



PROJECT
EARTH



2001 CERES Report

PPL Corporation

PPL Environmental Policy

PPL generates and delivers energy and provides energy-related services to millions of customers worldwide. PPL's Environmental Policy provides the framework for the company's commitment to conduct its business in an environmentally responsible manner.

Personal Responsibility

Living up to our environmental policy is everyone's responsibility.

Compliance

We will meet or exceed all applicable environmental laws and regulations.

Continual Improvement

We will monitor and assess our environmental performance, and set measurable targets that result in continual improvement.

Innovation

We will take creative and proactive approaches in carrying out our environmental policy.

Stewardship

Our corporate culture promotes conservation of natural resources, pollution reduction and protection of the environment.

Resource Commitment

We will provide the human and financial resources necessary to carry out our environmental policy.

Communication

We will openly communicate our environmental values, actions, performance and policy and listen to the concerns of our stakeholders. We will provide environmental education opportunities to our employees, customers and public.



President, Chairman and CEO
PPL Corporation

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Executive Summary

This is PPL Corporation's fifth CERES Report since endorsing the CERES Principles in April 1997. Since that time, PPL has grown from a regional electric utility company into a diverse energy company with holdings in electricity delivery and sales, electricity generation, natural gas, and worldwide power and energy services (See Figure 1 for 2001 Corporate Organizational Chart).

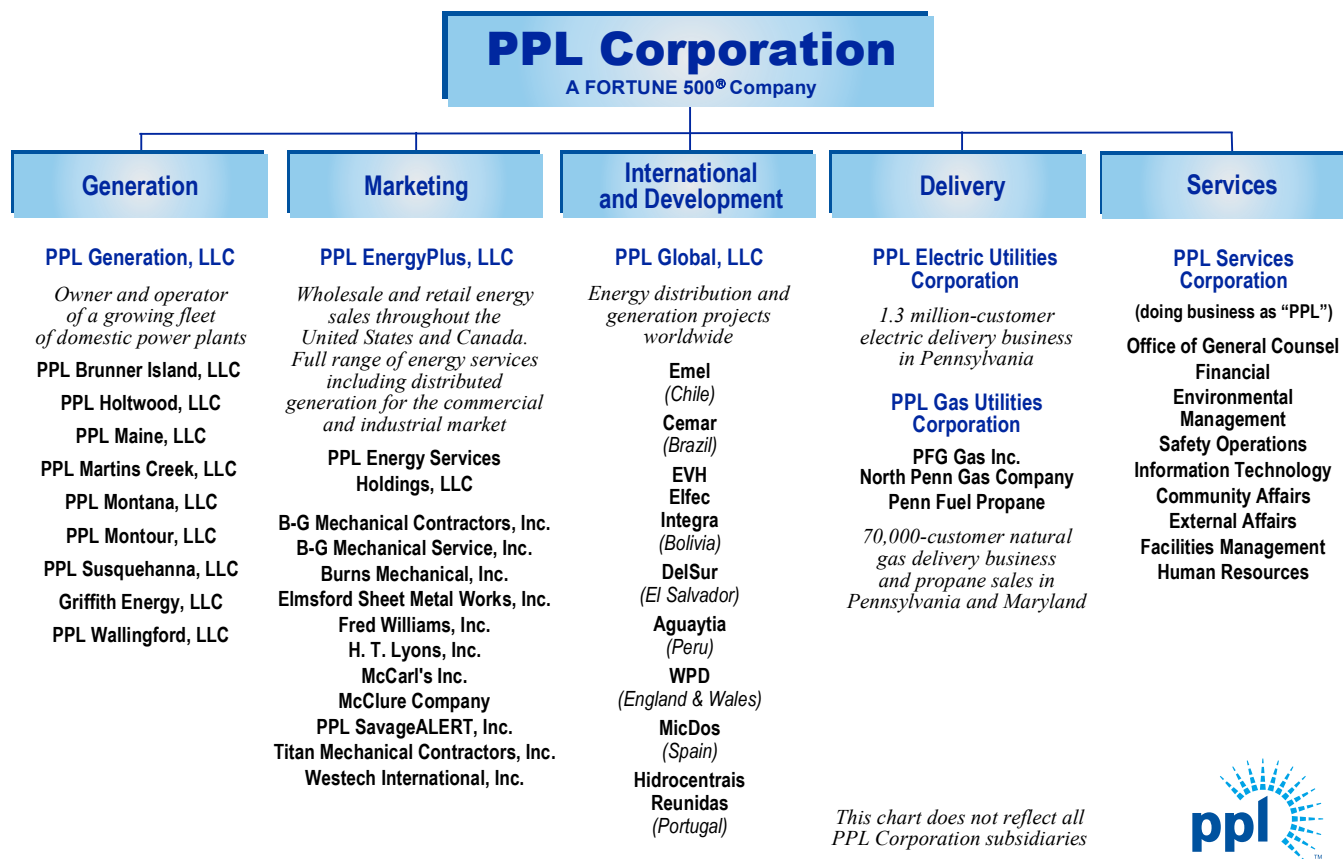


Figure 1. 2001 Organizational Chart

In 2001, PPL continued to develop and acquire new generation, distribution and energy services subsidiaries. Work continues on PPL's Environmental Management System (EMS) to keep pace with our growth.

PPL revised its environmental policy, expanded the scope of its audits and assessment program, and worked with various PPL business lines on implementing environmental improvement goals. PPL offered environmental managers across the corporation ISO 14001 EMS training. The company held its annual Environmental Forum to provide PPL environmental managers and leadership with information about emerging issues, environmental best practices

and new environmental programs being launched by the company. PPL continues to expand its EMS with the objective to cover all PPL companies under its EMS umbrella.

This report discusses the corporate successes and challenges related to environmental management, health and safety. The information is provided in the format of the first CERES report form for the electric and gas industries. PPL was honored to serve on the CERES team that developed the form.

Performance

Performance highlights in this CERES Report are:

- PPL continued to diversify its generating assets by adding 525 MW of natural gas generation in Arizona and Connecticut in 2001.
- PPL EnergyPlus worked with a variety of large industrial customers to install clean energy and energy efficiency technologies. For example, PPL EnergyPlus developed contracts to supply fuel cell technologies to the United States Coast Guard and Starwood Hotels in 2001.
- PPL continued to reduce emissions to meet requirements of the Clean Air Act. In 2001:
 - Sulfur dioxide (SO₂) emission rates decreased by more than 50% since 1990 by phasing in lower sulfur coal and by adding hydroelectric and natural gas to PPL's generating mix.
 - Nitrogen oxide emission rates decreased by about 64% since 1990 through the installation of pollution control equipment, and adding hydroelectric and natural gas generation to PPL's generating mix.
 - Greenhouse gas (CO₂) emissions rate decreased by about 12% since 1990 due to changes in the mix of energy sources used to produce electricity.
- The \$20 million Sustainable Energy Fund of Central Eastern Pennsylvania, funded by PPL electric customers, continues to invest in cutting-edge renewable and energy efficiency initiatives.
- PPL has a series of agreements with the Pennsylvania Department of Environmental Protection to investigate and clean up old operations sites. Through these agreements PPL subsidiaries have remediated these sites more quickly and cost-effectively than scheduled and made many properties available for sale and reuse under their agreements with the state.
- PPL significantly expanded the scope of its environmental audits and assessments program in 2001. All major domestic PPL facilities have had environmental audits or performance assessments in the past three years and a process is in place to assure their continual review.
- Since the early 1990s, PPL's Pennsylvania plants have reduced the amount of hazardous waste generated by about 80%, primarily by reducing the number of times that boilers are cleaned at steam generating stations.
- In 2001, PPL's Pennsylvania power plants beneficially reused more than 91% of the ash (fly ash and bottom ash) produced at its Pennsylvania fossil-fueled generating stations.
- PPL began construction for its new corporate building, The Plaza at PPL Center. The eight-floor Plaza will include cutting-edge environmental design features to promote resource conservation, minimize waste and create a setting that is healthy and comfortable for both nature and humans. PPL is applying with the Green Building Council for LEEDS certification

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at its Plaza at PPL Center. The building also represents PPL's commitment to the revitalization of America's cities, such as Allentown, Pa. Completion is expected in March 2003.

- PPL continued to promote PPL Project Earth™ community and environmental programs by conducting employee-based volunteer efforts, employee and corporate donations campaigns, and award-winning teacher education and curriculum development programs at its environmental preserves.

Challenges

PPL continues to expand its operations around the world as it acquires and develops generation and transmission and expands its energy-related services. Its Environmental Management System is designed to meet the challenge of improving environmental performance in today's competitive energy marketplace. Specifically, these challenges are:

- Applying environmental standards and performance metrics to expanding business operations to systematically identify and manage environmental issues and performance.
- Developing a system to collect and track environmental data uniformly across the company.
- Expanding and diversifying the mix of sources PPL uses to produce energy while demonstrating its commitment to reduce emissions and wastes.
- Developing a global greenhouse gas reduction/stabilization strategy that aligns with the strategic direction of PPL businesses.

Section 1: Company Profile

1-1. Name of Company: PPL Corporation

1-2. Contact Person: Mr. Robert J. Barkanic

Title Manager-Environmental Management

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Parent Dun & Bradstreet 83-543-3830
Number

Corporate Tax ID 23-2758192
Number

Corporate Web www.pplweb.com

1-3. Time period (e.g., fiscal/calendar year) for which information is provided (unless otherwise noted):

Calendar year 2001

1-4. Please describe the core activities of your company:

Headquartered in Allentown, Pa., PPL controls more than 10,000 megawatts of generating capacity in the United States, sells energy in key U.S. markets, and delivers electricity to customers in Pennsylvania, the United Kingdom and Latin America.

1-5. Total worldwide employees:

1999	9,166	2000	12,000	2001	12,000
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Number of full-time personnel assigned to environmental management and technical support worldwide.

As of the end of 2001, 73 full-time PPL employees plus 17 contract employees spent at least 50% of their time assigned to environmental management activities. At times, additional employees and consultants may be temporarily assigned to full-time work on environmental issues. This data includes PPL Montana and PPL Maine operations.

1-6. Annual worldwide revenue (billions)

1999	\$4.6	2000	\$5.7	2001	\$5.7
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1-7. What is your base country, or region, of operations?

United States

Please describe regulated service territory, if any:

PPL Electric Utilities: Centraleastern Pennsylvania, USA; PPL Gas Utilities: Centraleastern Pennsylvania and one county in Maryland, USA.

1-8. Coverage of information provided in this report, including geographic scope (e.g., all activities, including purchased energy, generation facilities only, wholly-owned and majority-owned facilities):

The report covers PPL's wholly owned subsidiaries and facilities at the end of 2001 (see Figure 1, page 2). Data from international holdings is provided where available.

1-9. If all activities are not covered, please describe your projected time-line for including additional aspects of your operations in this report:

Future CERES reports will include increasing data from all major wholly owned U.S. facilities as each business unit develops an EMS. As this work progresses, data from non-U.S. holdings also will be incorporated into future CERES reports.

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Please describe your company's major business sectors and approximate percent of total 2001 worldwide revenues represented by each.

Sector	% Revenues
Supply (generation and marketing)	75
Delivery	19
International	6

1-11. Please provide the following information on the scale of your operations. Report generation/supply based on ownership; for transmission distribution transportation operations and sales, include both self-supplied (generated) and purchased energy. Note that the same energy may be reported in more than one sector (e.g., electricity that you generate, transmit and sell).

