

# Continuing Progress in Pursuit of Excellence

Con Edison Environment, Health and Safety  
Annual Report for 2004



Con Edison  
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New York, N.Y. 10003

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For the ninth consecutive year, Con Edison's Environment, Health and Safety (EH&S) annual report serves as a milepost in our continuing journey toward excellence. Since our first report in 1996, the company has continued to show consistent overall gains in its environmental, health, and safety performance.

The EH&S management systems we have in place are mature, and they are constantly being refined to further increase their effectiveness. In addition, they contribute to making the company stronger, more efficient, and more effective in meeting the energy needs of the customers we serve.

Beyond providing an account of our technical compliance, this report broadens its scope. It shows how environmental, health, and safety considerations are integrated into our business practices. They are the foundation of Con Edison's commitment to environmental stewardship, as well as to the health and safety of our employees, customers, and the public.



Eugene R. McGrath  
Chairman and CEO



Randolph S. Price  
Vice President, EH&S

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**The beauty around us** Con Edison's commitment to environmental stewardship encompasses the natural resources that sustain and nourish our service area. The Croton Reservoir in Westchester County is one of the resources that provides beauty, recreation, and potable water.



## Company Profile and Financial Outline

This EH&S annual report is about the Consolidated Edison Company of New York, Inc. (Con Edison), which is a subsidiary of Consolidated Edison, Inc. [NYSE: ED], one of the nation's largest investor-owned energy companies, with approximately \$10 billion in annual revenues and \$23 billion in assets. The company provides a wide range of energy-related products and services to its customers through its five subsidiaries: Consolidated Edison Company of New York, Inc., a regulated utility providing electric, gas, and steam service in New York City and Westchester County, New York; Orange and Rockland Utilities, Inc., a regulated utility serving customers in a 1,350-square-mile area in southeastern New York State and adjacent sections of northern New Jersey and northeastern Pennsylvania; Con Edison Solutions, a retail energy services company; Con Edison Energy, a wholesale energy supply company; and Con Edison Development, a company that owns and operates generating plants and participates in other infrastructure projects. For more information, visit Consolidated Edison, Inc.'s Web site at [www.conedison.com](http://www.conedison.com).

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**Con Edison's fleet** A wide variety of specialized vehicles range throughout a service area that covers more than 600 square miles.

## **Embracing the Mission**

Con Edison's mission is the reliable and safe delivery of energy services to the millions of customers in its service area. Consolidated Edison Company of New York, Inc. has repeatedly been acknowledged as the most reliable electric utility in North America by PA Consulting Group, an international consultant, which presented the company with its National Achievement Award for "sustained leadership and achievement in the area of electric reliability."

While Con Edison's goal is always outstanding operational performance, an equal priority is to conduct business in accordance with sound environmental, health, and safety practices. This commitment is an integral component of corporate policy. Six key EH&S objectives continue to focus our efforts:

- Improve safety performance
- Ensure EH&S compliance
- Enhance relationships with stakeholders
- Integrate EH&S into "The Way We Work" at Con Edison
- Identify and reduce significant EH&S risk potential
- Promote the wise and effective use of natural resources

These objectives also serve as the framework for this annual report.

## **Data in This Report**

The Con Edison Environmental Management Information System (e2MIS) is used to track and record significant information about environmental performance, environmental incidents, and hazardous waste. This data provides the basis for our monthly reporting system, and it is used to analyze incidents, reveal relevant trends, and help evaluate our progress in key performance areas. Much of the quantitative environmental data in this report was compiled from e2MIS.

A corresponding system for health and safety data is the Safety and Health Information Management System (SHIMS), which is used by all operating organizations to log all safety-related incidents and an array of performance indicators. The SHIMS data is used in much the same way as the environmental archive, and it is instrumental in developing monthly reports, identifying trends, and pointing the way to improvements. The quantitative health and safety data in this report is drawn from SHIMS.

In addition to e2MIS and SHIMS records, the company relies on information developed during compliance audits conducted throughout the year. Audit findings are communicated to appropriate company personnel. Along with these findings, lessons learned on the job and Close Call reports are also communicated to help improve environment, health, and safety performance.

This EH&S annual report provides an overview of how our corporate policy and its associated management systems framed the company's environmental, health, and safety initiatives during 2004. It describes Con Edison's progress, notes opportunities for improvement, and measures our successes.

