# 2008 Corporate Responsibility Report

How we are creating a smarter foundation for a sustainable future





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This Corporate Responsibility Report and the Letter from the Chairman contain forward-looking statements that are based on current expectations and various assumptions that management believes are reasonable. These statements and assumptions are necessarily subject to various risks and uncertainties, the realization or resolution of which may be outside of management's control. Actual results could differ materially from those expressed or implied in the forward-looking statements. Please see our reports filed with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2008, for a discussion of some of the factors that could cause actual results to differ materially.

### Letter From the Chairman and CEO



Peter A. Darbee

To Our Stakeholders:

PG&E's commitment to corporate responsibility has never been more tightly interwoven with our near- and long-term prospects for success.

Our customers, our partners in the community and many of our other stakeholders are grappling with unprecedented pressures due to the economy. More than ever, they are counting on PG&E, not just to deliver essential services, but also to be a steady source of support and a provider of that most valuable of all commodities today, opportunity.

At the same time, they also understand that beyond the need to ease immediate hardships, the crisis of the past year is also summoning us to head in new directions and build the foundations for a more sustainable future. Momentum is gathering today behind the push for bold changes in areas ranging from energy and environmental policy to healthcare reform and new market oversight and corporate governance standards.

We believe our stakeholders are looking to companies like PG&E to step forward, engage collaboratively and constructively, and help the collective effort to forge the solutions to these challenges.

We embrace this call to action, because our vision and values tell us it is the right thing to do, and because we believe it is the best way for us to ensure PG&E's long-term ability to create value for all of its stakeholders.

Equally important, it is our obligation to do so. Our special charter as a sole provider of utility services is a privilege. We believe it comes with unique responsibilities to give back to the people we serve. It also demands a readiness to be held to high expectations when it comes to doing business responsibly.

Our report this year again provides a wealth of examples of many of the ways in which PG&E and its 20,000 employees are working to meet our responsibilities and realize the greatest opportunities on behalf of our stakeholders.

We take great pride in the many accomplishments from the past year. But we also will be the first to point out that many of our successes are shared, the result of collaborative work with partners who are as committed and passionate as we are. Wherever possible, we seek such partners because the most significant challenges we face are rarely those that any single organization can solve alone.

Last year, for example, we continued to be an active participant in the U.S. Climate Action Partnership. This broad coalition of companies and environmental groups, of which PG&E is a founding member, is now helping to drive national climate change legislation, based on our consensus blueprint for a cap-and-trade program that lowers greenhouse gas emissions while protecting consumers and the economy.

We also partnered with our customers to achieve landmark energy efficiency savings. PG&E's 2006–2008 energy efficiency programs set a new standard for success. Along the way, we won almost 50 energy efficiency awards, including two ENERGY STAR® awards in 2008.

These initiatives enabled customers to save enough energy to power almost 800,000 homes and enough natural gas to heat another

145,000 for an entire year. Just as critical, the greenhouse gases avoided were equal to taking 476,000 cars off the road for one year. The climate change benefits of energy efficiency are one reason that a top priority for us nationally is encouraging the broader adoption of efficiency programs and standards in other regions of the country.

In addition to using less energy, we must work to bring cleaner energy sources online as well. PG&E's renewable energy commitments grew last year. New additions included some of the largest ever commitments for utility-scale solar power. In the future, these resources will continue to drive down PG&E's carbon footprint, which is already one of the lowest among large utilities.

We also continued to help our customers achieve their renewable energy goals. Last year, we added PG&E's 25,000th solar customer to the grid. In fact, a recent survey showed that PG&E leads the nation in the number of solar customers and in 2008 alone accounted for nearly half of the nation's total increase in solar connections.

As the examples in our report show, we are applying this same innovation and commitment in other important areas, including helping customers reduce their carbon footprint through our pioneering ClimateSmart<sup>TM</sup> program and improving our environmental performance through habitat and endangered species protection, land stewardship and operating one of the nation's largest fleets of clean-fuel vehicles.

These efforts all support the goal we formally adopted earlier this year to be an environmental leader. While we have long been in the forefront on many facets of environmental leadership, elevating it to one of our highest priorities sends a clear signal that we view this as a defining factor in PG&E's success and an indispensable part of our vision to be the leading utility.

Also critical will always be our engagement with our customers and communities.

As they confront tremendous economic challenges, we are strengthening our outreach, continuing to work with partners such as Habitat for Humanity and local food banks. Another way we are working to help is by enrolling more of our neediest customers in critical financial assistance programs. Our supplier diversity initiatives are also contributing, helping to support many small and medium-sized businesses. In fact, PG&E achieved its highest ever level of diverse spending in 2008.

PG&E's charitable giving also reached new levels last year. Shareholder-funded charitable contributions were their highest in the company's history. These were complemented by the record donations our employees gave to support more than 4,000 schools and non-profits through PG&E's annual Campaign for the Community.

This spirit of service has also been reflected in our employees' commitment to donating their time to volunteer work. Last year, they gave a record number of hours at company-sponsored opportunities to support various causes in our communities.

### Letter From the Chairman and CEO

Another way we are working to help our communities is through collaborative job training initiatives. We strive for a workforce that reflects the diverse communities we serve. To help achieve this, our PowerPathway™ program and other initiatives are tapping into our communities and helping to create a pipeline of job candidates with the qualifications to work in the energy industry. These efforts are also critical to PG&E's future, as more than 40 percent of our workforce will become eligible to retire in the next five years.

Just as critical as bringing new talent to PG&E is ensuring that we are retaining and growing our existing employees. This is one reason we have put a substantially increased focus on enhancing our training and professional development initiatives.

But even more essential, this emphasis on training also supports our most important priority as a company: Ensuring the safety of our employees and the public.

Within our operations, we have significantly increased efforts to improve safety performance. As a result, lost workdays, OSHA recordables and motor vehicle incidents all came down significantly in 2008.

But regrettably, this progress was overshadowed. We again experienced the loss of life within our ranks, as well as a number of serious injuries. A tragic accident involving a natural gas home explosion last year also served as a sad reminder of the potential stakes we face when working with gas and electricity.

In 2009, we are intensifying our focus on safety again. We are encouraged by the continued progress to date. However, our goal is zero injuries. While we will not achieve it overnight, we do believe it is achievable over time, and we will not be satisfied until we are there.

Safety is perhaps the most important example of areas in which we know we have to seek stronger results. There are, of course, others as well. For example, we believe we can improve the diversity within our workforce, especially among our leadership ranks. We are also striving to elevate our performance on basic environmental compliance within our operations. As in prior years, this report is as much an opportunity for us to openly

and honestly assess these and other areas in which we need to continue working as it is to highlight accomplishments.

Once again, we invite—in fact, we encourage—you to share your thoughts on our report and our performance. Open dialogue is a core part of our culture at PG&E, both within the company and with our stakeholders. We always welcome it.

With that in mind, it is appropriate to close with a word of appreciation.

As we noted last year, this document continues to evolve. What began years ago as a slender update on environmental compliance has matured into a report that covers a broad range of issues with a new level of depth and transparency. We owe much of this progress to good guidance from outside stakeholders. In particular, we appreciate the invaluable input of the independent Ceres stakeholder team who again helped shape this year's report.

They—and all of our stakeholders—have our sincere commitment to continue striving to excel in those areas where we are strong and to redouble our efforts to elevate our performance in those areas where we see opportunities to improve. In the meantime, thank you for your ongoing interest in PG&E and your support.

Sincerely,

Peter A. Darbee

Chairman of the Board, CEO and President PG&E Corporation

### **About the Report**

Publishing an annual Corporate Responsibility Report allows us to share with our stakeholders the progress we are making and steps we are taking to make positive contributions to the quality of life in the areas where we live and work—as well as to share where our efforts have fallen short. PG&E began producing an environmental report in the 1990s, and broadened the scope to our first Corporate Responsibility Report for calender year 2003. This 2008 Corporate Responsibility Report provides information on performance metrics and activities occurring in calendar year 2008, except when otherwise noted.

### **Stakeholder Engagement**

As part of PG&E's membership in Ceres, we made an executive-level commitment to improve our environmental and social performance by engaging with environmental groups, investors and other stakeholders. Ceres is a national network of investors, environmental organizations and other public-interest groups working with companies and investors to address sustainability challenges such as global climate change.

In developing and writing this report, PG&E engaged with Ceres and an independent group of individuals representing a range of constituencies that have expertise in environmental, social, labor and governance issues. In reviewing plans for this report, the Ceres stakeholder team considered whether the company adequately reported on its sustainability performance and key impacts, including goals, targets, systems, data and initiatives. Through this review process, the team provided extensive feedback to PG&E on our report, encouraging more discussion of our challenges, as well as specific issues such as impacts related to the economic downturn, global climate change and regional water scarcity. This important feedback informed the preparation of the final version of this report.

Additionally, PG&E engages with external stakeholders on a regular basis to stay abreast of the issues facing the communities we serve and to be a constructive voice in developing solutions. With a vast number and diverse array of external stakeholders, PG&E's stakeholder engagement strategy is multi-faceted. Some examples include encouraging all of our officers and certain key non-officer personnel to serve on the boards of directors of non-profit organizations; participating in numerous

multi-party coalitions and working groups, such as the California Environmental Dialogue, the Silicon Valley Leadership Group and the California Utilities Diversity Council; leading issue-specific stakeholder feedback groups, such as the ClimateSmart™ External Advisory Group and the Energy Procurement Review Group; and proactively soliciting input from our stakeholders in a variety of less formal venues. In addition, because so much of what PG&E does is regulated by state and federal agencies, we are engaged in multi-stakeholder public processes convened by those agencies.

### **Defining Key Issues**

PG&E took a multi-faceted approach to identifying the key issues for this report. In preparing the report, we drew upon the feedback from the stakeholder review process facilitated by Ceres. We also engaged a wide network of employees at many different levels to identify and provide substantive input and feedback on the key issues. Our thinking was also informed by the key accomplishments and challenges addressed at an annual meeting of PG&E's leadership team, coordinating with the issues identified in the company's annual report to shareholders and taking into consideration dialogue within the Public Policy Committee of the PG&E Corporation Board of Directors, which focused on a review of last year's report and a discussion of the company's key priorities and issues.

### How to Provide Feedback and Learn More

The complete report, as well as a Summary Report, can be viewed and downloaded at www.pge.com/ environment, where stakeholders can contact us to solicit additional information and offer comments and suggestions on this and future reports. Stakeholders can also access information at www.pge.com on tips to improve the energy efficiency of their homes and businesses and reduce their carbon footprint, including participating in our ClimateSmart program.

The complete report was distributed to all PG&E employees, as well as key stakeholders, such as investors, public officials, non-profit leaders, interested companies and customers. A summary version was also printed and distributed as a complementary resource.

### **Global Reporting Initiative Linkages**

PG&E is committed to continuous improvement when it comes to how we report our impacts and sustainable business strategies. The table below shows how this report aligns with the Global Reporting Initiative (GRI) Performance Indicators, including the Electric Utility Sector Supplement, which we use as an important guide and reference point. While we are working toward meeting the GRI reporting protocols, for several indicators below, we currently only partially meet the recommended standard.

Indicator	Description	Report Section(s)	Page(s)
Strategy and	Analysis		
1.1	Statement by the CEO	Letter from the Chairman and CEO	2-4
1.2	Description of key impacts, risks, and opportunities	Industry-Wide Challenges; Enterprise Risk Management	8; 20
Organization	al Profile		
2.1	Name of the organization	Cover	Cover
2.2	Primary brands, products, and/or services	Company Overview	15
2.4	Location of organization's headquarters	Company Overview	15
2.5	Countries in which the company has operations	Company Overview	15
2.6	Nature of ownership and legal form	Company Overview	15
2.7	Markets served	Company Overview	15
2.8	Scale of the reporting organization	Company Overview	15
2.10	Awards received in the reporting period	Recognition for Diversity and Inclusion; Community Awards; 2008 Environmental Awards	35; 48; 91
EU1	Installed capacity (MW)	Company Overview	15
EU2	Number of residential, industrial, and commercial customer accounts	Company Overview	15
EU3	Length of transmission and distribution lines by voltage	Company Overview	15
Report Parar			
3.1	Reporting period	About the Report	5
3.2	Date of most recent previous report	About the Report	5
3.3	Reporting cycle	Cover	Cover
3.4	Contact point for questions regarding the report	About the Report	5
3.5	Process for defining report content	About the Report	5
3.6	Boundary of the report	About the Report	5
GRI Content	Index		
3.12	Table identifying the location of the Standard Disclosures in the report	Global Reporting Initiative Linkages	6-7
Governance,	Commitments, and Engagement		
4.1	Governance structure of the organization	Corporate Governance	22-23
4.2	Indicate whether the chair of the highest governance body is an executive officer	Letter from the Chairman and CEO	2-4
4.3	Number of members of the highest governance body that are independent and/or non-executive members	Corporate Governance	22-23
4.8	Corporate mission and values	Our Vision and Values	18
4.12	Externally developed economic, environmental, and social charters	Corporate Governance	22-23
4.14	Stakeholder groups engaged by the organization	Letter from the Chairman and CEO; About the Report	2-4; 5
4.15	Identification and selection of stakeholders	Letter from the Chairman and CEO; About the Report	2-4; 5
4.16	Approaches to stakeholder engagement	Letter from the Chairman and CEO; About the Report	2-4; 5
4.17	Key topics and concerns raised through stakeholder engagement	Letter from the Chairman and CEO; About the Report	2-4; 5
Economic			
EC1	Direct economic value generated and distributed  Financial implications and other risks and opportunities for the	Company Overview; Corporate Philanthropy  Working Collaboratively to Address Climate Change	15; 41 66–71
EC6	organization's activities due to climate change  Policy, practices, and proportion of spending on locally-based	Environmental Justice	50-51
EC7	Suppliers  Procedures for local hiring at locations of significant operation	Environmental Justice	50-51
EU5	Procedures for local hiring at locations of significant operation  Planning to ensure short- and long-term electricity availability and reliability	A Renewed Focus on Delivering Reliable Energy	19
EU6	Demand-side management programs	Customer Energy Efficiency and Demand Response	55-58
EU8	Provisions for decommissioning of nuclear power sites	Providing Nuclear Power Safely and Responsibly	64-65
EU10	Estimated capacity (MW) saved through demand-side management programs	Customer Energy Efficiency and Demand Response	55-58
EU11	Estimated energy (MWh) saved through demand-side management programs	Customer Energy Efficiency and Demand Response	55-58

Indicator	Description	Report Section(s)	Page(s)
Environmenta	l		
EN3	Direct energy consumption by primary energy source	General Utility Production Statistics; Electric Power Mix Delivered to Retail Customers; Our Buildings and Facilities	16; 55; 83-84
EN4	Indirect energy consumption by primary source	General Utility Production Statistics; Electric Power Mix Delivered to Retail Customers; Our Buildings and Facilities	16; 55; 83–84
EN5	Energy saved due to conservation and efficiency improvements	Customer Energy Efficiency and Demand Response; Our Buildings and Facilities	55–58; 83–84
EN6	Initiatives to provide energy-efficient or renewable energy- based products and services, and reductions in energy require- ments as a result of these initiatives	Planning for California's Clean Energy Future; Customer Energy Efficiency and Demand Response; Investing in Renewable Energy Resources; Advancing Clean Energy Solutions for Our Customers	55-63; 72-73
EN8	Total water withdrawal by source	Water Conservation and Management	79-80
EN12	Description of significant impacts of activities, products, and services on biodiversity	Demonstrating Environmental Stewardship	74–79
EN13	Habitats protected or restored	Demonstrating Environmental Stewardship	74-79
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	Demonstrating Environmental Stewardship	74–79
EN16	Total direct and indirect greenhouse gas emissions by weight	Working Collaboratively to Address Climate Change	67
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	Planning for California's Clean Energy Future; Working Collaboratively to Address Climate Change; Advancing Clean Energy Solutions for Our Customers; Additional Environmental Performance Indicators	55–73; 92
EN20	$\text{NO}_{x}\text{, }\text{SO}_{x}\text{, }\text{ and other significant air emissions by type and weight}$	Leveraging Cleaner Conventional Sources; Additional Environmental Performance Indicators	63; 92
EN22	Total weight of waste by type and disposal method	Additional Environmental Performance Indicators	93
EN23	Total number and volume of significant spills	Operational Performance	89-90
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Demonstrating Environmental Stewardship	74–79
EN28	Monetary value of significant fines and total number of non- monetary sanctions for non-compliance with environmental laws and regulations	Operational Performance	89–90
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	Working Collaboratively to Address Climate Change; Innovative Transportation Solutions and Technologies	67; 82
Labor Practic	es and Social Performance		
LA1	Total workforce by employment type, employment contract, and region	Company Overview	15
LA4	Percentage of employees covered by collective bargaining agreements	Working with Our Unions	37
LA7	Rates of injury, occupational diseases, lost days, and absentee- ism, and number of work-related fatalities by region	Sharpening Our Focus on Safety	29
LA11	Programs for skills management and lifelong learning	Workforce Development and Learning	35–37
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	Diversity and Inclusion	32–35
EU15	Processes to ensure retention and renewal of skilled workforce	Workforce Development and Learning	35-37
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	Environmental Justice	50-51
EU18	Participatory decision-making processes with stakeholders and outcomes of engagement	About the Report; Environmental Justice	5; 50-51
EU20	Contingency planning measures and disaster/emergency management plan	Sharpening Our Focus on Safety	30-31
EU22	Programs, including those in partnership with government, to improve or maintain access to electricity services	Helping Customers in Need	49
EU23	Practices to address language-, cultural-, low-literacy- and disability-related barriers to accessing and safely using electricity services	Sharpening Our Focus on Safety	31
Product Resp	onsibility		
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	Creating a Smarter, More Sustainable Foundation for the Future	20
EU27	Power outage frequency	A Renewed Focus on Delivering Reliable Energy	19
EU28	Average power outage duration	A Renewed Focus on Delivering Reliable Energy	19

### **Industry-Wide Challenges**

Achieving our vision depends on setting clear direction, adhering to our values and managing the business sustainably amid a multitude of ever-evolving, real-world challenges.

Along the way, we, like every large company today, inevitably encounter tough choices. We have to assess and adjust priorities. We have to balance competing or conflicting stakeholder interests. We have to consider trade-offs between immediate versus long-term objectives. We have to acknowledge and work within the practical boundaries imposed by time, economics, technology, government, human resources or other factors.

One important window into a company's corporate responsibility performance is the way it resolves the tensions that arise as these challenges converge. As a result, we believe it is valuable to provide insight into some of the most significant challenges we face. By doing so, we hope to give stakeholders a clearer lens through which to understand and evaluate PG&E's overall performance.

While this section focuses on industry-wide challenges, it is important to acknowledge that we also face a number of challenges more specific to PG&E. Two of the most significant are improving safety in our workplace and improving the reliability of our service. In both areas, we made significant strides last year, improving key standard performance statistics. Yet the need to continue doing better is urgent.

We know from benchmarking that other companies in the industry are performing significantly ahead of us. Closing these gaps is requiring us to reexamine and revamp various operational procedures and policies. This was a major priority in 2008, and it remains so in 2009. Ultimately, we recognize that success is essential to achieving our vision of being the leading utility.

### Assisting Customers Through the Economic Crisis

Last year, the U.S. economy fell into its deepest recession since World War II, with particularly severe impacts on California. Our home state faces unemployment and home foreclosure rates that are among the highest in the nation. Indeed, the number of customers falling behind on their energy bills has increased significantly over the prior year. As a result, our customers and communities are increasingly looking to PG&E for assistance.

PG&E is focusing aggressively on managing costs, increasing its energy efficiency assistance, offering customers more flexibility and extending financial help to those in need. Through long-standing financial assistance programs, such as CARE, REACH and Energy Partners, PG&E is providing income-qualified customers with a variety of services to help them meet their energy needs.

We are also planning a major expansion of our low-income programs over the next three years. And we have maintained our 2009 charitable-contributions budget at the same level as last year, recognizing that these resources are needed more than ever.

Importantly, the crisis has put a sharp focus on the need for longer-term action on energy issues. New leadership in the White House and Congress has made investments in energy infrastructure, clean technologies and energy efficiency a centerpiece of their massive economic recovery efforts. These initiatives are well aligned with PG&E's business direction and represent significant long-term benefits for customers.

### **Transitioning to a Low-Carbon Economy**

Last year, scientists continued to report new signs that global climate change is occurring at rates faster and more dangerous than earlier forecasts predicted. We believe the link between man-made greenhouse gas emissions and global climate change is clear and convincing. In response, we believe it is critical that the United States take serious steps to rein in greenhouse gases and begin transitioning to a low-carbon economy.

Today, the utility sector accounts for about 40 percent of U.S. greenhouse gas emissions. As a result, any climate action strategy will necessarily entail significant changes for our industry. This includes PG&E, even though our emissions are already among the lowest in the sector.



By implementing aggressive but cost-effective energy efficiency practices, the United States can reduce carbon dioxide emissions from buildings by 35 percent from projected levels in 2050, according to the Alliance to Save Energy.

Most important, we believe it is essential to put a price on carbon emissions, while also taking steps to protect consumers against higher costs and advance the development and deployment of cleaner, more efficient technologies. Toward that end, PG&E, as a member of the United States Climate Action Partnership (USCAP), helped launch a comprehensive Blueprint for Legislative Action on climate change in early 2009. The centerpiece of this proposal is the establishment of an economy-wide cap-and-trade program to reduce greenhouse gas emissions.

Working through coalitions such as USCAP, we also continue to aggressively promote energy efficiency as a frontline response to addressing global warming. In fact, we believe that being more energy efficient and energy independent, while advancing technologies that will be needed around the world, is not only achievable, but also imperative if we are to successfully address global warming and have the United States regain its leadership position in the international community.

PG&E is also carefully studying the projected impacts of climate change on our business as part of a broader risk management effort to develop climate change adaptation and mitigation plans. These plans include exploring

operational changes within our hydroelectric system to mitigate possible negative consequences and engaging with key stakeholders, such as the California Resources Agency, on the state's climate adaptation strategy.

### **Expanding Supplies of Renewable Energy**

More than half of the states, including California, have adopted formal renewable energy targets. Raising the bar, California's governor signed an executive order last year to boost the state's renewable energy standard to 33 percent by 2020—by far the most ambitious target in the nation.

Despite these aggressive efforts, key challenges must be overcome in order to successfully position renewables as a mainstream energy resource.

For example, with the economic downturn, many renewable energy companies are having difficulty accessing the capital they need to finance projects, and developers are facing slowed or halted expansion. PG&E has remained focused on speeding the delivery of renewable energy to our customers, both through contracts with third parties and

by pursuing company-owned renewable generation. In fact, PG&E recently announced a major plan for up to 250 megawatts (MW) of utility-owned solar generation.

Another major challenge is the need for robust and extensive improvements and additions to the nation's electric transmission infrastructure to deliver the electricity generated by new renewable energy facilities, often in remote locations, to population centers. PG&E is working collaboratively at the state, regional and national levels to advocate for the timely construction of transmission lines and permitting of project sites.

Additionally, we need to continue to support advancements in technology to generate, store and transmit clean energy. We are committed to exploring new and existing technologies to meet the state's objectives and to bringing increasing amounts of clean, renewable energy to our customers.

### Addressing State and Regional Water Shortages

Water scarcity is one of the most complex and pressing issues facing the western United States and has become even more acute recently. California is expected to suffer its third straight year of drought in 2009, leading to restrictions on local water use, rising water bills and economic losses that could rise to \$3 billion. We are also seeing increased wildfires and diminished hydroelectric power generation.

To help protect California's vital water supply system, Governor Schwarzenegger proposed a plan to achieve a 20 percent reduction in statewide per capita water use by 2020. In an effort to do our part, PG&E is implementing a variety of water conservation practices in our facilities, exploring alternative cooling systems in new power plant designs and partnering with our customers and local water agencies.

Additionally, we see promising potential in the link between saving energy and reducing water usage. We are now working with some customers to explore these benefits. Every gallon conserved through an industrial process improvement presents an opportunity to save energy through a reduction of water pumped, water heated and water treated prior to discharge.

### Investing in Our Nation's Energy Infrastructure

The nation's energy delivery infrastructure of pipes, wires and equipment continues to age faster than replacement efforts—creating an extraordinary opportunity for green job creation to support a smarter, more rapid investment in alternative energy infrastructure and deployment.

According to a recent report commissioned by The Edison Foundation, the electric-power industry will need to invest \$298 billion in the nation's transmission system from 2010 to 2030 to maintain reliable service. And new technologies—from automated home appliances to plug-in hybrid electric vehicles—will dramatically change how utilities deliver electricity and how customers use it.

PG&E is pursuing one of the industry's most extensive infrastructure investment plans. Last year, despite tight credit markets, we successfully secured more than \$2 billion in financing to support this effort. We have also presented regulators with designs for a large set of strategic, integrated investments in new equipment and technology to strengthen reliability over the next six years.

We are also laying the foundation for a smart grid, with the nation's largest deployment of smart meters. We put in approximately 1.4 million high-tech gas and electric meters in 2008, 1.3 million of which were being remotely read and billed by year's end. We remain focused on allowing our customers to make intelligent decisions with their energy use and providing energy more cost-effectively.

### **Satisfying Demand for Natural Gas**

We continue to see growing demand for natural gas nationally, driven in large part by the increasing use of natural gas for power generation. In light of concerns over greenhouse gases and an uncertain regulatory climate, power generators are turning away from coal for new power generation, resulting in even greater reliance on gas-fired generation as one likely alternative to coal.

Together, these developments create potential for increasingly constrained gas supplies and higher prices for customers in the future. PG&E is working to both increase supplies and manage demand to help mitigate this prospect.



Photo courtesy of Iberdrola Renewables

Making the grid smarter with modern control technology could reduce electricity consumption by up to 10 percent and carbon dioxide emissions by up to 25 percent, according to the Electric Power Research Institute.

For example, we continue to support technologies to create utility-scale supplies of renewable natural gas from biogas sources, such as California dairy farms. We are also exploring investments to bring gas into California from other regions. These include a pipeline project in Oregon that would interconnect gas markets in California and the Pacific Northwest with proposed facilities to import liquefied natural gas from overseas. Additionally, PG&E has signed transportation contracts with the planned Ruby Pipeline project that would deliver natural gas to California from the Rocky Mountains, one of the lowest-cost sources of natural gas in the United States.

### Planning for the Skilled Workforce **Our Industry Needs**

Electric and natural gas utilities are facing worker shortages earlier than most other segments of the economy. At PG&E, roughly 42 percent of our employees will be eligible for retirement in the next five years. Many factors influence an individual's decision to retire, including the health of the economy. Nevertheless, PG&E expects to replace a large portion of our workforce in the near future and is striving to build a workforce that better reflects the communities we serve.

Like other utilities, we have a diverse array of jobs—there is no one set of skills that can meet all of our hiring needs. Additionally, many utility jobs require specific technical skills that take time to develop, and the demand for these skills will only increase as PG&E invests more heavily in infrastructure upgrades.

Yet California schools are not graduating enough workers with the skills needed to fill our expected gap. In 2025, the state is projected to have one million fewer college graduates than it needs—only 35 percent of working-age adults will have a college degree in an economy that will require 41 percent.

To help address this gap, PG&E supports various educational programs designed to reduce dropout rates, especially among low-income and minority students, and to increase minority undergraduate enrollment at University of California campuses. In addition, PG&E's PowerPathway™ program is partnering with California community colleges, government, labor, foundations and other community-based organizations to prepare individuals for energy sector positions specific to PG&E's hiring needs.





Left to right: Heine Roikjer, Ann Denison and Alex Chaney

f energy is the lifeblood of our economic growth and productivity, the infrastructure built and operated by our nation's utilities is its backbone. On the horizon today, we see historic changes coming in the way energy is produced and delivered. PG&E is at the forefront of the thinking and the early steps to usher in a new energy economy. We are making investments with our eye on the emergence of a smarter grid that is more responsive to customers and more capable of facilitating new, more sustainable energy solutions—from increased efficiency to better integration of renewable energy and enhanced demand management approaches. At the same time, we believe more than ever that fundamental operational excellence and focus on customer service will always be the bedrock for our success, and we are making changes to ensure we can fulfill this critical expectation.