Sector (2001 U.S. Only)	Measure of Scale	Amount
PPL Generation	Generating capacity in Pennsylvania, Arizona, Montana, Maine and Connecticut as of December 31, 2001(MW)	10,023
	Total generation in 2001 (MWh)	47,093,215
PPL Electric Utilities	total MWh transmitted in 2001 (MW)	57,033,197
Supply PPL Gas Utilities	total production in 2001 (Mm ³)	NA
	underground (natural) storage [not reserves] (Mm ³)	NA
Transportation PPL Gas Utilities	km of pipeline	610

1-12. Briefly describe any significant changes in company structure (e.g., acquisitions and divestitures), sectors, and product lines during the last five years:

PPL has grown into a global diversified energy company since the company decided to support deregulation in 1995. In 2000, PPL and PPL Electric Utilities completed a corporate realignment to separate PPL Electric's regulated transmission and distribution operations from its deregulated generation and wholesale power marketing operations. As a result of the corporate realignment, PPL's electric generating assets were transferred to PPL Generation and its wholesale power marketing assets were transferred to PPL EnergyPlus. Also as part of the realignment, PPL Global transferred its domestic generating assets to PPL Generation.

In 2001, PPL Corporation had these major wholly owned subsidiaries:

1. PPL Electric Utilities provides electricity delivery service to approximately 1.3 million electric customers in eastern Pennsylvania.
2. PPL Generation operates power plants in Pennsylvania, Arizona, Montana, Maine and Connecticut to generate electricity to unregulated wholesale and retail markets in the northeastern and western portions of the U.S.
3. PPL EnergyPlus markets PPL Generation and other power purchases and gas to unregulated wholesale and retail markets in the northeastern and western U.S. PPL EnergyPlus also provides energy services to commercial and industrial customers, through its mechanical contracting and engineering subsidiaries based in Pennsylvania, Massachusetts, New York and Connecticut.

4. PPL Global develops domestic generation projects for PPL Generation. It also develops, owns and operates international energy projects. At December 31, 2001, PPL Global was developing approximately 2,750 MW of capacity in Pennsylvania, New York, Connecticut, Arizona and Illinois. PPL Global's major international projects include investments in two United Kingdom electricity transmission and distribution companies, WPD South West, which serves approximately 1.4 million customers in England, and WPD South Wales, serving approximately 1 million customers in Wales. PPL Global also has consolidated investments in electricity transmission and distribution companies, primarily serving about 2 million customers in Chile, El Salvador, Bolivia and Brazil.
5. PPL Gas Utilities, which owns PFG Gas and North Penn Gas with over 400 employees, is a natural gas distribution and storage company serving 105,000 customers in Pennsylvania and Maryland.

Has the company compensated for these, or other changes (e.g., new regulations), in establishing the environmental data included in this report?

Subsidiary company data are included where available. PPL is developing an environmental information management system to collect corporate environmental data, including data of new subsidiaries. As this evolves, data will be folded into environmental reporting, and will become an increasing part of future CERES reports. Data presented reflects operations in compliance with all currently applicable federal and state environmental regulations.

Section 2: Environmental Policies, Organization and Management

- 2-1. List all corporate environmental policies and their dates of issue and/or revision. Detail the geographic scope of these policies and indicate whether the texts of the policies are available to the public:

Policy	Issue Date	Latest Revision	Geographic Scope	Publicly Available
Environmental Policy	1995	2001	Global	Yes
Corporate Environmental Expectations	1996	2001	United States	Yes
CFC & HCFC Policy	1994	1994	United States	Yes
Standards of Conduct & Integrity	1998	2001	Global	Yes

Please comment on the scope of applicability. If policies are not global, do you have a plan to make them so? Over what time scale?

PPL expects that domestic subsidiaries will develop and implement an Environmental Management System modeled on ISO 14001 to ensure that they conduct business in accordance with corporate environmental policies and guidance. PPL is evaluating how the EMS will apply to foreign operations.

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2-2. Which of the following are directly addressed by policies or associated guidance documents? Specify where not applicable to your company:

Environmental	X	Health & Safety	X
Water Quality	X	Emergency Planning	X
Air Quality	X	Personnel Safety	X
Energy Conservation Opportunities	*	Transportation Safety	X
Solid/Hazardous Waste	X	Materials/Equipment Safety	X
Storage Tanks	X	Industrial Health/Hygiene	X
Chemical Releases	X	Occupational Medicine	**
Spill Prevention	X	Audits and Assessments	X
Site Remediation	X	Electrical Equipment	X
Chemical Inventory Reporting	X	Waste Management	X
Environmental Management System	X		

*PPL Electric Utilities and PPL EnergyPlus provide a variety of energy conservation programs, products and services oriented to residential, commercial and large industrial customers to promote energy efficiency and clean energy technologies.

**No formal program, but there are indirect programs and procedures such as medical examinations that are provided to employees prior to allowing them to use respirators or to work in asbestos areas and other applications.

2-3. Please describe your company’s approach to the issue of sustainability, focusing on the following three elements:

How does it apply to your industry?

Like the majority of large U.S. based electric generating companies, PPL generates the largest percentage of its generating capacity (60 percent) with fossil fuels. This will not change in the near future. Sustainability reflects on more than just generating mix. PPL is growing for the future diversifying its generation mix with more hydro, natural gas and distributed energy solutions. The company’s track record of reducing waste and pollution is impressive. Its commitment to improving quality of life around our operations is a core value about how PPL operate as a company.

What does it mean for your company and how is your company making progress toward it?

PPL companies are exploring the ever-increasing opportunities for developing sustainable electrical generation and energy efficiency initiatives. PPL Generation continues to purchase and build generating assets that diversify PPL’s generating portfolio. This strategy keeps the costs of electricity lower for our customers and controls over-reliance on one source of fuel. PPL’s acquisition of generating assets in Maine and Montana in 1999 nearly doubled PPL’s hydroelectric generating capacity. PPL EnergyPlus’ Energy Services companies develop leading-edge distributed energy and energy efficiency solutions to assist large industrial customers in reducing energy demand. PPL Electric Utilities’ customer-funded Sustainable Energy Fund of Central Eastern Pennsylvania is investing \$20 million in solar, wind and other renewable energy projects. In addition, PPL Electric Utilities offers free energy audits to all

residential customers and provides energy conservation solutions to certain low-income retail customers.

2-4. Are your company’s policies reviewed periodically to ensure their continuing relevance in light of changing standards, technology, and emerging concerns?

Yes. PPL has an aggressive issues management program that continually looks outside the company to assess changes in both the regulatory landscape and the priorities of external stakeholders. This information is factored into the decision-making process while developing corporate positions and policies. PPL’s existing policies are reviewed on an ad hoc basis and revised when needed often in response to these types of information.

2-5. What level of management is responsible for maintaining the currency of your corporate environmental policies and practices?

The corporate Environmental Management Division suggests revisions to the policies and to guidance documents with involvement of line departments. Senior management approves any changes.

2-6. Is there an officer specifically designated with environmental responsibilities?

James Seif, former Secretary of the Pennsylvania Department of Environmental Protection, joined PPL as Vice President of PPL Services. Environmental Management is one of the functions reporting to Mr. Seif, who reports to the Chairman, President and Chief Executive Officer.

2-7. Are there updates to senior management, the Board of Directors, or a committee of the Board of Directors concerning the company’s environmental activities? If yes, with what frequency?

PPL’s Corporate Environmental Management Division maintains or contributes to a variety of communications on the company’s environmental activities and performance. These are:

Report/Event	Purpose	Frequency
Environmental Update	Provides executives with a report on emerging issues	Weekly
Performance Report and Key Events	Provides board of directors with a report of emerging issues	Monthly
Corporate Environmental Performance Report	Provides executives with a report on environmental performance	Quarterly
Environmental E-News	Provides environmental employees internal information.	Weekly
Environmental Forum employee conference	Provides executives and managers with information about emerging issues, EMS benchmarks and corporate performance indicators.	Annually
Corporate Environmental Risks and Opportunities Report	Provides executives with a prioritized review of the emerging environmental issues and their impact on the corporation	Annually
PPL’s Community and Environmental Report	Provides employees, managers and corporate leadership, as well as the public with a summary of community and environmental program accomplishments	Bi-annual
White Papers/Executive Briefings/Presentations	Provides PPL’s managers with an in-depth overview of critical environmental issues	As needed

2-8. Are environmental compliance and operational decisions principally handled in centralized or decentralized fashion?

The environmental aspects of PPL Electric and PPL Gas operations remain centralized within the corporate Environmental Management Division. Overall power generation environmental responsibility is almost completely decentralized, although corporate staff provides overall direction and assists with goal setting, permitting, incident review and problem solving. This is by design so the environmental ethic is imbedded into daily practice and routines at each power plant. Corporate staff supports PPL's energy service subsidiaries with environmental compliance and risk management services on an as-needed basis.

2-9. How is accountability for environmental performance organized in your company?

Primary responsibility rests with the business line most directly involved with the particular operation. Corporate staff has oversight and direction-setting responsibility.

2-10. Is outstanding environmental performance of teams, operating units and individuals recognized internally?

Yes, however this is an area that PPL is looking to develop further. In 1999, the company announced a new rewards program that had been used to recognize the efforts of both teams and individuals. An environmental award program designed to recognize accomplishments in key environmental performance categories is planned for 2002.

If yes, how does such recognition occur (e.g. salary review, bonus, promotion, award, etc.)?

Individuals may be recognized and rewarded under the company's Exceptional Contribution Award Program. The rewards program provides both monetary and merchandise awards.

2-11. Are your employees encouraged to take the initiative, submit suggestions for improvement, and suggest actions or policies that reduce the company's environmental impact?

The company has an Exceptional Contribution Award Program that has been used as an incentive to reward employees who have made significant improvements in operations (including environmental improvements).

2-12. A) Does your company have, or provide access to, educational programs in which employees with environmental responsibilities participate to update their skills and knowledge?

PPL offers many opportunities for employee environmental education and skills training. Training in areas of material handling, waste storage and handling, spill cleanup, and risk communication are mandatory for employees working in affected areas. Courses on remediation, wetlands, biodiversity, raptors and waste management are also offered. Fossil generation has developed videos on waste handling, storm water pollution prevention, and spill control focused on facility operations. These videos are viewed annually by plant operational staff. Transmission department employees review their spill response techniques and procedures annually. Since 1997, the corporate Environmental Management Division has been holding annual Environmental Forums that are attended by environmental professionals from across the company. The Forum is a full-day conference that is used to launch broad-based

environmental training, initiatives, and information sharing and to inform environmental employees about the latest aspects of environmental management.

Each year all employees and contractors that have unescorted access to PPL's Susquehanna nuclear power plant are required to take access retraining. Included in this training is spill reporting, waste management and protection of the environment. Also, training of teachers about nuclear power and environmental monitoring is conducted annually by station staff.

PPL is in the process of integrating its environmental training and educational programs into its new subsidiary companies. For example, corporate Environmental Management staff is working with PPL Gas to integrate PPL's environmental training and education programs with its existing health and safety training and education program.

PPL also maintains an expanding Intranet site that is devoted to sharing environmental information across the company.

B) Does your company have educational and informational programs in which all other employees participate to update their skills and knowledge and ensure their understanding and implementation of the company's environmental policies?

PPL's Environmental Management Division maintains an Intranet site (referred to as the EnviroNet) that provides environmental information, tips and issue-specific information. This information is updated periodically and is accessible to all employees. In addition, PPL publishes an online employee news service that highlights emerging environmental issues, as well as environmental education and stewardship activities.

2-13. A) Does your company sponsor scientific or policy research devoted to environmental technology, management and performance issues, or other relevant research areas, at educational or research institutions?

PPL sponsors environmental research through membership and participation in the programs of the Electric Power Research Institute (EPRI). Many EPRI programs, such as research on the cleanup of old manufactured gas plant sites, are applicable to PPL's system. PPL supports Pennsylvania Academy of Natural Sciences environmental research through its Environmental Associates program and also participates in Edison Electric Institute and Pennsylvania industry association policy research programs. PPL's subsidiary, PPL Gas Utilities, is a member of the Gas Research Institute, which also performs environmental research specific to the gas utility industry.