### Con Edison's Corporate Environment, Health and Safety Policy

**Consolidated Edison, Inc. is committed to striving for excellence in its environmental, health, and safety performance, while complying with all laws and regulations that apply to company operations. Business and operational decisions throughout the company incorporate environmental, health, and safety aspects into the decision-making process. All employees are held accountable for knowing the corporate environmental, health, and safety requirements that apply to their assigned responsibilities, and for using the information in planning and completing their work.**

In support of this policy, Consolidated Edison, Inc.:

- Maintains procedures and provides training to meet the corporation's environmental, health, and safety standards;
- Openly communicates about environment, health, and safety issues with employees, customers, and stakeholders;
- Promotes effective environmental, health, and safety program management through auditing, monitoring, reviewing, and corrective action efforts;
- Advances the identification, analysis, and management of environmental, health, and safety risks to foster prediction and prevention efforts;
- Recognizes and encourages outstanding environmental, health, and safety performance;
- Strives to reduce waste and prevent pollution through recycling and effective work-planning programs, and promotes strategies for energy conservation;
- Maintains systems, procedures, and personnel to prevent incidents and, when necessary, respond to emergencies;
- Promotes research to develop new and better technologies for environmental, health, and safety management; and
- Establishes metrics to track progress.



## An Overview of Safety and Health

Maintaining high safety standards is the cornerstone of Con Edison's focus on operational excellence. The company has an integrated approach to worker and public safety that combines technology, policies, procedures, and training. Throughout 2004, a consistent communications effort directed to all employees emphasized a broad-based strengthening of the company's safety culture. The communications program was themed "The Way We Work Is Safely." It highlighted every individual's responsibility to understand and use applicable safety procedures on every job. The special emphasis on safety yielded solid results. For 2004, the company demonstrated its best safety performance ever in terms of injury rate. In addition, OSHA recordable illnesses declined by 4 percent, and there was a 12 percent decrease in avoidable motor vehicle accidents. However, these achievements occurred during a year that also saw four operations-related fatalities. Three were Con Edison employees, and one was a member of the public. These tragic events sharpened the focus on reinforcing rigorous adherence to specifications and safety procedures in design, inspection, procurement, and operation of our systems and facilities.

During 2004, union/management committees from every operating division convened to exchange safety information and share best practices. The committees engaged in benchmarking studies that yielded a set of best-practice templates, and these were distributed throughout the company.

As part of its continuing effort to broaden the discussion on worker and public safety, the company held its fourth annual safety conference. More than 300 union and management employees from throughout the organization participated in the event.

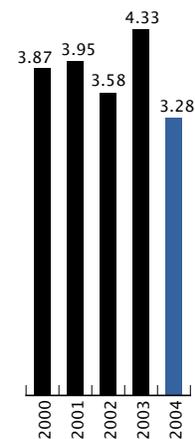
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**Field crews checking for stray voltage** Throughout the Con Edison service area, a formal inspection protocol is followed to check for stray voltage at manholes, service boxes, lampposts, and other facilities. Crews are available to be dispatched immediately if testing shows corrective action is needed.

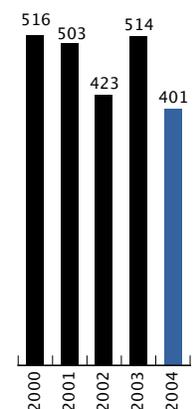
## Statistical Performance

In 2004, our OSHA recordable injury incidence rate was 3.28, the lowest injury rate in company history. Our previous low was 2002, at 3.58. This represents a 22 percent reduction in total number of recordable injuries compared with 2003.

### OSHA Injury Incidence Rate



### Recordable Injuries\*



\* Recordable injuries are those where medical attention beyond first aid is required.

Con Edison remains committed to a targeted program of safety initiatives, including further development of professional expertise for all employees, reinforcing safety ownership within line organizations, business-specific program improvements, and enhanced analysis of accident and incident trends. These measures, and others described more fully below, are designed to support all personnel as they work together to help ensure an injury-free workplace and public safety.

## **Strengthening the Safety Culture**

The driving factors in Con Edison's Health and Safety mission are striving for an injury-free workplace as well as protecting the safety of the customers we serve and the public at large. To achieve these aims, all employees are encouraged to focus on the outcome of operational tasks with a special emphasis on the safety consequences for themselves, their coworkers, and the public.