With stores in 36 countries, IKEA is a leading provider of well-designed, functional home furnishing products at affordable prices—from lamps and living room sets to kitchen appliances. IKEA maintains a deeprooted commitment to sustainability, including working to minimize the environmental impacts of its products and operations. The IKEA store in West Sacramento is one of the company's least energy-intensive locations on a square-foot basis. PG&E is helping the store stay at the forefront by partnering on a suite of energy efficiency and demand response programs, as well as PG&E's innovative ClimateSmart™ program. Working together, we are demonstrating the power of partnerships and taking creative steps to benefit the environment both today and tomorrow.

Heine Roikjer is the store manager, and Alex Chaney is the facilities manager at IKEA West Sacramento, a facility that stands apart for its energy-saving practices and environmental commitment.

**Ann Denison** is a service and sales representative at PG&E who is working collaboratively to help IKEA meet its sustainability goals.

### Why is sustainability important to IKEA?

Roikjer: IKEA provides home furnishing articles for better living at a price people can afford—but not at any price. With everything we do, we think about how it relates to people and the environment. For us, sustainability is a must.

## What's PG&E's approach to working with its business customers?

Denison: We want to build a relationship with our customers and partner with them to save energy and reduce their carbon footprint. We offer a full package of programs and incentives—from energy efficiency rebates to the ClimateSmart program. I feel fortunate because Heine and Alex are so receptive to trying new things and so much fun to work with.

## What steps have you taken to reduce your store's environmental footprint?

Chaney: When I came to IKEA in 2006, this store was new, so we took a comprehensive look at opportunities. We started with an energy audit, which helped us focus on areas of high energy usage, such as lighting. We converted to energy-efficient fluorescent lighting, earning PG&E rebates, and signed up for PG&E's demand response program to help shed our load during critical times. We've also assessed the carbon footprint of our store to understand where we are and possible savings.

**Roikjer:** PG&E's ClimateSmart program is a good example of long-term thinking. I believe we have a responsibility to support this kind of program in order to have a more sustainable future.

## What are your expectations for PG&E as a business customer?

Roikjer: Just like any supplier or business partner, we expect PG&E to be socially responsible. We want true partners that we can talk to and who will listen to us and give us the service that we deserve. We also want to stay informed of new and upcoming technologies—for example, last

year, we worked with PG&E to test some emerging lighting technologies in our store.

### What are the greatest challenges companies face with regard to sustainability?

Denison: With today's economy, it can be more difficult for companies to balance short- versus long-term goals. It's important to have a strong corporate commitment and to be creative in how you approach opportunities. It also requires a culture change to recognize that electricity isn't here for our wasting.

## How can PG&E lay a smarter, sustainable foundation for the future?

Roikjer: We look for PG&E to help its customers, like IKEA, stay focused on reducing energy use to help us meet our goals. And we need a greater investment in renewable energy, with large wind and solar installations, as well as new energy efficiency technologies.

**Chaney:** I'd like to see PG&E focus even more on energy-efficient design standards for buildings. This is an area that can make a big difference for California.

### **Company Overview**

PG&E Corporation is an energy-based holding company whose core business is Pacific Gas and Electric Company. Pacific Gas and Electric Company, or the Utility, delivers safe, reliable and responsive gas and electric service to approximately 15 million people throughout northern and central California. PG&E had approximately \$40.86 billion in assets as of December 31, 2008, and generated revenues of approximately \$14.63 billion in 2008.

#### About the Company<sup>1</sup>

#### **Headquarters Location**

San Francisco, CA

#### Service Area

70,000 square miles in northern and central California

#### Service Area Population

15 million people (or about 1 of every 20 Americans)

### Electric Distribution Customer Accounts

5.1 million<sup>2</sup>

#### Natural Gas Distribution Customer Accounts

4.3 million<sup>2</sup>

#### 2008 Revenue

\$14.63 billion

### 2008 Assets

\$40.86 billion

### 2008 Earnings per Share from Operations<sup>3</sup>

\$2.95

### **Number of Common Shareholders** 86,097

Number of Common Shares Outstanding 362,346,685

#### **Employees**

Approximately 21,670

Approximately 14,650 employees are covered by collective bargaining agreements with three labor unions:

- International Brotherhood of Electrical Workers (IBEW), Local 1245
- Engineers and Scientists of California/International Federation of Professional and Technical Engineers (ESC/IFPTE), Local 20
- Service Employees International Union (SEIU), Local 24/7

#### System

159,6864 circuit miles of electric transmission and distribution lines and 48,435 miles of natural gas transmission and distribution pipelines; approximately 6,8015 MW

of generation, including the Diablo Canyon nuclear power plant and one of the largest hydroelectric systems in the country

#### Examples of Major Customer Segments

Residential, Small Business, Retail, Agriculture, Education, Heavy Industry and Manufacturing, Government, Medical, Distillers, Hospitality, High-Technology, Food Service, Biotechnology, Large and Small Commercial Enterprises

Examples of Major Customers
Bank of America, Chevron, Cisco
Systems, FedEx, Fetzer Winery,
Intel, Kaiser Permanente, Lockheed
Martin, New United Motors
Manufacturing, Safeway, Inc.,
and Target

to another. In the fourth quarter of 2008, PG&E Corporation realized net income of approximately \$257 million (\$0.68 per share) resulting from a settlement of federal tax audits for the years 2001 through 2004. This amount has been treated as an item impacting comparability and has been excluded from consolidated net earnings per common share of \$3.63 for the year ended December 31, 2008, as reported in accordance with GAAP.

#### **Key Sustainability Indicators**

2008 Target	Progress	2008 Result	2009 Target
Reliable Energy Delivery			
System Average Interruption Frequency Index (SAIFI): 1.257 (average number of outages per customer)	•	1.197	1.197
System Average Interruption Duration Index (SAIDI): 156.6 (average duration of outages per customer)	•	153.4	148.8
Customer Average Interruption Duration Index (CAIDI): 124.6 (average restoration time)	•	128.1	124.3
Stakeholder Rating			
Earn top-quartile "Stakeholder Capital" rating (a measure of PG&E's stakeholder relationships) from Innovest Strategic Value Advisors relative to multi-utility sector peer group	•	3 of 26	Maintain 2008 target
SmartMeter™ Installations¹			
Install 1.35 million SmartMeter™ gas and electric meters	•	1.39 million	2.8 million

<sup>&</sup>lt;sup>1</sup> Cumulatively, we installed 1.7 million SmartMeter<sup>™</sup> gas and electric meters by the end of 2008; we expect to install a cumulative total of 4.5 million by the end of 2009.

<sup>&</sup>lt;sup>1</sup> All data as of December 31, 2008, unless otherwise noted.

<sup>&</sup>lt;sup>2</sup> Equivalent to approximately 4.5 million residential and 0.6 million commercial/industrial/other electric distribution customer accounts and approximately 4.0 million residential and 0.3 million commercial/industrial natural gas customer accounts.

<sup>3 &</sup>quot;Earnings per Share from Operations" is not calculated in accordance with the accounting principles generally accepted in the United States of America, or GAAP. It should not be considered an alternative to net income calculated in accordance with GAAP. Earnings from operations reflects PG&E Corporation's consolidated net income, but excludes "items impacting comparability," i.e., items that do not reflect the normal course of operations, in order to provide a measure that allows investors to compare the core underlying financial performance of the business from one period

 $<sup>^4</sup>$  Length of distribution lines in circuit miles by voltage —4 kilovolts [kV]: 2,629; 12 kV: 103,819; 17 kV: 4,486; 21 kV: 30,111. Length of transmission lines in circuit miles by voltage —60 kV: 3,886; 70 kV: 1,552; 115 kV: 6,012; 230 kV: 5,412; 500 kV: 1,328; Idle: 460.

<sup>&</sup>lt;sup>5</sup> Net operating capacity in January 2009: Gateway Generating Station: 530 MW; Humboldt Bay: 105 MW; mobile turbines: 30 MW; Diablo Canyon: 2,240 MW; hydroelectric facilities: 3,896 MW.

### **General Utility Production Statistics**

	2006	2007	2008
Total Electricity Generated (GWh net) <sup>1</sup>	32,842	26,723	25,481
Fossil Plants (GWh net)	624	483	520
Hunters Point (GWh net)	182	N/A <sup>7</sup>	N/A <sup>7</sup>
Humboldt Bay (GWh net)	442	483	520
Other Plants (GWh net)	32,218	26,240	24,961
Diablo Canyon (GWh net)	18,391	18,588	17,096
Hydro Facilities (GWh net) <sup>2</sup>	13,827	7,652	7,865
Eligible Hydro (GWh net) <sup>3</sup>	1,437	985	990
Electricity Purchased (GWh)	29,104	29,462	47,934
Other Electric Supplies (GWh) <sup>4</sup>	19,585	23,265	14,532
Electricity Delivered (GWh) <sup>5</sup>	84,310	86,179	88,127
Electricity Purchased by Our Customers (GWh)	76,692	79,451	81,935
Total Natural Gas Throughput (million cubic feet or MMcf) <sup>6</sup>	836,441	875,334	838,612

<sup>&</sup>lt;sup>1</sup> One GWh, or gigawatt-hour, is one million kilowatt-hours, enough to power one million homes for one hour. PG&E is reporting net energy statistics for consistency with other published company reports. See page 55 for a breakdown of PG&E's electric power mix delivered to retail customers.

 $<sup>^{7}\,\</sup>mathrm{Hunters}$  Point ceased operation in May 2006.



# Creating a Smarter, More Sustainable Foundation for the Future

At PG&E, our strategy revolves around operational excellence and customer focus. These are the keys to achieving our vision of becoming the nation's leading utility.

We have a clear and bold vision, but we also recognize the need to refocus our efforts on fundamentals—redoubling our efforts last year with respect to reliability and safety, responsibly managing our costs and meeting the needs of the many diverse customers we serve.

Our work in 2008 was guided by five key business priorities to improve our performance in the eyes of our customers, employees, shareholders and other stakeholders. Every month, we track and report internally our performance in five areas: improve reliability; improve safety and human performance; deliver on budget, on plan and on purpose; champion effective regulatory and legislative policies; and drive customer satisfaction.

We use a similar approach here to highlight important accomplishments and challenges from last year.

 $<sup>^{2}\,\</sup>mbox{Hydroelectric generation can vary year to year due to variability in precipitation.}$ 

 $<sup>^3</sup>$  Electricity generated by hydroelectric facilities with a capacity under 30 MW and eligible under California's Renewable Portfolio Standard.

<sup>&</sup>lt;sup>4</sup> Represents energy purchased by the California Department of Water Resources (DWR) from various energy suppliers for the benefit of the Utility's customers. The DWR remains legally and financially responsible for its power purchase contracts. The Utility acts as a billing and collection agent for the DWR to enable the DWR to pay for its energy purchases.

<sup>&</sup>lt;sup>5</sup> Electricity Delivered includes direct access, community choice aggregation, transmission-only sales, losses and unaccounted-for energy.

<sup>&</sup>lt;sup>6</sup> Excludes interdepartmental natural gas sales.



PG&E crews responded when approximately 2,000 wildfires hit California in June, affecting more than 10,000 of our customers. PG&E earned the Edison Electric Institute's Emergency Recovery Award for its successful power restoration work with these fires and heavy storms earlier in the year.

### **Improve Reliability**

We intensified our efforts to improve electric reliability and met our annual targets for system-average outage frequency and duration, but not for the time it took to restore power to our customers. Overall, the 2008 performance results were noteworthy when considering the substantial impact of major winter storms and summer wildfires. We also took significant steps to revamp and improve processes and training on the natural gas side of our business, with a goal to dramatically improve the quality of field surveys to verify the integrity of PG&E's natural gas system.

We continued to make substantial capital investments in our system. In 2008, our investments totaled approximately \$3.7 billion and we forecast that capital expenditures will average approximately \$3.5 billion to \$4.0 billion per year, over the next three years, from 2009 through 2011, one of the largest capital programs in the industry.

### Improve Safety and Human Performance

Excellence in safety is a leading indicator of overall operational excellence. We set aggressive targets for safety last year, with the intent of accelerating our march toward zero incidents. We reduced our OSHA Recordable Rate by nearly 21 percent, lowered our Motor Vehicle Incident Rate by nearly 24 percent and brought down our Lost Workday Case Rate by more than 13 percent. For the first two measures, we beat our goals for the year and nearly met our stretch goals.

We also experienced some very serious incidents, including the loss of two employees and a contractor on the job. These served as a somber reminder of exactly why safety always has to be the number-one accountability of all of us at PG&E. Additionally, compared with 2007, we received fewer notices of violation for being out of compliance with environmental requirements.

### Deliver on Budget, on Plan and on Purpose

In a difficult economic climate, PG&E delivered solid shareholder performance, outperforming the majority of our comparable peers. This success was a result of our continued focus on increasing efficiency and executing our operating plan. The well-managed replacement of steam generators at our Diablo Canyon plant and smooth construction of our new Gateway Generating Station exemplified both excellence in teamwork and on-time discipline. Challenges last year included the continued need to simplify and improve work processes, procedures and training.

### Champion Effective Regulatory and Legislative Policies

We continued to demonstrate leadership in many areas last year, including working with our customers to achieve record energy efficiency results and actively promoting a national, economy-wide cap-and-trade program to address climate change. We also earned a spot on the Dow Jones Sustainability North America Index, a recognized benchmark for corporate responsibility. However, while we signed new contracts for almost 1,800 MW of additional renewable supplies, we continued to face significant obstacles to developing and deploying an advanced renewables infrastructure, including getting projects successfully permitted, built and connected to the grid.

### **Our Vision and Values**

In 2005, PG&E's senior leaders introduced the company's vision of becoming the leading utility in the United States, along with a set of values and guiding behaviors, through an extensive employee outreach program that continues today.

Reflecting the evolutionary path of our vision, our senior leaders revisited and made subtle changes to PG&E's goals and strategies in 2009. But we remain steadfast in our commitment to living and leading our values, and how they guide the behaviors and actions that will allow us to achieve our goals, strategies and vision.

We made an important enhancement by adding "environmental leadership" as a fourth goal for the company. We did so because we view it as essential to our broader leadership vision of being the nation's leading utility. In a future where clean and sustainable energy solutions will be increasingly vital drivers for value, environmental leadership must be a top strategic priority.

We also added "customer focus" and "operational excellence" as our overarching strategies, reinforcing our customercentric approach and aim to

consistently maintain excellence in how we do business. These updates highlight our drive to deliver core services to customers faster and more cost-effectively—with a focus on sound execution.

Becoming a leading utility means reshaping the way energy impacts people's lives, and PG&E is committed to not only transforming ourselves, but also to working collaboratively to advance our entire industry.



# A Renewed Focus on Delivering Reliable Energy



ur primary responsibility is to provide safe and reliable gas and electric service to our customers. We invest more than \$2 billion a year to maintain and upgrade our electrical system—poles, lines, transformers and a host of other associated equipment—to maintain public safety and minimize the cost and inconvenience to our customers as a result of outages.

PG&E works constantly to improve system reliability by improving crew training and response times, using sophisticated metrics to identify and address key problem areas, installing advanced distribution automation equipment to limit the scope and duration of outages and accelerating the replacement of equipment that has passed its useful life span.

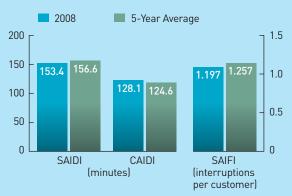
A significant milestone in 2008 was the early completion of key work before the winter storm season arrived, thanks to the collaborative efforts of our engineers, estimators and planners, as well as our dedicated employees in the field. Throughout 2008, our crews installed more than 5,000 new pieces of protective equipment and technology to guard against and recover more quickly from power outages, including new line fuses, new line reclosers, upgrades of recloser controls and new overhead fault indicators, exceeding our annual goals.

PG&E continues to make progress in improving system reliability according to industry-accepted reliability standards, as shown by the indicators in the graph to the right. While our electric system reliability meets the California Public Utilities

Commission's (CPUC's) adequate service standard, we currently rank in the third and second quartiles for North American utilities, respectively, as measured by SAIDI and SAIFI.

Looking to the future, PG&E has asked the CPUC to approve a proposed multi-year initiative, the Cornerstone Improvement Program, to enhance reliability by increasing the available capacity and interconnectivity of our electric system, implementing more distribution automation and improving mainline protection on rural circuits. If approved and implemented, these initiatives are expected to provide significant long-term customer benefits, including a 25 percent reduction in SAIDI and a 33 percent reduction in SAIFI.

### Benchmarking PG&E's Reliability Performance



#### **Drive Customer Satisfaction**

Everything we do at PG&E starts with the customer, and we remain firmly committed to meeting our customers' needs with innovative and valued products and services. We achieved high scores for customer satisfaction again in 2008. For the first time, PG&E ranked in the top 25 percent in the industry in all four annual customer satisfaction surveys conducted by J.D. Power and Associates, covering gas and electric service for business and residential customers.

One key area of success was strong progress installing SmartMeter<sup>TM</sup> technology, with more than 1.7 million high-tech gas and electric meters installed by the end of 2008 to help customers better manage energy costs. One ongoing challenge is providing the more personalized service that many business customers demand.

### **Enterprise Risk Management**

PG&E takes an integrated approach to risk management and, as part of our risk management strategy, we established an enterprise-wide program. Companies are increasingly using Enterprise Risk Management (ERM) to improve their management of major risks in order to achieve their business objectives.

PG&E's ERM program takes a holistic approach to managing potentially catastrophic risks that face our business. Cross-functional teams, guided by subject matter experts and experienced managers, follow a systematic method to identify, evaluate and monitor risks. Oversight by a committee comprising senior officers helps ensure risk management activities are consistent with the company's overall corporate strategy. Regular communication to the PG&E Corporation and Utility Boards of Directors enhances accountability and reinforces the importance of risk management at all levels of the company.

In 2008, we conducted a structured reevaluation of which risks should be covered by the ERM program. This reevaluation provided an opportunity for senior management to evaluate the most significant concerns facing PG&E, calibrating the program with challenges in the current business environment and external stressors that potentially affect operations.

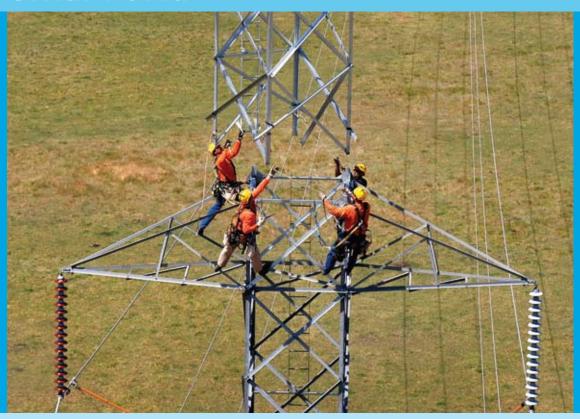
This renewal of the ERM program will continue in 2009, with a critical reanalysis of these top risks and alignment of risk management activities with business strategies. Tracking and validation of the effectiveness of risk management plans through management reporting and internal audits facilitate program sustainability and promote accountability for risk management activities throughout the company.

PG&E's enterprise-level risks span the spectrum of business risks, and include those associated with energy commodities, operations, natural hazards, political and regulatory issues, economics and the environment. Risk assessments and mitigation plans have been developed to enhance how PG&E addresses risks. These assessments and plans continue to be refined and improved by taking into account changing market, regulatory and other forces. Additionally, many of the risk management plans include engaging with external stakeholders who influence the company's ability to manage these risks successfully.

An example of an enterprise risk facing PG&E is the threat of an earthquake disrupting our operations. Given the vast infrastructure PG&E maintains, a seismic event has the potential to disrupt operations in many ways (including physical damage to or destruction of pipelines, power plants and other facilities, and potential disruption of our supply chain or of our ability to move people and resources around our service area to restore service). PG&E maintains a team of geoscientists and other professionals dedicated to examining the potential impacts of a seismic event on PG&E, planning how the company will manage those impacts and helping design and build our facilities in a way that allows them to withstand likely events. The team's goal is to help ensure PG&E is capable of serving our customers after a seismic event.

A variety of different seismic risk mitigation initiatives are presently underway at PG&E, ranging from building retrofits to emergency exercises and drills based on various earthquake scenarios. Consistent with the model PG&E follows for its enterprise risks, periodic reassessment of the risk management program helps to ensure we are addressing the most likely scenarios and potential points of failure. The seismic team works closely with representatives of impacted departments within the company to provide an integrated, holistic approach to this top

# Investing for the Future: Smart Grid



nergy customers today demand more than reliable service at a reasonable price. As the threat of global warming increases, more customers also expect their energy to be delivered in a sustainable manner.

PG&E aims to reconcile these potentially competing objectives by working smarter. By leveraging the power of information to better understand and control every section of our grid—from generation, through transmission and distribution, to the customer's site—we believe we can build a "smart grid" to increase service reliability, lower costs by improving system efficiency and smoothly integrate the next wave of renewable resources.

A smart grid doesn't consist of a defined set of components or procedures that utilities can buy today from vendors and install tomorrow. Rather, it represents a vision for continuously upgrading the efficiency and effectiveness of electric system operations through greater and more refined use of sensing, communications, computing and control technologies.

For example, if sensors detect a sudden drop in electric generation due to a change in wind energy output, that information can be communicated instantly to a computerized control device on the grid, which trips relays to protect key circuits or triggers a customer demand response event to reduce loads on our system, maintaining reliability.

PG&E is laying the foundation for a smart grid with its SmartMeter™ program (see next page). Last year, these meters allowed PG&E to successfully deploy our SmartRate program, which rewards customers for shifting or reducing energy usage during periods of peak demand. And our new generation of SmartMeter™ electric meters include essential smart grid technologies, such as remotely upgradeable computing capability, home area networking gateways to help control appliances and energy displays and remote connect/disconnect switches.

We are also investigating the impact on the grid of charging electric vehicles—and how to implement a robust "smart charging" infrastructure to enable vehicles to recharge batteries automatically when ample electric supply is available.

In the coming year, PG&E plans to conduct a series of smart grid technology pilots, including a major one in San Francisco, to test the integration of demand response, distribution automation and distributed generation. We are also actively involved in industry efforts to develop technology standards to allow easier integration of diverse solutions from multiple vendors and greater economies of scale.

While the journey will take many years, PG&E is committed to realizing value for our customers and communities each step of the way toward a smart grid.

risk. Their efforts are periodically reported to the company's senior leadership team and the Boards of Directors, and a similar approach is taken with other enterprise risks.

### **Corporate Governance**

A public company must have the trust of the public to operate successfully. Transparency and integrity form the basis of this trust. Our many stakeholders want to understand what processes and procedures we have in place to ensure that we are operating our business ethically, are able to deliver on our promises and are accountable for our actions.

The policies and practices described in our Corporate Governance Guidelines demonstrate PG&E's commitment to good

corporate governance practices. These practices provide a framework within which the Boards of Directors and management of PG&E Corporation and the Utility can pursue the companies' business objectives. The foundation for these practices is the independent nature of the Boards and its fiduciary responsibility to the companies' shareholders. The companies' Corporate Governance Guidelines set forth a policy that 75 percent of the directors of each company should be independent, as defined in the Guidelines. As of December 31, 2008, seven out of eight members of the PG&E Corporation Board and of the Utility Board were independent.

Our Corporate Governance Guidelines are published annually in PG&E Corporation's and Pacific Gas and Electric Company's Joint

### Laying the Foundation: PG&E's SmartMeter™ Program



PG&E's SmartMeter™ program is a critical component of our effort to dramatically enhance the way we deliver service to our customers and an essential foundation upon which we are building a smarter grid.

Our award-winning SmartMeter™ program is the nation's largest deployment of advanced metering infrastructure to date. By year-end 2008, we installed more than 1.7 million high-tech gas and electric meters for our customers, up from 278,000 at the end of 2007. We expect to install nearly 10 million of these meters by early 2012.

The program provides our customers with a number of benefits, including better information and the ability

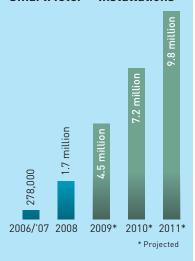
to make cost-saving choices about the way they use energy. It will also give PG&E new rapid-response capabilities to restore service following an outage, as well as opportunities for enhanced, more personalized customer service.

The program experienced a number of important highlights in 2008:

- We began to provide participating customers with online access to their energy use data through pge.com. These customers can now review their detailed energy use on a day-after basis—daily data for gas, and hourly or at 15-minute intervals for electric. Over time, we will provide them with an expanding set of tools for analyzing their energy use.
- We launched the SmartRate pricing plan, the nation's first broad-based critical peak pricing plan for residential and small and medium business customers. Customers can save on their cumulative summer electric bills by lowering usage on up to 15 critical peak events, typically hot summer afternoons. More than 10,000 customers participated in 2008. On average, these customers reduced their

- electric use during nine critical peak periods by 17 percent.
- We adopted the latest automated metering technology for our SmartMeter™ electric system, including programmable digital meters and a robust radio frequency mesh network. This featurerich and flexible technology provides a solid platform for future innovation.
- We maintained our commitment to reuse existing meters whenever possible, and we recycled 380,000 unusable meters, totaling more than 2.7 million pounds of scrap metal and glass.

### SmartMeter™ Installations



Proxy Statement and are also posted at www.pgecorp.com, along with our Bylaws, Board Committee Charters, codes of conduct for directors and employees and the PG&E Corporation Disclosure Policy.

In furtherance of our commitment to good corporate governance and accountability to shareholders, in 2009, the Boards of Directors of PG&E Corporation and the Utility each adopted a policy that will give our shareholders a non-binding advisory vote on executive compensation, or a "say on pay," at each annual meeting of shareholders beginning in 2010. PG&E Corporation and the Utility value the input of our shareholders, and the Boards believe that a say on pay policy further aligns the companies' executive compensation objectives with the interests of our shareholders.

The Boards of Directors of PG&E Corporation and the Utility are regularly engaged in pertinent governance matters, including those related to environmental performance, corporate responsibility and political activities. For example, the Public Policy Committee of the PG&E Corporation Board has specific oversight of many of the areas addressed in this Corporate Responsibility Report, including, but not limited to, corporate philanthropy, community involvement, supplier diversity, workforce diversity, climate change and the quality of the environment. In addition, the Public Policy Committee oversees issues pertaining to political contributions and related activities.

PG&E has structures in place to ensure that all activities related to the myriad aspects of corporate responsibility and our political

activities are consistently measured and implemented and their related progress is reported to the PG&E Corporation and Utility Boards of Directors. For example:

- As part of PG&E Corporation's Environmental Policy, a section outlines PG&E's Environmental Governance Procedures. These procedures can be viewed at www.pgecorp.com/corp\_responsibility/ environmental/policies.
- PG&E's total charitable contributions budget and individual charitable commitments of more than \$250,000 are approved by the PG&E Corporation Board of Directors, and smaller contributions are approved by the PG&E Corporation Chief Executive Officer or staff executives within the Public Affairs Department, working with colleagues from throughout the company. To reduce the potential for conflicts of interest, no one may approve a charitable contribution from company funds to an organization in which they or family members have a financial interest, including serving on the organization's board of directors.
- Our contributions program also includes many grants that are approved and funded by the PG&E Corporation Foundation.
- All political contributions made by PG&E are reviewed by outside counsel and approved by the Senior Vice President of Public Affairs and/or the Chairman of the Board. Individual contributions that exceed certain thresholds are approved by the Boards of Directors of PG&E Corporation and the Utility.

### Corporate Governance Rankings

PG&E's corporate governance practices have been evaluated and rated by several institutional shareholder groups and corporate governance organizations. We have consistently received ratings that are well above average compared with other utility companies, as well as general industry companies.

For example, as of April 1, 2009, RiskMetrics Group, a leading provider of risk management and corporate governance products and services to financial market participants, ranked PG&E Corporation in the 91.9 percentile (i.e., the top 8 percent) of the utility companies that they track and in the 85.3 percentile (i.e., the top 15 percent) of all companies in the S&P 500 index, based on its Corporate Governance Quotient rating system.

In addition, on February 15, 2009, GovernanceMetrics International (GMI), a corporate governance research and ratings agency, gave PG&E Corporation an overall governance rating of 9.5 using a scale of 1.0 (lowest) to 10.0 (highest).

The governance ratings issued by RiskMetrics Group and GMI are updated periodically and are determined relative to other utility and general industry companies rated by those organizations. Thus, PG&E Corporation's ratings may change during the course of the year as a result of changes in those other rated companies' governance practices, as well as changes in our own governance practices.