B) Does your company participate in external activities designed to share the results of such scientific and policy research?

PPL has shared research results and data for specific issues and projects, such as electromagnetic fields (EMF) issues. PPL has also participated in EPRI workshops and seminars by presenting papers on research that it has conducted in cooperation with EPRI. PPL also participated in the U.S. Environmental Protection Agency's program for collecting mercury data across the electric utility industry. PPL's Colstrip plant also participated in the second phase of the study to evaluate the mercury removal efficiency of its scrubber.

2-14. To what degree does your company use internal environmental cost information to support internal decision-making? Is this done through a managerial cost accounting system or other financial management system which routinely compiles, analyzes and reports on environmental costs?

Environmental costs are tracked in a variety of systems with no one system containing all environmental cost information. Rather, internal decision making is done on a project- or issue-specific basis.

Which environmental costs (e.g., management costs, resource use, waste disposal, permitting, monitoring, training, auditing, insurance);

Costs to manage large waste streams are generally tracked in a mainframe data management system and analyzed annually, although PPL's new waste alliance partner is now routinely providing much of the information on off-site hazardous waste disposal through its own information management system. Site remediation costs are tracked through corporate accounting systems and are evaluated quarterly. Waste disposal costs for small waste streams are tracked through an electronic waste management system and analyzed more frequently to identify opportunities for recycling and innovation. Special projects, such as fly ash disposal and beneficial reuse, are tracked programmatically using normal accounting procedures. Service-order financial systems track personnel services associated with auditing and corporate business line support. Large capital environmental projects are tracked very closely through the corporate accounting system.

At what level (e.g., product, process, facility, division, corporate):

Most of these are tracked at the business-line level and then rolled up to the corporate level.

For what purpose is this cost information compiled?

For accounting and corporate goal setting, and to meet the Federal Energy Regulatory Commission and Securities and Exchange Commission reporting requirements.

Please describe any successes or challenges experienced in developing/applying this system. How did these experiences compare to your expectations?

Because PPL does not use one unified system for environmental cost accounting, it performs decision making on a project basis and may not be optimizing opportunities for efficiencies.

If such a system is not in place, are there plans underway to create an environmental cost tracking system? If not, why not? If plans do exist, what steps toward implementation have been made?

To date, plans to improve environmental cost tracking continue on a programmatic basis with no immediate plans for a comprehensive environmental cost-tracking system, although this is an area that has been identified for future improvement and will be considered as part of the EMS. PPL has now successfully established a Waste Vendor Alliance (see Question 2-14 above), which should help to consolidate most of the cost information relating to waste management and should allow for more informed decision making in this one key environmental aspect of the company's business.

2-15. Does your company normalize environmental information (e.g., chemical release, energy usage, greenhouse gas emissions) by an activity unit within the company (e.g., per unit of output, per unit of input, per labor hour, per employee)?

Quarterly environmental performance reports contain environmental performance criteria in units per output where it is relevant, especially for power generation facilities. In 2001, PPL participated in industry benchmarking studies; those data were normalized as requested by the benchmarking sponsors. Normalizing information has not been a particular problem or challenge.

Audits

2-16. Does your company have programs for workplace health, safety and environmental auditing?

Environmental and health and safety audits are normally conducted separately; however, PPL Electric Utilities performs internal self-assessments in conjunction with safety assessments. A periodic environmental audit program is conducted at all major PPL facilities. The environmental auditing process consists of five documented programs that are conducted once every two to five years, depending on the complexity and risk of the facility. Periodic environmental inspections occur as often as weekly at PPL's generation facilities. Power plants and Electric Utilities' facilities are preparing for the federal Occupational Safety and Health Administration's Voluntary Protection Program (VPP) through an annual inspection, internal safety and health certification program.

2-17. Are your audits conducted by company personnel or outside individuals or organizations?

Internal audits include self-assessments and Internal Safety Certification assessments utilize different numbers of company personnel, depending on the assignment. The number of internal auditors on an internal assessment varies from 3 to as many as 15 individuals (part time). Outside personnel (one to five auditors) may be used for independent audits. VPP certifications use independent OSHA auditors.

2-18. Do your audit programs apply worldwide?

No. PPL's audit program will grow in conjunction with EMS activities as they extend to cover worldwide operations. Its scope will be based on a needs assessment process conducted as part of EMS development.

2-19. Are your audit systems administered on a company-wide basis, on a site basis, or on the basis of distinct operations? Give details of sites and operations audited:

In 2001, PPL's internal audit staff conducted a variety of environmental assessments of domestic facilities. See question 2-23 for details.

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2-20. Which of the following are part of your audit programs?

Environmental		Health & Safety	
Compliance	X	Compliance	X
Management Systems	X	Management Systems	X
Spill Prevention	X	Emergency Planning	X
Water Quality	X	Personnel Safety	X
Air Quality	X	Transportation Safety	X
Solid/Hazardous Waste	X	Process Safety Management	X
Storage Tanks	X	Materials/Equipment Safety	X
Chemical Releases	X	Industrial Health/Hygiene	X
Site Remediation		Occupational Medicine	X
Chemical Registration/Certification	X	Other (specify)	

2-21. Does your company have an internal energy audit program for identifying conservation opportunities and progress?

PPL has no formal internal energy audit program, although energy savings opportunities are being implemented on some capital projects where they make economic sense. PPL also expects to develop energy-savings goals for select business lines in the future as part of the business lines' EMS activities. PPL's new office building, being built in Allentown, Pa. is being designed as a green building and is applying for LEEDS certification through the Green Building Council.

2-22. Are the results of your audit findings reported to senior management and/or the board of directors?

Summary results of environmental audits are reported to business-line senior management and to the audit committee of the Board of Directors.

2-23. What areas (divisions, operations) of your company have been audited over the last two years?

In 2000 and 2001, Environmental Aspect analysis based on ISO 14001 standards were conducted at:

- PPL electrical services contractors (10)
- PPL Facilities Management
- PPL Montana's hydroelectric stations
- PPL Susquehanna nuclear power plant
- PPL Montana's Colstrip power plant
- PPL Montana's Corette power plant
- PPL Maine's hydroelectric stations
- PPL Electric Utilities

PPL Gas Utilities In 2000 and 2001 Environmental Assessments have been conducted of:

- PPL Montana's hydroelectric stations

- PPL Maine's hydroelectric stations
- Syn-fuel facilities (4)
- PPL Generation's Brunner Island power plant
- PPL Generation's Montour power plant

2-24. Are your audit programs reviewed by an independent organization?

No. However, an ISO 14000 mini-gap analysis was conducted in 1997 that examined PPL's systems and programs and identified the differences between ISO requirements and what the company was currently doing.

If no, are there plans underway to utilize an independent review in the future?

PPL plans to conduct ISO 14001 gap analysis of individual facilities starting in 2002.

2-25. Are your audit results available to the public?

No. PPL environmental audits are considered confidential to encourage more open and effective communication between the audit group and the facility being audited.

2-26. Describe other notable aspects of your company's environmental policies, organization and management not otherwise covered in this section.

PPL expects domestic subsidiaries to develop and implement an Environmental Management System (EMS) modeled after ISO 14001 to enhance the existing programs, which had some of the elements of an EMS but were not fully integrated. Several significant environmental aspects that were identified in 2000 have been the subject of improvement goals and have resulted in improved environmental and sometimes financial performance. PPL is continuing to implement its Environmental Management System. Results and lessons learned from the projects will be considered as part of the continued development of an EMS by PPL subsidiaries.

Section 3: Workplace Health and Safety

3-1. Briefly describe your company's activities in the area of workplace health and safety. Give examples of specific programs, accomplishments, awards and/or training activities, etc., that go beyond the requirements of the law:

PPL has a comprehensive program encompassing corporate, power production and electric delivery. The safety and health programs are documented through annual site evaluations. First-line supervisors and employees are responsible for safety and health; safety and industrial hygiene specialists provide field technical support and direction. Beyond strict compliance, an internal safety evaluations program (comparable to the OSHA Voluntary Protection Program) is being instituted at major work sites. This internal program prepares sites for OSHA VPP. Two sites have been approved for STAR status recognition; others are soon to follow suit. An industrial hygiene-monitoring program annually provides for assessment of employee exposure to various workplace dusts and noise.

How are these programs and other workplace health- and safety related-related information communicated to employees?

1. Safety videos developed by the company cover important topics and are reviewed at employee safety meetings during the year.

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2. Mandated safety training identifies employee-training needs and tracks their completion through a computer-based system.
3. Safety job briefings are conducted prior to beginning work (at most physical locations) to identify potential hazardous aspects of the job to be done.
4. Regularly scheduled safety meetings explore safety topics and accident events.
5. "Just-in-time" articles in the company's internal newsletters and monthly magazine highlight health and safety issues.

3-2. A) Does your company communicate with workers on health- and safety-related information by, for example, sharing internal safety audits, internal compliance audits, etc.?

Industrial hygiene monitoring data are provided to sampled employees. Managers review accident reports with employees, and internal benchmarking reports are shared with employees. The internal safety evaluations site reports are routed through the departments. These reports contain up-to-date information on safety processes and their effectiveness.

	Provide	Willing
Chemical release data (please specify)		X
Chemical use and storage data		X
Worst-case accident scenarios	X	
Internal safety audits	X	
Internal compliance audits	X	
Material transportation risks		X
Process hazards analyses		X
Pollution prevention plans	X	
Other information gathered for the CERES Report		X

3-3. What challenges and successes has your company experienced in the area of workplace health and safety?

Like other energy providers, PPL faces the challenge of enhancing safety programs while remaining competitive in an industry that is largely deregulated. PPL continued to improve safety programs in 2001. Using the internal safety certification process, PPL's safety programs have established action-oriented objectives for many managers and supervisors, and have formalized inspections by crews at many locations.

3-4. Provide information on workplace safety performance using normalized measures such as lost days. Provide such information for a base year, 1996, 1997, 1998 and a target year:

PPL's workplace safety performance for lost days as related to incidence rates is shown below:
 There were no fatalities in any of the years mentioned. Injury rate is lost workdays per 200,000 hours worked.

	Lost time events	Days lost	Injury Rate
1996	41	1137	0.65
1997	26	540	0.42
1998	29	1035	0.47
1999	41	1146	0.65
2000	31	833	0.50
2001	46	1569	0.72

3-5. Do you use other measures for workplace health and safety performance? Please explain and give trends:

PPL benchmarks OSHA-recordable injuries (lost time and no lost time) against other utilities of similar size that report their experience through the Edison Electric Institute (EEI). The EEI value reported is the top (best) 75% percentile level. Values provided are in number of incidents per 200,000 hours worked.

	EEI	PPL
1995	3.21	4.19
1996	3.39	3.12
1997	3.21	2.23
1998	3.67	2.25
1999	3.21	2.18
2000	3.66	2.15
2001	3.25	2.26

Motor vehicle accident performance is measured per ANSI D-15 reporting guidelines. Incidence rates are based on the number of recordable accidents per million miles driven.

	Motor vehicle accidents	Injury Rate
1996	176	7.07
1997	139	5.53
1998	129	4.91
1999	161	2.18
2000	155	6.69
2001	176	7.55

3-6. Describe other notable aspects of your company's workplace health and safety not otherwise covered in this section:

Corporate management is intensely focused on safety issues. Safety receives recognition through performance-based employee safety and health recognition programs, performance-based goals within an increasing number of managers' annual objectives, and a reporting structure that has the company's safety group reporting to senior management.

Section 4: Community Participation and Accountability

4-1. Does your company have a policy/procedure to consider community impacts in its decision-making?

Yes. Ongoing communication with corporate stakeholders is part of PPL's environmental and community relations policies.

Does this policy provide for direct community involvement? If so, with which groups? How are these groups chosen?