Although well-defined job specifications and safety policies help to direct the company's health and safety strategy, a closer focus is needed when dealing with day-to-day work carried out by large numbers of personnel throughout a service area that covers more than 600 square miles. The key is a broad base of initiatives that provide a unified approach to employee and public safety. These include:

**Training** — Con Edison's training facility, The Learning Center, conducts skills training in the operation of the electric, gas, and steam systems, along with courses on environment, health, and safety compliance, and much more. Over the past decade, more than 62,000 classes have been held at The Learning Center, and thousands of students receive training every year. Instructors teach more than 800 courses in a variety of specialized fields and programs. On-the-job training reinforces what is learned in classrooms. Contractors and subcontractors who perform work for Con Edison are also given training, including guidance in preparing Health and Safety Plans (HASPs), which contractors must provide before beginning any job for the company. A formal Contractor Oversight Program is in use to ensure that contractors and subcontractors comply fully with all applicable Con Edison environment, health, and safety requirements.

### **Corporate Safety Procedures and General Safety Instructions —**

Con Edison's employees are members of different working groups, and each of the company's organizations manages a different aspect of operations. There are literally dozens of job descriptions within these functional groups, and workers are active in a very broad range of settings varying from dense urban sites to sparsely populated rural areas. Volumes of laws and regulatory statutes govern safety and operational requirements for building, maintaining, and operating Con Edison's infrastructure. The company interprets applicable laws and safety regulations and then incorporates these into readily understandable Corporate Safety Procedures (CSPs). The CSPs clearly spell out the significance of relevant mandates, and serve as a guide for developing health and safety policies and plans.

The practical aspects of broad policies are further distilled into General Safety Instructions (GSIs) that outline specific safety information keyed to performing particular jobs in the field in accordance with approved health and safety standards.

**Union/Management Committees —** To continue reinforcing a shared sense of responsibility for safety performance, committees made up of union and management employees participate in reviewing safety issues and making recommendations for improvements. There are committees representing every operating group in the company, and their work helps drive important safety gains while reinforcing a culture-based approach to enhancing worker and public safety.

**The Time Out Program—** Con Edison has taken steps to empower all employees and provide the resources they need to exercise personal initiative and actively participate in managing safety contingencies on the spot. Every Con Edison employee has the authority to stop work on any job site if unresolved safety issues arise. When work stops the employee can discuss the safety concern with a supervisor, and an EH&S professional can also be called in to consult. Work will not resume until the situation is assessed by a subject-matter expert to confirm that proper procedures are being followed. Every employee is issued a wallet card that spells out the provisions of the Time Out program. Top management regularly communicates support for the program and encourages employees to use it when appropriate. This way, every individual is expected to accept responsibility for getting work done without unacceptable safety risks to themselves, fellow workers, or the public.



### **Cable-pulling crew**

Throughout its service area, Con Edison is continuously enhancing its energy transmission and distribution infrastructure. Work sites are set up to assure the minimum disruption to pedestrian and vehicle traffic, and equipped with clearly marked and well lighted protective perimeters.

**The Close Call Program** — There may be cases where an incident nearly caused personal injury. The people involved, or those who witnessed the incident, know what happened, and they also usually know why. In years past, employees often would not talk about the event because they worried about being blamed for what went wrong. The silence deprived everyone else of the useful safety lessons that could be learned. To correct this, a collaboration between union and management participants created Con Edison's Close Call program. The program provides all employees with assurances of no disciplinary action for reporting a close call that may have resulted from an unsafe situation. This emphasis on open communication lets employees pinpoint what went wrong, minimize the chance of a repeat occurrence, and help others by sharing their experience.

**Open Communication** — The very best safety program is only effective when it's backed by a sense of common purpose, respect for teamwork, and a corporate culture that encourages the free exchange of information and ideas. Con Edison facilitates frank and unobstructed dialogue, and provides all employees with access to a wealth of environmental, health, and safety information. The EH&S InfoLine is an intranet resource that is available to all employees. In addition, all employees are shown *The Excellence Files*, an award-winning monthly video magazine that highlights safety and environmental stories from the field, presents topical segments featuring significant EH&S developments, and provides viewers with performance updates of selected metrics.



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**Protecting employees and the public** Proper work site set-up minimizes traffic problems and protects employees and the public.