# Our Employees









Detrina Faletogo and Katherine Bird

Top: Neil Stockton and Erwin Bonilla Bottom: Matthew Duncan, Pam Miller-Lewis and Yonnie Leung

ver the past century, it has taken the muscle, sweat, determination, creativity and vision of generations of utility workers to fulfill the promise of bringing safe, reliable energy to our customers and communities. Sustaining that promise in the future will continue to demand the best from our people. Today we are working to ensure that the team at PG&E is ready to meet this challenge—a team that understands the value and importance of embracing innovation, new technology and new thinking as much as it does the enduring priorities of always delivering rock-solid performance on fundamentals like operational reliability, safety and great customer service.

As we embark on a new energy future for the 21st century, we are drawing on the diversity of our communities to recruit and train the next generation of PG&E workers. We are working with partners in our communities. We are creating new strategies to attract the best talent and prepare people for careers in this industry. And we are building a workforce of energized employees who are ready to help meet the needs of our customers, our state and beyond.

For more than 20 years, PG&E's Employees Associations have played an active role in promoting a culture of diversity and inclusion within the company—contributing to the personal and professional development of thousands of employees through creative events, seminars and mentoring programs. Led by employee volunteers, the seven dynamic groups also provide vital opportunities to engage employees in service to communities throughout northern and central California—from volunteering with local community organizations to raising more than \$1.6 million for scholarships for qualifying college-bound seniors.

**Katherine Bird** is president of the Women's Network Employees Association

**Erwin Bonilla** is vice president of the Filipino Employees Association

**Matthew Duncan** is president of the PrideNetwork Employees Association

**Detrina Faletogo** is president of the Hispanic Employees Association

**Yonnie Leung** is president of the Asian Employees Association

**Pam Miller-Lewis** is president of the Black Employees Association

**Neil Stockton** is chairman of the Board of the Pacific Service Employees Association

### What critical roles do Employees Associations (EA) play at PG&E?

Faletogo: We are the face of PG&E and the champions of diversity. And we are an important resource for the company—we leverage our interactions with employees to provide important feedback to the company.

**Stockton:** The EAs are part of PG&E's history and heritage, with most dating back many years. We bring diverse groups of people together—often providing

an opportunity to simply enjoy each other's company and share our culture.

**Bird:** We also provide a place for employees to connect across the company in new ways—people of different age groups with different backgrounds and business experiences, and that's really valuable. It makes people feel included and rewarded.

# How do EAs benefit the company? The community? Employee development?

Miller-Lewis: We bring important issues to the leaders of the company. And this is critical in helping PG&E become the nation's leading utility.

Faletogo: We're also very active in the community, volunteering our time, which is especially important given the current economy. We are passionate about serving our customers and very sensitive to what people are going through today.

**Bonilla:** I agree, we serve as a pulse of the community and a vital link that connects the community to the company.

Miller-Lewis: We also play an important role in professional development. For example, we piloted a mentoring program a few years ago to match employees with each other to help develop their careers. We demonstrated its value, and

it's now a formal, companywide program.

Leung: And the Asian Employees Association is in the process of building on its success by structuring a leadership pilot program to mentor high-potential employees.

## How do EAs support a culture of diversity and inclusion at PG&E?

**Bonilla:** From my perspective, a sense of inclusion is at the very heart of EAs. It's also important to note that all employees associations are open to all employees.

Stockton: Each EA gives employees a place to feel comfortable, whether they're new or more tenured employees. Everyone has a voice, and their opinions matter. EAs help build self-confidence, which allows employees to grow and develop their skills.

Faletogo: We also hold the company accountable. I see us as the conscience of the company—we reflect the diversity of thought that PG&E seeks to achieve.

**Duncan:** As proud as I am about the work we do, we recognize that it's a constant evolution. We always have more work to do to get to where we need to be.

### What specific accomplishments are you most proud of?

Leung: We recently held our annual Diversity Celebration, with a record 1,000 employees in attendance. It was a variety show with singing, fashion and dancing—a melting pot of different cultures and life experiences brought together by the EAs. It's one of many different forums in which we bring employees together. We also have celebration events in the field.

Miller-Lewis: Each EA, throughout the year, celebrates diversity through events such as Black History Month and Asian Pacific American Heritage Month. The EAs also sponsor the President's Diversity Champion Award, the company's annual diversity award given to those employees who model behaviors of diversity and inclusion.

**Bonilla:** All of the EAs also provide scholarships to high school seniors. Last year alone, we contributed over \$300,000. It's a very proud moment when you contribute to the education of Californians.

Stockton: We have chapters from one end of PG&E's service area to another—all coming together for a common goal, whether it's the scholarships, blood drives, coat drives...the list goes on and on.

# On a personal or professional level, what has it meant to you to be a leader of an EA?

Faletogo: It provides me an opportunity to be a change maker in society. Having a role like this can be a challenge—but knowing you're doing something based on integrity



PG&E's Employees Associations host annual Diversity Celebrations to celebrate different cultures, reward accomplishments and showcase the many faces of our employees.

gives you a strong sense of confidence. It provides selffulfillment in my life.

**Bird:** Stepping up to a leadership position in an EA offers some real challenges and a great opportunity to grow. You can make important new connections for yourself and act as a conduit to connect others.

**Duncan:** On a personal level, it's an opportunity to work on something that I'm very passionate about. In that sense, it helps to align my personal life and professional life.

### Looking forward, what are your future goals for the EAs?

**Bird:** One of the most valuable things we could do is incorporate more involvement from employees in the field. That would further expand the scope of our impact.

Miller-Lewis: I'd like to see the EAs better utilized in the company's strategic planning. We can provide valuable feedback. **Leung:** To build the strength of the EAs, we seek more active employee involvement.

# PG&E is working to lay a smarter, sustainable foundation for the future. How can EAs help us get there?

**Bird:** From my point of view, EAs play a critical role in attracting top talent to the company and retaining great employees.

Leung: I think PG&E could work more with the EAs to better understand what employees value and collaborate to build new tools and programs.

**Duncan:** For PG&E to become the leading utility in the United States, we need to become the leading EA program in the United States, by becoming more collaborative and using our resources to their full potential.

## Sharpening Our Focus on Safety

At PG&E, we recognize that employee and public safety must be the foundation for everything we do.

We made good progress in key areas in 2008. We significantly reduced on-the-job incident rates, as well as the numbers of lost workdays and motor vehicle incidents. However significant these accomplishments were, though, several tragedies cast a shadow over the year's results, including the deaths of two employees and a contractor while on the job, as well as an injury that cost one employee both of his hands. These events have led us to adopt what we believe are now the most exacting safety policies and practices in PG&E's history.

In sum, even with last year's strides, we are not satisfied when we compare our performance with that of best-in-class companies. As a result, we continue to sharpen our focus on safety to ensure that we are doing everything we can to prevent injuries and incidents. Going forward, we are holding leaders at all levels accountable to raise the bar on safety and ensure that our human performance is at the level it must be at. To achieve our goal of



Geisha Williams, senior vice president of Energy Delivery, addresses employees about the importance of working safely.

a work environment with zero incidents, each and every employee must take accountability for working safely.

Our Safety and Health Policy forms the foundation for the programs we use to pursue our goals. In 2006, we began implementing a "Zero In On Safety" initiative, which continues today. It includes tools and information to help employees identify, evaluate and control hazards and safety issues and improve overall safety performance.

#### **Key Sustainability Indicators**

2008 Target	Progress	2008 Result	2009 Target
Employee Safety			
Achieve 15% reduction from 2007 incident rates			Achieve 15% reduction from 2008 incident rates
OSHA Recordable Rate: 3.483	•	3.2411	2.755
Lost Workday Case Rate: 0.675	•	0.691	0.587
Motor Vehicle Incident Rate: 3.81	•	3.42	2.91
Annual Employee Survey			
Achieve 66% favorable responses to 40 questions on annual employee survey that measures employee engagement	•	68.57%	69.5%
Compliance and Ethics Training			
Ensure 99.8% of employees complete annual compliance and ethics training <sup>2</sup>	•	99.97%	99.8%
Diversity and Inclusion			
Average favorable response to six questions on annual employee survey that are indicative of an environment where diversity is valued and inclusion is practiced <sup>3</sup>	N/A³	66%	68%

 $<sup>1\,</sup>PG\&E$  excludes Standard Threshold Shift (STS) OSHA Recordables, a certain type of hearing-loss case, from its internal statistics. Including STS cases increases the OSHA Recordable Rate to 3.40.

<sup>&</sup>lt;sup>2</sup> Each year, and for a variety of reasons, a statistically small number of PG&E's more than 20,000 employees are unable to attend a training session.

 $<sup>^{3}</sup>$  There was no target in 2008; rather, our focus was to establish a baseline.

#### Safety Results for 2006 through 2008

	2006	2007	2008
Total Lost Workdays <sup>1</sup>	39,343	35,064	32,304
Total Lost Workday Cases <sup>2</sup>	177	163	142
Total Lost Workday Case Rate <sup>3</sup>	0.89	0.79	0.69
Total OSHA Recordables <sup>4</sup>	1,048	883	699
OSHA Recordable Rate <sup>5</sup>	5.29	4.30	3.40

<sup>1</sup> Total Lost Workdays is an internal PG&E metric that counts the number of workdays lost due to occupational injury or illness.

<sup>4</sup> Total OSHA Recordables is the number of injuries and illnesses that meet OSHA requirements for recordability, i.e., [1] are work-related, [2] are new cases and [3] meet one or more OSHA general recording criteria.

In 2008, we enhanced the Zero In On Safety program in a number of ways:

- We increased our emphasis on the critical role that employee feedback plays in identifying and resolving potential problems, underscoring our expectation that all employees feel empowered to speak up and proactively address issues. We also established safety committees to build a grassroots network to support safety, health and wellness.
- We continued conducting rigorous, formal root-cause analyses of safety incidents to identify process improvement opportunities and prevent recurrences of incidents. We also continued to rely on incident reporting and data analysis to help systematically eliminate incidents.
- We successfully implemented a new "observation-based" safety program, designed to identify possible safety problems before they occur, during the construction

of our new Gateway Generating Station.
This new natural gas-fired power plant was built without a lost-time injury in almost 1.8 million hours of work.

 We continued to learn from others in our industry. This included hosting a benchmarking forum with seven leading utilities to share principles, processes and best practices.

We also set aggressive targets for safety in 2008, with the intent of accelerating our march toward zero incidents. Compared with our targets of a 15 percent reduction from a 2007 baseline, we reduced our OSHA Recordable Rate by nearly 21 percent and our Lost Workday Case Rate by more than 13 percent. We also continued to reduce the total number of Lost Workdays, with nearly 8 percent fewer Lost Workdays than in 2007. The table above provides complete safety statistics for 2006 through 2008.

### Working Safely with Flame-Retardant Clothing

After nearly four years of planning and preparation, PG&E took proactive steps last year to further protect employees from the dangers of arc flashes, adopting new measures in advance of regulatory requirements.

Arc flashes—sudden releases of electrical energy through the air—give off extreme heat and light that can cause serious burns. They can occur while employees are working on or close to any energized source of electricity.

PG&E began introducing a new procedure and training program last year, designed to educate employees on the dangers of arc flash hazards. After receiving the training, field crews were fitted for flame-resistant clothing. Unlike natural-fiber clothing, flame-resistant clothing prevents heat transfer to the skin.

Under the new procedure, employees with regular exposure to energized electrical equipment are required to wear PG&E-approved flame-resistant clothing to work every day. Employees who have infrequent exposure to

energized electrical equipment are required to wear flame-resistant clothing at times when they might come in contact with arc flash hazards.



<sup>2</sup> Total Lost Workday Cases is the number of non-fatal occupational injury and illness cases that (1) satisfy OSHA requirements for recordability, (2) occur in the current year and (3) result in at least one day away from work.

<sup>&</sup>lt;sup>3</sup> The Lost Workday Case Rate measures how frequently new Lost Workday Cases occur for every 200,000 hours worked, or for approximately every 100 employees.

<sup>&</sup>lt;sup>5</sup> The OSHA Recordable Rate measures how frequently occupational injuries and illnesses occur for every 200,000 hours worked, or for approximately every 100 employees.

### Continued Focus on Motor Vehicle Safety

The safe operation of our large fleet of vehicles is essential to achieving our employee and public safety goals. PG&E continued its motor vehicle safety program in 2008, with an increased emphasis on driver training. Through 2008, 8,000 employees successfully completed a formal, one-day driver training program, which involves two hours of classroom instruction and six hours of behind-the-wheel training. Other priorities include improved tracking and reporting and ensuring company vehicles carry a 1-800 "Am I Driving Safely?" decal.

These combined motor vehicle safety programs resulted in a nearly 24 percent net reduction in the vehicle incident rate last year, based on more than 128 million PG&E driving miles.

#### Motor Vehicle Safety Statistics (Utility)

	2006	2007	2008
Total Motor Vehicle Incidents <sup>1</sup>	733	536	439
Motor Vehicle Incident Rate <sup>2</sup>	6.54	4.48	3.42

<sup>1</sup> Total Motor Vehicle Incidents is an internal PG&E metric counting motor vehicle incidents that could not have been reasonably prevented by an employee.

### **Powering Up for Wellness**

Nationwide, health care costs continue to rise at a rapid rate. This growing challenge, coupled with national and employee health trends, as well strong employee interest, has led PG&E to refocus on employee health.

Independent research has shown that 70 to 75 percent of the nation's employee health care costs are related to lifestyle or modifiable behavior. PG&E is focused on enhancing wellness programs and resources that encourage and support employees to make healthier choices. For example, last year, we invited employees who wished to quit smoking to sign up for a comprehensive coaching program. More than 180 employees and spouses have enrolled so far, most of whom have tried to quit numerous times using a variety of methods. "Smokeless" is but one of a number of wellness initiatives PG&E is offering employees in the areas of fitness, weight loss, nutrition, stress management and self-care.



In 2008, PG&E launched Live Bright, a campaign to promote employee health inside and outside the workplace. The campaign includes information, resources and tools to help employees start thinking about their health and health care in a whole new way. By encouraging healthier behaviors, we aim to create a safer, more reliable and more productive workforce.

In 2009, we introduced a "wellness account" for non-union-represented employees that is fully funded by PG&E. Employees who complete certain activities or engage in healthy behaviors earn credits deposited into the account, which can then be used to pay for eligible health care expenses. Employees can also earn credit by taking an online health risk questionnaire, which points out opportunities to improve their health.

For the future, we're also exploring new plan options that can help employees take more control of health care expenses and save money on a pre-tax basis for both current and long-term health needs.

### Life-Safety Program

Planning and preparation for emergencies is a critical part of PG&E's basic business. Our focus in this area extends to a number of efforts to ensure our employees are trained and equipped to respond to life-safety emergencies.

For example, PG&E continues to enhance its life-safety program, which includes Floor Wardens and Emergency Team members led

<sup>&</sup>lt;sup>2</sup> The Motor Vehicle Incident Rate measures how frequently motor vehicle incidents occur for every 1,000,000 miles driven.

by a life-safety director at numerous buildings. These employee volunteers are trained on a variety of topics, including first aid, automatic external defibrillators, CPR, blood-borne pathogens and proper use of fire extinguishers. The courses allow team members to maintain a two-year certification for first aid and CPR, and team-based exercises enable employees to work through various emergency situations together. In 2008, more than 400 employees participated in these courses.

### **Public Safety Education**

Creating a safe environment for our customers and communities is as important to us as the safety of our employees. PG&E's comprehensive Public Safety Information Program focuses on increasing awareness about the safe and proper use of gas and electricity, as well as helping to keep those working around utility lines safe from harm. This program distributes user-friendly, engaging educational materials to our customers in multiple languages. For our efforts, regulators and our peer utilities continue to cite our public safety information program as best-in-class.

Some examples of our programs and 2008 activities include:

 SafeKids School Safety Program. Over the past nine years, PG&E has provided free safety education materials to teachers in more than 85 percent of the schools in our service area. In 2008, we enhanced our SafeKids website by adding interactive games and experiments, and a new coloring book on outdoor electrical safety. Teachers regularly comment that the materials are fun and effective in helping students learn the importance of gas and electric safety.

- Contractor and Agricultural Worker
  Outreach. PG&E continues to provide
  safety training materials to contractors and
  agricultural workers throughout our service
  area. These materials include bilingual
  brochures, posters and videos. Over the past
  seven years, more than 175,000 construction
  employees and 85,000 agricultural workers
  have received these materials through their
  employers. In addition, PG&E continues to
  work with trade associations and safety
  groups statewide to help distribute safety
  information directly to their members.
- Emergency Preparedness. PG&E works closely with organizations like the Red Cross, local city emergency preparedness councils and community emergency response teams to provide brochures and other materials that help explain how to prepare for an earthquake, how and when to shut off utilities and why it is necessary to have an emergency kit.



As part of a proactive effort, PG&E instructors educated first responders with the U.S. Forest Service last year on gas and electric safety issues.

### **Diversity and Inclusion**

The pulse of PG&E is the combined workforce of approximately 20,000 individuals representing a wide range of backgrounds, cultures and experiences. Among other advantages, this diversity strengthens and empowers us to anticipate, understand and respond more effectively to the needs of our 15 million customers in thousands of California communities.

While we have a diverse workforce, we recognize the need for continued improvement in this area, including among our senior leadership. We continue to enhance and monitor effective practices to attract, retain and develop diverse talent.

Last year, the Utility created a Chief Diversity Officer position, which reports to the Chief Operating Officer, to better coordinate our workforce, community and supplier diversity initiatives. A Diversity and Inclusion Steering Committee, comprising senior leaders and employees representing a cross-section of the company, reviews our progress on a regular basis and provides feedback to ensure that our actions are aligned with the needs of the company.

In 2008, we remained focused on our vision to promote an inclusive culture in our workforce:

- Every manager and principal within the company participated in a one-day workshop that provided a shared understanding of what diversity and inclusion means at PG&E. All company officers and directors completed the training the prior year, and we will offer the workshop to all supervisors in 2009.
- We began evaluating all company leaders, as part of the employee performance management process, on their efforts to "lead diversity and inclusion" at PG&E.
- We created a new team to focus on identifying, developing and recruiting a pipeline of diverse talent to join PG&E. Through partnerships with organizations such as the Society of Hispanic Professional Engineers, the National Black MBA Association and the American Indian Science and Engineering Society, we are working to discover, develop and champion outstanding diverse talent.

In 2009, we will continue to build upon this foundation by designating Workforce Diversity Champions to drive diversity initiatives for each department. These leaders will drive action plans, monitor performance and build awareness of diversity initiatives within their organizations. We will also continue to embed diversity and inclusion principles and processes into our hiring and career development activities.

### Supporting a Culture of Diversity and Inclusion

PG&E's diverse culture begins with the experiences, ideas, backgrounds and perspectives of our employees. Our seven employees associations, with more than 2,000 members and 17 chapters throughout our service area, play a vital role in the company's success.



The Asian, Black, Filipino, Hispanic and Pacific Services Employees Associations, along with the PrideNetwork and Women's Network, are a vital and growing part of our company. They help welcome new employees and provide professional and career workshops, social networking events, community support and scholarships.

In an effort to shape the future workforce, our employees launched a new employee network last year—Nu NRG (pronounced "new energy")—with a focus on engaging and inspiring our newest employees.

Together, the organizations awarded \$311,000 in scholarships to 170 college-bound students last year, bringing the total to \$1.6 million since 1989. The recipients

spanned high schools throughout northern and central California.

The employees associations also hosted Diversity Celebrations at seven events throughout PG&E's service area—attracting more than 3,000 employees from San Francisco to San Luis Obispo. The events were designed to celebrate different cultures, reward accomplishments and showcase the many faces of our employees.

Additionally, as a major milestone, PG&E expanded a popular mentoring and career development program that began as a grassroots effort by the employees associations. Now open to all employees, the program continues to grow, with approximately 200 employee mentoring relationships in place and more than 1,000 employees involved in the program on a continuing basis.

#### Representation of Women and Minorities in PG&E's Workforce, 2006–2008

EEOC Category	2006	2007	2008
Women	26%	28%	28%
Officials and Managers	27%	27%	28%
Professionals	36%	38%	38%
Technicians	16%	17%	17%
Minorities	36%	37%	38%
Officials and Managers	26%	28%	28%
Professionals	39%	41%	42%
Technicians	32%	36%	37%

### **Our Diverse Workforce**

We continue to strive to increase the diversity of our workforce, with a goal of reaching levels of representation that reflect those of our diverse communities. Using Equal Employment Opportunity Commission (EEOC) definitions, workforce statistics for 2006 to 2008 are presented in the table above. The statistics for 2008 show a slight increase among minorities. PG&E's minority workforce representation statistics for 2006 to 2008 are also provided.

#### **Internal Monitoring**

Not only has PG&E put in place policies and practices to attract and retain a diverse workforce, we are also ensuring that these efforts are delivering results. Both internal and external oversight help ensure that PG&E achieves its goal of fostering diversity and inclusion.

# Comparison of PG&E's Representation of Women and Minorities with the National Utility Average

Category	PG&E	National Gas and Electric Utility Average <sup>1</sup>
Women	28%	23%
Minorities	38%	20%

<sup>&</sup>lt;sup>1</sup> All U.S. utility companies.

### Representation of PG&E's Minority Workforce, 2006-2008

Category	2006	2007	2008
Asian	14%	14%	14%
Black/African American	7%	7%	7%
Hispanic/Latino	14%	15%	15%
Native American	2%	2%	2%

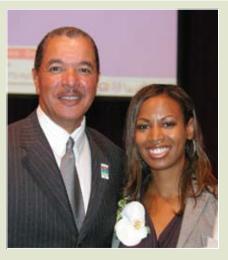
### President's Diversity Champion Award

Each year, PG&E recognizes outstanding employee achievements in the area of diversity through the President's Diversity Champion Award. This award recognizes employees who have taken the initiative to promote diversity in the workplace—among coworkers, with clients or with customers—and who exemplify the company's commitment to diversity through their behaviors and actions.

Nichole Jordan earned the award in 2008 for her role as vice president of the Black Employees Association (BEA) and many other contributions. She helped develop PG&E's MBA Fellowship Program and is an active volunteer for Girls, Inc., Habitat for Humanity, the Glide Foundation and the San Francisco

AIDS Foundation. She also sat on the board of directors for the Twenty Pearls Foundation, a non-profit organization that awards scholarships and book stipends to female African American college students.

Two honorable mention awards were also given to Pam Miller-Lewis and Patricia Toussaint for their extraordinary contributions to diversity at PG&E. Miller-Lewis, the president of the BEA, was recognized for her role as coach and leader of the more than 90 staff members she manages in her Customer Billing group. Toussaint was recognized for her work as the BEA human resources coordinator, including leading a program for the Alameda County Food Bank that collected and bagged more than 50,000 pounds of food donated by PG&E employees.



Pacific Gas and Electric Company's Chief Diversity Officer Bill Harper honors Nichole Jordan, winner of the 2008 President's Diversity Champion Award.

# PowerPathway<sup>™</sup>: Developing a Pathway to the Future



Through
PowerPathway™,
PG&E is developing
a reliable pipeline of
skilled workers who
can deliver the highquality service our
customers expect.



The utility industry faces an impending workforce challenge, with 25 to 50 percent of utility sector employees becoming eligible for retirement over the next 5 to 10 years. PG&E is no exception—approximately 42 percent of our workforce will be eligible to retire over the next five years.

By working to address this trend, PG&E is distinguishing itself as a leader in the field of workforce development through its PowerPathway™ program—an innovative initiative that helps build capacity in California to produce the skilled workers needed by PG&E and the energy industry.

Launched in 2008, PowerPathway relies on collaboration between labor, industry, government, community-based organizations, foundations and California educational institutions. PowerPathway leverages each partner's strengths to prepare students from diverse and underserved communities to compete for good-paying, high-demand energy sector positions.

In 2008, PowerPathway's pilot training programs launched at four community colleges in northern California: Laney College, College of San Mateo, Fresno City College and Butte College. The pioneering courses provided job-readiness skills for the underemployed, veterans, displaced workers and those in mid-career—enhancing their academic, physical conditioning, technical, job-specific and "soft" skills.

These PowerPathway graduates qualified at an unprecedented level on PG&E's pre-employment test. And more than 50 percent of those who completed the pilot programs were hired by PG&E or its contractor partners—leading to positions with a starting wage of at least \$19.50 per hour. Additionally, the diversity among those who test-qualified averaged 58 percent.

Looking ahead, future programs will be offered in Sacramento and San Francisco. In addition, PowerPathway will expand from short-term community college programs to additional curricula that can strengthen the state's ability to produce the future workforce.

PG&E is expanding its efforts to share best practices with other employers, with the goal of having additional employers engage in a collaborative approach to workforce development. PowerPathway was also awarded a \$500,000 grant from the California Department of Veterans Affairs to train recently separated veterans.

Given the increasing focus on upgrading the nation's energy grid and providing "green" jobs, PG&E is uniquely positioned to inform job training efforts going forward. The PowerPathway program can serve as a blueprint for other utilities looking to enlarge their local pool of qualified candidates. PG&E is also using its experience to help advance federal and national policies that will benefit both the industry and communities in need.

The Public Policy Committee of PG&E Corporation's Board of Directors regularly reviews our diversity and inclusion practices and performance. Our Diversity and Inclusion Steering Committee, comprising senior leaders and employees representing a diverse mix from across the company, reviews our progress on a regular basis. Additionally, we report our workforce statistics to the CPUC on an annual basis. Reviewing our affirmative action progress, action-oriented programs and good-faith efforts provides key indicators of our performance—relative not only to legal requirements but also to our own expectations.

### External Monitoring Through Government Audits

As a federal contractor, PG&E complies with the U.S. Department of Labor's Office of Federal Contract Compliance Programs' (OFCCP) requirement to maintain Affirmative Action Plans (AAPs). The company's more than 45 AAPs are subject to potential audits by the OFCCP in any given year. These plans, along with our other diversity and inclusion initiatives, demonstrate our dedication to affirmative action and assure that our full support will be given to the equal employment opportunity for all employees, regardless of race, color, gender identity, sexual orientation, religion, national origin, age, disability and other protected groups as defined by the law. The OFCCP initiated an audit of one of the company's AAPs at the end of 2008, which is still open as of March 2009. We have received satisfactory closures on OFCCP audits in previous years.

### Recognition for Diversity and Inclusion

From employment to philanthropy and purchasing, our diversity commitment and accomplishments have been recognized repeatedly over the years by respected third-party evaluators. Most recently, PG&E Corporation or Pacific Gas and Electric Company have been recognized by:

- Black Enterprise magazine listed as one of its "40 Best Companies for Diversity"
- Hispanic Business magazine placed among its "Top 60 Diversity Elite Companies for Hispanics"
- Human Rights Campaign received a perfect score of 100 on its Corporate Equality Index

Please see page 48 for information on PG&E's commitment to supplier diversity.

# Workforce Development and Learning

Driving high performance in a complex organization such as PG&E requires a skilled and qualified workforce that is fully engaged in serving the customer. Our goal is to have the right people with the right skills in the right places at the right time, supported by operational processes, human resources practices and a value set that, together, enable employees to do their jobs effectively.

# Managing Our Talent, Today and in the Future

In the next five years, 42 percent of PG&E's workforce will be eligible to retire, presenting a major challenge for the company. Adding to the complexity, many jobs at PG&E require years of training. Additionally, PG&E continues to require a greater level of technical skill as we upgrade the tools, processes and systems needed to operate and maintain our vast infrastructure.

To address this challenge and guide our strategy, PG&E is taking a detailed, analytical approach to determine where the most significant labor gaps will occur and develop strategic staffing plans accordingly.

There is no single source for recruiting the mix of talent we need. Because we are striving for a workforce that reflects the communities we serve, we are constantly looking at innovative strategies. Groundbreaking programs such as PowerPathway<sup>TM</sup> (see page 34), combined with enhanced outreach activities with professional and community organizations, community colleges and universities, are just some of the tools we are using to develop a robust, diverse pipeline of new talent.

We are also committed to growing from within and developing our existing employees. We have a renewed focus on providing employees with clear career paths to grow professionally and gain better visibility into job opportunities at PG&E. For example, last year, we launched Talent Connect, which introduced new tools and systems to make it easier for employees to find and express interest in new positions within the company.

# Results of Annual Employee Survey (percentage of favorable responses)

### Sustainability Measures\*

84%

PG&E is accountable for protecting the environment.