The PPL Project Earth™ provides many opportunities for direct community involvement through employee volunteerism, public relations efforts and community support efforts. The company's aggressive community relations and external affairs program reaches out to local, state and federal government officials. PPL power plants are involved with the local communities through plant advisory committees (PACs) made up of individuals who live and work near PPL's power plants and are impacted by their operations. PAC members provide input into the plant's day-to-day decision making. PPL also works closely with a variety of community and environmental groups on local environmental projects. PPL's Community of Volunteers program provides a mechanism for matching local needs with the interests of employees to provide resources to community groups on a project-by-project basis.

Community input is also sought through such mechanisms as the Federal Energy Regulatory Commission's (FERC) Hydroelectric Licensing Procedure. The company is following this approach to relicense hydroelectric facilities in Pennsylvania, Maine and Montana.

How is this involvement organized (e.g., through community advisory panels, public hearings, newsletters, regular meetings, open forums)?

PPL uses a broad spectrum of methods to organize community involvement. The company sends representatives to local government meetings and offers the community use of its facilities. The PPL Project Earth™ web site provides two-way communication with the communities where the company does business. Environmental Currents, a quarterly newsletter, is circulated to about 10,000 key community contacts near PPL's environmental preserves. The newsletter explains what the company is doing to promote strong environmental programs at its generating facilities and offers readers an opportunity to participate in PPL-sponsored environmental and energy awareness events. The company also sponsors open houses and takes part in regional committees to address a wide variety of local concerns ranging from air quality issues to water quality protection.

4-2. Does your company proactively seek the advice and counsel of independent community groups (e.g., through newsletters, regular meetings, open forums, or community oversight committees) regarding possible risks posed by your operations?

Yes. For the most part, the agendas for PPL's plant advisory committee meetings revolve around local concerns associated with our operations. PPL tries to inform neighbors and gather input on projects that are planned or underway at its power plants. PPL Electric Utilities also maintains a staff of community development directors, who meet regularly with local government officials in Pennsylvania to review local issues related to PPL Electric Utilities operations.

4-3. Are employees encouraged to participate in community activities aimed at improving environmental quality?

Yes. A main thrust of PPL Project Earth™ focuses on fostering employee volunteerism. PPL's Community of Volunteers provides a clearinghouse for employees interested in volunteering their time on a wide variety of projects including environmental projects. As a result, hundreds of volunteers turned out last year at a variety of community and environmental projects.

4-4. List up to three community-oriented environmental activities sponsored by your company:

PPL is dedicated to improving the quality of life in the communities where it does business as Here is just a snapshot of PPL Project Earth™ activities:

- PPL conducts accredited seminars for teachers to help them deliver more creative environmental lessons in the classroom. In 2001, more than 260,000 students benefited from PPL's Trees for the Future, Teaching Environmental Awareness workshops, Hydropower curriculum, career awareness workshops, electrical safety poster contest and nuclear energy curriculums.
- Hundreds of PPL employee volunteers participated in a variety of community environmental projects ranging from cleaning up trash from local streams, to planting trees and building new parkland.
- PPL's continued environmental stewardship actions are helping to protect populations of species, such as the bald eagle, peregrine falcon, osprey, Atlantic salmon and American shad. In Chile, the company worked to save black-neck swans that cross the top of the Molles Dam. These birds were getting hurt when they came in contact with PPL's high-voltage power lines. Working with the Municipal Museum of Natural Sciences and Archaeology of San Antonia, PPL modified the line and installed safety devices to allow the birds safe passage.
- In recognition for PPL's efforts to provide outstanding recreational opportunities and protect wildlife along the Missouri River Corridor, PPL Montana earned the "Outstanding Stewardship of America's Rivers Award" from the National Hydropower Association in 2001.
- In Maine, PPL donated \$50,000 to the Maine Discovery Museum, helping create an interactive display that teaches children about hydroelectric power.
- In Connecticut, PPL Wallingford built a state-of-the art sound wall in response to noise concerns in the neighborhood.
- In El Salvador, when a series of earthquakes devastated whole communities, PPL employees provided emergency lighting and helped their friends and neighbors dig families out of the rubble. PPL shipped medicine to care for the sick and donated more than \$163,000 to the relief effort. In response to the terrorist attacks of September 11, 2001, PPL employees and management donated almost \$183,000 to New York City disaster relief efforts.
- PPL and its employees contributed almost \$1.8 million to the United Way in 2001.

4-5. What challenges and successes has your company faced in the area of community participation and accountability?

PPL is proud of its reputation for outstanding community involvement and environmental stewardship programs. The company remains challenged with transferring these programs globally, and this means being able to demonstrate how these initiatives impact on the bottom line. In times of growth and competing priorities this remains a significant challenge, but as you can see from the list in question 4-4, progress is being made.

4-6. How are environmental considerations incorporated into your company’s public policy activities?

As a major energy company, PPL recognizes the need to integrate environmental concerns as part of our strategy to provide reliable and affordable power. Environmental considerations are incorporated through several processes including:

- PPL’s environmental and community policies.
- Environmental improvement goal setting.
- Monitoring and analysis of emerging issues.
- Internal meetings on environmental performance and compliance.
- Formal corporate reporting initiatives.
- Environmental audits and assessments.
- Public disclosure of environmental information.

The PPL Project Earth™ programmatic focus is a direct outgrowth of the company’s integration of environmental concerns. By gauging environmental performance and looking outside the company for emerging issues and concerns, PPL can better prioritize the allocation of corporate resources.

4-7. Environmental justice refers to actions in support of populations most negatively affected by environmental factors, as they tend largely to be those populations most vulnerable due to economic, political, racial, or other factors. In support of the goals of environmental justice, describe if and how your company ensures protection of particularly vulnerable or at-risk groups in communities directly affected by your activities:

PPL strives for the same high environmental standards regardless of geographic designation or social demography. PPL’s remediation programs involve cleaning up unused and underutilized sites that have been contaminated by past operations. This is being done through Pennsylvania’s Land Recycling (Brownfields) Program. PPL works with local governments and communities to identify uses for the remediated properties that support community needs. Also, near five of its major power plants, PPL maintains environmental preserves and recreation areas that improve the communities where they are located.

4-8. Does your company provide, or is it willing to provide, the following information?

	Provide	Willing	Not Willing	N/A
Chemical release data	X			
Chemical use and storage data	X			
Worst-case accident scenarios	X			
Internal safety audits		X		
Internal compliance audits			X	
Material transportation risks		X		
Process hazards analyses		X		
Pollution prevention plans		X		
Resource conservation plans				X
Other information gathered for the CERES Report	X			

Emergency response

4-9. Does your company have trained personnel and equipment capable of handling chemical emergencies that your plants might experience, including those that might involve radioactive materials?

At fossil-fueled stations, HAZWOPER trained staff is on site and a limited amount of emergency response gear is kept on hand. However, PPL's philosophy is one of limiting its staff's response to defensive measures, such as initial containment. The company uses qualified, on-call emergency response contractors for additional containment and cleanup operations.

The emergency response crew at PPL's Susquehanna nuclear power plant is trained in both hazardous and radiological spill response, providing full on-site capabilities. PPL's internal crew is backed up by crews staffed by outside contractors, the Nuclear Regulatory Commission and Pennsylvania Department of Environmental Protection's Bureau of Radiation Protection, all of whom are trained in radiological response procedures.

4-10. Does your company conduct training exercises with firefighters and rescue teams in all communities where research and development and production facilities are located?

The company maintains trained fire brigade personnel at each facility to provide immediate response capabilities. Interactive training with community emergency responders is difficult to schedule; however, PPL does conduct joint exercises when possible. In addition, PPL operates a fire training school with state-licensed instructors to train employees. The fire training school also conducts an electrical emergency course for fire departments on a requested basis. The Pennsylvania Department of Economic and Community Development funds this service.

4-11. Does your company keep local emergency responders informed of risks created by, or chemicals used by, your operations?

All facilities storing and/or using listed hazardous chemicals in reportable quantities must report these to local fire departments, local emergency planning committees and the state emergency response commission as required under the federal Emergency Planning Community Right to Know Act. This information also is shared with local emergency responders as opportunities arise.

4-12. Are the neighbors at your plant sites informed of the existence of any procedures and evacuation plans that may be needed in case of an incident?

PPL Generation directly informs neighbors of evacuation plans and procedures around its power plants and makes information available to the public as part of county emergency management plans.

Section 5: Product Stewardship

5-1. Does your company have a formal policy requiring an environmental, health and safety evaluation of its new and existing energy products and services (e.g., rate structures, "green" power offerings, conservation services)?

No, PPL does not presently have a formal policy requiring an environmental, health and safety evaluation of new and existing energy products and services. This is an area that the company

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is looking at through the development and implementation of an EMS. PPL does have several programs and services that address this need. These are listed below:

- As part of the 1998 deregulation agreement with the Pennsylvania Public Utilities Commission, PPL Electric Utilities customers contribute about \$3.2 million annually until the end of 2004 to a Sustainable Energy Fund to promote the development and use of green power resources in Pennsylvania. To date the fund has accumulated \$20 million.
- PPL EnergyPlus offers a variety of energy-related products and services, and technologies to encourage energy efficiency. These businesses reduce larger industrial customers' bottom-line expenses while balancing environmental concerns.

If yes, how can this be obtained by the public?

- Information about PPL's Sustainable Energy Fund is available by contacting the fund at 610-740-3102 or on the Web at www.sustainableenergyfund.org.
- PPL EnergyPlus' products and services are available on the Web at www.pplweb.com.

5-2. Does your company have procedures in place to monitor the commitments it makes in this policy?

- PPL tracks the environmental impacts that acquisitions and developments have on the corporation's overall air emissions strategy.
- The company and the Pennsylvania PUC monitor contributions to Pennsylvania's Sustainable Energy Fund.
- PPL EnergyPlus tracks energy solutions through its sales tracking procedures.
- PPL monitors and reports to management environmental performance metrics on a quarterly basis.

5-3. Has your company instituted procedures to assist energy product and service designers create products or services (e.g., rate structures, "green" power offerings, energy efficiency services) with the potential for lowered environmental impact?

At this time PPL does not offer "green power" programs, although the business benefits and risks of such programs are often evaluated. However, environmental considerations are included at the project level in the planning, design and implementation stages of new products and services as needed and relevant on a case-by-case basis. PPL also uses job planning guidelines that instruct design engineers and planners to 1) use only approved waste transporters and vendors, 2) use only approved chemicals and materials, and 3) investigate the impact on sensitive environmental areas of proposed projects. The guidelines were designed to consider the life-cycle impact of projects and are available company-wide on PPL's EnviroNet computer system.

5-4. What are the major positive and negative environmental and safety impacts potentially associated with the use or misuse of services and products your company provides its customers? (Note: do not include impacts of production or supply here.)

The use of electricity holds enormous potential as an alternative energy in the transportation, heating and distributed energy sectors. Negative impacts from electricity and gas end use include accidents, risk of blackouts and other safety issues from interrupted power supply.

Describe any programs or procedures designed to minimize any such misuse:

This is not applicable to our products and services, although PPL does have programs that promote the safe and efficient use of electricity and natural gas. National and local codes and building ordinances govern the use and application of electricity and natural gas.

5-5. Describe demand-side management, energy efficiency services or other “green” service activities undertaken by your company (e.g., energy audits, weatherization programs). Provide information on the number of customers served:

Through PPL EnergyPlus, PPL offers energy management services to its commercial and industrial customers. During the past several years, PPL has been successful in contracting these services to several large customers, including a school district, a municipality and a military base. PPL also continues to offer its popular WRAP Program, which provides residential customers with energy saving ideas and subsidies, and its popular Comfort Home for new home construction with built-in measures for energy-efficient living. PPL also provides Web-based self-energy audits and recommendations based on actual customer use patterns.

5-6. Describe consumer energy efficiency programs undertaken by your company.