**The Safety Management System** — Con Edison's Safety Management System (SMS) was published in 2004. The SMS consists of programs, tools, and processes in 13 major categories, some of which reference environmental, as well as health and safety information, because the management systems are integrated. It defines the company's approach to safeguarding its employees and the public:

- **Standards** — Establish safety, health, and environmental considerations as an integral part of the company's business practices, and hold all employees accountable for knowing those that apply to their work. Also define six key EH&S objectives that serve as the cornerstone for strategic planning and focus.
- **Procedures** — Written general rules and regulations, Corporate Safety Procedures, General Safety Instructions, and provisions for monitoring their use and effectiveness.
- **Communications** — Free and open communication builds a dialogue among employees, allows sharing of experiences, and supports creation and maintenance of a safe work environment. Communications includes regular safety meetings, local safety gatherings, publications, intranet resources, monthly videos, and union/management committee meetings.
- **Training** — From formal courses at the company's Learning Center, to on-the-job instruction, safety training is an essential component of working safely. Job-title and job-specific training requirements are listed in an online Web site, and training effectiveness is monitored.
- **Performance Monitoring** — Using the Safety and Health Information Monitoring System (SHIMS), health and safety incidents are tracked, monthly safety reports are generated, and trend presentation and analysis are used to determine likely causes of problems and identify opportunities for performance improvement.
- **Risk Management** — Risk management teams carry out an ongoing program of risk identification, risk prioritization, and development and implementation of risk-control and reduction measures.



- **Auditing** — Compliance audit programs provide a comprehensive health and safety review using ongoing scheduled and unannounced inspections. Management system assessments are also conducted to evaluate effectiveness throughout the corporation and within specific operating units.
- **Performance Improvement** — To improve safety performance throughout the company, the SMS incorporates the results of safety audits, lessons learned on the job, root-cause analysis of incidents, recommendations for enhanced procedures, self-assessments, and defined goals for both corporate initiatives and business-unit programs.
- **Rewards and Discipline** — A structured system keyed to the principle that all employees are responsible for implementing the safety and health requirements that apply to their jobs.
- **Reporting Without Retaliation** — An array of options for openly expressing concerns about potentially unsafe or hazardous conditions. Every employee can call a Time Out to stop work if a safety, health, or environmental question arises. All employees have anonymous access to an ethics helpline, corporate ombudsman, and independent monitor to report concerns.
- **System Oversight** — In-depth, ongoing monitoring and evaluation are provided by the EH&S Committee of the Board of Trustees, the Environmental Quality Review Board, the Environment and Safety Committee, corporate EH&S staff, leadership teams, and field safety personnel.
- **Emergency Preparedness and Response** — The company has an established Incident Command System (ICS) protocol that serves to mobilize and deploy resources in case of system emergencies.
- **Job Site Protection** — The SMS recognizes the job site as the front line for safeguarding employees at work. Specific safety measures include job briefings, job-safety analysis, equipment preparation and energy-isolation processes, personal protective equipment, and contractor safety programs.

As this overview of elements shows, the SMS comprises not only policies and procedures, but also frames the structure of committees and working groups, training programs and tools, communications methods, and performance monitoring. The influence of Con Edison's SMS extends to every company employee and all contractors who perform work for the company. It stands as a comprehensive resource in carrying out the company's commitment to worker and public safety.

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**Safe driving courses sharpen skills** With a company fleet that covers more than 36 million miles a year, safe driving is a priority at Con Edison. Company instructors developed these training fixtures to help drivers sharpen skills for backing into tight spaces and maneuvering through narrow clearances. Barriers are adjustable and are positioned to accommodate a wide variety of vehicle types.





## **An Integrated Management Approach**

Con Edison's Environmental Management System (EMS), published in 2002, frames the process for developing, implementing, and documenting the environmental mission in all company business and operating groups. The Safety Management System (SMS) has been described in the preceding section of this report.

The EMS elements specify how we maintain procedures and provide employee training. They define the auditing, monitoring, and review processes that drive continuing gains in performance. The systems serve as the blueprint for advancing the identification, analysis, and management of environmental aspects to facilitate planning and improvement efforts. They also optimize management of natural resources through improved waste management, recycling, and energy conservation.

The company received corporate-wide certification for the EMS under the ISO 14001 Standard from the International Organization for Standardization in 2001. Ongoing compliance audits by independent auditors confirm that Con Edison has comprehensive environmental management protocols in place, and that they are being implemented properly.