80%

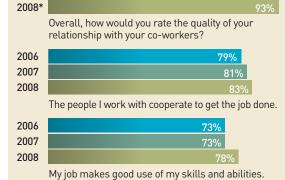
PG&E provides volunteer opportunities for employees to become more involved in the community.

75%

PG&E is committed to having a positive impact on the communities where it does business.

#### **Job Satisfaction and Career Development**

#### **Key Strengths**



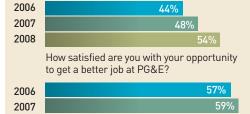
70%

# 2007 70 2008 My work gives me a feeling of personal accomplishment.

#### **Key Opportunities**

2006

2008



I am given a real opportunity to improve my skills at PG&E.

2008\* 64%

How satisfied are you with your involvement in decisions that affect your work?

2008\*

The people in my work group respect my supervisor's knowledge and expertise.

\* 2008 was the first year for designated survey questions.

# Learning and Development Opportunities

Last year, we reached a key milestone by establishing the PG&E Academy, a centralized learning organization committed to enhancing the skills and qualifications of our employees.

There were several important highlights for the Academy in 2008:

• We established the Livermore Learning and Qualification Center, an 11-acre, state-ofthe-art training complex designed to provide hands-on, interactive learning experiences for transmission and distribution employees on hundreds of real-life scenarios. In 2009, we will expand the facility to include three 10-foot towers and an underground electric vault for electric transmission training. Over time, PG&E hopes to share this unique learning experience with utility companies from across the country.



A key part of our strategy moving forward is doing even more to engage our employees so that we deliver for our customers.

- We created and utilized an Instructor Excellence Program to certify our technical instructors, each of whom helped deliver nearly 34,700 hours of the technical training that serves as the foundational framework for our field employees. To ensure that our curriculum is well aligned to support the most critical business needs, we also updated and enhanced 70 courses.
- We continued our focus on helping the company's managers enhance their leadership skills and put PG&E's core values into action. This included providing extensive training to help new supervisors grow

professionally and drive operational excellence with their teams.

- We remained focused on leveraging new technologies to better deliver training to a broader employee population. This included piloting a new learning management system that, once fully launched in 2009, will enrich the learning experience for our diverse employees through a simplified, more accessible approach.
- We also remained committed to supporting the efforts to align our actions, behaviors and decisions, throughout the company, with our values through integration into processes, communications, training and workshops.

### **Compliance and Ethics**

PG&E has an integrated compliance program that works with all of our operating groups. With accountability as one of PG&E's core values, the company established a Compliance Champions Committee in 2005, and its work continues today. The purpose of the committee is to identify, develop and promote the strategies necessary to establish a consistent, disciplined and sustainable process for achieving excellence in compliance management for the PG&E enterprise. The Compliance Champions program is facilitated by the Compliance and Ethics department within PG&E Corporation's Chief Risk and Audit Officer's organization.

Personal-conduct expectations are communicated through our values, code of conduct, annual compliance and ethics training and other messages to employees. Our code of conduct outlines our core values, describes our standards of conduct and addresses key regulatory and compliance requirements. In 2008, more than 99 percent of employees completed the annual compliance and ethics training, which is typically conducted in small groups to stimulate discussion and share experiences. The facilitated training sessions are supported by a video that portrays various compliance or ethical dilemmas employees may face. Our Compliance and Ethics department develops a new training video each year to address current issues and to respond to employees' suggestions.

Finally, we provide opportunities for employees to ask questions and report questionable activities. PG&E's Compliance and Ethics Helpline is available to employees, contractors and customers 24 hours a day. The Helpline handled 468 calls in 2008, which is within range of typical numbers received on the Helpline. Calls are handled confidentially, and callers can remain anonymous.

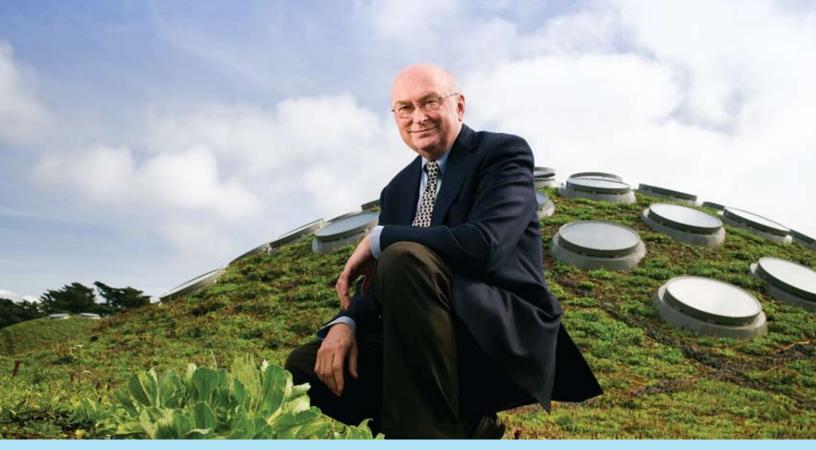
### **Working with our Unions**

Approximately 70 percent of PG&E's employees are covered by collective bargaining agreements with three labor unions: the International Brotherhood of Electrical Workers (IBEW) Local 1245, the Engineers and Scientists of California (ESC) IFPTE Local 20, and the Service Employees International Union (SEIU) Local 24/7.

In mid-2008, PG&E began the collective bargaining process with IBEW Local 1245 and ESC Local 20 for new agreements. During the negotiations process, unionrepresented employees took part in several collaborative company and union bargaining subcommittees in an effort to reach agreements that would be beneficial to all parties. The company and the IBEW reached an agreement that was ratified by IBEWrepresented employees in 2008. An agreement with the ESC was ratified in early 2009. The company will conduct general negotiations with the SEIU in 2009.

PG&E's union-represented employees continue to play an integral role in helping the company to do our work better, faster and more efficiently by providing input on numerous projects. Last year, more than 460 IBEW- and ESC-represented employees participated in 93 different employee engagement groups that included company committees and Lean Six Sigma projects. Work on more than 40 of these committees will continue into 2009.





Dr. Gregory Farrington, Ph.D., executive director of the California Academy of Sciences

he privilege of being our customers' sole provider of energy also comes with a unique responsibility to give back to our communities, helping to keep them healthy and vibrant—economically, environmentally and culturally. This responsibility has never been greater than it is today. As our customers and communities confront tremendous economic challenges, we are increasing our community involvement and our giving, as well as exploring ways to offer new products and services to help customers facing these challenges. We are establishing new partnerships and fortifying existing ones. We are working at all levels to aggressively promote cost and energy management programs for our customers. Our employees are volunteering more hours. And we are trying to reach more of our neediest populations to ensure they are participating in the programs that can help them the most. Most of all, we are pursuing these efforts in the same spirit of service that has been at the heart of our bond with our communities for more than 100 years.

### **Our Communities**

The California Academy of Sciences' commitment to a sustainable future informs every facet of the organization—from scientific research to exhibit design to educational outreach to day-to-day operational policies and practices. PG&E's four-year, \$1.5 million grant and collaboration with the Academy is helping to advance this commitment by educating Californians about how they can take action on climate change. PG&E is honored to support the Academy in its important mission and to help inspire future leaders to create a more sustainable California.

### Dr. Gregory Farrington,

Ph.D., executive director of the California Academy of Sciences, is an innovative leader who brings a creative vision to the institution's educational, research and community programs.

### What is the mission of the Academy?

The formal mission of the Academy is to explore, explain and protect the natural world. This mission includes two of the most important issues of our time. First, what is the nature of life on Earth? Second, how will we find a way to sustain it?

## What makes the Academy such a special place?

It starts with our spectacular new building, with its living roof and many "green" features. But what really sets us apart is what we do with the facility. We run an active research program, which is lively and worldwide in its scope. And we offer exceptional exhibits and programs for our visitors, as well as curricula and classes for teachers and students. The Academy is the only institution of its kind that combines a planetarium, aquarium and natural history museum with world-class research and education initiatives.

# Why is it important to educate the public on global warming?

One of our responsibilities is to educate people about climate change, including the driving forces behind it and the genuine need to do something about it before the consequences are too severe. Our role is to present the best science available and to be a place where kids—and big kids, too—say, "Wow, isn't that interesting?" We also want to provide lots of information so visitors can build on their "wow" moment and take action.

# PG&E is delighted to be a significant supporter of the Academy. Has our partnership brought benefits to the Academy?

We've really enjoyed our relationship with PG&E, which provides financial support to help run our non-profit institution and intellectual resources to help inform our programs and exhibits. We especially appreciate PG&E's support for our climate change and "science in action" exhibits. People are paying attention to what we're presenting and that's a good start. And they're leaving messages on our message board and talking and thinking about how they can live greener lives.

## What can others learn from this partnership?

We all have an enormous potential to inspire and engage the next generation on the urgent issue of climate change. After all, the single most important resource to deal with this challenge is smart kids—an amazingly renewable resource that runs on peanut butter and grows in all neighborhoods.

# How can PG&E lay a smarter, sustainable foundation for the future?

Our challenge as a society is to take sips, not gulps, of energy, and to explore better ways of generating our power in the first place. How do we maintain our quality of life, but at a much lower energy footprint? From what I've seen, PG&E gets that challenge and is taking the long-term view.

### **Corporate Philanthropy**

Being an active member of a community means supporting the very organizations that help communities thrive. From food banks to wildlife conservation groups, PG&E has a long track record of giving back to the communities we serve and helping to address the pressing needs of our customers. This is even more important in today's difficult economic climate.

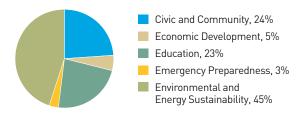
In 2008, we donated \$18.7 million to charitable organizations, representing 1.2 percent of our pre-tax earnings from operations from the year before. As always, the company's charitable contributions are funded entirely by shareholders and have no impact on electricity or natural gas prices. A vast majority of these grants were made to non-profit organizations in northern and central California. We also make in-kind contributions and provide other forms of support to our community partners.

In 2008, our giving emphasized projects and organizations focused on environmental and energy sustainability; approximately 45 percent of our contributions supported these initiatives, up from 38 percent in 2007. In addition, these efforts helped PG&E ensure that more than 70 percent of the contributions we made with our overall charitable program address the needs of underserved

communities, a strong result but below our stretch target of 80 percent. This includes contributions supporting low-income communities, people of color, senior citizens, the disabled, the homeless, the working poor and unemployed and the lesbian, gay, bisexual and transgender (LGBT) community.

In 2009, we expect to again provide \$18.7 million in charitable funding, maintaining our 2008 funding level at a time of increasing demand due to challenging economic conditions. A portion of our 2009 funding will be used specifically to help low-income individuals and families pay their energy bills. We are continually assessing our approach to charitable giving to maximize our effectiveness and align our giving with the company's strategic priorities. We give priority to viable local charitable partners whose projects address recognized community needs.

#### 2008 Charitable Contributions



### **Key Sustainability Indicators**

2008 Target	Progress	2008 Result	2009 Target
Supplier Diversity			
Meet the CPUC's target to direct at least 21.5% of overall spending to diverse certified firms	•	23.9%	Meet 21.5% CPUC target
Charitable Contributions			
Devote at least 1.2% of our pre-tax earnings from operations to charitable contributions	•	1.2%	1.2%
Employee Volunteerism			
Achieve 14,560 employee volunteer hours at company-sponsored events	•	21,750 hrs	24,000 hrs
Annual Campaign for the Community			
Increase total dollars pledged/donated by 5%	•	+8%	Maintain dollars pledged/donated
Maintain participation at 33% of all active employees	•	34%	Increase participation to 35%
Weatherized Homes Through Energy Partners Pro	ogram		
Weatherize 58,200 customer homes	•	61,034 homes	90,903 homes

### **Our Communities**

### Benchmarking PG&E's Charitable Contributions

Other U.S.-Based Companies 0.71%

Utilities Industry 0.63%

PG&E 1.2%

A recent study showed that PG&E's 2007 charitable contributions, as a percentage of corporate earnings, exceeded those of other utilities and nearly 200 large companies.

Source: The Conference Board Annual Survey on Corporate Charitable Contributions

### **Investing in a More Sustainable Future**

PG&E is committed to the goal of environmental leadership. One way in which we pursue this goal is by promoting a variety of environmental programs in the communities where we live and serve through grantmaking, training and volunteer support.

Examples of our environmental collaborations in 2008 included the following:

- We added a "green building" component to our partnership with Habitat for Humanity. Since 2005, PG&E has provided more than \$2 million to install solar electric systems on Habitat-built homes throughout PG&E's northern and central California service area. Last year, PG&E expanded the partnership by working with Global Green USA to pursue green building LEED™-Silver certification for 14 of the homes located in Contra Costa, Fresno, Sonoma and San Francisco counties. In addition to lowering energy bills, the program promotes energy literacy in underserved communities and increased enrollment in PG&E's free energy assistance programs for hardworking low-income families.
- We again expanded our innovative and popular Solar Schools Program. Last year, we added 25 schools throughout our service area, raising the total number of schools to 125. The nationally recognized program teaches the value of alternative energy in underserved communities by installing a 1 kW photovoltaic system in selected public schools. The program also provides a solar-based curriculum training package, workshops and "Bright"



PG&E employees have volunteered more than 4,500 hours of their time installing solar panels and providing other support through our Solar Habitat Program.

Ideas" grants for teachers to fund innovative projects that further the exploration of solar science. Since its inception in 2004, PG&E has contributed \$6 million to the shareholder-funded program and trained more than 2,500 teachers, benefiting more than 125,000 students.



The Solar Schools Program helps local schools meet statewide testing standards and brings the latest solar technology right into the classroom.

# Meeting the Needs of Diverse Communities

PG&E has a long history of helping the diverse communities we serve to prosper economically, environmentally and culturally. We engage with a wide variety of cities, counties and organizations throughout our service area to better understand their needs, and to craft programs and partnerships that help our communities thrive.

Here are some of the highlights from our activities in 2008:

• We supported the WE Connect campaign. Led by California First Lady Maria Shriver, this pioneering public/private partnership is designed to help California's working families become more financially secure by connecting them to important programs and resources. PG&E supported WE Connect events in San Francisco, Oakland, Fresno

### Supporting Careers in Energy Efficiency

PG&E continues to benefit from a strong, active partnership with the Energy Efficiency Center at the University of California, Davis. Established in 2006 with shareholder funding from PG&E and others, the Center is focused on accelerating the development and commercialization of energy-efficient technologies—from LED lighting to building cooling systems.

PG&E's contribution supports fellowships to attract and develop engineers and entrepreneurs at UC Davis, including two 2008-2009 PG&E Energy Efficiency Fellows, both second-year MBA candidates. In addition to fellowships, PG&E supports the Center's annual Green Technology Entrepreneurship Academy, which brings together science and engineering doctoral and business students to interact with faculty, investors and industry executives to explore new "green" technologies. PG&E also supports UC Davis research, including examining the electricity consumption and energy efficiency of refrigerated warehouses in California.

As a Leadership Sponsor of the Center, which was founded by the California Clean Energy Fund (CalCEF), PG&E has pledged \$500,000 in shareholder-funded contributions to support the Center's programs and projects over five years.



PG&E Fellow Mananya Chansanchai conducts research at the UC Davis California Lighting Technology Center.

### Helping to Protect Diverse Habitats

Last year, PG&E committed to providing \$1 million over three years to the Nature Restoration Trust. A collaboration between PG&E and the National Fish and Wildlife Foundation, the Trust funds local community organizations to conserve and enhance the diverse habitats of fish and wildlife in northern and central California.

In 2008, the Trust selected 10 organizations to receive more than \$310,000 in grants. PG&E helped select the projects as part of an Advisory Panel that included representatives from the National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, U.S. EPA Region IX and National Fish and Wildlife Foundation staff. The selected projects feature hands-on experiential education opportunities, provide natural resource benefits and encourage collaborations with other organizations throughout northern



The Urban Creeks Council and community volunteers help restore a native riparian habitat at Rheem Creek, located at Contra Costa Community College.

and central California—from rural projects to more urban settings.

For example, the Community Alliance with Family Farmers will partner with local organizations to enable students to restore wetland and riparian habitat for the endangered California red-legged frog and Carmel River steelhead trout. And The Friends of the Dunes will develop a service learning

curriculum and work with local students, community volunteers and the California Conservation Corps to restore four acres of coastal dune habitat.

Since this unique, public-private team was launched in 1999, it has helped advance critical habitat and wildlife restoration projects while inspiring youth to protect California's natural heritage for generations to come.

### **Our Communities**



and Sacramento, where low-income working families obtained free assistance and access to PG&E's programs and a wide range of social services, including income tax preparation and mortgage information.

• We continued our support for Hispanas Organized for Political Equality (HOPE). HOPE helps Latinas throughout California acquire leadership skills so that they can improve their local communities and participate more effectively in statewide and national forums to advance social change. In 2008, the HOPE Leadership Institute



Last year, for the second year in a row, PG&E employees participated in a 100-mile bike ride through PG&E's service area that benefits Best Buddies, an organization dedicated to improving the lives of people with intellectual disabilities. PG&E has also partnered in support of the Best Buddies Jobs program, through which adults with intellectual disabilities gain employment. And last year, PG&E hired its first employee from the program, who joined our Customer Care department.

celebrated both its 10th anniversary and the graduation of more than 300 Latinas from the institute, each of whom is committed to making California a great place to live, work and raise a family.

• We partnered with the Mel & Grace
McLean Foundation to provide a matching
contribution of \$20,000 to help non-profit
organizations in Humboldt County become
more energy efficient. PG&E's contributions
enabled a variety of community groups,
including Food for People (a local food bank),
to save money on their energy bills and focus
more resources on their important missions.

### Volunteerism and Community Support

Many employees at PG&E participate in our Volunteer Program to help improve the lives of the communities we serve—providing food to those in need, cleaning up a neighborhood park or spending a day in a classroom inspiring and teaching young students. There is no end to opportunities to lend a hand to our neighbors.

Our employees volunteered 21,750 hours in 2008 through more than 500 company-organized events. We exceeded our employee volunteer target for 2008 and set a more aggressive target of 24,000 hours for 2009, a 10 percent increase.

Our volunteer activities included a strong response to the economic difficulties impacting our communities, with many employees assisting local food banks. We also volunteered time and skills to help programs address local environmental challenges, prepare community groups to respond to local emergencies and support important educational initiatives.

### **Employee Volunteer Hours**

2008

Target: 14,560

Actual: 21.750

2009

Target: 24,000

# Recognizing Outstanding Community Service







Jason Brown



**Barry Clark** 



**Ann Kim** 



Gino Rinaldi

G&E has given the Mielke Awards annually since 1986 to recognize employees who have performed outstanding community service. The awards honor former PG&E Chairman and CEO, Frederick W. Mielke, Jr., known for encouraging employees to support the community, an important value that continues today.

In addition to the annual awards celebration in San Francisco, one of the recipients travels to Washington, D.C., to participate in a ceremony to honor winners of the prestigious Jefferson Award. This national award for public and community service was established in 1972 by Jacqueline Kennedy Onassis and several other distinguished leaders.

In 2008, there were five Mielke Award Winners. PG&E donated \$5,000 to each of the non-profit organizations they selected.

Nancy Avilla has volunteered for eight years with the Sierra Nevada Memorial Hospital Foundation to help organize a women's triathlon, raising funds to provide free mammograms at the hospital. A portion of the funds goes toward scholarships for female high school graduates pursuing health care careers. Avilla, who also competes in the triathlon and helped create the event's web site, is a hydro clerk in power generation.

**Jason Brown** founded the Grant Jr. Pacers youth football and cheerleading program for 150 boys and girls in the Del Paso Heights neighborhood

in Sacramento. Along with fellow employee Teveris Towne, Brown, a quality-improvement specialist at the bill and payment processing center, has helped to create a first-class youth sports organization for a troubled area and set up a link with local schools so youth are held accountable for maintaining good grades.

Barry Clark and his wife, Janelle, have devoted weekends and vacations to volunteering with the Tony La Russa Animal Rescue Foundation in Walnut Creek for the last 14 years. In addition to being a member of the animal advocacy board, Clark raises funds, manages sports memorabilia auction items, nurtures kittens and visits patients in the local hospital with his cat, Matt.

Ann Kim joined Bay Area Young Survivors (BAYS), a support and action group for women under 45 who are living with breast cancer. The PG&E attorney began volunteering with the group to provide comfort to other women. As a founding board member, Kim helped BAYS organize as a non-profit and was elected president of the group for 2009.

**Gino Rinaldi** has volunteered with the Alisa Ann Ruch Burn Foundation for 13 years, where he is vice president of the Board of Directors. Rinaldi, a cable splicer, is a burn survivor himself, and his most valuable role may be as a counselor and peer supporter for PG&E employees, their families and others who have experienced fire-related injuries.

### 2008 Volunteer Highlights





Highlights from 2008 include the following:

- PG&E employees volunteered to support local food banks as the recession, home foreclosures and rising job losses strain our communities. In 2008, our employees volunteered more than 1,730 hours at 38 events at food banks throughout northern and central California. from San Francisco to Stockton.
- We marked our seventh consecutive successful Earth Day partnership with the California State Parks Foundation when more than 1,300 employees, retirees and their families volunteered their time at 13 California parks to clean, dig, build, paint and share in the satisfaction that comes from giving back to the communities in which we live and work. Through the partnership, PG&E has granted more than \$850,000 to fund needed park maintenance and improvement projects at California's parks.
- Island, a site once home to some of the country's most infamous prisoners. Working in partnership with the Golden Gate National Parks Conservancy, PG&E employees volunteered more than 400 hours last year clearing invasive weeds and helping to salvage, nurture and map the remaining plants in an effort to restore the gardens to their former glory.
- We piloted an emergency response program to reach out to community organizations serving vulnerable groups in the Santa Cruz and Monterey areas, such as low-income, disabled and senior populations, to provide them with information on how PG&E responds to emergencies and available resources. By planning ahead with community organizations, we will be better positioned to offer assistance during emergencies.

### **Building a Greener Oakland**

The City of Oakland and PG&E made major strides last year on a comprehensive program to help the city build a stronger, more sustainable economy and increase job opportunities. We have dedicated a total of \$3 million to this initiative over three years.

Our "Greening of Oakland" partnership integrates a package of PG&E programs and services to help the city meet its sustainability goals and serves as a model for other regional collaborations. Highlights last year included the following:

 Joining with the Hispanic and Chinatown Chambers of Commerce and the Unity Council to help almost

- 3,000 local businesses become more energy efficient;
- Replacing steam traps at all drycleaning businesses to increase energy efficiency and reduce carbon dioxide emissions;
- Launching a "green jobs" training program with local job training organizations to recruit, train and place Oakland residents in sustainable jobs;
- Installing solar panels at local schools and establishing solar education centers for visitors at the Oakland Zoo and Chabot Space and Science Center; and
- Replacing conventional light bulbs with energy-efficient bulbs in the "Necklace of Lights" ringing Lake Merritt in the center of Oakland.



PG&E funded a major lighting retrofit at the historic Paramount Theatre, one of several energy-saving projects at local theaters.

# Teaming Up on Climate Change Education





Photos by Tim Griffith, courtesy of the California Academy of Sciences

G&E is always looking for new ways to empower Californians with tools and information to help reduce their carbon footprint and protect California's natural heritage. That is why we teamed up with the California Academy of Sciences, a world-class scientific and cultural institution based in San Francisco's Golden Gate Park, to focus on climate change education and community involvement.

Beginning in 2008, the four-year collaboration will use innovative sustainability exhibits and programs to teach Californians how they can take action on climate change.

PG&E awarded a \$1.5 million grant to the Academy—the largest grant ever made by the company to a single San Francisco institution. As the Academy's lead corporate sponsor, PG&E is providing energy-related content for its "Science in Action" exhibit and incorporating subject expertise into ongoing programming. PG&E employees also have an opportunity to participate in volunteer activities and special events.

PG&E is also the lead sponsor of the Academy's unique environmental-sustainability exhibit, "Altered State: Climate Change in California"—complete with an interactive projection display on the effects of climate change on Arctic sea ice

and a variety of treasures from the Academy's collection of scientific specimens from California. The exhibit introduces the most recent advances in the science of climate change, explores possible consequences and encourages visitors to share ideas for reducing their personal carbon footprint.

The Academy building is also a model of sustainable design, topped with solar panels and a 2.5-acre living roof and employing a wide range of energy-saving materials and technologies.



Nancy McFadden, senior vice president of Public Affairs at PG&E Corporation, helps celebrate the grand opening of the California Academy of Sciences.



The former president and first lady join PG&E employees and other volunteers in Biloxi.

Four employee volunteers traveled to Biloxi, Mississippi, to join Habitat for Humanity's Jimmy and Rosalvnn Carter Work Project to construct homes for families displaced by Hurricane Katrina alongside the former president and first lady. We have long partnered with Habitat for Humanity. but this marked the first time PG&E has participated in the group's projects outside of California. The employees, who were selected from a large group of PG&E applicants, joined thousands of volunteers to build and rehabilitate 60 homes and frame up to 48 more. They also created a blog to communicate with fellow employees about their volunteer experience.



### 2009 Campaign for the Community

PG&E employees and retirees pledged to donate a record \$4.18 million to more than 4,000 schools and non-profit organizations, including community centers, environmental groups, children's charities, hospitals and many others in the annual 2009 Campaign for the Community. The donations increased by 8 percent from the 2008 campaign, with pledges coming from nearly 7,700 employees and retirees; the average annual pledge was \$543 per employee. Employees also held creative fundraisers, which included a mini-golf tournament and a used-book sale and silent auction, to raise nearly \$60,000.

# Serving the Community Through Non-Profit Boards

PG&E also supports our communities through the active participation of the company's leadership on many non-profit boards. PG&E employees of all ranks are sought after as members of non-profit boards, and they serve a range of organizations. PG&E's goal is for 100 percent of the company's officers to serve on non-profit boards, and, at approximately 70 percent, we are well on our way to achieving this goal. Officers sit on the boards of a diverse group of non-profits, such as the Alliance to Save Energy, the Marine Mammal Center and Fine Arts Museums of San Francisco.

### **Community Awards**

PG&E is an active participant in the lives of the communities we serve, supporting the good work of hundreds of local civic organizations. Here are some of the community awards we received for our work in 2008:

- Beautiful Bakersfield Award
- Antioch Chamber of Commerce Business of the Year
- San Leandro Chamber Business of the Year
- Friends of Oakland Parks and Recreation Business of the Year
- San Mateo County Parks Foundation Special Appreciation Award
- San Francisco Chamber of Commerce Excellence in Business Award

### **Supplier Diversity**

As a major purchaser of goods and services, PG&E recognizes the unique opportunity and responsibility we have to contribute to California's economic vitality by utilizing women-, minority- and service-disabled-veteran-owned business enterprises (WMDVBE). Accordingly, we continue to make it a priority to integrate diverse suppliers into our supply chain, and to raise the bar for our efforts.

In 2008, PG&E continued its momentum and, for the third year in a row, exceeded the CPUC's cumulative target for diverse

# Helping Customers in Need



PG&E employees volunteering at the San Francisco Food Bank, a critically important resource that reaches thousands of people in need throughout the city.

n this difficult economy, many PG&E customers are facing challenges like never before. We recognize that managing energy costs is not easy for some customers. Competing needs, including food, housing and other essentials, make it difficult for some of our customers to pay their bills, while others are seeking ways to simply reduce the amount they pay for electric and gas service.

Last year, to assist our customers, PG&E provided customers who successfully took steps to cut their natural gas usage during the winter with a credit on their spring gas bills. This is the third year that the Winter Gas Savings Program has been offered. In 2008, more than 1.7 million customers received credits totaling \$43.3 million dollars.

PG&E also announced a new effort before Thanksgiving 2008 to help support local food banks. PG&E matched employee donations, up to \$100, to any of the 41 food banks of their choice within PG&E's service area. This resulted in a total contribution of more than \$125,000 during early 2009.

And we aggressively promoted various energy efficiency, demand response, balanced bill payment, weatherization and other cost- and energy-management options.

For example, one of PG&E's longest-standing financial assistance programs is California Alternate Rates for Energy (CARE), which provides a monthly discount on energy bills for income-qualified households. In 2008, there were

more than 1.1 million customers enrolled in the program, which represents nearly 74 percent of eligible participants. We are working to reach the CPUC's stretch goal of 90 percent by 2011 through increased outreach and new partnerships with community-based organizations and advocates who serve low-income customers throughout northern and central California.