PPL EnergyPlus built an automation system for three school districts enabling maintenance supervisors to monitor and control energy use in all school buildings from their offices. At a group of nursing homes, EnergyPlus installed water conservation measures and a new laundering technology that uses less water and detergent. At a military base, PPL converted the heating system from fuel oil to cleaner-burning natural gas.

5-7. Does your company’s rate structure promote reduced consumption?

No.

5-8. What challenges and successes has your company faced in the area of product stewardship?

See Answer to Question 5-9.

5-9. Describe other notable aspects of your company’s product stewardship activities:

PPL participates in EPA’s Landfill Methane Outreach Program (LMOP). In this program, PPL EnergyPlus purchases electricity made from landfill gas facilities and other sources of methane and sells the electricity to its customers, thereby reducing the need to generate that electricity from other sources of emissions and preventing the methane emissions from entering the atmosphere.

Section 6: Supplier Relationships

Fuel suppliers

6-1. Does your company have a policy to incorporate environmental criteria in the selection of fuel suppliers? Is this policy globally applicable?

PPL normally selects coal, oil, uranium and gas on the basis of quality and price. Environmental criteria are not directly factored into the fuel purchase process, although sulfur content is specifically considered, as it directly affects emission rates (see the response to Question 6-2 below).

6-2. When selecting suppliers, does your company consider criteria such as the following?

Determining whether the fuel supplier has the necessary environmental permits:

PPL believes that vendors are responsible for securing their necessary environmental permits. Using reputable suppliers provides the best assurance that applicable state and federal environmental regulations are being met.

Determining whether the fuel supplier has an environmental management system in place:

PPL does not currently factor this into the supplier selection process.

Conducting a physical evaluation of the fuel supplier's facility:

PPL staff completes vendor site evaluations prior to any fuel shipments; however, operational conditions, and not an environmental review, is the site visit focus. Staff concerns center on whether the vendor can meet shipping commitments and PPL fuel quality criteria. PPL does prefer vendors who run top-notch operations, including those with good environmental performance records.

Reviewing the fuel supplier's:

Impact on local environment in extraction of fuels:

Not currently factored into our fuel purchase decisions.

Use of hazardous substances in extraction of fuels:

Not currently factored into our fuel purchase decisions.

Chemical composition of fuel (e.g., sulfur in coal):

Sulfur content is a major factor in PPL Generations' coal purchase decisions. A direct link exists between the sulfur content of the coal and SO₂ concentrations in the power plant stack gases. PPL is granted a number of SO₂ emission allowances annually and must purchase additional allowances if its yearly allocation is exceeded. To avoid this cost, PPL seeks the lowest sulfur content coal consistent with other fuel performance criteria. PPL adds a sulfur content cost factor to each supplier's per-ton cost, which places suppliers with higher sulfur content coal at a competitive disadvantage. In addition to environmental compliance issues,

PPL avoids higher sulfur content coal, which tends to produce more slagging within the boilers, an undesirable operational factor.

Impact of fuel delivery:

Not currently factored into fuel purchase decisions. However PPL's Chemical Laboratory checks the BTU, sulfur, moisture and ash content of each railroad car of coal and the sulfur content of oils burned at the company's Pennsylvania facilities.

Generation and management of waste:

Not currently factored into fuel purchase decisions.

Compliance record:

Not directly factored into fuel purchase decisions. PPL does seek established suppliers with good reputations in their industry based on various factors, including environmental compliance. PPL finds that doing business with highly reputable firms makes good sense and is more cost-effective in the long term.

Workplace health and safety practices:

Not directly factored into fuel purchase decisions. PPL seeks suppliers with high business standards, including a focus on employee safety.

Working cooperatively with a fuel supplier to develop environmentally preferable processes, materials and products:

Environmentally preferable alternatives are factored into PPL's fuel purchase decisions in special cases. PPL's participation in EPA's Landfill Methane Outreach Program is an example. (Questions 5-9 and 7-10). Emission reductions are achieved by on-site combustion of waste methane gas to produce power that is sold on our system.

Giving preference to fuels extracted locally:

Since transportation is a major factor in the coal delivery price, economics dictate that the coal supplier closest to the plant site who meets all performance criteria will be the successful supplier. This is an economic and not an environmental decision, but may result in fewer emissions and lower fuel consumption during the transportation of coal to the power plant.

Determining whether the supplier has third-party accreditation:

Not currently factored into fuel purchase decisions.

Other suppliers

6-3. Does your company have a policy to incorporate environmental criteria in the selection of suppliers for other (i.e., nonfuel) goods and services it purchases? Is this policy globally applicable?

PPL revised its procurement manual to explicitly incorporate environmental criteria into the process of selecting suppliers of nonfuel goods and services. Specifically, the criteria recommend that life-cycle cost analysis is used when evaluating competitive bids and that preference be given to products with a greater content of recycled waste and to suppliers with established sustainable development programs and/or environmental management systems.

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Also, as part of its program to develop strategic alliances with key product suppliers and service providers, PPL has the opportunity to work directly with the vendor to find ways to help them improve their environmental performance in support of PPL's Environmental Policy. For example, in cooperation with its alliance partner, PPL switched from one supplier of janitorial products to another because of the superior environmental and safety performance of the new supplier.

6-4. When selecting such suppliers, does your company consider criteria such as the following?

Specific materials procurement requirements (e.g., recycled content, equipment energy efficiency) and energy source preferences (e.g., natural gas vs. oil vs. coal) are addressed in Section 8.

	Yes	No
Supplier's use of environmentally preferable materials	X	
Materials use efficiency of supplier operations		X
Energy use efficiency of supplier operations		X
Hazardous waste management practices		X
Solid waste management practices		X
Final waste and emissions volumes for supplier operations		X
EHS compliance record		X

Except for waste management suppliers, PPL does not routinely use environmental or health and safety performance criteria in the selection of its suppliers. However, PPL's corporate Supply Chain is developing a process that will move the company in this direction, and the recent adoption and publication of corporatwide environmental procurement principles is a clear step in this direction.

6-5. If applicable, describe specifically how supplier environmental performance influenced a recent procurement decision.

See the response to Question 6-3 above relating to PPL's recent decision to change suppliers of janitorial products.

6-6. Does your company actively share its knowledge of environmentally preferable processes with its suppliers, or work proactively in some other way with its suppliers to develop environmentally preferable materials, products, processes, or services?

PPL has entered into a number of strategic alliances with various service providers and suppliers and is constantly evaluating other similar opportunities. These alliances allow the company to work directly with its alliance partners to look at issues such as the environmental, safety and health performance of both the partner and its suppliers. A good example of how this works is given by the alliance with the company's janitorial products partner, who came to PPL to suggest switching to a new supplier whose environmental and safety and health performance was superior to the supplier we had been using. In 1999 PPL created a similar alliance with a waste management vendor. This new alliance partner helps PPL more effectively evaluate the various off-site waste treatment and disposal facilities used to manage wastes.

6-7. Please explain how your company monitors the environmental performance of suppliers. For example, do you conduct a physical evaluation of suppliers' or vendors' facilities, evaluate records and data provided by suppliers or vendors, rely on a statement from the supplier or vendor, and/or make use of third-party certification or review?

The only formal program PPL currently has for evaluating the environmental, safety and health performance of its suppliers and service providers is in the area of waste management. Currently, PPL's waste alliance partner routinely surveys and performs formal on-site inspections of all the hazardous waste management facilities used by the company.

6-8. If your company purchases energy (e.g., electricity or natural gas) for resale, what environmental criteria, if any, does it incorporate in selecting a supplier?

PPL EnergyPlus does not incorporate environmental criteria in selecting the supplier for its electricity or gas purchases for resale. Other factors, such as availability of the power on the PJM system and business contracts, control these purchases.

6-9. Does your company have procedures in place to monitor its supplier selection criteria?

See answer to Question 6-4.

6-10. What challenges and successes have your company experienced in the area of supplier relations?

The major accomplishment in supplier relations has been in the area of strategic alliances. This represents a major change over the way the company used to do business. These arrangements allow PPL to work directly with the alliance partner to identify and act upon opportunities to improve overall environmental, safety and health performance. Because PPL's experience with this type of relationship has been good, the company is constantly looking for other areas where an alliance makes sense.

Section 7: Energy Acquisition, Conversion, Distribution and Sales

Electricity generation

Are you a generator of electricity?

2001 Data PPL Generation	MWh generated from source	% of total generation
Combustible Fuels		
Oil and gas	1,809,274	4%
Coal	25,482,415	54%
Other—CTs and diesel	17,972	0%
Hydro (excluding pumped storage)	3,429,716	7%
Nuclear	16,078,199	34%
Nonhydro renewables	275,640	1%
Total Generation	47,093,215	

Transmission and distribution

7-2. Please provide the information regarding fuel source specified in the table below. If this information is not known for some or all electricity (e.g., purchased power), please note that fact:

Source: PPL Electric Utilities—Y2001 data.	Source of MWh Transmitted
Oil/gas	1,809,274
Coal	25,482,415
Hydro (excluding pumped storage)	3,429,716
Nuclear	16,078,199
Diesel and combustion turbine	17,972
(Purchases)	18,022,995
TOTAL Transmission (MWh)	64,840,571

7-3. Please provide the following information on your transmission network (69kV and above):

(1) What percentage of your transmission network is above ground?

Over 99%.

(2) What fraction of network right of way lies on public land?

Less than 1%.

(3) What fraction of your transmission network is on shared right of way?

Less than 1%.

(4) Please describe right-of-way management policies, including herbicide use, trails management (access and maintenance), wetlands policy, erosion control.

The vegetation on PPL Electric Utilities' transmission rights of way (ROW) is maintained utilizing the management techniques of tree trimming, tree removal, re-clearing and herbicide application. All lines are field surveyed about every three years, and needed work is done based on the conditions observed.

PPL manages the ground vegetation on its ROWs selectively. Cutting and herbicide application activities generally target the taller trees. This approach promotes safe, reliable operation of PPL's facilities and delivery of electric power to users. PPL Electric Utilities selectively treats and maintains the vegetation in the right of way leaving the low-growing vegetation that competes with undesirable vegetation, helps reduce future maintenance requirements and creates favorable wildlife habitat.

Herbicide application is an important vegetation management tool used by PPL Electric Utilities. This technique is the safest, most effective means of controlling undesirable vegetation. PPL

Electric Utilities uses only EPA-approved herbicides selectively applied from the ground, which minimizes the amount of herbicide that has to be used. The application methods currently used are stem foliar (high/low volume), low-volume basal and cut surface. PPL Electric Utilities also uses the Department of Agriculture Hypersensitivity Registry before applying herbicides so specific individuals are notified in advance.

Planning for potential wetlands and water encroachments begins in the early stages of a project and continues through construction. PPL Electric Utilities conducts environmental inventories whenever new transmission lines are constructed. These inventories cover wetlands, water crossings, and threatened and endangered species habitat. Data is considered in conjunction with social and technical constraints to determine a line route that best balances regulatory requirements, the wishes of the public and cost.

Any required environmental permits are obtained during this process. If effects on wetlands and waters are unavoidable, a multi-disciplined team reviews potential encroachments with a goal of including mitigation strategies into the final line design. The vegetation management foreman (VMF) is a key member of this team and is trained in both construction techniques and erosion and sedimentation control regulation requirements. The VMF works closely with local conservation districts, the state Department of Environmental Protection and the Army Corps of Engineers, as needed. Acting as the principal contact between PPL Electric Utilities field construction operations and the governmental agencies, the VMF assures that all permits are fully complied with and that there is minimal disturbance to the environment during project construction.

(5) Please describe measures taken to protect people and animals (including raptors) from electrocution.