## **Governance**

Con Edison has an Environmental Quality Review Board (EQRB) comprised of two outside environmental attorneys as well as a MIT Sloan School of Management professor whose specialty is organizational dynamics. This EQRB advises the Environmental Committee of our Board of Trustees and also serves on Con Edison's Environment and Safety Committee made up of senior company officers. The Environment and Safety Committee meets monthly to track the company's EH&S performance and direct actions for continuing performance improvement.

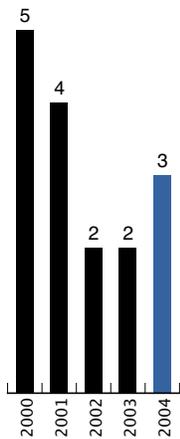
## **Measuring Progress**

A selection of indicators charts Con Edison's efforts in certain key environmental initiatives during 2004. Coupled with data from recent years, these present a snapshot of five-year trends in the company's performance.

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**Fuel cell installation** Con Edison sponsors pilot trials for fuel cells. This installation at The Cooper Union for the Advancement of Science and Art is part of a research program designed to explore distributed generation, whereby electricity is produced at or close to the site where it is needed. The fuel cells generate electricity, and their only waste products are heat and water.

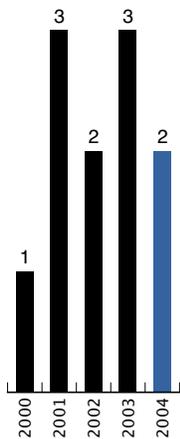
**State-Regulated Opacity Exceedance**



**State-Regulated Opacity Exceedances**

For facilities that operate boilers and other combustion equipment, the New York State Department of Environmental Conservation (NYSDEC) has established reporting requirements for opacity (smoke) in stack emissions. An opacity exceedance is defined as an event characterized by any smoke condition from stacks that exceeds 20 percent opacity for any 6-minute interval. In 2004, there were three opacity events that exceeded NYSDEC limits. In working to meet its goal of zero opacity exceedances, each event is investigated in detail and reviewed with operations, maintenance, and technical managers to help minimize the chance of recurrence.

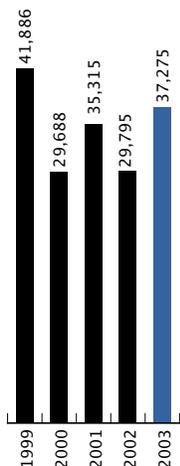
**SPDES Exceedances**



**SPDES Exceedances**

State Pollutant Discharge Elimination System (SPDES) permits are issued by the New York State Department of Environmental Conservation, consistent with provisions of the federal Clean Water Act and New York State environmental conservation law. These permits are necessary for facilities that discharge wastewater or storm water to rivers, streams, or other bodies of water, including groundwater. SPDES permits specify discharge limitations and call for regular monitoring of discharges to determine compliance with those limitations. The company has 21 SPDES permits. Over the course of the year, only two of the samples taken exceeded permit discharge limits. The company continues to strive for zero SPDES exceedances. A root-cause analysis is conducted for any exceedance event as part of the continuing efforts to improve performance.

**Toxic Release Inventory (lbs.)**



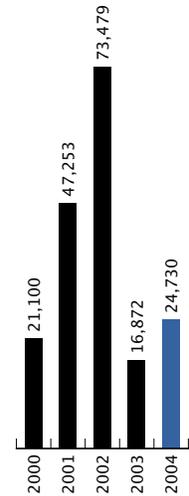
**Toxic Release Inventory**

In 1998, utilities became subject to federal requirements for Toxic Release Inventory (TRI) reporting. The substances covered by the reporting requirement are generally associated with the combustion of fuel in Con Edison's Steam Business Unit. Reports for year-prior quantities are due on July 1 of each year. The figures presented show totals from 1999 to 2003. In accordance with EPA requirements, the data for 2004 will be reported July 1, 2005.