PG&E's Energy Partners program, administered by approved contractors, is another key program—

helping income-qualified households with free weatherization to make their homes more energy-efficient by installing attic insulation and weather stripping for doors, making minor repairs such as fixing broken windows and patching walls, replacing selected appliances and providing safety inspections. Through this program, we treated more than 61,000 homes in 2008—and plan for significant future growth.

Looking forward, PG&E has secured regulatory approval for a massive expansion of our low-income programs during the next three years. Working in partnership with community-based organizations, non-profits, faith-based groups and federal and state agencies, we remain firmly committed to helping customers in need—and know these efforts are more important now than ever before.

Weatherized Homes Through Energy Partners Program



\* Projected

### **Our Communities**

spending. The CPUC target is for PG&E, and the state's other investor-owned utilities, to strive to reach 21.5 percent of the Utility's overall spending with diverse certified firms. PG&E achieved diversity spending of 23.9 percent—the Utility's highest achievement in the 28-year history of our supplier diversity program and representing more than \$754 million in spending with WMDVBEs. Moreover, PG&E accomplished this growth despite a significant 15 percent increase in the overall purchase base.

The Utility increased its spending in all three WMDVBE categories. Spending increased by \$95 million with minority business enterprises, \$55 million with women business enterprises and \$6 million with service-disabled-veteran business enterprises.

Yet 2008 brought many challenges as PG&E implemented new strategic priorities, such as improving reliability and focusing on new power generation projects that are not readily served by diverse suppliers. Further, PG&E's focus on consolidating the number of its suppliers and reducing costs drove much of the Utility's sourcing effort. Together, these factors often made it a challenge to introduce new suppliers and increase our diversity spending.

PG&E rose to the challenge, consistent with its long-standing commitment. We continued to encourage our prime contractors to utilize WMDVBEs by setting subcontracting goals and requiring subcontracting plans on major contracts. PG&E also encouraged prime contractors to partner with and mentor smaller diverse firms. PG&E's 3rd Annual Supplier Conference provided additional opportunities, including a matchmaking session between PG&E's prime contractors and potential WMDVBE subcontractors.

We also reached out to prospective WMDVBEs at more than 50 outreach events in 2008 and continued to aggressively promote the program through a quarterly newsletter, website presence and key partnerships. For example, we continued our work with organizations that support the growth of WMDVBE suppliers, such as ethnic chambers of commerce and various veteran business organizations.

PG&E also continued to help new WMDVBEs grow and develop, awarding more work to those that demonstrate quality, cost competitiveness and service. For example, PG&E worked to grow its business with All American Logistics, a shipping company, from truck load shipments to intermodal and oversize loads—reducing costs to PG&E by more than 60 percent in the process.

Top priorities for 2009 include once again exceeding the CPUC's goal of 21.5 percent by strengthening the roles of supplier diversity "champions" throughout the company, continuing to support and develop new diverse suppliers, setting aggressive subcontracting goals with our contractual agreements and identifying opportunities to break larger jobs into portions more suitable for WMDVBE contractors, consistent with company guidelines.

### **Environmental Justice**

For PG&E, environmental justice means conducting our operations in a way that delivers safe and reliable energy to our customers while maintaining a strong commitment to understanding and respecting the needs of the communities we serve.

Adopted in 2001, PG&E's Environmental Justice policy establishes clear guidelines for working cooperatively with communities to meet this goal—ensuring that our actions are

#### **Diverse Supplier Spending Targets**

Category	CPUC Target (%)	Utility's 2008 Results (%)
Minority Men	12	11.85
Minority Women	3	3.86
Minority Business Enterprise (MBE)	15	15.71
Women Business Enterprise (WBE)	5	7.32
Subtotal Women, Minority Business Enterprise (WMBE)	20	23.03
Service-Disabled-Veteran Business Enterprise (DVBE)	1.5	0.87
Total WMDVBE	21.5	23.90

transparent, accountable and responsible and consistently strive to address the concerns of communities. Considering environmental justice is an important part of the way we do business. PG&E is engaged in a continuous effort to work more effectively with our communities to ensure we live up to our commitment to be good neighbors.

We are also helping to address environmental justice concerns at the national level. PG&E serves as a member of the National Environmental Justice Advisory Council, a federal advisory group that provides independent advice, consultation and recommendations to the U.S. EPA Administrator on environmental justice matters.

Looking forward, PG&E's environmental justice initiatives will focus on increased and targeted employee training and developing new partnerships to address emerging community challenges and opportunities.

Examples of our environmental justice policy in action during 2008 included the following:

• Keeping our promise to the community to close Hunters Point Power Plant.
Fulfilling our voluntary commitment to residents of the Bayview-Hunters Point community to retire the Hunters Point Power Plant, PG&E closed the aging facility in 2006. PG&E has also committed to remediate the site to meet standards for residential use, becoming one of the first utility companies in the country to do so.

Last year, we completed the dismantlement of all aboveground structures, marking a significant milestone for PG&E and the local community. For years leading up to the dismantlement, PG&E worked with community members, and continues to maintain open, two-way communication with residents and community leaders. For example, a Project Advisory Committee brings together neighborhood and community leaders on issues surrounding the retirement of the plant. Additionally, in 2009, we will finalize a remedial action plan with the California Department of Toxic Substances Control, enabling remediation of the site. This process will allow for review by the community and other interested parties.

PG&E also continued to demonstrate a firm commitment to hiring from the local community, with, on average, more than



Graduates of the CityBuild Program, a San Francisco workforce training initiative, help PG&E construct a 115 kV transmission line project.

35 percent (6 out of 17) of the on-site contractor dismantlement labor force coming from CityBuild, a local workforce training initiative. Utilizing these local hiring best practices, PG&E also spearheaded a local employment program to support construction of a new 115 kV transmission line located in the same community.

In 2009, PG&E will begin final belowground demolition activities at the power plant site, followed by a multi-year process to remediate the property. As with the dismantlement, local hiring will continue to be a major component of the workforce strategy for upcoming work.

• Integrating environmental justice considerations into our review of potential new sources of power generation. As California's population grows, PG&E is preparing for a continued increase in electricity demand. We are committed to meeting this growth in a way that incorporates environmental, community and economic considerations into our decisions.

PG&E uses a competitive bid process to review and select new sources of electric power for our customers. As part of our due diligence process, we consider a number of factors, including the potential environmental and environmental justice impacts associated with the projects. Consistent with our corporate environmental and environmental justice policies, we strive to minimize these impacts.





Chris Kelly, California program director for The Conservation Fund

ur vision of industry leadership includes setting an example as an environmental leader. We recognize that producing and delivering energy are at the core of the broad environmental and economic sustainability challenges that seem to become more apparent every day. Equally clear is that we cannot address these challenges in isolation. They are inextricably woven together, from habitat and species protection to water conservation, forest and land management, energy conservation, waste minimization, air quality and global warming.

Job number one in all of these areas will always continue to be excellence in compliance—just as basic reliability is the foundation for meeting our customer commitments. But the biggest and best opportunities we have to grow and prosper in the future are those that contribute smart, holistic solutions to the big challenges we and our customers face. To succeed here, we have to willingly embrace the role of an innovator, a first mover and an agent of change. That's the key to our vision of industry leadership and our goal to be an environmental leader.

Since 1985, The Conservation Fund has helped protect more than six million acres throughout the United States, sustaining wild havens, working lands and vibrant communities. The organization treats conservation as its business, protecting lands that have important natural-resource and other public benefits by forging solutions that work economically and environmentally. PG&E has signed two landmark agreements with The Conservation Fund as part of the ClimateSmart™ program—investing in California forestry projects that will remove greenhouse gases from the atmosphere and help to balance out the energy-related carbon footprint of customers enrolled in the program.

Chris Kelly is the California program director for The Conservation Fund, where he leads statewide efforts to protect and enhance important natural landscapes, working collaboratively with a wide range of stakeholders.

### Why did you choose to partner with PG&E?

PG&E is a nationally recognized leader when it comes to addressing climate change. When they launched the ClimateSmart program, it was a natural fit for us. It enables us to accelerate the pace of restoration and enhancement activities in our forestry projects and use the groundbreaking work of the Climate Action Reserve's forest project protocols to document and verify the resulting greenhouse gas reductions. We've signed two flagship contracts for significant emission reductions. It's a partnership we're very proud of.

# Can you tell me about the forestry projects for the ClimateSmart program?

There are two forestry projects in Mendocino County—Garcia River and Big River Salmon Creek. Both are located in the redwood region, a forest type found nowhere else in the world and uniquely productive when it comes to absorbing greenhouse gases. The

revenue we receive from the ClimateSmart program allows us to conduct meaningful forest restoration, including reestablishing a more natural composition of tree species. Both forests will recover more rapidly and will achieve climate benefits that would not have happened otherwise.

## What are some other benefits of these projects?

Beyond the climate benefits, restoring these forests enhances habitat for steelhead trout, coho salmon and many other species listed as threatened or endangered by the state and/or federal government. Our sustainable forest management and watershed restoration activities also provide meaningful employment for woodworkers, biologists and foresters. And there are recreational benefits—we allow the public to enjoy our forests for fishing. hiking and horseback riding.

### What have you learned along the way?

It's been a learning experience for all of us. The ClimateSmart program is a demonstration project—it's a proof of concept. I believe our agreements with PG&E have become a key reference point for how to successfully transact for greenhouse gas emission reductions and how real, on-the-ground projects

benefit forests, local communities and the atmosphere.

# Why is it important to have a common set of standards for measuring greenhouse gas emissions?

It's critical to have a highly rigorous, transparent, scientifically peer-reviewed and government-sanctioned set of standards. It gives the public and policymakers confidence in the carbon sequestration that's occurring. PG&E has been very diligent in ensuring all projects for its program are of the highest quality and integrity, including requiring levels of assurance that go beyond accepted protocols.

# How can PG&E lay a smarter, sustainable foundation for the future?

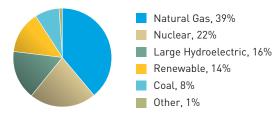
My hope is that PG&E will continue to be a visible and important leader in bringing people together to develop creative and effective solutions to climate change. PG&E should also take what it learns from its programs into the policy arena so that these tangible examples can help inform policy decisions. This is vitally important to ensure emerging policies are effective.

# Planning for California's Clean Energy Future

PG&E uses a comprehensive energy strategy to meet its customers' future power needs in ways that are consistent with the state's Energy Action Plan. The strategy relies on an aggressive expansion of customer energy efficiency and demand-side management programs and looks to secure additional renewable power resources before seeking to meet the remainder of customers' energy needs through efficient traditional generation sources.

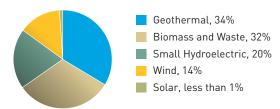
In 2008, PG&E's retail customers purchased 81,935 GWh of electricity. Of that amount, 25,481 GWh were generated by PG&E's own natural gas, hydroelectric and nuclear facilities, as well as small amounts of fuel oil, diesel and solar energy. The remainder was purchased under contracts or from the open market. The charts to the right show our overall electricity supply mix for 2008, which included energy PG&E generated and purchased from third parties.

### PG&E's 2008 Electric Power Mix Delivered to Retail Customers\*



\* The continued drought conditions in California have reduced hydroelectric generation. As a result, P6&E purchased more electricity than usual from the wholesale market in 2008. California regulators require us to assume that a certain portion of these market purchases comes from coal-fired generation and renewable resources. As a result, the chart shows an increase in coal-fired generation, although P6&E's direct purchases of coal, which we are required to buy from small power producers, remain minimal at 1.7%. Additionally, 12 percent of P6&E's delivered energy came from Renewable Portfolio Standard (RPS)-eligible resources; the chart shows 14 percent, reflecting an additional 2 percent from open-market purchases that do not count toward the state's RPS target. Source: April 2009 Power Content Label, consistent with P6&E's submittal to the CEC on March 2, 2009.

### PG&E's 2008 Total Eligible Renewable Resources\*\*



\*\* As defined in Senate Bill 1078, which created California's Renewable Portfolio Standard, an eligible renewable resource includes geothermal facilities, hydroelectric facilities with a capacity rating of 30 MW or less, biomass, selected municipal solid waste facilities, solar facilities and wind facilities.

### **Key Sustainability Indicators**

2008 Target	Progress	2008 Result	2009 Target
Environmental Compliance			
Reduce rate of NOVs per 100 agency inspections by 10% compared with a 3-year rolling average, equivalent to 1.78	•	2.03	Reduce rate of NOVs per 100 agency inspections by 25% compared with a 3-year rolling average, equivalent to 1.55
Buildings and Operations			
Reduce energy use by 2% in BTU/square foot at offices and service yards	•	<0%	Reduce energy use by 5% in BTUs at offices and service yards
Reduce water use by 5% in gallons/square foot at 7 targeted, high-use facilities	•	5.5%	Reduce water use by 5% in gallons consumed at 70+ offices and service yards
Retrofit 2,000 utility poles, making them "bird-safe"	•	2,169	Maintain 2008 target
Clean Energy			
Stay on track to meet California's Renewable Portfolio Standard (20% by 2010)	•	12% from PG&E-owned facilities or contracts; over 20% under contract for future delivery	Stay on track to meet California's Renewable Portfolio Standard (20% by 2010)
Customer Energy Efficiency <sup>1</sup>			
Achieve 100% of 2008 CPUC targets		> 100%	Achieve 100% of 2009 CPUC targets
Megawatts (peak): 228	•	459	232
Gigawatt Hours (total): 1,053	•	2,844	1,067
Million Therms: 17.4	•	39.3	20.3
Environmental Rating			
Earn top five annual "EcoValue" Index rating from Innovest Strategic Value Advisors	•	1 of 26	Maintain 2008 target

Annual energy savings refer to the first-year impacts associated with installed customer energy efficiency projects. 2008 data are consistent with PG&E's 12th Quarter and 2008 December Monthly Reports as filed with the CPUC on March 5, 2009. CPUC Energy Savings Goals established in Decision 04-09-060.

### **Our Environment**

Large hydroelectric power stations generate a significant amount of electricity for our customers. However, under California law, these resources do not qualify toward California's Renewable Portfolio Standard. PG&E's supplies of California-eligible renewable resources plus non-eligible hydroelectricity were approximately 30 percent of total energy deliveries in 2008.

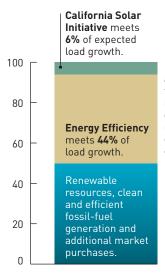
### PG&E's Long-Term Procurement Plan

PG&E procures resources to meet its customer electricity needs based on a long-term procurement plan approved by the CPUC.

In preparing its plan, PG&E puts first priority on reducing consumption through energy efficiency and then relies significantly on preferred and environmentally friendly resources, such as demand response programs, renewable generation, distributed generation (including solar power) and new, clean and efficient fossil-fuel units.

For example, over the next 10 years, PG&E expects to meet approximately half of the anticipated demand growth in its service area through energy efficiency and customerowned solar. PG&E estimates that due to these demand-reduction programs, its electricity sales would grow at an average rate of just 1 percent per year between 2009 and 2018; in the absence of these programs, electricity sales would grow at an average rate of 2 percent per year.

## Projected Energy Load Growth Met by Demand-Side Resources, 2009–2018



PG&E expects that approximately half of the anticipated growth in electric energy demand will be mitigated through energy efficiency and customer-owned solar.



Through trials in Oakland and San Francisco, PG&E demonstrated that LED streetlights can reduce energy usage by up to 50 percent compared with traditional streetlights. This was one of 25 new and emerging technologies that PG&E evaluated in 2008, from data center airflow processes to high-efficiency consumer electronics.

### **Customer Energy Efficiency**

Over the past 32 years, PG&E has implemented some of the most comprehensive and aggressive energy efficiency programs in the nation, working to help customers achieve cost-effective energy savings. Our results demonstrate that energy efficiency offers the fastest and lowest-cost way to meet growing energy demand while minimizing greenhouse gas emissions. In total, PG&E's programs have helped customers save almost \$24 billion and prevented more than 155 million tons of carbon dioxide (CO<sub>2</sub>) from being emitted into the atmosphere, based on cumulative lifecycle savings.

PG&E's energy efficiency programs are funded through a modest "public goods charge" embedded in PG&E's rates. Our team leverages these resources to offer a diverse portfolio of programs that includes a mix of rebates and financial incentives, training and education, support for commercializing new and emerging technologies and other activities, such as advocacy for stronger building codes and appliance standards.

One of the key factors in California's success with energy efficiency is a regulatory policy known as decoupling. Because it provides for fixed utility revenue levels independent of actual energy sales, decoupling helps neutralize the financial incentive that most utilities have to sell more energy. Rather than focusing on growing energy sales, PG&E can

focus on aggressively pursuing efforts to reduce energy use without the disincentive of a significant financial loss. Moreover, the state of California has also once again begun offering utilities the opportunity for a financial benefit in return for achieving ambitious energy efficiency targets. The policy also includes the potential for penalties if goals are not met. This combination of decoupling and incentives has the potential to continue to drive significant efficiency gains.

In 2008, PG&E and its customers continued to achieve unprecedented energy savings and greenhouse gas reductions. From 2006 through 2008—the most recent three-year program cycle authorized by the CPUC—PG&E spearheaded nearly \$1 billion in natural gas and electric customer energy efficiency programs, the largest effort of its kind by a U.S. utility company. As a result, we delivered the highest energy savings in our history during the three years, totaling 899 MW, 5,465 GWh and 72.55 million therms. These savings avoided the emissions of approximately 3.4 million tons of CO<sub>2</sub>—which has the same emissions effect as taking 476,000 cars off the road for one year.

In return for these accomplishments, last year state regulators awarded PG&E \$41.5 million as part of an interim reward for the 2006 to 2008 energy efficiency program cycle. This represents 35 percent of the \$118.6 million total incentive payments we believe PG&E has earned for our 2006 to 2007 programs. We anticipate that the remainder of the incentive for 2006 to 2008 will be resolved once regulators complete their final verification of PG&E's energy savings in 2010.

PG&E also applied for the 2009 to 2011 cycle last year. Our proposal included 57 programs in partnership with third parties to increase efficiency in niche markets and expand efficiency innovation. PG&E also proposed a pilot program to support the



To raise public awareness on energy efficiency, PG&E set up and staffed a custom-built, interactive energy-efficient home in San Francisco's historic Union Square in support of the U.S. EPA's ENERGY STAR® program.

CPUC's goals of achieving "zero net energy" in all new residential buildings by 2020 and all new commercial buildings by 2030. We also included an innovative proposal to help build "green communities" by helping cities analyze and reduce greenhouse gas emissions.

We are also targeting energy-efficient televisions, computers and monitors—recognizing the rapidly increasing demand for electronics, which already account for 18 percent of residential energy consumption in our service area.

The following examples showcase energy efficiency highlights from 2008:

Our team of experts provided technical assistance to help the California Energy Commission (CEC) set new efficiency requirements for appliances. These include energy efficiency standards for appliances and equipment ranging from portable lamps to residential pool pumps. Codes and standards for appliances and buildings are a key strategy for locking in long-term energy savings across a wide spectrum of energy consumers.

### Annual<sup>1</sup> Energy Savings from Customer Energy Efficiency Programs

	2006–2008 Actual Savings	2006–2008 CPUC Goal <sup>2</sup>	2006–2008 % of Goal
Megawatts (peak)	899	613	147%
Gigawatt Hours (total)	5,465	2,826	193%
Million Therms	72.55	44.9	162%

<sup>&</sup>lt;sup>1</sup> Annual energy savings refer to the first-year impacts associated with installed customer energy efficiency projects. Data are consistent with PG&E's 12th Quarter and 2008 December Monthly Reports as filed with the CPUC on March 5, 2009.

<sup>&</sup>lt;sup>2</sup> CPUC Energy Savings Goals established in Decision 04-09-060.

• We developed an easy-to-use, automated and voluntary system enabling building owners and managers to upload their energy usage data into the U.S. EPA's ENERGY STAR® Portfolio Manager building performance rating system. Customers can compare their buildings with similar facilities in the same climate zone, providing a guide for future goal setting and helping to identify buildings with high energy-usage levels. In addition, we have offered several workshops on the benchmarking tool for building operators and managers. EPA recognized this accomplishment with the 2008 ENERGY STAR Partner of the Year Award.

### **Demand Response**

Occasional heat waves and storms, plus the periodic need for power plant repairs and maintenance, can sometimes temporarily strain California's electrical supply. When demand is high and supply is short, especially on hot summer days, there is an increased risk of power interruptions for our customers.

PG&E's customer demand response programs provide a fiscally and environmentally respon-

sible way to respond to these spikes in energy demand. It is simple economics—building and maintaining enough power plants to satisfy occasional and temporary peaks in demand would impact customer rates and the environment. PG&E's programs offer incentives to businesses that volunteer and

temporarily reduce their electricity use when demand could outpace supply.

Last year, PG&E began offering a new demand response program called PeakChoice™. When electric system demand is expected to be high, PeakChoice customers are notified and asked to implement the energy savings measures they have designed specifically for their business. Customers have dozens of choices for customizing their demand response program options, and incentives vary based on those choices. Initial customer enrollments last year totaled 10 MW in potential demand reduction, and we have set a goal of 36 MW for 2009.

While we rely primarily on the participation of commercial and industrial customers to achieve large-scale demand response savings, PG&E also enables its residential customers to participate.

For example, PG&E's SmartAC™ program provides a simple and voluntary way for households to participate in demand response. During extremely hot summer days, PG&E can dispatch a radio signal to SmartAC devices installed in customer homes, slightly reducing

the amount of electricity the air conditioners use without disturbing customer comfort. More than 93,450 customers enrolled last year, and PG&E hopes to enroll up to 400,000 customers by the summer of 2011, which will reduce approximately 305 MW of energy load when the state needs it most.



### Championing Energy Efficiency on a Global Scale

In 2008, PG&E's expertise in energy efficiency was tapped by a worldwide audience seeking innovative ideas on program design and implementation, best practices and lessons learned. Policymakers and energy program staff from countries throughout the world visited PG&E to meet with our energy

efficiency team. In addition, PG&E experts traveled to India and China at their request to consult on-site with regulators and policymakers as they develop demand-side management initiatives to address the skyrocketing electrical demand in their countries and reduce greenhouse gas emissions.

We also earned recognition by key industry partners for our commitment. For example, PG&E's Roland Risser was elected chair of the U.S.
Technical Advisory Group to
the International Organization
for Standardization (ISO), to
develop a new standard on
energy management (ISO
50001)—an initiative that
currently involves experts from
40 countries. PG&E's role as
a leading champion for energy
efficiency also shines a light on
California's regulatory climate
as a model for other states and
nations to emulate.

# Celebrating 30 Years of Energy Efficiency Training



#### The Early Years:

(Inset) Class photo from residential conservation service auditor training program from the early 1980s.

#### Today

Bill Holloway, an instructor at PG&E's Energy Training Center in Stockton, demonstrates the effects of duct leakage to a student by using a model house.

s state and national leaders focus on developing a "green collar" workforce, PG&E has a 30-year track record of experience to share.

In fact, PG&E's Energy Training Center in Stockton has specialized in providing energy efficiency education since 1978 and is the longest continuously operating energy education and training facility in the United States. All courses are free of charge and funded as part of our customer energy efficiency efforts.

When its doors first opened, the center focused on developing standards, policies, procedures and best practices by teaching basic weatherization skills to state agencies. Over the years, the center has evolved to reach new audiences and address the changing needs for energy efficiency education.

Key highlights over the years include:

- Educating more than 68,000 participants who have helped weatherize more than a million homes, conduct two million single-family energy education assessments and review the commonuse areas associated with more than one million multi-family dwellings.
- Adding a full-scale training house that provides hands-on learning opportunities for weatherization and state-of-the-art technologies related to building performance.

 Offering state-of-the-art classes that train building professionals to install emerging energy efficiency technologies and operate buildings efficiently by building science-based diagnostic testing.

PG&E is also helping to advance energy efficiency training through its award-winning Pacific Energy Center in San Francisco, which reached approximately 7,000 customers last year through educational seminars and helped many more commercial building customers make informed decisions about improving the energy efficiency of their facilities.

PG&E's Food Service Technology Center in San Ramon provides nationally recognized energy efficiency consulting services to the commercial food industry—helping customers explore energysaving technologies.

While maintaining high-quality training at the energy centers, PG&E is also looking to influence energy efficiency education and training "upstream." Over the next several years, PG&E will partner with community colleges, universities, trade schools and vocational training programs to develop standardized curricula, share best practices and advance more training opportunities for green collar jobs—from energy audits to home weatherization to advanced installations for HVAC and solar energy systems.



PG&E customers benefit from more than 90 MW of wind energy generated from an Iberdrola Renewables site in Sherman County, Oregon.

### Investing in Renewable Energy Resources

California's Renewable Portfolio Standard (RPS) requires each investor-owned utility to meet 20 percent of its customers' electric demand through eligible renewable resources by 2010, with provisions allowing the utilities to account for renewable resources that are under contract and will be delivering energy by 2013.

In 2008, 12 percent of PG&E's delivered electricity mix came from RPS-eligible renewable resources. Because a large portion of PG&E's delivered electricity came from open-market purchases in 2008, California regulators calculate that an additional 2 percent came from renewable resources, but this amount does not qualify toward the state's RPS target.

PG&E currently holds contracts for renewable energy deliveries that represent more than 20 percent of its future energy needs. However, the ability of developers to actually bring new resources online is subject to risks. For example, tight capital markets and lack of transmission are presenting significant

challenges, in addition to other hurdles such as permitting and technology development. As a result, achieving the 20 percent target by 2010 represents a significant challenge.

## Looking Forward with the Next Generation

PG&E teamed up with the Precourt Energy Efficiency Center and graduate students from Stanford University to help explore home area networks—systems that connect digital devices within the customer premise and can potentially be tapped to help control personal energy usage.

Six graduate student teams, led by Stanford University design school professors, took part in a problem-solving effort that focused on the future of home area networks for PG&E and its customers.

In addition to undertaking research, the students were introduced to PG&E's pioneering work on building a "smart energy web," as well as possible student internships and future positions within the company. The successful collaboration is part of PG&E's larger effort to engage a future generation of workers in the energy industry.

PG&E remains fully committed to working to achieve this goal. We will continue to pursue every avenue to increase eligible renewable resource procurement, including general solicitations, bilateral negotiations and further exploration of potential utility ownership.

Last year, PG&E continued to aggressively add renewable electric power resources to its supply through contracts with third-party developers. During 2008, PG&E entered into a number of new contracts with developers. These contracts represented almost 1,800 MW of additional future renewable energy supplies.

In total, since 2002, PG&E has entered into contracts for additional supplies of approximately 3,600 MW of renewable energy—wind, solar, geothermal, biomass and small hydro resources. These include agreements for future supplies from projects that must be successfully permitted, built and connected to the grid before they can deliver.

The new renewable energy agreements PG&E signed last year included some of the largest-ever commitments for utility-scale solar energy, for example:

- Sempra Generation's new El Dorado Energy solar facility in Nevada, which began delivering 10 MW of photovoltaic (PV) solar energy in January 2009;
- San Joaquin Solar, which will generate 107 MW from an innovative combination of solar thermal trough technology and steam turbines powered by biomass fuel;
- OptiSolar Inc. (now First Solar, Inc.) and SunPower Corporation, two utility-scale PV solar power contracts—generating 550 MW of



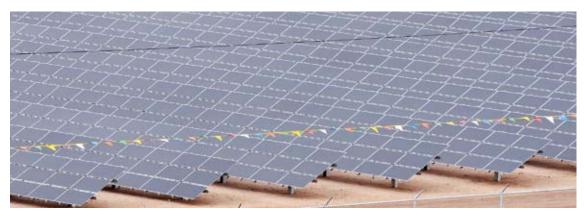
In early 2009, PG&E asked the CPUC to approve our proposal to develop and construct up to 250 MW of utility-owned PV generating facilities, to be deployed over a period of five years, at an estimated capital cost of approximately \$1.5 billion, and to execute power purchase agreements for up to 250 MW of PV projects to be developed by independent power producers.

thin-film PV solar power and 210 MW of highefficiency PV solar power, respectively; and

 BrightSource Energy, Inc., for up to 900 MW of power to be supplied from numerous solar thermal electric generating projects.

PG&E also continues to pursue its "WaveConnect" program that will study and demonstrate technologies to convert the abundant wave energy off the coast of Humboldt County into electricity distributed to PG&E customers. PG&E was awarded a \$1.2 million competitive matching grant by the U.S. Department of Energy, along with a \$4.8 million authorization from the CPUC toward completing environmental and feasibility studies of the program.