PPL Electric Utilities installs “Danger, High Voltage Above” signs on each of the four sides of transmission structures. In rare cases where climbing of structures has been identified, PPL Electric Utilities has installed anti-climbing devices, such as barbed wire, to preclude such activity. Substations are fenced and danger signs are posted on all sides of the fenced areas.

PPL Electric Utilities usually has no need to modify its structures to prevent raptor electrocution since raptor line contact is very infrequent. Most contacts are from turkey vultures, which are not a threatened or endangered species. PPL Electric Utilities’ Transmission Maintenance Manual Raptor Policy also protects raptors. If a raptor nest or if an endangered, threatened or protected species nest is encountered on a company structure or right of way, the policy precludes crews from disturbing the nest. PPL Electric Utilities personnel are instructed to call for assistance in the identification of the species or nest. PPL Electric Utilities reports the nest to the local wildlife conservation officer and requests guidance. If injured raptors are encountered, the Raptor Policy provides a list of contacts for assistance.

(6) Please discuss corporate responses to public concern regarding electromagnetic fields (EMFs) and stray voltage.

PPL Electric Utilities continues to take a reasoned, prudent approach in responding to the EMF issue. This approach consists of these elements:

- Providing EMF information to customers and employees.
- Providing magnetic-field measurements to residential customers.
- Establishing and implementing a program to reduce magnetic fields in new or rebuilt facilities when it can be done at no or low cost.

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- Integrating EMF into PPL Electric Utilities' public involvement process when siting of transmission lines.
- Developing an EMF Teachers' Guide for middle school teachers with discussion topics and classroom activities to familiarize young people with the scope of the issue.

7-4. Please provide the following information on your local distribution network (below 69kV):

(1) What percentage of your local distribution network is above ground?

Over 90% of PPL Electric Utilities' local distribution network is above ground. However, PPL, like all other Pennsylvania electric utilities, must comply with a Pennsylvania Public Utility Commission rule that requires the placing of electric lines underground in developments of five houses or more. PPL Electric Utilities has been doing this for a number of years.

(2) Please describe pole material selection, management and disposal policies.

Wood poles make up over 98% of PPL's distribution poles. Fiberglass and steel poles are used for specific applications, where accessibility, strength or environmental concerns prove them to be advantageous.

Current poles are Southern Yellow Pine with pentachlorophenol as the wood preservative. In the past creosote was used as the preservative. Creosote still makes up the majority of the poles on PPL Electric Utilities' system. Cross arms are Douglas fir treated with pentachlorophenol. Poles are inspected based on age, and the appropriate ground line treatment or replacement is determined by the results.

PPL's disposal policy is to find a beneficial reuse first. If this is not possible the poles are disposed in accordance with all applicable standards.

Sales

7-5. If you sell electricity to the end user, please provide the information regarding primary energy source specified in the table below. If this information is not known for some or all electricity (e.g., purchased power), please note that fact.

See Question 7-2

Natural gas supply

7-6. Are you a primary producer of natural gas? If so, please describe environmental protection measures in place, including the following:

No. None of PPL Gas Utilities subsidiaries are primary producers of natural gas. North Penn Gas owns and operates between 35 to 40 shallow production wells that produce natural gas. Most of the former production wells have been closed in and are being systematically plugged per Pennsylvania regulations.

Filtration units associated with dehydration.

None.

Sulfur recovery systems.

None.

Emissions controls on compressors.

No compressors are owned or operated.

Other environmental protection measures.

PPL Gas Utilities has a formal, ongoing program under a consent order and agreement with the Pennsylvania Department of Environmental Protection to systematically plug depleted gas production wells according to state regulations.

7-7. Please describe environmental protection measures in place associated with your storage operations.

North Penn Gas operates a total of seven drip condensate tanks associated with the Meeker Gas Storage Field. Six of these tanks are skid-mounted with spill containment attached. The remaining tank is enclosed within an earthen dike that is lined with impermeable membranes. As the older tanks are taken out of service, they are replaced with newer, double-walled tanks.

Transportation and distribution

7-8. If you transport natural gas:

(1) What percentage of your pipeline network is above ground?

4%.

(2) What fraction of the network passes through public land?

6%.

(3) What are company policies regarding siting of pipelines that transect sensitive ecosystems?

We follow all applicable federal, state and local regulations when submitting erosion and sedimentation control plans, general permits applications, PNDI searches and other relevant permits for construction.

(4) What percentage of your transportation network is on shared right-of-way?

Less than 10%.

(5) Please describe pipeline material selection, management and disposal policies.

Pipeline Material Selection – PPL Gas Utilities Operating Procedures Manual states that “the pipe shall be manufactured in accordance with Title 49 CFR, Part 192, Subpart B, Section DOT 192.598 (Plastic) or DOT 192.55 (Steel).”

Pipeline Material Management – Pipe and associated materials are visually inspected at the time of delivery to insure they meet company specifications. Steel pipe is stored on wooden padding according to the specific stacking height, width and spacing guidelines provided in the

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Operating Procedures Manual. Polyethylene pipes are stored following the manufacturer's recommended shelf life and so as to avoid exposure to ultraviolet light. All steel pipes are coated and the coating is inspected using an electronic "holiday" detector before installation. Select backfill and/or protective sheeting is used to protect the installed pipe.

Disposal policies – All pipes to be removed from service are abandoned according to PPL Gas Utilities Corp. Operating Procedures Manual. Most buried pipe removed from service is abandoned in-place. All other steel pipe, including that above ground, is cut into manageable lengths for storage or disposal. Salvageable steel pipe is stored for future use as protective casing sleeves for new pipe or for miscellaneous structure fabrication. Unused steel scraps are disposed of in local salvage yards. Scraps of unused polyethylene are temporarily stored in a trash container until they can be permanently disposed. Used glycol and silica gel are temporarily stored in 55-gallon drums until they can be disposed of at an appropriate waste disposal facility.

(6) Please describe right-of-way management policies, including herbicide use, trails management (access and maintenance), wetlands policy and erosion control.

PPL Gas Utilities maintains rights of ways so they are passable for required surveys and maintenance. Growth-retardant herbicide is utilized in areas where permitting is available and where property owners grant permission. Erosion control is addressed in the initial installation and final grading of rights of way. Indications of erosion are reported as part of an annual (minimum) patrol of transmission rights of way. Where the use of herbicides is not permitted, the right of way is often maintained with the use of mechanical equipment.

(7) Please describe policies surrounding the siting and operation of compression, storage and conditioning stations.

Compressor Stations – None.

Storage Stations – North Penn Gas owns two underground gas storage fields, one of which it operates. A third party, Consolidated Natural Gas Company, operates the other field and provides compression for both. As these storage fields are developed from naturally occurring natural gas reservoirs, the policies regarding citing are limited.

Conditioning Stations – Mercaptan-based odorant is added to the gas stream at take and demand stations to indicate the presence of gas. Mercaptan injection into the natural gas follows the regulations outlined in Title 49 CFR, Part 192, Section DOT 192.625. Glycol and silica gel are used to remove moisture from the gas stream in critical areas, such as regulation and metering stations.

(8) Please describe measures taken to minimize losses from your pipeline system.

- Leakage surveys are conducted using flame-ionization gas detectors.
- Check metering is utilized to identify unusual flows on sections of the transmission system.
- The gas is odorized to alert the public of any leaking condition.
- Gas sales and purchases are monitored to determine the "unaccounted for" rate.
- PPL participates in the Pennsylvania One-Call system to reduce third-party damage to its facilities. The company conducts its own programs with excavators and others to gain their cooperation when they work near PPL facilities.

- Excess flow valves are used on all gas services extended from facilities operating at 10 psig or more.
- Coated steel pipe, and some bare pipe, is cathodically protected to minimize corrosion.
- Older pipe is replaced with new plastic and coated steel pipe that is less likely to leak.
- Employee and contractor awareness training assures that all workers are trained to prevent and identify leaks in the field.

(9) What measures are taken to protect habitats and human populations from the risk of leakage and/or explosion?

In addition to the steps noted in 7.8 (8), PPL also maintains trained field personnel who are skilled at identifying and correcting potentially dangerous situations. Calls are answered 24 hours a day, seven days a week, by trained personnel who are prepared to initiate appropriate corrective action.

7-9. If you distribute natural gas to the consumer:

(1) What percentage of your distribution network is in plastic pipes?

Greater than 55 percent of PPL gas mains are plastic, based on length of pipe; greater than 78 percent of PPL gas services are plastic, based on the number of services.

(2) Please describe measures taken to minimize losses from your pipeline system.

The same measures listed in Question 7-8 (8), above, also apply to distribution facilities.

Other energy

7-10. Please describe other significant energy production, distribution and sales activities in which you are involved. Discuss potential environmental, health and safety impacts associated with these activities, and actions taken to prevent or mitigate such impacts.

PPL is making significant strides in promoting clean energy in many parts of its businesses. The \$20 million PPL Electric Utilities customer-funded Sustainable Energy Fund of Central Eastern Pennsylvania invests in developing leading-edge clean energy solutions and energy conservation technologies (Question 5-1). On top of that PPL Electric Utilities purchased over 275,640MWh of small hydroelectric and renewable power for resale on its system in 2001. PPL Generation and sister development company PPL Global has added more than 1,500 MW of state-of-the-art gas-fired power generation that will significantly reduce PPL's emission rates while meeting energy demand. PPL's energy services companies are installing fuel cells and other clean, cutting-edge energy solutions at leading commercial sites. A sewage treatment plant in Allentown, Pa., that once flared off about 80 million cubic feet of methane every year now uses this waste gas to provide a significant portion of the facility's energy needs. EnergyPlus also is developing clean energy solutions for one of the largest hotel chains in the United States. Through a partnership with PPL, fuel cells will help energize Starwood Hotels in the northeastern U.S.

PPL Generation also installed the second selective catalytic reduction pollution control device at Montour, its largest coal fired plant in Pennsylvania, to reduce more than 90 percent of the nitrogen oxides emitted by the plant during ozone season. And the company is continuing with its strategy to reduce air emissions.

Section 8: Internal Use and Conservation of Natural Resources

8-1. Describe how your company incorporates environmental guidelines into its selection of goods and services (as distinct from its selection of suppliers):

As noted in Question 6-3, PPL revised its procurement manual to explicitly incorporate environmental criteria into the process of selecting suppliers of nonfuel goods and services. Specifically, the criteria recommend that life-cycle cost analysis is used when evaluating competitive bids and that preference be given to products with a greater content of recycled waste and to suppliers with established sustainable development programs and/or environmental management systems. Also, PPL has begun to incorporate environmental guidelines into the selection of goods and services by setting up strategic alliances to consolidate procurement practices and reduce costs. Specifically, the corporation has instituted a process through its alliance partner for ordering janitorial chemicals to better document and control the types and quantities of those products that are used across the corporation's business lines. As part of this alliance, PPL is expanding the program to include environmental criteria in the selection of janitorial goods. A second, similar alliance has been established with a waste vendor to handle much of PPL's wastes. PPL intends to use the resources of this alliance partner to help identify waste recycling opportunities and better manage the wastes.

Also, PPL has an internal approved chemical review process to help assure that chemicals used meet applicable environmental and safety standards. The program's specific goals are to provide guidance in choosing the least hazardous chemicals for each job, monitor chemical use, minimize hazardous wastes and provide the guidelines that will control the use of chemicals and hazardous materials. These procedures apply to all chemical products used throughout the corporation.

8-2. Does your company have a formal written policy regarding materials/resource conservation, reduction, reuse and recycling?

PPL's environmental policy reflects a corporate culture that promotes conservation of natural resources, pollution reduction and protection of the environment

8-3. Are the following targeted by that policy?