### Dielectric Fluid Released to the Environment

Dielectric fluid is contained in pipe casings that house electrical transmission feeder cables. Similar to mineral oil, it insulates the cables, transfers heat away from the conductors, and protects them against arcing. Dielectric fluid releases can result from third-party events such as water main breaks or contractor excavations that breach pipe casings. Other causes include corrosion, fault currents, and mechanical failures. To help curtail dielectric fluid releases, detection and warning installations such as an online monitoring system can provide warning of fluid loss as small as one gallon an hour. Another monitoring technology involves adding small quantities of a non-toxic tracer to the dielectric fluid. Mobile detection equipment installed in vans draws air samples from ground level to search for the presence of the tracer. When the tracer is detected, it indicates that dielectric fluid was released from an underground cable. Crews can be called to correct the condition and stop fluid loss. Most of the dielectric fluid released is subsequently collected and disposed of.

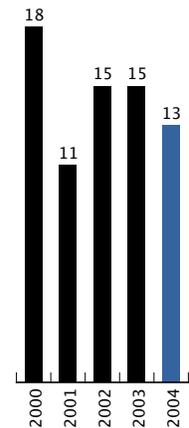
Dielectric Fluid Released to the Environment (gals.)



### Transformer Releases to Sewers and Waterways

During 2004, transformer oil leaked into sewers or waterways on 13 occasions. In some instances, the leaks occurred from pole-mounted transformers as a result of storm damage or vehicle impacts with the poles. In other cases, transformers in underground vaults or mounted on surface pads released oil because of corrosion, or other causes. Con Edison manages more than 75,000 pieces of oil-filled equipment. The company inspects these units, conducts preventive maintenance on a regular basis, and takes equipment out of service for thorough refurbishment or replacement, as necessary. To further guard against release of transformer oil to the environment, we install secondary containment and leak-detection equipment where appropriate. For some underground transformer vaults that may contain storm water, devices called oil minders are installed. The oil minders are designed to prevent water contaminated with oil from entering sewers. Oil-contaminated water is pumped into special tanker trucks and taken to a wastewater treatment facility.

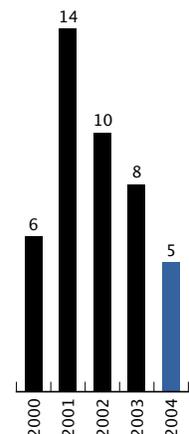
Transformer Releases to Sewers and Waterways



### Chemical Releases Above Reportable Quantities

During 2004, there were five chemical releases that exceeded federally established reportable quantities. Of the five, one was a release of refrigerant, and four were antifreeze. Root-cause analysis is used to investigate causative factors in spills. Findings identify improvements to reduce the likelihood of other releases.

Chemical Releases Above Reportable Quantities





## Sustaining Constructive Connections

In carrying out its mission to provide energy to our customers safely, reliably, and efficiently, Con Edison is committed to doing its work in an environmentally sound manner while protecting the safety of employees and the public; providing a workplace that allows employees to realize their full potential; providing a fair return to investors; and improving the quality of life in communities we serve and beyond.

Con Edison has been ranked among *Fortune* magazine's "America's Most Admired Companies" for 2005. The respected business publication ranked Con Edison No. 4 among electric and gas utilities. The company has been recognized consistently on *Fortune's* "Most Admired" list, which ranks U.S. corporations by weighing a combination of factors including customer satisfaction, shareholder return, employee talent, community citizenship, and more.

### Our Customers

Con Edison distributes electricity to more than three million customers in a service area covering nearly all of New York City and most of Westchester County. The population served amounts to more than eight million people. Annual electric sales total about 59 billion kilowatt-hours delivered. The electric transmission and distribution system includes more than 90,000 miles of underground cable and more than 35,000 miles of overhead lines.

The company distributes natural gas to more than one million customers in Manhattan, the Bronx, part of Queens, and most of Westchester County. More than 4,200 miles of gas mains and service pipes transport in excess of 200 million dekatherms of natural gas a year. A dekatherm is a measurement of gas equivalent to 10 therms; the typical New York City customer cooking with gas uses approximately 8 therms a month.

Con Edison sells steam service for heating and cooling to approximately 2,000 commercial and residential buildings in Manhattan. The steam is distributed through about 105 miles of mains and pipes, making it the largest district steam system in the world.

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**Community Environmental Center at Stuyvesant Cove Park** Con Edison sponsors many community programs. The company helped underwrite the installation of a solar pavilion for the Community Environmental Center at Stuyvesant Cove Park. The company also supports an environmental education program at this center for youngsters from the neighborhood and other areas of New York City.