If developed and licensed by the Federal Energy Regulatory Commission, each project could provide up to 40 MW of supply. PG&E also signed on to a set of shared principles



Located on more than 80 acres, the El Dorado Energy solar facility will generate up to 23 GWh of renewable energy annually, equivalent to the amount of energy needed to serve more than 3,360 residential homes annually.

### Renewable Portfolio Standard—Contracts Signed in 2008

Project (Developer)	Location	Technology	MW	GWh/Year
Rattlesnake Road Wind Power Project (Arlington Wind Power Project, LLC)*	Arlington, OR	Wind	103	240
BrightSource Energy, Inc.	Ivanpah Dry Lake and Broadwell Dry Lake, CA	Solar Thermal	500¹	1,230
Calpine Geysers (Calpine Corporation)*	Sonoma and Lake Counties, CA	Geothermal	57	500
San Joaquin Solar 1&2 (Martifer Renewables Electricity, LLC)	Fresno, CA	Solar/Biofuels	107	700
Hatchet Ridge Wind, LLC (Babcock & Brown Limited)	Burney, CA	Wind	103	303
Klondike IIIa (Iberdrola Renewables)*	Sherman County, OR	Wind	91	263
Topaz Solar Farm (OptiSolar, Inc.) <sup>2</sup>	Carizzo Plains, CA	Photovoltaic	550	1,148
High Plains Solar Farm (SunPower Corporation)	Carrizo Plains, CA	Photovoltaic	210	594
El Dorado Energy (Sempra Generation)*	Boulder City, NV	Photovoltaic	10	23
Wadham Energy LP*	Colusa County, CA	Biomass	26	141
Total			1,757	5,142

<sup>\*</sup> Operational as of April 2009.

### Renewable Portfolio Standard— Contracts Signed, 2002–2008<sup>1</sup>

Туре	Number	MW
Geothermal	6	493 to 591
Wind	10	778
Biomass/Biofuels	13	129 to 154
Solar Thermal	3	1,227
Solar Photovoltaic	5	777
Solar Thermal/ Biomass Hybrid	1	107
Total	38	3,511 to 3,634

 $<sup>\</sup>overline{1}$  This chart does not reflect terminated, cancelled or CPUC-rejected contracts. It also does not include small renewable generator contracts of up to 1.5 MW.

on ocean renewable energy—joining the Environmental Defense Fund and a diverse array of groups including conservation organizations, utilities, renewable energy companies and academics. The principles establish a framework for an integrated and comprehensive approach to ocean management.

In addition to executing contracts with thirdparty developers, PG&E is exploring developing and/or owning renewable generation resources, subject to CPUC approval. For example, during 2008, PG&E researched numerous opportunities for utility-owned wind generation within both California and the western United States, including installing meteorological towers on our own land to further investigate the potential for wind generation.

PG&E's efforts also include supporting the development of renewable resources by working with regulatory and governmental agencies to facilitate timely construction of transmission lines and permitting of proposed project sites.

For example, last year, PG&E encountered challenges when planning a transmission line connecting a new source of wind energy to the electric grid. The project, part of enXco's 150 MW



Photo of Peter Darbee and Tom Allen, principal project manager for the Gateway Generating Station, the first new power plant built by PG&E in nearly 20 years.

<sup>&</sup>lt;sup>1</sup> This contract contains provisions for up to 900 MW.

 $<sup>^2\,\</sup>mbox{First Solar}$  , Inc. acquired OptiSolar, Inc.'s solar project pipeline.

Shiloh II wind farm, was temporarily delayed because of potential impacts to the California tiger salamander, an endangered species under federal law. PG&E worked with the U.S. Fish and Wildlife Service to expedite a permit allowing the project to move forward while also ensuring the protection of the salamander.

### Leveraging Cleaner Conventional Sources

PG&E's work on energy efficiency and support of clean generating technologies is part of a broad portfolio designed to meet California's growing energy demand in an environmentally responsible manner. To ensure a clean, safe and reliable supply of energy, our strategy also includes development of new, state-of-the-art natural gas-fueled plants that will be owned and operated by PG&E.

Last year, PG&E reached a number of major milestones with three facilities:

- Gateway Generating Station: We completed this 530 MW plant, the first new power plant built by PG&E in nearly 20 years. The plant, which came online in January 2009, features "dry cooling" technology, which uses 97 percent less water and produces 96 percent less discharge than a conventional water cooling system. Compared with older plants, the plant will yield at least 35 percent less CO<sub>2</sub> for every megawatt hour of power produced.
- Colusa Generating Station: We broke ground on this 657 MW power plant located in Colusa County. Expected to begin operation in 2010, the facility will serve nearly half a million homes using the latest technology and

Benchmarking NO<sub>X</sub> and SO<sub>2</sub> Emissions<sup>1</sup>

National average, NO <sub>X</sub> :	1.94 lbs/MWh
PG&E's emissions rate, NO <sub>X</sub> :	0.09 lbs/MWh
National average, SO <sub>2</sub> :	5.09 lbs/MWh
PG&E's emissions rate, SO <sub>2</sub> :	0.0021 lbs/MWh

<sup>1</sup> PG&E data reflects emissions from Utility-owned generation resources. There were no reportable mercury emissions from PG&E's facilities.

environmental design. The plant will use dry cooling technology to dramatically reduce water usage, and cleaner-burning turbines to reduce  $\mathrm{CO}_2$  emissions by 35 percent relative to older plants.

■ Humboldt Bay Generating Station: We also broke ground on this 163 MW plant, part of our plan to build a new generation facility on the site of an old PG&E power plant, to be decommissioned. The facility, which is expected to be completed in 2010, will employ technology to produce 80 percent fewer ozone precursors and 30 percent less CO₂ than the previous facility. The new design will also reduce water use by eliminating the need for "once-through" cooling.

### **Delivering Natural Gas**

PG&E delivers natural gas to approximately 4.3 million customer accounts in northern and central California. With approximately 6,400 miles of natural gas transmission pipelines and more than 42,000 miles of distribution lines, PG&E operates one of the largest natural gas distribution networks in the country and takes seriously our responsibility to ensure its safety and integrity.

PG&E is a leader in researching ways to expand the use of renewable biogas, a prospect that holds significant potential in a state that is home to two million dairy cows. Last year, PG&E and BioEnergy Solutions began operating the first project in California that is delivering natural gas to a utility using methane produced from animal waste at Vintage Dairy in Fresno County. This highly innovative effort, which produces gas that meets PG&E's gas quality specifications, is significantly reducing the farm's methane emissions while providing a valuable resource for our customers. New dairy biomethane projects from BioEnergy Solutions and Microgy will be constructed in 2009, and are expected to be online, delivering gas to PG&E, in 2010.





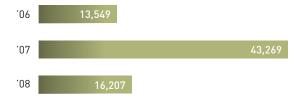
A PG&E welder bonds a new transition fitting for joining plastic to steel, part of a multi-year project to improve gas service reliability.

To improve gas service reliability, the company focused on a number of important initiatives last year, including an ambitious, multi-year project to replace aging copper pipelines with more durable polyurethane pipe. The company also took steps to improve and accelerate its routine pipeline integrity surveys with a goal of accomplishing 3 to 4 years of gas system surveying in 16 months.

A potential impact associated with the delivery of natural gas is the release of methane, a greenhouse gas that is at least 21 times more potent on a per ton basis than  $CO_2$  in terms of its impact on global warming. As part of our participation in the U.S. EPA's Natural Gas STAR Partnership, the company avoided the release of more than 770 tons of methane, or approximately 16,200 tons of  $CO_2$ -equivalent, in 2008.

#### Methane Avoided

(Tons CO<sub>2</sub>-equivalent)



These savings were achieved primarily by replacing old cast iron and steel gas mains, and by implementing a technique called cross compression, a process by which natural gas is transferred from one pipeline to another during large pipeline construction and repair projects. Cross compression reduces the amount of natural gas vented to the atmosphere by 85 to 90 percent.

In 2008, PG&E also undertook a number of activities that will result in greenhouse gas emission reductions while accomplishing other important objectives. For example, PG&E conducted a focused survey for high-volume gas leaks at our Topock and Kettleman compressor stations. These studies will help identify and repair natural gas leaks faster, which will reduce PG&E's methane emissions.

# Providing Nuclear Power Safely and Responsibly

In a carbon-constrained world, nuclear power is a critical part of the solution to addressing global warming. It is also a key element of our commitment to delivering safe, reliable and carbon-free energy to our customers.

An important energy resource for the state, PG&E's Diablo Canyon Power Plant (Diablo Canyon), located along the Central Coast of California, generated 22 percent of the electricity used by our more than 5.1 million customers last year and met more than 8 percent of California's electricity needs. With a strong safety culture, Diablo Canyon is also among the most efficient and safest nuclear plants in the country and has received top ratings from industry peers.

PG&E completed the first half of a \$700 million project last year by replacing four steam generators in one of the nuclear generating units. Steam generators drive the plant's electric turbines. The project was an example of operational excellence, having been completed on time, within budget and with strong safety results. The final four generators were installed in early 2009, concluding the largest construction project at the plant since it was built.

Last year, we also completed the construction of Diablo Canyon's Independent Spent Fuel Storage Installation (ISFSI). The dry cask storage facility will help ensure the continued



New steam generators will make the Diablo Canyon Power Plant's energy contribution reliable for years to come.

operation of the plant through the term of its current license. The first fuel will be loaded in 2009, and we plan to safely store the used fuel on-site until the federal government fulfills its obligation to take ownership of the fuel by building a permanent storage facility. (For additional information on waste storage and other issues associated with Diablo Canyon, please see page 81 of PG&E's 2008 Annual Report to Shareholders.)

PG&E also reached a major milestone with our Humboldt Bay Power Plant ISFSI facility—located near Eureka, California—last year when the fifth and final used fuel container was moved to its on-site dry cask storage. PG&E was granted a license by the Nuclear Regulatory Commission (NRC) to construct and operate an on-site storage facility in 2005 after we demonstrated that the system would safely store the used fuel until a permanent storage facility was available. We are now decommissioning the plant to return the site to a non-nuclear facility.

Current California law prohibits the building of any new nuclear power plants in the state until the federal government establishes a permanent national waste storage facility. PG&E currently has no plans to develop new nuclear generating capacity.

### **Safety Remains Top Priority**

Safety continues to be the top priority for PG&E and our employees. Our safety performance in the areas of industrial, radiological and nuclear safety continue to improve, particularly in the areas of recordable and lost-time injuries. In addition to safety, Diablo Canyon has implemented a comprehensive security program, which includes training and planning with plant operations, emergency planning, local law enforcement agencies and state and federal authorities.

Partnering with the local county and the State of California on emergency preparedness, plant employees also worked side by side last year with numerous government agencies during test exercises conducted by the NRC and Federal Emergency Management Agency.

The power plant is an important part of the local community. Plant employees account for nearly 1,300 jobs, making PG&E the largest private-sector employer in the county and the largest property-tax payer in the county. PG&E also gives back to the local community through more than \$700,000 in annual charitable contributions and employee volunteer efforts with local schools and organizations such as Habitat for Humanity, Parkinson's Research, The People's Kitchen and Big Brothers/Big Sisters.

# Working Collaboratively to Address Climate Change

PG&E recognizes that the link between greenhouse gas emissions and the Earth's warming climate is convincing, the potential consequences are serious and the need for action is urgent.

We are working in partnership with a wide network of stakeholders to identify the policies, technologies and practices to successfully meet the climate challenge in a way that is environmentally effective, economically sustainable and fair.

### Understanding and Planning for Potential Impacts to Our Business

As concentrations of greenhouse gases in the atmosphere grow, the scientific community is increasingly focused on the future impacts of climate change to ecosystems and humankind. Often referred to as "adaptation," planning for—and managing around—the impacts of climate change is a major challenge.

For the California electricity sector, two adaptation challenges, in particular, are emerging as paramount: increased electricity demand due to more extreme and frequent hot weather events, and reduced hydroelectric generation due to reductions in snowpack in the Sierra Nevada. PG&E's adaptation strategies for reducing greenhouse gas emissions—such as energy efficiency and demand response—are also effective strategies for addressing the increased demand for electricity in extreme hot weather events. Simply put, some of PG&E's climate change mitigation strategies are also climate change adaptation strategies.

On the electric supply side, if PG&E's future hydroelectric generation is reduced due to drought conditions or climate change, PG&E might have to replace some of this carbon-free generation with fossil-fueled generation, typically natural gas-fired turbines. The ongoing drought in California illustrates the possible negative consequences of climate change to our greenhouse gas mitigation efforts: During the 2007 drought, PG&E's hydroelectric generation dropped from 22 to 13 percent of our delivery mix, resulting in a 39 percent increase in our verified greenhouse gas emissions rate.

In 2008, PG&E continued to evaluate the potential impacts of climate change on our hydroelectric system, as we have for several years. Some of the first negative impacts to conventional hydroelectric output will likely take place on the relatively low elevation North Fork Feather River, followed by negative generation impacts on the South Yuba River-Bear system with increasing frequency. We are analyzing and exploring a combination of operating changes that may include, but are not limited to, higher winter carryover reservoir storage levels, reduced conveyance flows in canals and flumes during winter storm periods, reduced discretionary reservoir releases during the late spring and summer period and increased sediment releases from diversion dams.

We continue to engage with thought leaders from the business, government, academic and non-profit sectors to begin the important dialogue on the impact of climate change on various sectors in California. PG&E is also assessing the benefits and challenges associated with various climate change policies, identifying how a comprehensive program can be structured to mitigate overall costs to our customers and the economy as a whole, as well as to ensure that the environmental objectives of the program are met.

The results of these efforts will enable PG&E to develop adaptation and mitigation plans to ensure a high standard of customer service and reliability in both the near and long term, as well as to engage constructively in the broader climate change discussion occurring at the state, regional and national levels.

### **Reporting Our Impacts**

PG&E has been a leader in the effort to quantify and report greenhouse gas emissions, which is an essential first step in the longer-term effort to effectively and efficiently address this challenge. We are a charter member of the California Climate Action Registry and, in 2002, were the first investor-owned utility in California to voluntarily complete a third-party-verified inventory of our CO<sub>2</sub> emissions.

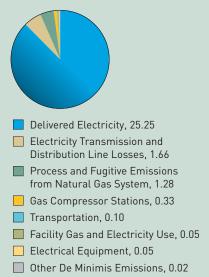
Since 2005, we have also participated in the Carbon Disclosure Project, which provides additional detail on our actions as they pertain to climate change and our greenhouse gas emissions profile.

Beginning in 2009, PG&E will begin voluntary reporting to The Climate Registry, a new non-profit organization that is developing consistent reporting and measurement standards across industry sectors in North America. PG&E is a founding member of The Climate Registry, and its Governing Board includes more than 40 states, all six Mexican border states and Canadian provinces and territories. PG&E will also begin mandatory greenhouse gas emissions reporting to the California Air Resources Board under AB 32 in 2009.

Please see the chart below for PG&E's 2007 greenhouse gas emissions by source category, as reported to the California Climate Action Registry.

## Total 2007 Greenhouse Gas Emissions by Source Category

(Total: 28.7 Million Tons CO<sub>2</sub>-e\*)



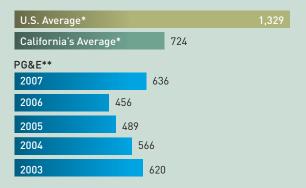
<sup>\*</sup> PG&E's 2007 greenhouse gas emissions, which equate to 26 million metric tonnes, were calculated and independently verified in accordance with protocols of the California Climate Action Registry. Given that a small percentage of the electricity that PG&E delivered in 2007 came from unspecified generation sources, the total emissions may vary from the registered figure.

We also verified the  $CO_2$  emissions rate associated with the power we delivered to our customers in 2007 at 636 lbs  $CO_2$ /MWh. PG&E's emissions rate increased significantly in 2007 over 2006 primarily because more fossil fuel-based power was purchased to make up for the decrease in hydroelectricity that occurred due to drought conditions affecting the western U.S. in 2007. Even with the increase, PG&E's 2007 emissions rate was still approximately 50 percent below the national average.

For comparison, the national average  $CO_2$  emissions rate for all power generation was approximately 1,329 lbs/MWh, while the California average  $CO_2$  emissions rate was approximately 724 lbs/MWh (based on 2005 data).

## Benchmarking Greenhouse Gas Emissions for Delivered Electricity

[Pounds of CO<sub>2</sub> per MWh]



- \* Source: U.S. Environmental Protection Agency eGRID 2007 Version 1.1 (updated December 2008 and based on 2005 data).
- \*\* PG&E's emissions rates for delivered electricity were independently verified and registered with the California Climate Action Registry. Given that a portion of the electricity that PG&E delivers comes from unspecified generation sources, the company's total emissions, and associated emissions rates, may vary from registered figures. Emissions data for our owned generation resources can be found on page 92.

PG&E recognizes the importance of a common greenhouse gas reporting infrastructure, which ensures comparability and improved transparency across industries. That is why we continued to provide critical expertise in the development of new or revised greenhouse gas emission reporting and reduction project protocols last year. This includes important protocols under development by The Climate Registry, the California Climate Action Registry, the Climate Action Reserve and the World Resources Institute.

# Addressing Our Own Footprint and Empowering Our Customers

At PG&E, we are working to minimize our carbon footprint:

- Since 1998, we have reduced our sulfur hexafluoride (SF<sub>6</sub>) leak rate by 84 percent and our absolute emissions by 74 percent.
- We continue to reduce the methane leak rate from our natural gas pipeline operations, avoiding the release of more than 770 tons

### **Our Environment**



Steven Kline, vice president, Corporate Environmental and Federal Affairs at PG&E Corporation, speaking at the Capitol in support of the Boxer-Lieberman-Warner Climate Security Act of 2008. Also pictured are Senators Barbara Boxer (D-CA) and Charles Schumer (D-NY).

of methane (CH<sub>4</sub>), or approximately 16,200 tons of CO<sub>2</sub>-equivalent, in 2008.

 And we continued to participate in PG&E's ClimateSmart™ program, making the energy use in the company's offices and maintenance buildings "carbon neutral."

We also provide our customers with a complementary portfolio of options to help reduce their carbon footprint through steps such as

improving energy efficiency, taking advantage of solar and self-generation incentives and voluntarily signing up for the ClimateSmart program to balance out the greenhouse gases associated with their energy use.

From Oakland to Arcata, a growing number of cities and counties in northern and central California are conducting inventories of their communities' greenhouse gas emissions. In 2008, we assisted more than 100 cities and counties with these inventories by providing them with aggregated historic energy consumption data and the associated greenhouse gases for residential, commercial and industrial PG&E customers within their jurisdiction, as well as detailed data for municipal facilities. These efforts are a part of our partnership with the Bay Area Air Quality Management District and ICLEI—Local Governments for Sustainability.

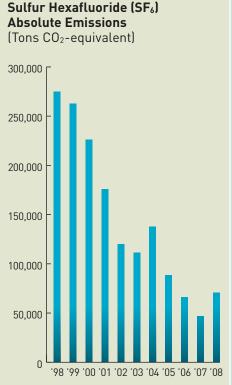
### **Advancing Responsible Solutions**

PG&E was the first investor-owned utility to support the enactment of AB 32, California's Global Warming Solutions Act of 2006, which sets a goal of reducing the state's greenhouse gas emissions to 1990 levels by 2020. PG&E is working with the California Air Resources Board

Since 1998, PG&E has reduced its  $SF_6$  leak rate by 84 percent and its absolute emissions by 74 percent.  $SF_6$  is an extremely potent greenhouse gas, approximately 23,900 times as potent as  $CO_2$  on a per ton basis, and is used as an electrical insulating material in high-voltage circuit breakers and gasinsulated substations. PG&E achieved these reductions in partnership with the U.S. EPA by implementing  $SF_6$  tracking, early leak detection measures for

circuit breakers and an active breaker replacement program. In 2008, PG&E purchased a 72 kV circuit breaker that uses no  $SF_6$  which will be installed at a substation for performance evaluation. PG&E also purchased X-ray equipment so we can perform efficient inspections of breakers in-house. X-ray technology allows breakers to be inspected without being opened, decreasing the amount of lost  $SF_6$ . PG&E is also actively pursuing the use of recycled  $SF_6$  system-wide.





(ARB), CPUC, CEC, Cal/EPA and concerned stakeholders to make AB 32 a success and a model for emerging regional and national greenhouse gas reduction programs.

To date, specific regulatory goals or targets for individual sectors or entities within sectors have not been set under AB 32. Recognizing that these requirements will be forthcoming, PG&E has not set a greenhouse gas reduction target for our operations.

In 2008, the ARB approved a Scoping Plan that provides a road map for the regulatory implementation process to follow between now and 2012. Importantly, the plan included a cap-and-trade program covering 85 percent of the state's emissions. This program will be developed in conjunction with the Western Climate Initiative, composed of seven states and four Canadian provinces that have committed to cap their emissions and create a regional carbon market.

During 2008, we actively participated in the regulatory proceedings to develop the AB 32 Scoping Plan. We also supported SB 375, state legislation enacted in 2008 to promote development patterns that will further the goals of AB 32 by aligning housing policy, transportation funding and climate change strategies to optimize the design of California's communities. We also continued to provide extensive input into the Western Climate Initiative's efforts to design a regional cap-and-trade



Peter Darbee speaking at the 2008 United Nations Investor Summit on Climate Risk.

market—as well as emerging federal legislative and U.S. EPA rulemaking activities.

And, finally, we filed an *amicus curiae* brief in support of California's request for a waiver from the Clean Air Act, which would authorize the state to regulate greenhouse gas emissions from vehicles. PG&E has been a consistent voice of support on this issue, and was one of the only private-sector companies to support the passage of state legislation (AB 1493) in 2002.

# PG&E's Climate Change Policy Principles

Market-based strategies provide economic incentives and the flexibility to cut emissions in the most innovative and cost-effective ways. This approach is key to driving development of the next generation of clean, highly energy-efficient technologies and practices. PG&E believes a properly designed capand-trade system—coupled with our customer energy efficiency, renewables and demand-side management programs—will reduce greenhouse gas emissions, diversify our energy supply mix and help to minimize costs to our customers. We believe that the following principles should guide policy development:

- Mandatory greenhouse gas reductions are necessary.
- Long-term greenhouse gas targets provide a basis for action and investment.
- Standardized emissions reporting is an essential first step and must form the basis of any mandatory program.
- A cap-and-trade program minimizes costs, maximizes innovation and ensures environmental effectiveness.
- Broad-based participation leads to better, more cost-effective results.
- Near-term opportunities for costeffective, verifiable greenhouse gas reductions, including offsets, should be encouraged and pursued, and early action recognized.
- Consumers will bear the majority of program costs, so consumers

- should receive a substantial amount of value associated with allowance distribution.
- The value associated with emissions allowances under a cap-and-trade program should be used to support the overall objectives of the climate protection program, including smoothing the transition for consumers and businesses, helping to advance technology and train and transition the nation's workforce and supporting efforts to adapt to a changing climate.
- Barriers exist to realizing the full potential for energy efficiency, and they must be dismantled.
- Investment in low- and zeroemission electric generation and other technologies is critical and must be prioritized.

# A Landmark Investment in Greenhouse Gas Emission Reductions





PG&E's pioneering ClimateSmart™ program is a voluntary, tax-deductible program that allows customers to balance out the greenhouse gas emissions that are produced by the energy they use, making their energy use "carbon neutral." To date, more than 30,000 customers, including PG&E, have enrolled in the program—from household names such as IKEA and eBay to leading cities such as the town of Windsor and city of Millbrae.

To participate, customers pay a separate amount on their monthly energy bill, based on their actual energy use. PG&E invests 100 percent of these payments in new, independently verified projects that reduce or remove greenhouse gases from the atmosphere. While PG&E more than doubled customer enrollment in 2008, participation has been below PG&E's stretch goal range, and we remain focused on engaging more customers.

Last year, the program took a major step forward by announcing the largest investments in verifiable greenhouse gas emission reductions under the Climate Action Reserve's rigorous forest carbon sequestration project protocols—turning customer enrollments into investments in forestry projects that will sequester 214,000 metric tonnes of greenhouse gas emissions.

Following an extensive competitive bidding process, PG&E selected two landmark projects. Located on



California's North Coast, the Garcia River Forest project is operated by The Conservation Fund and managed in partnership with The Nature Conservancy. The Lompico

Headwaters Forest project is operated by the Sempervirens Fund in Santa Cruz County.

Both projects are located in coastal redwood forests, which have among the highest carbon density per acre in the world. The protected trees also provide a habitat for rare and endangered species, supply clean and safe drinking water and deliver valuable aesthetic and recreational benefits.

In 2009, PG&E also secured contracts for another forestry project with The Conservation Fund and our first manure management project, bringing the program's total emission reductions to nearly 890,000 metric tonnes. PG&E will permanently retire the reductions on behalf of enrolled customers—thereby deriving no benefit from the offset purchases.

The groundbreaking program also continued to make headlines when Governor Schwarzenegger signed a memorandum of understanding between the state of California, PG&E, the California Climate Action Registry and the six Mexican states that border the United States—designed to support greenhouse gas emission reduction projects in the Mexican states for potential future use in the ClimateSmart program.

Ultimately, California's greenhouse gas reduction program should be harmonized with a broader federal program and global framework. This will allow California to reduce greenhouse gas emissions at the lowest possible cost and also provide the opportunity to more seamlessly "export" innovative technologies, programs and practices. A national program should recognize and take into account the significant investments already made by the state of California and its energy consumers to reduce greenhouse gas emissions.

At the national level, PG&E actively worked to advance comprehensive climate change legislation by testifying before the U.S. House Select Committee on Energy Independence and Global Warming and supporting the Boxer-Lieberman-Warner Climate Security Act of 2008. Peter Darbee also shared PG&E's views at the 2008 Investor Summit on Climate Risk, a gathering at the United Nations on global warming with 200 of the world's top investment strategists.

#### **Working with Coalitions**

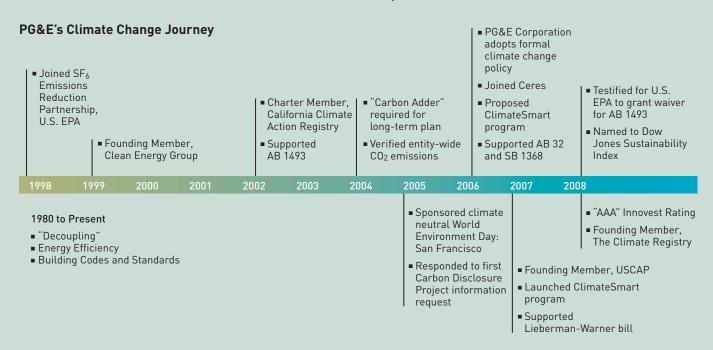
We also continued our efforts as part of coalitions to advance comprehensive climate legislation through both the U.S. Climate Action Partnership (USCAP) and the Clean Energy Group (CEG). We are a founding member of both organizations. USCAP is a coalition of major businesses and leading environmental

organizations that have come together to call on the federal government to quickly enact strong national legislation to require significant reductions of greenhouse gas emissions.

Launched in 2007, USCAP developed a set of detailed legislative recommendations for a national, mandatory market-based approach to reduce greenhouse gas emissions that calls for an economy-wide cap on emissions, along with a set of complementary policy measures to advance technology, mitigate costs for consumers and businesses and provide opportunities for the nation's workforce.

The CEG is a coalition of progressive utilities and power generators that serve millions of customers and have a footprint in every state. The CEG released a framework for legislative action that is focused on policies to help smooth the transition to a low-carbon economy for the electric power sector and its customers.

PG&E was also an active participant in the Energy Future Coalition's energy efficiency and smart grid task forces, working with a broad coalition of business, labor and environmental groups to identify new directions in energy policy. And, finally, as a member of Combat Climate Change (3C), a coalition of more than 50 leading international companies, PG&E led the organization's Energy Efficiency Task Force to develop more detail for policymakers on how to accelerate the penetration of vital energy-saving technologies throughout the world economy.

