b>10</b>	<b>14</b>

### Recordable Incidents

Employees	7	3	4
Contractors	30	34	51
<b>Total Recordable Incidents</b>	<b>37</b>	<b>37</b>	<b>55</b>

### Total Recordable Incident Rate (TRIR)

Employees	0.54	0.17	0.22
Contractors	0.71	0.70	0.88
<b>Combined TRIR</b>	<b>0.67</b>	<b>0.56</b>	<b>0.72</b>

### Days Away from Work Incident Rate (DWIR)

Employees	0.38	0.06	0.11
Contractors	0.28	0.18	0.21
<b>Total Days Away from Work Incident Rate</b>	<b>0.31</b>	<b>0.15</b>	<b>0.18</b>

### Fatalities

Employees	0	0	0
Contractors	0	0	1
<b>Total Fatalities</b>	<b>0</b>	<b>0</b>	<b>1</b>

## PEOPLE

### 2011 Percentage of National Employees

Cameroon	78%
Cyprus	57%
Equatorial Guinea	73%
Israel	79%

FEMALE %      MINORITY %

### 2011 U.S. Diversity by Job Category

Executive/Senior-level Officials and Managers	6.3%	0.0%
First/Mid-level Officials and Managers	13.7%	7.4%
Professionals	36.0%	17.0%
Technicians	70.0%	19.0%
Administrative Support Workers	90.2%	25.2%
Craft Workers	8.3%	8.3%
Operatives	0.0%	9.7%

2009      2010      2011

### Total Number of Employees

<b>Total Employees</b>	<b>1,630</b>	<b>1,772</b>	<b>1,876</b>
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We are working to improve and enhance data collection to expand the quality and types of data to share in our future reports.

## ENVIRONMENT

### 2011 U.S. Water Consumption (in barrels)

Recycled and Reused Water*	7,000,558
Water sourced from municipal/public supplies	12,105,560
<b>Total Water Consumed</b>	<b>19,106,118</b>

	2009	2010	2011
<b>GHG Emissions (metric tons CO<sub>2</sub>e)</b>			
Combustion	1,056,000	1,275,000	789,500
Flaring	254,000	362,500	382,600
Fugitive	145,000	168,200	168,250
Indirect	151,280	99,000	75,800
Mobile	20,450	11,500	13,300
Venting	828,000	691,600	691,650

### U.S. Emissions (in tons)

VOC	13,974	-	11,205
NOx	2,194	-	1,915
SOx	16	-	15
CO	2,044	-	2,250

### Spills

Total Number	84	129	118
Hydrocarbons (in barrels)	1,374	1,933	1,904
Water (in barrels)	1,903	3,010	3,726
Other (in barrels)	75	301	3,485

\* Water is recycled and reused from Noble Energy produced water in our domestic operations.

## COMMUNITY INVESTMENTS

	2009	2010	2011
<b>Spend by Region</b>			
Cyprus	\$ 289,000	\$ 386,000	\$ -
Ecuador	152,650	185,900	13,000
Equatorial Guinea	2,034,700	3,584,950	3,058,000
Israel	2,500	4,000	1,530,000
Nicaragua	36,600	25,050	27,000
U.S.	2,571,550	2,251,450	3,161,000
Other	40,700	1,700	-
<b>Total Spend</b>	<b>\$ 5,127,700</b>	<b>\$ 6,439,050</b>	<b>\$ 7,789,000</b>

# IPIECA/API/OGP and GRI Index

REPORTING OVERVIEW REFERENCE	IPIECA/API/OGP	GRI	PAGE	REPORTING OVERVIEW REFERENCE	IPIECA/API/OGP	GRI	PAGE
Letter from our Chairman and Chief Executive Officer		1.1	1-3	<b>Respecting our Environment</b>			
Our Approach to Reporting		3.1, 3.2, 3.4-3.6, 3.8, 3.13, 4.16	5	Environmental Compliance		DMA-EN, EN28	25
The Noble Energy Story		1.2, 2.1, 2.6	6-7	Developing Onshore O&G Resources Responsibly	E8	SO9, SO10	25-28
Operational Highlights		2.2, 2.3, 2.6, 2.7-2.9, DMA-EC, EC1	8-9	Respecting Water Resources	E6	EN8, EN10, SO9, SO10	29-32
Core Values	SE1	4.8, 4.14	10	Onshore Spill Prevention and Response	E8	EN23	32
<b>Corporate Governance</b>				Wildlife Restoration and Management		EN13, EN14	33
Board of Directors		4.1, 4.2-4.4, 4.5-4.6, 4.7, 4.10	11-13	Reducing Our Drilling Footprint		EN26	33
Public Policy Engagement	SE14	SO5	11-12	Reducing Greenhouse Gas Emissions	E1, E4	3.9, 4.12, EN16, EN18, EN19	34-35
Recent Corporate Governance Initiatives		4.8	12	<b>Caring for our People</b>			
<b>Managing our Risks</b>				Recruitment and Retention	SE16	DMA-LA, LA2	37
Board Role		4.9, 4.11	13	Employee Benefits	HS2	LA3, LAB, EC3	37-38
Management Role		4.11	13	Career Development and Training	SE6, SE17	LA10, LA11, LA12, EC7	38-39
Compliance and Ethics	SE9, SE11, SE12, SE13	4.8, SO3, HR2	14-15	Diversity and Nondiscrimination	SE15	LA1, LA13, EC7	38-39
Assessing Business Opportunities		SO2	15	<b>Bettering People's Lives</b>			
<b>Providing a Safe Work Environment</b>				International Human Rights Frameworks	SE8	4.8, 4.12, DMA-HR, HR3	41
Achieving a Sustainable Safety Culture		DMA-LA	17	Social Investments	SE4	EC1	41-42
Global Environmental, Health and Safety Management System		DMA-LA, 4.8	17-19	Community Engagement	SE1	DMA-SO	42
Employee EHS Participation	HS1	LA6	19	Community Engagement in the DJ Basin	SE4	EC8, SO9, SO10	43
EHS Training		LA10	19	Strategic Development in Equatorial Guinea	SE4, SE5, SE6, SE7	EC6, EC7, EC8, SO1, LA10, LA11	44-47
Safety Performance	HS3	LA7	20	Social Investment in Israel	SE4	EC8	48
Security	SE10		20	<b>Performance Data Tables</b>			
Excellence at Aseng	HS1, HS3		21	Performance Data	E1, E4, E6, E7, E8, SE4, SE6, SE15, HS3	EN8, EN16, EN20, EN23, EC1, EC7, LA1, LA7, LA13	49-50
Leading the Way Back to the Gulf			22	IPIECA/API/OGP Index		3.12	51
Offshore Operations and Emergency Preparedness		SO10	23				

DMA represents the GRI-recommended disclosure on management approach.

IPIECA/API/OGP indicators included in this index address the common reporting elements, at a minimum.

■ Indicates partially reported GRI indicators.

# NBI

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