Con Edison serves homes, industries, stores, museums, office buildings, hospitals, schools, government buildings, and other facilities. In a larger sense, the company powers one of the world's great cities: a melting pot, a commercial powerhouse, a cultural capital, and a global economic engine.

### **Investors**

Con Edison understands that the business of powering New York requires predictability and long-term stability. That is why the company has always given a high priority to maintaining a strong and stable financial position. Its approach to financial matters has allowed it to achieve a high equity ratio, steady earnings, and solid credit ratings. The company also has an outstanding track record of growth in dividends to shareholders spanning nearly three decades. These characteristics provide Con Edison with considerable financial flexibility, which will permit the company to participate from a position of strength as fresh investment opportunities evolve in competitive energy markets.

Consolidated Edison, Inc., was ranked third out of 26 North American utilities in the 2004 *Innovest* Strategic Value Advisors U.S. Utility Industry Report. *Innovest* analyzed the corporate environmental performance of the participating electric utilities, ranking them in 12 categories, including environmental management systems, total air emissions rate, environmental accounting/reporting, and corporate governance. Con Edison ranked well above average in most categories, earning the highest rating in total air emissions rate. In its EcoValue Rating *Innovest* gave the company a rating of AAA, the highest in environmental performance. In the category of Intangible Value Asset, Con Edison received a rating of AA, *Innovest's* second highest rating.

Con Edison was cited for enhancing its environmental strategy and management by revising its leading environmental health and safety policy in 2001; endorsing the principles of the Coalition for Environmentally Responsible Economics (CERES), and publishing its second CERES report in 2003; developing programs and reporting performance quarterly to the board of directors while providing monthly reports to senior management; completing ISO 14001 company-wide certification in 2003; and rewarding employees as well as holding them accountable for their environmental performance while empowering them to take corrective action.

For more information about Con Edison's financial performance, please visit the Investor Relations portion of the company's Web site at [www.conedison.com](http://www.conedison.com).

## Our Employees

Con Edison's most important resource is its employees. They are the core of our significant competitive advantage. This talented and diverse workforce covers a tremendous range of skills including physicists, machinists, energy traders, scientists, mechanics, engineers, customer service representatives, and many more. Con Edison has long emphasized the importance of learning and keeping skills sharp, exploring fresh subjects, and building personal qualifications that broaden potential career paths for all employees. Our Learning Center offers employees a variety of training opportunities. Programs range from specific skills, such as splicing and equipment repair, to environmental awareness and leadership development. In addition, consistent internal job postings at regular intervals give employees the chance to bring their experience to new professional endeavors.

For the fifth consecutive year, *Hispanic* magazine named Con Edison to its "Corporate 100" list of top companies for Latinos. The list appears in the February 2005 issue of the magazine. The annual choices are based on firms' diversity training, recruitment efforts, ethnic representation on their boards, and other minority-business initiatives. Concerning the Corporate 100 list, the magazine states, "Whether they're coming up with innovative diversity training initiatives, doing more business with minority suppliers, donating time and funds to great causes or expanding their employee bases to include more minority workers, all of these firms go the extra mile to create opportunities for Hispanic business owners, executives, workers, and charities." Con Edison has been named to the list every year since 2001.

In addition, Con Edison once again made *Fortune* magazine's 2004 "50 Best Companies for Minorities" list, and placed within *DiversityInc's* "Top 50 Companies for Diversity" ranking for 2004. Con Edison was ranked No. 22 in the 2004 *Fortune* list, up from No. 29 in 2003. This is the seventh year that *Fortune* has published its "50 Best Companies for Minorities" ranking. In *DiversityInc* subcategories, Con Edison ranked No. 5 for Latino diversity, and No. 4 for supplier diversity. This year marks *DiversityInc's* fourth "Top 50 Companies" ranking.

## Communities

Con Edison has a long history of constructive engagement with the communities it serves. Each of New York City's five boroughs, and Westchester County, is home to a Con Edison Public Affairs office whose staffers build relationships with community leaders, host community events, and participate in the lives of the dynamic and diverse neighborhoods that make up the New York metropolitan region.



### Spectroscopy testing

Con Edison's development work on acoustic spectroscopy is being applied to testing for dissolved gases in transformer oils. By monitoring these fluids, the potential for transformer failures, and possible subsequent oil releases, is lessened.