	Yes	No
Reduced consumption of virgin materials through product or process redesign	X	
Water conservation	X	
Energy conservation		X
Habitat conservation	X	
Risk reduction	X	
Procurement of reused goods		X
Procurement of goods with recycled content	X	
Recycling of solid waste	X	
Recycling of hazardous waste and toxic materials	X	

8-4. If you have a formal materials/resource conservation policy, what specific programs are in place to ensure that your policies are implemented? Describe management programs, including monitoring:

PPL has a long-standing commitment to protect natural resources directly under its control through its environmental preserves near several major power plants. The company has also had a decades-old program of sustainability managing the forests on many of its large tracts of real estate and has full-time staff responsible for overseeing this program.

8-5. Give some examples of techniques, practices and procurement methods employees are using to conserve materials/resources:

The power plants and vehicle garages are currently using parts washers that recycle used solvent on-site, resulting in less solvent consumption and less waste solvent being shipped off-site. The garages also recycle their own antifreeze, reducing the amount of antifreeze that has to be purchased and the amount of waste antifreeze that has to be shipped off-site. By switching to dry ash-handling systems, the fossil power plants have reduced their use of water by over 50% since 1990. The fossil plants have similarly increased the amount of ash that can be recycled, thereby conserving the natural resources that would otherwise be used in its place, such as cement and soil. Also, the company recently began using a computerized work management and chemical inventory system that should result in less excess inventory and waste. The increased use of computers at PPL also has resulted in a reduction in the amount of paper that would have otherwise been used.

8-6. Have you established specific targets for material/resource conservation programs (e.g., metal, wood, office paper, cardboard, vehicle batteries, motor oil)?

Not at this time, although a key objective of establishing a waste vendor alliance is to obtain the data necessary to establish meaningful source reduction and recycling targets for a variety of wastes and to monitor performance against those targets.

8-7. Does your company, routinely or in specific circumstances, track chemical use through materials accounting or mass balance methods (as distinct from, or in addition to, tracking environmental releases)?

Not routinely, but PPL does use the materials accounting (inventory and purchasing records) approach to calculate listed chemicals for reporting under EPA's Toxics Release Inventory.

8-8. Please describe your company's activities to minimize energy use at its own facilities (not including generating facilities):

PPL's major business lines are developing environmental performance improvement goals that in some cases include energy savings programs at certain facilities.

8-9. What steps have you taken to minimize the environmental burdens associated with employee transportation for work-related or other purposes?

PPL experimented with electric vehicles for company-related operations over the past several years, but this program has had limited success. In 2001, the company announced the purchase of over 200 propane-fueled vehicles for company use, and for many years it has subsidized the use of mass transit by company employees working out of the corporate headquarters in Allentown, Pa. In 2001, PPL also is continuing to subsidize the mass transit system as part of a consent order agreement with the state related to opacity violations at its Martins Creek power plant.

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8-10. Document trends in energy use at your company's facilities, by source:

Electricity (million kWh)	Base Year 1997	1998	1999	2000	2001
Self-generated (U.S. totals)	2,101	2,000	1,796	2,312	2,023

8-11. Document trends in company-owned and leased-fleet vehicle fuel use:

Vehicle fuel	1998*	1999*	2000**
Electricity (kWh)	11,192	17,551	7,261
Total km traveled	16.089	19,247	7,400
kWh per 100 km traveled	72.01	90.72	98.12

*1998 and 1999 values were adjusted from previous report for improved accuracy.

** Electric vehicles returned in 2000 to manufacturers.

8-12. What challenges and successes has your company faced in managing its use and conservation of natural resources?

PPL Generation uses millions of tons of coal and millions of barrels oil to produce electricity. Other large quantities of water, air, uranium fuel and land are used. Using these and other resources responsibly and safely present continuous challenges and successes. See Question 8-13.

8-13. Please describe your company's policies and programs regarding proactive ecosystem protection and stewardship (such as wetlands preservation, revegetation, wilderness and ecosystem protection, etc.) in areas affected by your operations. Include discussion of issues associated with easements and right of ways.

PPL has aggressive land management and ecosystem protection programs. As a major hydropower operator in Montana, Maine and Pennsylvania, PPL is responsible for protecting fish and wildlife, and cultural heritage. This includes hundreds of miles of river in Montana where the company operates 11 hydroelectric power stations. In Pennsylvania PPL's environmental preserves provide recreational opportunities to millions of visitors every year. PPL also sets aside thousands of acres of company land including woods, streams, lakes, meadows and wetlands. These nature areas thrive in close proximity to the company's largest power plants and show that it is possible to provide energy in harmony with the environment.

PPL's ecosystem protection programs are not restricted to the United States. In Chile, the company is working to save black-neck swans that cross the top of the Molles Dam. These birds were getting hurt when they came in contact with high-voltage power lines. Working with the Municipal Museum of Natural Sciences and Archaeology of San Antonio, PPL modified the line and installed safety devices to allow the birds safe passage.

8-14. Please describe your company's policies and programs regarding environmental restoration, in those cases where company activities or operations have resulted in damages.

The Pennsylvania Department of Environmental Protection has recognized PPL as a leader in site remediation. PPL companies have a program with the Pennsylvania Department of Environmental Protection to assess and remediate when needed sites that may have been contaminated by PPL or predecessor company past operations. This voluntary program was the first of its kind in the state. More than 150 sites have been addressed and hundreds of acres of previously idle property have been made available for productive reuse.

Section 9: Emissions and Waste

Routine emissions

9-1. Does your company have goals or policies to reduce or eliminate routine emissions of the following?

	Yes	No
Greenhouse gases (GHGs) as defined by the Kyoto Protocol		X
Ozone depleting substances (ODSs) as defined by the Montreal Protocol	X	
Key air pollutants (specifically carbon monoxide, lead, volatile organic compounds, nitrogen oxides [NO _x], particulate matter [PM10], and sulfur oxides [SO _x])	X	

Please discuss these goals and comment on their genesis (i.e., were they internally generated, generated in response to regulation or generated in response to an externally initiated voluntary goal):

PPL's greenhouse gas emission reductions result from actions taken under the U.S. Department of Energy's Climate Challenge program. PPL Electric Utilities uses three types of Ozone Depleting Substances (ODSs): halons, CFCs and chlorinated solvents. The company has programs to minimize their use. Trichloroethane (TCA), previously used as a degreaser, has been phased out in nearly all applications. Since 1990, PPL has reduced its SO₂ and NO_x emissions rate by about 50% and 64% respectively.

9-2. Indicate routine emissions data and targets for greenhouse gases, ozone depleting substances, key air pollutants and other chemicals associated with energy that your company sells, including purchased energy. Please provide separate tables for operations that differ significantly in their emissions profile.

PPL Generation		Base Year 1990	1998	1999	2000	2001
CO ₂	Total (million tons)	29.03	27.95	23.81	28.4*	26.9
	lb./gWh	1.31	1.33	1.18	1.14*	1.15
Carbon Monoxide	Total tons		2,132	2,223	2,374	2,651
Lead	Total tons		5.5	4.5	4.0	1.99
VOCs	Total tons		143	146	172	175
NO _x	Total tons	115,564	61,915	46,505	51,269*	46,019
	lb./mwh	5.45	3.00	2.31	2.07*	1.97
SO ₂	Total tons	385,833	327,977	258,485	224,186*	212,786
	lb./mwh	18.21	15.89	12.83	9.05	9.09

*Data updated for improved accuracy.

Please comment on significant trends for total/overall emissions information:

Since 1990 PPL Generation significantly reduced SO₂, NO_x and CO₂ emission rates (by about 50%, 64% and 12% respectively) by switching fuels to lower sulfur coal, changing the way it operate plants and changing its fuel mix.

9-3. Has your company formally adopted a climate change policy?

PPL is in the process of developing a revised global climate change policy.

9-4. Has your company agreed to voluntary chemical or other emissions reductions with specific targets and timetables, as defined by others or established by the company itself?

Yes. See Question 9-1. PPL Generation also installed state of the art nitrogen oxide removal technology at its largest coal fired plant in Pennsylvania before it was required to do so under the Clean Air Act.

Spent nuclear material

9-5. If your company generates spent nuclear material, please provide information on quantities generated (in metric tons and curies), management type and policies regarding storage.

In 2001, PPL removed approximately 54 metric tons of spent fuel from its Susquehanna nuclear plant. The spent fuel is stored on-site.

Hazardous waste

9-6. Does your company have specific programs in place to encourage hazardous waste minimization?

Yes. PPL has had a hazardous waste minimization plan in place since 1986. State and federal regulations require that PPL maintain written hazardous waste minimization plans and residual waste source reduction plans. PPL has partnered with national leaders in the hazardous and nonhazardous waste handling and recycling business to help the company effectively manage its waste handling and minimization programs.

9-7. What quantity of hazardous waste has your company generated during the last three years? Please provide both absolute and normalized data, as well as the unit(s) of output used for normalization. Please also note the base and target years used (you are encouraged to use an odd-numbered year for baseline data to facilitate cross-referencing of data). Please specify the definition of hazardous waste used to compute these figures:

PPL Generation and Electric Utilities	U.S. Totals	
	Tons	lb./kWh
Base year (1994)	677	0.038
1999	136	0.007
2000	249	0.015
2001	92	0.002

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PPL uses the federal classification of hazardous waste based on ignitable, corrosive, toxic and reactive properties or the listing of specific process wastes. Quantities documented below are from the company's U.S.-based operations. Normalized data is in pounds of hazardous waste per kilowatt hour generated.

Please comment on significant trends:

PPL reduced hazardous waste generation by about 85% in the early 1990s through a number of efforts including managing boiler water chemistry at the power plants. Reductions from these actions plateaued in the late 1990s. Annual totals are now characterized by small yearly variations in hazardous waste production. PPL's Waste Alliance Team has been identifying additional cost-effective hazardous waste reduction opportunities.

9-8. Of the hazardous waste generated in the last measured year, what percentage was:

Management Type	% Off-site
Converted to salable product	0
Recycled	10
Incinerated	3
Treated	9
Landfilled	77

Waste Alliance Team members continuously seek best management practices for hazardous waste. Best management is defined as practices that are environmentally responsible, that limit future corporate liability and are cost-effective.

9-9. Does your company investigate the environmental performance of its hazardous waste disposal vendors?

Yes. Onyx, PPL's waste alliance partner for hazardous waste, maintains an extensive vendor audit program both for initial approval of and doing continued business with hazardous waste disposal vendors. PPL views the Onyx program as more rigorous than PPL's internal programs. PPL has committed to using only hazardous waste vendors approved through the Onyx program.

9-10. At how many sites has your company been involved in remediation of contaminated soil or water?

See answer to Question 8-14.

What is the current and expected financial impact of your involvement in these sites?

Under its voluntary, multi-site remediation agreement with the state (see Question 8-14), PPL is obligated to spend no more than \$5 million a year on site assessment and remediation. Since the agreement was signed, PPL has spent about \$2.4 million per year on average for these activities. Similarly, PPL Gas is required to spend no more than \$1.75 million a year under its agreement and on average has spent about that amount each year since 1996.

Nonhazardous waste

9-11. Please identify any significant non-hazardous waste streams (e.g., solid, agricultural, office, packaging, dairy) generated by your products or processes:

Coal ash by far is the most significant non-hazardous waste stream generated by PPL. The company has an outstanding ash management program that beneficially reuses the vast majority of its coal ash. In 2001, PPL's Pennsylvania coal plants generated 733,599 tons of coal ash. About 90% of that ash was beneficially reused.

9-12. Are there programs in place at your company to minimize nonhazardous waste streams?

Yes. The Pennsylvania Department of Environmental Protection requires that residual waste generators draft source-reduction strategies for each type of residual waste produced. These strategies describe each waste stream and either the alternatives explored or the actions taken to minimize the waste's toxicity and volume. PPL Generation-East's residual waste minimization options are limited because the large volume of coal ash produced is not amenable to source reduction efforts. Both the United States Environmental Protection Agency and Pennsylvania Department of Environmental Protection recognize this limitation and encourage utilities to maximize beneficial ash reuse in lieu of source reduction. As indicated in the response to Question 9-11, PPL has been highly successful in the area of beneficial ash reuse.