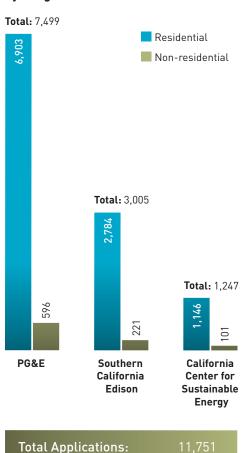


## Advancing Clean Energy Solutions for Our Customers

PG&E is helping a growing number of customers install solar energy systems through the California Solar Initiative (CSI). In 2008, we interconnected more than 6,500 customer-owned solar power systems to the electric grid. This brought our total to more than 27,000 interconnected solar systems, more than any other utility in the country.

The overall goal of CSI is to create 3,000 MW of new, customer-installed solar capacity by December 2016, moving the state toward a cleaner energy future and helping to lower the cost of solar installations for customers. Importantly, because using energy more efficiently is the most cost-effective solution,

### 2008 California Solar Initiative Applications by Program Administrator



,833



customers must first complete an energy audit to qualify for the solar incentives.

As a CSI program administrator, PG&E paid more than \$99 million in rebates for 97 MW of completed residential and commercial solar installations last year. This accounted for more than 60 percent of the total applications submitted in California (see chart to the left). PG&E also exceeded its target for processing solar applications in a timely fashion. Through CSI, PG&E has the potential to provide approximately \$950 million in solar rebates to our customers.

In 2008, PG&E also began administering a program to provide solar incentives for low-income customers with affordable multi-family housing. PG&E also began coordinating solar incentives for new residential construction of single- and multi-family homes—a program that also strongly promotes energy-efficient building standards.

PG&E has also taken an active leadership role by educating our customers about solar energy. We held 56 solar classes in 2008, reaching 2,350 customers on a range of topics—from solar power basics to inspecting solar systems for code compliance. A webinar series provided another convenient opportunity for customers to learn about solar energy. We also partnered with cities to train local community leaders. This included holding a "Solar Champion" class with the San Francisco Department of the Environment and a solar power basics class on the city's local government television channel.

Residential:

Non-Residential:

# 25,000 Solar Customers and Counting



By making the decision to "go solar," PG&E customers are helping solar generation become more cost effective and reliable than ever before.

ast year, PG&E and its customers reached a major milestone when the company interconnected its 25,000th "net metered" solar customer. This total represents almost half of such solar systems interconnected in the United States. Net energy metering allows eligible renewable customers to offset the cost of their electric usage with energy they export to the power grid.

David Bower, the 25,000th net metered solar customer, earned an incentive of \$4,500 for a system that has the capacity to supply 2.4 kilowatts to his San Francisco home. The solar installation is expected to produce approximately 3,700 kilowatthours of renewable electricity every year, helping to avoid the emission of more than 2,000 pounds of greenhouse gases into the atmosphere.

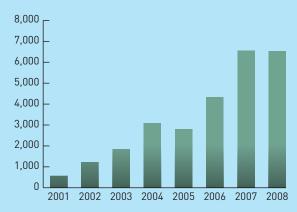
Mr. Bower earned the incentive through the California Solar Initiative, a 10-year program administered by PG&E that is helping to lower the cost of solar energy systems for customers.

With this accomplishment, PG&E continues its nationwide leadership in bringing customerowned solar power to California, generating more than 200 MW of electricity, enough to power about 50,000 homes annually. In 2008, the Solar Electric Power Association ranked PG&E first in the nation for customer-owned solar power in terms of both overall solar capacity and the most megawatts per customer.

PG&E is also demonstrating solar energy leadership by announcing a series of landmark agreements for large-scale solar projects and by educating our customers through solar workshops and extensive outreach. Other examples of our leadership in this area include charitable contributions to support our award-winning Solar Schools and Solar Habitat programs, which have been bringing solar technology to underserved schools and families with limited incomes for several years.

### Annual PG&E Interconnected Customer Solar Systems

Total Solar Interconnections = 27,000



#### Demonstrating Environmental Stewardship

As one of California's largest land owners, PG&E has a long history of responsible stewardship over lands and waters in some of the nation's most precious and environmentally sensitive areas. PG&E's lands and easements include coastline, watershed and forest properties across northern and central California, which cross varied landscapes and habitats—from desert to agriculture to riparian regions. We recognize that to be successful, we must work to deliver safe and reliable service to meet the state's growing needs while protecting wildlife and other important natural resources.

#### **Managing Our Hydro Operations**

PG&E's large hydroelectric system consists of 26 federally licensed projects, some of which date back to the early 20th century. While a vital source of clean, renewable energy for California, PG&E's hydroelectric output has declined during three years of drought in California. Working collaboratively with leading climate experts, PG&E is carefully studying this issue as part of a broader risk management effort to develop climate change adaptation and mitigation plans. (See page 66 for a further discussion of this issue.)

As required by federal and state regulatory agencies, PG&E evaluates and mitigates the impact on natural resources that can be associated with our hydroelectric projects.

More than half of our licenses have been, or will be, up for renewal between 2000 and 2012, and we are taking this opportunity to identify and assess project-specific impacts, taking into consideration all beneficial uses, including conservation, fish and wildlife habitat protection and enhancement, recreational opportunities, preserving environmental quality and power generation. We have made it a priority to work collaboratively with stakeholders, including local community members, throughout the relicensing process to identify and agree on appropriate mitigation measures.

For example, to implement PG&E's new 36-year license for the Pit 3, 4 and 5 Hydroelectric Project, we began working with resource agencies last year to secure the required permits for major modifications to flow release facilities at the project's three

dams. Once completed, these upgrades will enable PG&E to release more water to enhance approximately 22.5 miles of the Pit River. The higher instream flows, which are designed to benefit fish and their habitat, were developed collaboratively with state and federal resource agencies, tribes, non-governmental organizations and other stakeholders.

PG&E has also gone beyond regulatory requirements to protect salmon and steelhead populations at our hydroelectric projects, including a multi-year, collaborative partnership with CalTrout to develop a prioritized list of restoration actions in the Sacramento River basin. Once completed, the list will be used by PG&E, regulatory agencies and other stakeholders to guide future habitat enhancement efforts.

Given the critical need to reduce greenhouse gas emissions and increase supplies of renewable energy, we continue to look for additional sources of clean energy. In 2008, PG&E submitted an application to the Federal Energy Regulatory Commission for a license amendment that, if granted, will allow for construction of the new Britton Powerhouse, which would be the first new PG&E hydroelectric powerhouse in over 20 years. Located at the site of an existing PG&E dam on the Pit River, this small, 2.8 MW project will contribute toward PG&E's renewable energy goals while maximizing the output of the existing hydroelectric facilities.

## Responsible Stewardship of Wildlife and Other Natural Resources

As we upgrade and maintain our gas and electric facilities to meet customer needs, protecting threatened and endangered species and their habitats is critical.

PG&E's Environmental Stewardship Program is designed to meet this challenge through improved planning, coordination and implementation of the company's stewardship priorities and strategies. As part of the program, PG&E strives to avoid and minimize impacts to habitats and species wherever possible. If impacts cannot be avoided, we take a strategic approach to compensating for our impacts, working in partnership with local land trusts and land management organizations. As a result, we invest in parcels that contribute to larger landscape conservation goals and

benefit a broad set of species, rather than focusing on smaller, separate parcels.

Highlights of 2008 activities include the following:

 We began implementing our San Joaquin Valley operations and maintenance habitat conservation plan (HCP): PG&E received a 30-year permit for the San Joaquin Valley region from the U.S. Fish and Wildlife Service and the California Department of Fish and Game—the first in a series that will cover PG&E's service area. Developed in collaboration with federal and state natural resource agencies, this innovative new permit will ensure we meet federal and state requirements for sensitive plants and animals protected under the federal and state Endangered Species Acts. It applies to operation and maintenance activities for PG&E gas and electric transmission and distribution facilities, as well as minor new construction.

In 2008, we began implementing the HCP and trained more than 2,500 employees on the permit conditions and internal compliance processes and procedures. We also made significant progress toward

additional regional HCPs, including one for the San Francisco Bay Area.

Last year, PG&E also partnered with the Center for Natural Lands Management to purchase 309 acres of high-quality habitat for the San Joaquin kit fox, blunt-nosed leopard lizard and more than 60 other species in the San Joaquin Valley. Overall, as a result of our activities, PG&E will need to mitigate for 1,630 acres of anticipated temporary impacts and approximately 30 acres of permanent impacts over the life of the 30-year permit.

We finalized our first "safe harbor" **agreement:** The presence of the Bay checkerspot butterfly, protected by law as a threatened species, made it challenging for PG&E to access and perform work on five vital transmission lines that cross Tulare Hill in Santa Clara County. PG&E voluntarily signed an agreement with the U.S. Fish and Wildlife Service allowing us to safely maintain and operate the lines while enhancing butterfly habitat. The agreement is one of only five of its kind in California and 30 in the United States. PG&E is finalizing a similar agreement for a parcel in Contra Costa County, located adjacent to Antioch Dunes National Wildlife Refuge.

#### Minimizing Environmental Impacts from Construction Activities

PG&E's infrastructure can traverse unique and sensitive habitats. This requires us to take steps to avoid or minimize environmental impacts to these resources when we perform routine maintenance and construction activities, which can be a challenge.

As an example, last year, PG&E completed an important reconductoring project within the picturesque Point Reyes National Seashore in Marin County. The goal of the project was to replace 3.72 miles of outdated electrical distribution line to improve reliability and reduce the amount of unplanned emergency work in the area. The line, which served rural customers, dairy farms, a school and the historic Point Reyes lighthouse, had experienced increased outages related to conductor failure.

Because the construction area fell within designated critical habitat for the



California red-legged frog and several other federal threatened or endangered plants and animals, PG&E took steps to avoid impacts to multiple sensitive species. We held on-site planning meetings, conducted comprehensive biological studies and scheduled the construction work in the dry season to avoid encountering amphibians. We also carefully planned access routes, equipment and material staging areas

and work area locations, including "pull-sites" that are used to pull tension on newly installed wire.

By working closely and cooperatively with the U.S. Fish and Wildlife Service and the National Park Service, PG&E was able to meet the aggressive construction schedule and address potential habitat and species impacts in an effective, responsible manner.

#### **Our Environment**



With the help of 30 students from a local high school, we restored native creekside habitat at PG&E's Pleasant Creek Underground Gas Storage Facility.

#### Protected and Restored Habitat<sup>1</sup>

	2007	2008
Acres set aside and protected	148.1 acres	869 acres
Acres of restored habitat	103.6 acres	422 acres
Miles of stream and river riparian vegetation protected	16.5 miles	29.5 miles

<sup>&</sup>lt;sup>1</sup> PG&E undertook these activities to meet various regulatory requirements, with the exception of 75 acres of company-owned property that PG&E voluntarily restored in 2007.

• We continued to collaborate with the Pacific Forest and Watershed Lands Stewardship Council to permanently protect more than 140,000 acres of PG&E-owned lands by donating conservation easements and/or ownership in the lands to public agencies or qualified conservation organizations. In 2008, the CPUC approved a streamlined process to expedite regulatory approval of the conservation easement and watershed land donations, with the first applications expected to be filed in 2010.

Created in 2003 as part of the agreement with state regulators to settle PG&E's bankruptcy, the Stewardship Council receives funding from PG&E in the amount of \$10 million annually for 10 years. PG&E holds one seat on the Council's Board of Directors.

#### **Protecting Birds**

More than 300 species of migratory birds live in northern and central California, either permanently or during semi-annual migration along the "Pacific Flyway." When birds seek out power lines for perching and various other

uses, they can be electrocuted, which, in turn, can cause electric outages and fires. Birds can also collide with power lines while in flight.

For the past 25 years, PG&E has led various bird species conservation initiatives. In 2002, PG&E and the U.S. Fish and Wildlife Service entered into an agreement that required PG&E to implement various measures to protect migratory, threatened and endangered birds. When this agreement expired in 2007, PG&E voluntarily adopted a proactive Avian Protection Plan that expands PG&E's commitments in public outreach, collaborative research and "bird-safe" technology demonstration projects. This plan has set the standard for our industry and is one of the most comprehensive in the nation.

Since 2002, in compliance with the agreement, PG&E has retrofitted nearly 14,400 existing utility poles and towers with "bird-safe" equipment (see chart below). We have also retrofitted more than 13,800 poles in high-risk areas where bird injuries or fatalities have occurred previously, or where there have been bird-related power outages. All new poles and replacement poles in designated "Raptor Concentration Zones" are also built "bird-safe."

### Bird Protection Program (Bird-Safe Retrofits)

	2006	2007	2008
Poles Planned	2,075	2,000	2,000
Poles Completed	2,117	2,000	2,169
% Poles Completed	102%	100%	108%



A PG&E crew installs a nest platform in Ione, California. Nest platforms reduce outages and are preferred by large birds, such as ospreys.

PG&E has pioneered cutting-edge practices such as using helicopters to help install special bird flight diverters in hard-to-reach coastal locations like the Central Coast, which is home to the endangered California condor. In 2008, we approved a new device, known as a transmission tower bridge guard, designed to improve reliability by reducing outages caused by bird waste on our equipment. PG&E is also installing nest platforms on utility poles in the Sierra Nevada region and throughout our service area to protect large birds, such as ospreys.

In 2009, we will use a new Avian Protection Plan video to train approximately 5,000 employees to ensure we comply with all federal and state bird protection laws and properly report and track all avian electrocutions or collisions. PG&E is also spearheading an effort to bring together utilities and wildlife agencies in the endangered California condor range. This unique collaboration will allow utilities to minimize impacts to condors in their isolated habitats in California, Arizona and Utah.

## Forest Management and Habitat Restoration

By practicing sustainable forestry on company-owned forest lands, PG&E is committed to creating healthier forests, which sequester more  $CO_2$  and are less vulnerable to catastrophic wildfire, insects and disease. Key elements of PG&E's sustainable forestry efforts include adopting resource protection and enhancement measures as part of all timber harvests, minimizing impacts with portable bridges, closing the loop by sending

Portable bridges give access for ground crews, company vehicles and state and local inspectors, minimizing long-term impacts.

wood chips and other biomass to co-generation plants that generate renewable power for the state's electricity grid and reforesting firedamaged and brush-covered watershed lands.

Last year, PG&E began an initiative to help restore native aspen stands, working in partnership with the Aspen Delineation Institute, CalFire, the California Department of Fish and Game and other organizations. After conducting a targeted aspen inventory and management plan, PG&E initiated two restoration projects in the Sierra Nevada region—part of the Bucks and Lindsey timber harvests. At each site, PG&E manually and mechanically removed encroaching conifers from within and adjacent to aspen stands. To track the success of the restoration, PG&E initiated bird surveys and aspen tree counts, which will continue into the future. PG&E is also installing outdoor signage at both sites to highlight the importance of aspen for visitors.

PG&E also generated renewable energy from its timber harvest operations, sending more than 9,000 bone dry tons of wood chips to a biomass facility in 2008. To generate the "fuel," PG&E selectively harvested approximately 2,390 acres, removing overstocked trees, tree limbs and tops and eliminating competition for healthier stands of trees.

#### **Vegetation Management**

PG&E works every day to prune trees growing too close to power lines. Trees that conflict with our wires can cause fires, which can pose a risk to the public and lead to power outages. PG&E is required by law to keep the lines clear, and we perform this work while also



Research shows that aspen stands are capable of providing habitats for 55 mammal species and 135 bird species.

# Clarke Awards: Recognizing Employees for Environmental Leadership

G&E's Richard A. Clarke Environmental Leadership Award is an annual recognition opportunity that honors PG&E employees whose efforts demonstrate exceptional environmental leadership. In addition to recognizing the finalists in a ceremony with PG&E's senior executives, the company makes a financial contribution to an environmentally oriented non-profit organization selected by the award recipients.

Now in its seventh year, the competition showcases the breadth of PG&E's environmental commitment. In 2008, more than 100 employees were nominated for an individual or team award, representing initiatives as diverse as promoting solar education in underserved communities, leading green building efforts at PG&E's facilities and taking innovative steps to protect sensitive plants and animals on company property.

The 2008 awards went to an individual and a team of employees.





#### Kadi Whiteside, Protecting Natural Resources at Construction Sites

Kadi Whiteside, a senior environmental consultant at the Utility, led the development of new practices and techniques to protect water quality, plants and animals at construction sites. Her innovative practices, which are the first of their kind, include the use of reusable fencing for construction sites to prevent sediment from entering streams and waterways, the development of portable vehicle wash stations to prevent the spread of plant diseases and invasive weeds and the use of biological fencing to prevent sensitive species from entering construction sites. On her behalf, PG&E made a \$10,000 contribution to the California Oak Mortality Task Force, a group that brings together public agencies, other non-profit organizations and private interests to address issues related to sudden oak death.

#### Change a Light Campaign Team

This team was at the forefront of PG&E's fall 2007 campaign to encourage customers to buy and use compact fluorescent light bulbs (CFLs). The goal of the campaign was to distribute one million CFLs—the largest promotion of its kind by a U.S. utility. The campaign was a multidepartmental effort, involving more than 1,000 employee volunteers at more than 600 events across PG&E's service area. The campaign helped to potentially save more than 400,000 MWh of electricity—the equivalent of powering nearly 60,000 homes for a year. On the team's behalf, PG&E made a \$10,000 contribution to Californians Against Waste, a group dedicated to protecting California's environment through the development, promotion and implementation of waste reduction and recycling policies and programs.

Pictured in front row, left to right: Lauren Purnell, Vivian Leung, Joanne Panchana, Julie Cheng Bui, Mary Jung, Jenny Machado, Jennifer Lee and Marcela Fox; Back row, left to right: Nicole Yelich, Robert Nagata, Katie Romans, Sue Fisher, Keith Reed and Duane Larson. Not pictured: Rex Bell, Steve Cook, Roxanne Cruz, Winsey Kan, Travis Kiyota, Lynn Morrison and Gary Voorhees



PG&E actively promotes how to plant the "right tree in the right place"—reaching out to city agencies, homeowners and schoolchildren.

taking steps to protect water and air quality, as well as endangered species and habitats. This includes training all PG&E and contractor personnel on best practices when working in and around environmentally sensitive areas.

For example, PG&E is required under the federal Endangered Species Act to protect the Valley Elderberry Longhorn Beetle (VELB), which relies solely on elderberry shrubs for food, shelter and reproduction. These shrubs often grow within our natural gas and electric rights-of-way and need to be removed to maintain minimum distances between vegetation and high-voltage power lines, as required by law. PG&E's VELB Conservation Program navigates the potential conflict between public safety and wildlife conservation laws.

Last year, to compensate for impacts to beetle habitats elsewhere, we permanently protected approximately 220 acres of high-quality beetle habitat, working in partnership with the U.S. Fish and Wildlife Service, The Nature Conservancy and other organizations. PG&E protected 190 acres of existing riparian habitat along the Sacramento River and an additional 32 acres of agricultural land that will be restored to native habitat. Once restored, this land will become part of the Sacramento National Wildlife Refuge system.

Overall, PG&E removes or prunes approximately 1.5 million trees or brush each year on 133,000 miles of high-voltage overhead transmission and distribution lines to prevent trees from growing or falling into our power lines. Approximately 300 trained contractor utility arborists and foresters patrol every mile of line, which are then pruned by 1,500 Cal OSHA line clearance-qualified contractors.

## Water Conservation and Management

Water is a critical resource that helps power California. Approximately 19 percent of California's electricity use and 32 percent of the state's natural gas use (aside from what is consumed by power plants) is associated with water use.

Yet, according to the California Department of Water Resources, "climate change is already having a profound impact on water resources as evidenced by changes in snowpack, river flows and sea levels," and "adapting California's water management systems in response to climate change presents one of the most significant challenges of this century."

Recognizing the scope of this growing challenge, PG&E is taking steps to conserve and protect water in our facilities and operations by implementing a variety of water conservation activities and best practices for managing storm-water.

## Adopting Alternative Power Plant Cooling Systems

PG&E is implementing a variety of alternative cooling technologies in new conventional power plants to avoid the use of water. In 2008, PG&E completed the Gateway Generating Station, a 530 MW combined cycle natural gas-fired power plant. The plant, which was the first built by PG&E in nearly 20 years, uses "dry" cooling, which results in 97 percent less water and discharges 96 percent less wastewater than a traditional "wet" cooled plant.

PG&E is also using dry cooling at the company's new Colusa Generating Station, which broke ground in 2008. And PG&E is repowering its Humboldt Bay plant with a new generation facility that will eliminate the need for once-through cooling.

Most conventional power plants rely on water for steam production and cooling. Industry-wide, once-through or other "wet" cooling technologies use groundwater, municipal water or water from rivers and oceans to condense steam to water in the electricity generation process.

PG&E operates two power plants that use once-through cooling: Diablo Canyon and Humboldt Bay. Diablo Canyon is a



PG&E's new Gateway Generating Station in Contra Costa County uses "dry" cooling, which results in 97 percent less water and discharges 96 percent less wastewater than a traditional "wet" cooled plant.

2,240 MW nuclear power plant with a maximum discharge limit of 2.5 billion gallons per day. Humboldt Bay, a 105 MW, two-unit fossil fuel plant, has a maximum discharge limit of 76 million gallons per day. The water discharge limits are set in the facilities' environmental permits.

While the use of water in "once-through" cooling systems can adversely affect aquatic organisms, both PG&E plants that use this method operate under strict environmental discharge limits. In an effort to protect the surrounding aquatic ecosystem, PG&E closely monitors the marine environment by conducting regular studies and sampling required under the Clean Water Act.

As we assess additional sources of renewable and traditional power generation to meet customer demand, we continue to consider impacts to local water supplies as part of our review process in an effort to minimize such impacts.

#### Water Conservation in Our Facilities

To reduce our water footprint, PG&E completed a targeted water conservation effort at seven high-use facilities last year—exceeding our target by achieving a 5.5 percent reduction in gallons per square foot over the prior year, saving approximately 1.7 million gallons.

Working in partnership with local water agencies, we began by conducting water audits to assess opportunities for both indoor and outdoor water savings. Key strategies included installing low-flow toilets, shower heads and faucet aerators at the sites. We also installed "smart" controllers for irrigation systems at three sites to further reduce water use. Additionally, we replaced the water treatment system for a cooling tower at a site in Oakland, which we expect will save approximately 60,000 gallons of water each year, as well as avoided chemical use and maintenance.

In 2009, our goal is to expand the program to reduce water use by 5 percent across a substantial number of facilities managed by our corporate real estate department.

#### Helping Our Customers Reduce Water Usage

PG&E is also offering our customers incentives to help make the connection between water and energy savings. For example, for years, customers who purchased energy- and water-saving clothes washers were often eligible for double rewards—rebates from both PG&E and their local water agency—but at double the work; both entities had different rebate application processes.

Last year, that changed when PG&E collaborated with 33 water agencies to develop a combined water-energy rebate for customers. The combined rebate allows PG&E and the water agencies to maximize energy and water savings by providing customers with a clear and convenient incentive to upgrade to an energy-efficient model. In 2008, PG&E saw a 50 percent increase in customer participation.

PG&E is also partnering with local water districts to help customers save water in other ways. Last year, we laid the groundwork for a series of water-saving pilot projects that will run through mid-2009—ranging from installing high-efficiency toilets for low-income customers to exploring how new and emerging technologies can yield water savings at water utilities. The pilot program aims to reduce "embedded" energy, which refers to the energy used to transport, treat and distribute water and wastewater.

## Reducing Storm Water Run-Off and Protecting Species

Controlling storm water pollution associated with our operations is an important requirement—protecting sensitive species such as the California red-legged frog and the California tiger salamander during construction activities. Until recently, PG&E used only traditional methods, such as black silt fencing or placing tubular rolls of straw on slopes and around site perimeters and storm drain inlets.

To meet our compliance obligations in a more sustainable way, PG&E now uses an innovative reusable and recyclable fencing, which improves safety and retains twice the sediment at half the cost. To protect the



PG&E designed a portable wash station to save water and reduce the risk of vehicles spreading sudden oak death and noxious weeds.

spread of diseases among amphibians, PG&E has also implemented a protocol for cleaning the fencing prior to being reused. Last year, we successfully used this fencing on five projects, including a new wind farm constructed in Solano County.

PG&E is also coupling our storm-water best management practices with efforts to battle the spread of sudden oak death and noxious weeds, which threaten native plants and the habitats they provide. In 2008, we continued to use portable, closed-loop wash stations to clean vehicles and equipment on projects that traversed through sensitive areas.

## Innovative Transportation Solutions and Technologies

For nearly two decades, PG&E has actively worked to advance cleaner, more efficient transportation technologies for our customers. We have also demonstrated leadership with our own fleet, pioneering the use of alternative fuels in an effort to reduce greenhouse gas and criteria emissions, our dependency on petroleum-based fuels and operating costs.

### Anticipating Broader Use of Electric Vehicles

While no one fuel or technology is the answer to our fuel dependency and climate challenges, PG&E views battery electric (BEV) and plug-in hybrid electric vehicles (PHEV) as a practical and dynamic solution.

PG&E is actively exploring the promise of vehicle electrification through a concentrated effort. Key areas of focus include analyzing the potential impacts to the electric grid from a wider adoption of electric drive vehicles, cost comparisons with traditional gas-powered vehicles and the potential for greenhouse gas emission reductions.

Currently, we are testing new and emerging vehicles in our own fleet. In 2008, we added four electric drive vehicles to our fleet—a Ford Escape PHEV, Scion e-box BEV, Mitsubishi i-Miev and our second Toyota Prius PHEV. PG&E was also one of 14 fleets in the nation to assess a hybrid diesel-electric bucket truck, which we have shown can cut fuel consumption by 30 to 60 percent and potentially save \$5,000 a year in fuel costs.



PG&E is testing Mitsubishi's i-Miev, a dedicated electric vehicle.

The combined use of natural gas in PG&E's vehicle fleet, along with more than 300 customer fleets, avoided the use of more than 16.9 million gallons of petroleum in 2008, which equals the avoidance of approximately 815 tons of  $NO_X$ , 63 tons of particulate matter and approximately 61,900 tons of  $CO_2$  on a well-to-wheel basis.

#### Clean Air Transportation Program (Customer Fleets)\*

	2006	2007	2008
Compressed Natural Gas Therms Used (x1,000)	21,155.3	21,133.8	21,314.2
Avoided NO <sub>X</sub> Emissions (tons)	768	768	777
Avoided PM Emissions (tons)	60	60	60
Avoided CO <sub>2</sub> Emissions (tons)	57,857	57,798	58,931
Equivalent Petroleum Gallons Displaced (x1,000)	15,883	15,867	16,139

#### Clean Air Transportation (PG&E's Fleet)\*

	2006	2007	2008
Compressed Natural Gas Therms Used (x1,000)	637	868.8	1,019.8
Avoided NO <sub>X</sub> Emissions (tons)	23	32	38
Avoided PM Emissions (tons)	1.6	2.8	2.9
Avoided CO <sub>2</sub> Emissions (tons)	1,859	2,536	2,977
Equivalent Petroleum Gallons Displaced (x1,000)	503	686	806

<sup>\*</sup> These figures represent a full "well-to-wheel" analysis, which takes into account energy use and emissions at every stage of the process, from the moment the fuel is produced at the well to the moment the wheels are moved. Estimates compare the avoided emissions from PG&E's CNG vehicles with petroleum usage based on the methodology outlined in Full Fuel Cycle Assessment (CEC-600-2007-003, June 2007), which uses the Argonne National Laboratory's GREET emission model modified to California inputs.

#### Transportation Fuel Consumed by Pacific Gas and Electric Company

	2006	2007	2008
Petroleum Consumed by PG&E fleet (gallons) <sup>1</sup>	10,886,311	10,230,254	10,667,611
Biodiesel Consumed by PG&E fleet (gallons)	0	220,490	264,170

 $<sup>1\ \</sup>mathsf{Updated}\ \mathsf{figures}\ \mathsf{from}\ \mathsf{2007}\ \mathsf{Corporate}\ \mathsf{Responsibility}\ \mathsf{Report}\ \mathsf{capture}\ \mathsf{additional}\ \mathsf{fuel}\ \mathsf{quantities}.$ 

Through field tests of these vehicles, we are helping to demonstrate the increased efficiency of electric vehicles. We are also helping to understand the impact on the grid of charging electric vehicles—and the need for a robust "smart charging" infrastructure to enable vehicles to recharge batteries automatically when ample electric supply is available. Doing so will help ensure that as more electric vehicles are commercially introduced, we ensure effective integration with the grid.

To support the development of a smart charging infrastructure, PG&E is actively engaged with the Electric Power Research Institute and the Society of Automotive Engineers to develop and revise both the important codes and standards related to charging of electric vehicles and the protocols needed to allow electric vehicles to communicate with the grid.

#### **Improving Our Own Fleet**

PG&E owns and operates the nation's largest natural gas vehicle utility fleet with 1,110 compressed natural gas (CNG) passenger cars, pickups, vans and trucks. We were also the first utility in the nation to add five Class 8 heavy-duty liquefied natural gas (LNG) trucks to our fleet, each of which reduces emissions by 15 to 20 percent, compared to equivalent diesel engines.

Additionally, we are currently testing a first-of-its-kind PHEV bucket truck and are helping to develop the first all-electric bucket truck. We also plan to test and deploy multiple hybrid technology designs in our bucket trucks and add a minimum of 15 dedicated electric vehicles for initial use at our power plants. And, finally, we are working with several major auto manufacturers to incorporate light-duty hybrid work trucks into our fleet.

## Helping Customers Adopt and Use Alternative Fuels

PG&E has been a utility leader in clean air transportation infrastructure and customer support, helping more than 300 customers incorporate alternative fuel technologies into their fleet over the years. In 2008, we grew our CNG refueling infrastructure—available to customers and PG&E vehicles alike—and we continued to respond to customer requests for technical assistance with CNG fleets.

As part of PG&E's strategic focus on developing the connection between vehicles and the electric grid, however, we shifted resources from CNG to electric vehicle strategies last year. In light of the opportunity for PG&E to help shape the future of an electric fuel source for our customers' cars, we believe the focus of our resources must be on this emerging area.

PG&E's network of natural gas fueling stations includes 39 CNG and 2 LNG stations, most of which are open to the public. This includes a new CNG station in Los Banos, servicing vehicles along a critical stretch of highway that passes through an extreme air quality noncompliance air basin of the San Joaquin Valley.

PG&E also used its expertise to help airport authorities take advantage of alternative fuel vehicles. We helped San Jose International Airport begin conversion of its shuttle bus fleet to CNG in 2007. Just one year later, the airport shuttle fleet became 100 percent CNG—serving all long-term parking and rental car service at one of California's fastest-growing airports. Additionally, AT&T added 25 CNG vans to its commercial fleet with assistance and training from PG&E.

#### Energy Consumed by Pacific Gas and Electric Company\*

	2006	2007	2008
Electricity Consumed (GWh)	84	991	106
Natural Gas Consumed (MMcf)	153	142	152
Energy Intensity (MBTU per square foot) <sup>2</sup>	66	72	72

<sup>\*</sup> These figures represent electricity and natural gas usage at the 175 facilities managed by Pacific Gas and Electric Company's Corporate Real Estate department.

 $<sup>^{</sup>m 1}$  Updated figure from 2007 Corporate Responsibility Report.

<sup>&</sup>lt;sup>2</sup> Figures reported in the industry standard of BTU per square foot, which incorporates all of the energy used in a facility into one comparative number that takes into account efficiency variations in the utilization of the energy.

#### **Our Buildings and Facilities**

There are many drivers for making buildings "green," from the growing need to address global warming and water scarcity to the employee benefits of working in a high-quality office environment. Recognizing this opportunity, PG&E continues to apply sustainability practices at its offices throughout northern and central California, implementing energy efficiency, water conservation, recycling and green cleaning plans to help reduce the company's environmental footprint.

There were numerous highlights in 2008:

- We conducted a major lighting retrofit to reduce energy use at 32 different sites, which we expect will save 2.8 million kWh per year. We also completed numerous facility-specific improvements to save energy, including installing electronic thermostats and lighting controls at 60 sites. Because of the late-year timing of the facility upgrades, we did not meet our 2 percent energy reduction target for the year. However, looking ahead, we set a more aggressive target to reduce energy usage by 5 percent in 2009.
- We completed a targeted water conservation effort at seven high-use facilities, working in partnership with local water agencies. We exceeded our target by achieving a 5.5 percent reduction in gallons per square foot over the prior year, saving approximately 1.7 million gallons. In 2009, we are expanding the program with a 5 percent reduction target across more than 70 offices and service yards.
- We registered four new buildings and large remodel projects for LEED™ certification, including a newly leased, 135,000-square-foot office building in San Ramon. Among other features, the retrofitted building now uses 33 percent less energy and 10 percent less water, and achieves improved air quality through the use of furnishings, materials and cleaning measures that do not emit harmful gases.
- We continued to make all of our buildings carbon neutral through enrollment in PG&E's ClimateSmart™ program. PG&E was the program's first participant by committing approximately \$1.5 million of shareholder funding over three years to offset the energy use in the company's offices, service centers, maintenance facilities and other company buildings.

#### **IT Energy Savings**

PG&E is implementing innovative measures to improve energy efficiency in our IT services function through new technologies and power-saving techniques. In 2008, our data center operations reduced energy consumption by 120 kW.

PG&E achieved these results through a variety of steps, including server virtualization, which consolidates IT workloads and uses less equipment and energy. We also shut down unused equipment and replaced inefficient power supply systems, installed variable speed drives and implemented new tape storage systems that require dramatically less power and cooling. We will continue our efforts in 2009 by replacing additional systems and continuing to virtualize our servers.

PG&E is also taking steps to purchase only Electronic Product Environmental Assessment Tool (EPEAT) Gold- or Silver-level laptops, desktop computers and monitors—products that have demonstrated reduced environmental impacts. PG&E's goal is to be 90 percent Gold or Silver EPEAT-compliant for these items by the end of 2009.

#### **Waste Minimization**

In the normal course of business, our operations generate certain hazardous wastes. Waste is also created during the remediation and cleanup of historic legacy sites. All such material is managed and minimized in accordance with federal and state regulations.

Federal hazardous waste management statutes include the Resource Conservation and Recovery Act and the Toxic Substances Control Act. California has its own set of hazardous waste management laws and regulations that are more stringent and encompass a broader scope of waste streams.

PG&E also strives to minimize and recycle non-hazardous waste, such as glass, paper, and certain metals.

Examples of waste reduction efforts in 2008 include the following:

 We recycled or reused our "e-waste," including approximately 4,530 CPUs, 4,250 monitors, 380 servers, 160 printers and 450 copiers, fax machines and scanners.

## **Greening Our Supply Chain**



PG&E presented its first Green Supplier of the Year Award to Southwire Company, a major wire and cable manufacturer. Southwire demonstrated exemplary green business practices by reducing waste sent to the landfill by 27 percent, converting 31 percent of its fleet to hybrid vehicles and completing 95 percent of its goal to eliminate lead additives from all products by 2010.

G&E understands the importance of creating partnerships and collaborating with our suppliers to integrate sustainability more fully into our supply chain. That is why PG&E continued to pilot its Green Supply Chain Program and also founded the Electric Utility Industry Sustainable Supply Chain Alliance with nine other utilities in 2008.

More than 30 suppliers have voluntarily engaged in PG&E's Green Supply Chain Program—implementing a variety of innovative projects not only to reduce the environmental impact of their operations but also to generate bottom-line dollar savings.

For example, PG&E sponsored Southern States, a minority-owned switch manufacturer based in Hampton, Georgia, to complete the U.S. EPA Green Suppliers Network's "lean and clean" manufacturing review. Southern States is implementing recommendations expected to save approximately \$170,000 annually through lighting retrofits, boiler replacements and other energy-saving measures.

By teaming with other large investor-owned electric utilities, our work with the Electric Utility Industry Sustainable Supply Chain Alliance is breaking new ground. For example, we are leading a team focused on developing recommendations to reduce the environmental impacts of utility wood poles.

PG&E continues to drive change and increase awareness about the benefits of a sustainable supply chain among our suppliers and employees. In 2008, more than 15 percent of PG&E's requests for proposals for procuring materials or services included sustainable evaluation criteria to help guide our selection of suppliers. We also established an interdepartmental team of "Green Champions" to work collaboratively with suppliers to help reduce their carbon footprint and improve environmental performance.

Last year, we also launched a "Think Before You Print" campaign to encourage employees to save energy and paper. Key components of the campaign included implementing double-sided printing and increasing our use of shared network printers. As a result, we expect to save approximately 40 tons of paper in 2009. And PG&E began the systematic use of retread tires in our medium- and heavy-duty vehicles, which will avoid more than 20 gallons of oil per tire produced.

Moving forward, PG&E's green supply chain efforts will continue to reinforce our collaborative commitment to environmental leadership and make a positive impact across our industry.

#### **Our Environment**



We continued recycling material from the demolition of PG&E's Hunters Point Power Plant in San Francisco. In 2008, approximately 99.6 percent of the materials removed from the plant were recycled—9,831 tons of metals, 23,092 tons of concrete, 138 tons of gunite material from the stacks and 232 tons of debris.

- We recycled or reused more than 35 million pounds of scrap iron, aluminum and copper from conductors, meters and miscellaneous infrastructure from our waste stream. We also recycled more than 81,500 pounds of plastic piping, as well as used hard hats.
- We avoided more than 330 tons of paper through 13 million paperless e-Bill transactions for customer energy bills.
- We also earned recognition from the Department of Toxic Substances Control's California Take-It-Back program for helping to raise public awareness about the need to recycle used compact fluorescent light bulbs and tube fluorescents. Because these lamps contain small amounts of

mercury, they cannot be disposed of in the trash. We also initiated several new partnerships with local governments to increase public awareness and fund lamp recycling materials, such as drop-off containers. Designed in 2008, the partnerships will be fully implemented in 2009.

#### Taking Responsibility for Our Historic Impacts

PG&E's expanded environmental leadership goals continue to influence all facets of company operations, including our commitment to thoroughly evaluating sites throughout our service area that may have been impacted by our historical utility operations.

In 2008, PG&E had a portfolio of 117 environmental remediation projects in various phases of completion, from decommissioning and demolition of a power plant in San Francisco to much smaller projects in the long-term monitoring phase. This total includes seven former manufactured gas plant (MGP) sites added last year. Working closely with state and local regulatory and environmental health agencies, a project management team is leading an effort to investigate and clean up old MGP sites that were either owned or operated by PG&E or, in some cases, a predecessor company.

From the early 1800s to the mid-1900s, utility companies nationwide operated MGPs to convert coal and oil into gas for lighting, heating and cooking before natural gas became available. Though MGPs elevated the standard of living for their time, they were not without drawbacks. The gas-making process

We continued to achieve environmental benefits and cost savings by receiving a growing portion of our primary underground electrical cables on returnable steel reels versus one-time-use wooden reels. Since we began this effort in 1998. PG&E has received shipments of more than 11,500 reusable steel reels, avoiding the use of more than 7.5 million pounds of wood. PG&E has also saved more than \$3.8 million in avoided purchasing and material handling costs, and the savings continue to grow.



produced by-products and, consistent with standard practices of the time, some of these byproducts were buried onsite.

Decades after operations ceased, PG&E is working to investigate these sites and determine whether it is best for people and the environment to remove these byproducts if they can be removed safely and responsibly. If they cannot be removed, other remedies may be employed to ensure materials are kept safely away from people, air and water.

Our ongoing effort to address historic MGP sites has a potential to disrupt the day-to-day activities of our customers where these sites are located, some of which are in low-income and minority communities. In 2008, the company developed a set of communications resources to share project details with the community and respond to questions and concerns. The project management team also reviews investigation and construction plans with a focus to mitigate potential inconveniences to residents and businesses in the vicinity of MGP project sites.

One example is PG&E's Watsonville Service Center, where, in the fall of 2008, crews removed approximately 23,000 tons of soil impacted from historical utility operations, including a steam generation facility and an MGP. Prior to starting the work, PG&E spent many months working with state environmental authorities, city and county staff and the surrounding community to reduce impacts to the community, including leasing a three-acre lot to reroute trucks to avoid the residential neighborhood, varying work hours to meet the needs of nearby residents and businesses, daily street sweeping and maintaining the highest standard of housekeeping practices on- and off-site. These measures went above and beyond the full health and safety plan developed for the project under the oversight of the state, which included extensive air monitoring and dust-control measures.

PG&E project representatives also worked with state officials to hold public meetings and went door to door before, during and after construction activities to maintain an open dialogue with those community members

#### PG&E's Topock Compressor Station

PG&E's Topock Compressor Station is located in San Bernardino County, about a half mile from the Colorado River. Consistent with industry practice at the time, hexavalent chromium was used at Topock in the cooling towers in the 1950s and 1960s to prevent corrosion. Beginning in 1951 until 1964, untreated wastewater from the cooling towers was discharged into a nearby dry wash. Over time, the discharged hexavalent chromium reached and contaminated the groundwater aguifer. PG&E is characterizing the magnitude and extent of contamination through an extensive groundwater monitoring network. Additionally, PG&E's monitoring program continues to show no presence of hexavalent chromium in the Colorado River.

PG&E has been monitoring the ground-water plume for several years and has been working cooperatively with state and federal regulators and other interested parties to evaluate and remedy this groundwater contamination. In early March 2004, state regulators required PG&E to begin operating a groundwater extraction system as an

interim protective measure to ensure that the chromium plume is hydraulically controlled so it does not reach the Colorado River. In July 2004, PG&E initiated treatment of the hazardous groundwater prior to off-site disposal, and, subsequently, expanded the groundwater extraction and treatment system. That expansion was completed in July 2005 and includes a treatment plant, which cleans the extracted groundwater so it can be reinjected into the groundwater aquifer.

PG&E also continues to work with state and federal regulators to complete the characterization of groundwater and soils at the site. In 2008, a major study of site soils was undertaken, focusing on sites of historic industrial activity. In addition, both the federal and state regulatory agencies have approved PG&E's comprehensive groundwater characterization report. This report provides the results of years of extensive groundwater investigations at the site, and it serves as the basis for identifying which constituents will need to be addressed as final cleanup plans are proposed for this site.

PG&E has submitted a draft Corrective Measures Study/Feasibility Study for a final remedy to clean up chromium in groundwater at Topock. This study evaluated several technologies, arranged in a series of alternative remedies, to address chromium. Each of the alternatives was evaluated using federal and California criteria for remedy selection, and PG&E proposed a preferred alternative based on that evaluation. A formal comment period is under way, during which interested project stakeholders will provide their views on the alternative evaluation and PG&E's selection of a preferred alternative. A final decision on selection of the groundwater remedy is scheduled to occur in the first quarter of 2010.

We continue to work closely with the local Fort Mojave Indian Tribe. In addition, PG&E has entered into agreements with the Colorado River Indian Tribes and the Hualapai Tribe that provide for reimbursement of certain costs incurred by the tribes in connection with the Topock cleanup. Consistent with our environmental justice policy, these agreements will help ensure that these tribes have the ability to meaningfully participate in the remedy-development process.

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who had the greatest potential for inconvenience or health and safety concerns related to our construction work.

In 2009, the project management team is focused on refining its site review process and formalizing the opportunity for customers to report back on our efforts to minimize construction impacts, as well as the ease of communicating with us and our responsiveness to their concerns. This commitment to taking responsibility for our operations, and in so doing, working collaboratively with our neighbors and surrounding communities, demonstrates our commitment to PG&E's environmental justice policy.

## Our Environmental Compliance Performance

The bedrock of PG&E's commitment to environmental leadership is our policy to comply with applicable environmental requirements. Our environmental policies, management systems, review processes and programs are designed to promote compliance with environmental requirements, as well as to provide a platform from which we can take our performance beyond the legal and regulatory baselines.

#### **Environmental Management System**

During 2008, we continued to evaluate our Environmental Management System (EMS) and identify opportunities for continued performance improvement. As illustrated below, the EMS is consistent with international standards (ISO 14001) and employs

the widely adopted "Plan, Do, Check, Act" model for continuous improvement, which includes the elements of policy development/planning, implementation and operation, checking and corrective action and management review to evaluate performance.

#### **Planning**

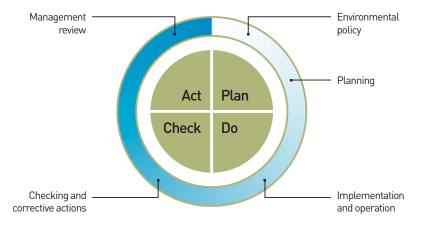
During 2008, we continued to identify compliance improvements and prioritize our compliance efforts. To more fully integrate environmental responsibilities into work department practices, PG&E issued a utility standard practice describing the company's EMS and defining environmental compliance roles and responsibilities. Recognizing the need to manage resources efficiently and effectively, we continued to use risk assessment tools, such as Lean Six Sigma's Failure Modes and Effects Analysis, to ensure that we are addressing our activities that may have an environmental impact.

#### **Implementation and Operation**

To ensure compliance obligations are met in a timely and effective fashion, during 2008, we further documented environmental compliance roles and responsibilities at our facilities and within various business functions through procedures, guidelines and service-level agreements.

Training is a key element of a successful compliance program. During 2008, PG&E trained more than 14,000 employees on various environmental compliance responsibilities, including air quality, habitat and species

#### PG&E's Environmental Management System General Requirements, Structure and Responsibility



To measure progress toward PG&E's goal of environmental leadership, we developed an "environmental leadership index" comprising enterprise-wide factors that cover both compliance and "beyond compliance," including sustainable buildings and operations, risk management and the company's reputation. PG&E's senior management reviews the index results on a quarterly basis, allowing for timely and meaningful management of our environmental performance.

protection, oil spill prevention and cleanup and hazardous materials/waste management. Additionally, we developed a training program outlining our environmental policy to reinforce every employee's obligation to improve PG&E's commitment to environmental leadership. This new training is being rolled out in 2009.

#### **Checking and Corrective Actions**

PG&E measures its environmental compliance performance through indicators such as an Environmental Scorecard; internal assessments, reviews and audits; environmental agency findings; and individual program metrics. During 2008, we continued to improve our corrective action process by performing root-cause analyses on non-compliance issues identified through environmental agency inspections, and tracking detailed corrective action plans to resolution. A greater emphasis on the system-wide implications of non-compliance will lead to a reduction of non-compliance items over time.

## Management Review and 2009 Priorities

The environmental team meets quarterly with our executive team to review progress and an annual environmental compliance summary is presented to the Public Policy Committee of PG&E Corporation's Board of Directors. These governance processes ensure that we remain focused on high priority work.

Our priority in 2009 is focused implementation of our environmental management program to drive towards compliance. Our key focus areas include partnering with operations and integrating operational controls, continuing to improve our risk assessment process, strengthening our environmental management plans and streamlining our permitting processes in support of PG&E's reliability and renewable energy projects.

#### **Auditing Our Performance**

One of the pillars of PG&E's environmental policy is that we develop and implement a risk-based audit plan to ensure periodic independent review of our environmental performance. In 2008, we realigned our auditing function to increase focus on systemic or programmatic issues, developed a new, updated risk-based protocol for our individual facility assessments and began to more effectively assess compliance at our project construction sites.

Environmental auditing performed by the Internal Auditing Department uses controlsbased audits to analyze the effectiveness of the Utility's environmental compliance management systems. More formal facility-level audits are either comprehensive or focused on a single media area and are performed by the Compliance Risk Management department. Assessments are performed by our site personnel and typically focus on a small media area or are used to assess system-wide compliance in an area of non-compliance concern. During 2008, we performed a total of two management system audits, 11 formal facility level audits and 459 assessments. We continue to evaluate the environmental audit realignment and look for ways to further improve our auditing function.

#### **Operational Performance**

As part of PG&E's environmental policy and EMS, we track and report annual environmental performance across a broad spectrum of areas. This section details our performance results for 2008.

#### Reported Releases and Permit Exceedances

The Utility reported to various government agencies a total of 280 releases and 6 permit exceedances in 2008. A release is defined as an unintentional discharge of a regulated substance that meets a reporting threshold and an exceedance is defined as a discharge in excess of what is allowed by permit. PG&E reports releases that not only meet the regulatory thresholds but also fall below those thresholds.

Two air quality permit exceedances were reported to local air districts for opacity exceedances. Four water quality permit exceedances were reported to regional water quality control boards, including two of an

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oil and grease limit, one of a residual chlorine limit and one of a total suspended solids limit.

The number of releases and exceedances in 2008 was a 26 percent increase from 2007, due primarily to an increase in weather-related releases caused by significant winter storms in early 2008. We have detailed emergency response procedures for both our facilities and our distribution equipment and our crews and outside contractors respond to spills and releases no matter how small. We remediate such incidents in accordance with applicable laws and regulations. Ninety-two percent of the releases in 2008 involved small amounts of mineral oil used in transformers or other petroleum-based substances and approximately 45 percent were either weather-related equipment damage or caused by third parties.

#### **Agency Inspections**

Government agencies conducted 590 routine inspections of PG&E's facilities in 2008, up from 530 inspections in 2007. Local jurisdictional fire and environmental health departments performed the majority of inspections with most inspections related to hazardous material, hazardous waste and water quality requirements at our facilities.

#### **Enforcement Actions—Notices of Violation**

The Utility received a total of 12 notices of violation (NOVs) from government agencies during 2008, a decrease from 14 in 2007. The rate of NOVs per 100 agency inspections in 2008 decreased, as well. There were 2.03 NOVs per 100 agency inspections in 2008, compared with a three-year average of 1.98. Of the NOVs received in 2008, six involved air quality regulations. Three of the six involved requirements for vehicle-fueling facilities and the others involved a failure of a source test for a thermal oxidizer at a natural gas transmission facility, inadequate emissions controls on an emergency

generator and a public nuisance caused by a seal failure of a natural gas odorant pump.

Three NOVs involved water quality regulations. Two of these involved compliance with drinking water requirements including late submittal of a sampling schedule and a nitrate exceedance during a sampling event at a facility while in the process of obtaining a permit. The third water quality NOV was issued for previously reported permit exceedances at our Shell Pond remediation site. Two NOVs were issued for hazardous material/waste regulation—one for lack of an audible alarm on an aboveground storage tank and one for failure to obtain a local hazardous material permit. The one remaining NOV was issued for vegetation removal without prior authorization from the California Department of Fish and Game, a violation of habitat/species regulations.

As discussed earlier, we are using our root-cause analysis of these NOVs to improve our overall compliance performance by implementing corrective actions to prevent reoccurrence.

#### 2008 Enforcement Penalties and Settlements

In 2008, the Utility received five NOVs resulting in monetary penalties, and we paid penalties or settlements on two 2007 enforcement actions. The total penalty and settlement payments made in 2008 were \$119,625. Specifically, we paid \$75,320 to resolve a 2007 enforcement action initiated by Solano County regarding various underground tank monitoring and recordkeeping requirements. We also paid \$600 for an air quality NOV received in 2007. For 2008, we paid \$36,000 for previously reported discharge permit exceedances at our Shell Pond remediation site, \$5,280 for a failed source test, \$1,800 for improperly vented engine, \$525 for a crack in a fuel island hose and \$100 for a fueling dispensing system violation.

#### **Compliance Data**

	2006	2007	2008
Notices of Violation (NOVs)	8	14	12
Rate of NOVs (per 100 inspections)	1.55	2.64	2.03
Releases/Exceedances	324	227	286
Penalties Paid	\$6,800	\$222,450	\$119,625
Agency Inspections	517	530	590
Formal Audits Performed	59	62	11
Compliance Assessments Performed	1,868	1,034	459

#### 2008 Environmental Awards

#### Acterra

Business Environmental Award: Environmental and Sustainability Education

### Association of Energy Services Professionals

Outstanding Achievement in Program Innovation

#### Audubon California

Corporate Achievement Award

#### California Department of Toxic Substances Control

California Take-It-Back 2008 Volunteer Steward



#### California Integrated Waste Management Board

2008 Waste Reduction Award Program (WRAP)

#### Corporate Responsibility Officer Magazine

Rank of 10th Overall in Annual List

#### John Muir Conservation Award

**Business Conservation Award** 

#### **National Arbor Day Foundation**

Tree Line USA Award

#### Planning and Conservation League

Environmental Business of the Year



#### **PR News**

Overall Leader in Corporate Social Responsibility Practices

#### San Francisco Business Times

Green Business Award

#### **Solar Power Electric Association**

2008 Solar Portfolio Leadership Award

#### U.S. Environmental Protection Agency

Partner of the Year: ENERGY STAR® Excellence in Energy Efficiency Program Delivery and Excellence in ENERGY STAR Promotion Award



## Additional Environmental Performance Indicators (2006-2008)†

#### Emissions Statistics (for Utility-retained generation only)<sup>1</sup>

(Please see page 67 for additional statistics on the greenhouse gas emissions associated with PG&E's delivered electricity.)

	2006	2007	2008
Total NO <sub>X</sub> Emissions (tons)	982	1,123	1,163
Hunters Point <sup>2</sup>	39	N/A	N/A
Humboldt Bay	943	1,123	1,163
NO <sub>X</sub> Emissions Rates (lbs/MWh)			
Hunters Point	0.38	N/A	N/A
Humboldt Bay	4.08	4.65	4.26
Fossil Plants	2.94	4.65	4.26
All Plants	0.06	0.08	0.09
Total SO <sub>2</sub> Emissions (tons)	66	43	27
Hunters Point	1	N/A	N/A
Humboldt Bay	65	43	27
SO <sub>2</sub> Emissions Rates (lbs/MWh)			
Hunters Point	0.01	N/A	N/A
Humboldt Bay	0.28	0.18	0.10
Fossil Plants	0.2000	0.1781	0.0980
All Plants	0.00388	0.0031	0.0021
Total CO <sub>2</sub> Emissions (tons)	465,163	379,196	406,990
Hunters Point	122,838	N/A	N/A
Humboldt Bay	342,325	379,196	406,990
CO <sub>2</sub> Emissions Rates (lbs/MWh)			
Hunters Point	1,348	N/A	N/A
Humboldt Bay	1,550	1,570	1,566
Fossil Plants	1,491	1,570	1,566
All Plants	28	28	32
Other Emissions Statistics			
SF <sub>6</sub> Emissions	2006	2007	2008
Total SF <sub>6</sub> Emissions (pounds)	5,539	3,928	5,938
Total SF <sub>6</sub> Emissions (tons CO <sub>2</sub> -equivalent)	66,191	46,940	70,959
SF₀ Emissions Leak Rate	1.9%	1.3%	1.9%
Methane Emissions			
Total Methane Emissions (tons)	98,877	53,342	N/A³

 $<sup>^\</sup>dagger\,\text{PG\&E}\,\text{does}\,\text{not}\,\text{trigger}\,\text{threshold}\,\text{reporting}\,\text{levels}\,\text{for}\,\text{those}\,\text{substances}\,\text{reported}\,\text{under}\,\text{the}\,\text{Toxic}\,\text{Release}\,\text{Inventory}.$ 

<sup>1</sup> PG&E's Utility-retained generation comprised approximately 30 percent of our delivered electricity in 2008. For comparison to national average emission rates, see page 63 and 67.

<sup>&</sup>lt;sup>2</sup> PG&E's Hunters Point Power Plant ceased operations on May 15, 2006.

 $<sup>\</sup>ensuremath{^{3}}$  Data not available at the time of this report's publication.

#### **Hazardous and Non-Hazardous Waste**

	2006	2007	2008
PCB Waste >50 ppm PCB			
Total (kilograms)	832,377	730,357	485,699
Incineration	267,710	198,375	181,167
Landfill	334,857	63,863	141,814
Recycled	229,810	468,119	162,718
% Recycled	27%	64%	34%
PCB Waste <50 ppm PCB			
Total (kilograms)	7,154,148	6,137,388	6,683,757
Incineration	354,555	66,613	38,654
Landfill	547,095	28,417	43,238
Recycled	6,252,498	6,042,358	6,601,865
% Recycled	87%	98%	99%
Low-Level Radioactive Waste			
Diablo Canyon			
Disposed (cubic feet)	1,159	1,066	1,320
Steel Recycled (pounds)	10,318	33,346	45,057
Lead Recycled (pounds)	1,716	4,826	0
Humboldt Bay Power Plant (cubic feet)	N/A¹	15,994	2,397
RCRA Hazardous Waste (Generated)			
Total (tons)	7,836	305	952
Recycled (tons)	23	0	0
% Recycled	<1%	0%	0%
Universal Waste (Generated)			
Total (pounds)	233,429	253,928	250,688
Recycled (pounds)	233,429	253,928	250,688
% Recycled	100%	100%	100%
$\label{low-level} 1 \ Low-level \ radioactive \ waste \ was \ generated, but \ stored \ on \ site.$			
Federal and California Regulated Hazardous Waste			
	2006	2007	2008
Federal (tons)	8,752	803	952
California (tons)	9,450	11,080	17,747
Total	18,202	11,883	18,699



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