PPL Generation-East has focused residual waste minimization on more expensive wastes. A corporate waste alliance team is charged with reviewing best management practices, including minimization opportunities for each residual waste for all PPL business lines.

9-13. What quantity of such wastes has your company generated during the last three years? Please provide both absolute and normalized data, as well as the unit(s) of output used for normalization. Please note the base and target years used.

Waste Stream	Base year (1994)		1999	2000	2001
	Million Tons	Lb/MWh	Million Tons	Million Tons	Million Tons
Solid	1.05	59.5	0.96	0.83	0.73

9-14. Of the nonhazardous waste generated last year, what percent was:

Management Type	Percentage of waste managed
Recycled/reused	91
Incinerated	0
Treated	0
Landfilled	9
Used for energy recovery	0

PPL Pennsylvania coal plants only.

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Accidental releases

9-15. Do you track oil spills, chemical spills and other accidental releases (e.g., radioactive releases or upset conditions)?

Yes. PPL maintains several spill-tracking systems corresponding to its various business lines. PPL's electric transmission/distribution and generation business lines track oil, chemical spills and accidental releases on an annual basis.

9-16. If yes, detail what you consider minimum "reportable quantities" for releases in international as well as domestic operations (your internal standards, not necessarily those defined by law). Please provide information for releases to all media (land, water, air):

Reportable quantities depend on the significance of the spill and the sensitivity of the area or equipment impacted. Reporting guidelines for some spills are defined by state or federal regulation and generally depend on the nature of the spill and the material spilled.

9-17. Provide the following information on spills and accidental releases. Please specify the units used:

PPL Electric Utilities Routine Spills and PPL Generation Agency Reportable Spills						
	Oil Spills		Chemical Spills		Other Releases	
	#	Vol. (gal.)	#	Vol. (gal.)	#	Vol. (gal.)
2001						
Released to land	79	1,148				
2000						
Released to land	92	2,283				
1999						
Released to land	82	1,063	1	75		
1998						
Released to land	97	200	1	1,400		
Released to air					2	324
1997						
Released to land	112	21,510	2	515		
Released to air					1	27

The majority of oil spills involve five gallons of oil or less from small distribution transformer equipment.

Spill prevention and leak detection

9-18. Discuss your company's programs for preventing spills and detecting leaks. Address the following topics, as appropriate:

Management of coal piles.

Coal storage piles are contoured to minimize the amount of runoff and minimize the amount of water that percolates through the coal. This lowers the moisture content of the coal, which adversely affects plant operation, and reduces the amount of leachate that could potentially impact ground water. At one power plant site, Brunner Island, the entire coal pile area is lined with an amended fly ash product to protect the local ground water quality. Coal pile runoff at the plants is collected and either reused for fugitive dust control or directed to nearby wastewater treatment basins.

Management of feedstock chemicals used in the combustion process.

All generation facilities have written spill prevention, control and countermeasure plans addressing the storage and use of both petroleum products and chemicals. These plans are based on a thorough operational and engineering evaluation of spill potential at the facilities. Generally, all aboveground bulk storage tanks are equipped with secondary containment, and all underground storage tanks are of double-walled, fiberglass construction with built-in interstitial leak-detection monitoring.

Management of ash piles and other stored combustion byproducts.

Fly ash being stored for beneficial reuse is managed in silos equipped with state-of-the-art emission controls, such as bag filters and dust suppression systems. Bottom ash is stored temporarily in stockpiles located within the surface impoundments from which it was dredged. All runoff from the stockpiled material drains naturally back into the impoundment, where it is managed as part of the generating facility's permitted wastewater treatment system. Dusting is generally not a problem due to the very coarse nature of the material.

Management of natural gas storage.

See the response to 7-8 (8) and (9).

Management of natural gas pipelines and related equipment.

See the response to 7-8 (8) and (9).

The percentage of your company's fuel or waste oil storage tanks that are underground.

Twenty-nine percent of PPL's oil storage tanks are underground. PPL Gas Utilities (formerly Penn Fuel Gas) has no underground storage tanks.

Programs and progress on replacing or upgrading underground storage tanks.

PPL began an aggressive storage tank removal and replacement program at its generating stations, service centers and other facilities in 1989 to replace underground tanks (USTs) with aboveground tanks or eliminate underground tanks no longer required. As of December of 1998, the United States Environmental Protection Agency and Pennsylvania Department of Environmental Protection deadline for replacing or upgrading USTs, all of PPL's USTs had been

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removed, retired, replaced or upgraded to meet the regulations. At PPL Gas Utilities, the underground mercaptan (odorant) vessels, although not regulated tanks, were replaced in the North Penn Region.

The percentage of your company's fuel or waste oil storage tanks that have engineering controls for leak prevention and/or leak detection (e.g., double walled tanks).

All of PPL's USTs for fuel (diesel or gasoline) have double-walled tanks with interstitial monitoring for leak detection. Of the 14 underground waste oil tanks, 93% (13 tanks) are double-walled. PPL Gas Utilities has no USTs.

Any other controls or programs for spill prevention and leak detection.

USTs receive, at a minimum, a monthly inspection that is documented for regulatory compliance. Aboveground storage tanks receive inspections that can vary from daily inspections to monthly, depending on tank size and location.

In addition, PPL's Arizona plant, Griffith has a lined water pond that require leak detection and associated reporting to the Arizona Department of Environmental Protection as part of a zero discharge water permit.

9-19. What challenges and successes have your company faced in managing its emissions and waste?

See Questions 9-1 through 9-18. A summary of challenges and successes is discussed in Question 11-1, below, and in the Executive Summary of this report.

Section 10: Compliance

10-1. Provide the following information for compliance with all applicable national/federal regulations:

10-2.

Regulation	Year	Number Violations	Number Penalties	\$ Value
Air Quality	1996	1	1	\$62,100
	1997	0	0	\$0
	1998		1	\$2,500
	1999	1	2	\$7,200
	2000	0	2	\$1,500
	2001	2	1	\$120,300
Water Quality	1996		2	\$45,000
	1997		2	\$68,881
	1998	0	2	\$2,800
	1999	0	0	\$0
	2000	6	1	\$3,700
	2001	1		\$2,320
Administrative	2001	2	2	\$1,600
Hazardous Waste	1997		1	\$23,000
	1998	0	0	\$0
	1999	0	0	\$0
	2000	0	0	\$0
Workplace Health and Safety	1998		1	\$1,500
	1999	1	1	\$2,125
	2000*	2	1	\$6,800
	2001*	1	1	\$975

For consistency, only PPL's Pennsylvania operations are reported above. PPL Maine operations had no violations in 2000 or 2001. PPL Montana's operations sustained three employee injuries resulting in 33 OSHA violations of 19 penalties for \$88,500 in 2000 and four violations with penalties of \$200 in 2001.

Section 11: Priorities and Challenges

- 11-1. Please briefly summarize your environmental, health and safety performance for the last year, and priorities for the future. Please focus on the following and, as necessary, use facts and figures not elicited in the CERES Report:

What do you believe are your company's three most important environmental metrics that indicate impact?

1. The reductions in emission rates from fossil-fueled power plants.
2. The progress in cleaning up sites contaminated by predecessor companies or PPL's past operations under voluntary remediation agreements with the Pennsylvania Department of Environmental Protection.
3. PPL's progress in implementing an Environmental Management System in each domestic PPL subsidiary.

What do you believe are your company's three most important environmental program priorities?

1. Continual progress in implementing an Environmental Management System in each domestic PPL subsidiary.
2. Continued improvement in reducing air emissions and wastes.
3. Incorporating efforts to improve energy efficiency and promote renewable energy technologies as part of an overall global climate change strategy.

Give examples of three key environmental, health, and safety accomplishments your company has achieved over the last year (e.g., awards, favorable publicity, outside ratings, successful implementation of goals):

1. PPL Montana earned the Outstanding Stewardship of America's Rivers Award from the National Hydropower Association in recognition of PPL Montana's efforts to safeguard hundreds of miles of river where the company operates 11 hydroelectric stations.
2. PPL expanded the scope of its PPL Project Earth™ program to join all of PPL's worldwide community affairs and environmental management efforts under one programmatic umbrella.
3. PPL continued to reduce emission rates at its fossil plants while expanding its generating capacity.

Give examples of three key environmental, health and safety challenges your company has experienced over the last year (e.g., community problems, unfavorable publicity, outside ratings, disappointments in performance):

1. Continuing to grow corporate environmental, health and safety programs to cover newly acquired subsidiaries.
2. Increased attention on coal-fired generation as a source of air pollution.
3. Responding to community concerns about siting new power generating facilities.



corporations have a responsibility for the environment, and must conduct all aspects of their business as responsible stewards of the environment by operating in a manner that protects the Earth. We believe that corporations must not compromise the ability of future generations to

By adopting these Principles, PPL publicly affirms its belief that

sustain themselves.

We will update our practices constantly in light of advances in technology and new understandings in health and environmental science. In collaboration with CERES, we will promote a dynamic process to ensure that the Principles are interpreted in a way that accommodates changing technologies and environmental realities. We intend to make consistent, measurable progress in implementing these Principles and to apply them to all aspects of our operations throughout the world.

Protection of the Biosphere

We will reduce and make continual progress toward eliminating the release of any substance that may cause environmental damage to the air, water or earth or inhabitants. We will safeguard all habitats affected by our operations and will protect open spaces and wilderness while preserving biodiversity.

Sustainable Use of Natural Resources

We will make sustainable use of renewable natural resources, such as water, soils and forests. We will conserve nonrenewable natural resources through efficient use and careful planning.

Energy Conservation

We will conserve energy and improve the energy efficiency of our internal operation and of the goods and services we sell. We will make every effort to use environmentally safe and sustainable energy sources.

Risk Reduction

We will strive to minimize the environmental, health and safety risks to our employees and the communities in which we operate through safe technologies, facilities and operating procedures, and by being prepared for emergencies.

Safe Products and Services

We will reduce and, where possible, eliminate the use, manufacture or sale of products and services that cause environmental damage or health and safety hazards. We will inform our customers of environmental impacts of our products or services and try to correct unsafe use.

Disclaimer

These Principles establish an environmental ethic with criteria by which investors and others can assess the environmental performance of companies. Companies that endorse these Principles pledge to go voluntarily beyond the requirements of the law. The terms may and might in Principles one and eight are not meant to encompass every imaginable consequence, no matter how remote. Rather, these Principles obligate endorsers to behave as prudent persons who are not governed by conflicting interests and who possess a strong commitment to environmental excellence and to human health and safety. These Principles are not intended to create new legal liabilities, expand existing rights or obligations, waive legal defenses, or otherwise affect the legal position of any endorsing company, and are not intended to be used against an endorser in any legal proceeding for any purpose.

Environmental Restoration

We will promptly and responsibly correct conditions we have caused that endanger health, safety or the environment. To the extent feasible, we will redress injuries we have caused to persons or damage we have caused to the environment and will restore the environment.

Informing the Public

We will inform in a timely manner everyone who may be affected by conditions caused by our company that might endanger health, safety or the environment. We will regularly seek advice and counsel through dialogue with persons in communities near our facilities. We will not take any action against employees for reporting dangerous incidents or conditions to management or to appropriate authorities.

Management Commitment

We will implement these Principles and sustain a process that ensures that the Board of Directors and Chief Executive Officer are fully informed about pertinent environmental issues and are fully responsible for environmental policy. In selecting our Board of Directors, we will consider demonstrated environmental commitment as a factor.

Audits and Reports

We will conduct an annual self-evaluation of our progress in implementing these Principles. We will support the timely creation of generally accepted environmental audit procedures. We will annually complete the CERES Report, which will be made available to the public.



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