The company also administers an active Strategic Partnerships program that focuses on contributing to maintaining the social, cultural, and economic vitality of our service areas. To do this, Con Edison provides financial or in-kind support to organizations whose activities advance strong, vibrant, and stable communities. The company chooses these groups carefully, looking to their ability to develop education initiatives, training, and special programs and events to enrich the quality of life for all New Yorkers.

Programs that enhance the educational achievements of New York's youngsters are a high priority on Con Edison's corporate-giving agenda. In particular, the company supports programs that foster professional development for teachers; facilitate school-to-career initiatives; and enrich math, science, reading, engineering, energy, and technology curricula.

The arts enliven communities, so Con Edison engages with organizations that present visual and performing arts programs to the public; that promote tourism and foster economic development; and that provide opportunities — especially for students — in traditionally underserved communities. Con Edison also supports arts-in-education projects that introduce schoolchildren to the cultural and artistic resources of their communities.

In addition to providing funding to institutions both large and small, established and emerging, Con Edison has a large and loyal corps of volunteers who give of their time and energy to a wide array of educational, health, senior citizen, sports, mentoring, and civic programs and organizations.



### **Students participating in the Envirothon**

Con Edison is a leading sponsor of the New York City Envirothon competition. High school students are tested on their knowledge of a broad range of environmental specialties including aquatics, forestry, urban source pollution, soil science and geology, and wildlife.

### **Environmental Engagement**

Con Edison has a commitment to environmental excellence, and the company works with organizations that share its concern for preserving and protecting the environment through conservation and beautification projects, as well as through educational and career-development programs. We recognize the importance of work that furthers conservancy, recycling, reclamation efforts, and mitigation of pollution.

In October 2004, Con Edison hosted the third Annual Environmental Excellence Forum at the company's Learning Center facility. The forum gathered environmental leaders from more than 20 major corporations in the Northeast to discuss the influence of human factors on managing environmental programs. Topics explored at the forum included human factors considerations for operations and line workers, for senior executives, and for middle management. The influence of environmental management systems on human factors was also examined. Forum discussions were based in part on extensive research into organizational development done by Dr. Edgar Schein from the MIT Sloan School of Management. The World Resources Institute (WRI) chose the event to announce the findings of its report titled *A Climate*

*of Innovation: Northeast Business Action to Reduce Greenhouse Gases.* Nine corporations, including Con Edison, teamed with WRI in 2003 to form the Climate Northeast initiative, which focuses on climate change management strategies for energy use, emissions tracking, and green power purchasing. Keynote speaker Jonathan Lash, president of WRI, said, “Forward-thinking companies can be proactive on climate change in a manner consistent with growing their bottom lines. The business leaders recognize that taking action on environmental issues is more than being a good corporate citizen, it is also good business.”

One organization funded by Con Edison is Clean Air Communities (CAC). CAC is a program that was established in 1999 in a joint effort by the Northeast States Clean Air Foundation, Northeast States for Coordinated Air Use Management, the New York State Department of Environmental Conservation (NYSDEC), and Con Edison, which provided a \$5 million donation for the initial funding. CAC is committed to implementing air pollution reduction and energy efficiency strategies in low-income New York City communities. CAC is designed to serve as a national model for using market-based mechanisms to inspire and implement clean-air initiatives. CAC was a winner of the first-ever NYSDEC Environmental Excellence Award. NYSDEC established this new awards program in 2004 to recognize emerging technologies, superior management practices, and creative partnerships that achieve exceptional environmental, social, and economic benefits for New York State. CAC won recognition for:

- An advanced truck stop electrification at Hunts Point Co-op Market in the Bronx
- A grid-integrated commercial photovoltaic power system installed on the roof at the Greenpoint Manufacturing and Design Center in Brooklyn
- A diesel-emissions reduction demonstration at Seven World Trade Center in Lower Manhattan
- A central steam conversion that provides heat and hot water to the Seward Park Cooperative Housing complex in Manhattan

Con Edison partnered with CAC on all these projects, and Con Edison representatives joined with CAC honorees at the ceremony where NYSDEC Commissioner Erin Crotty presented the awards.

Since 2001, Con Edison has been an endorser of the CERES principles. CERES is the Coalition for Environmentally Responsible Economies, an organization comprising a network of environmental, public interest, and community groups along with investors, advisors, and analysts representing more than \$400 billion in invested capital. As a leading coalition of environmental, investor, and advocacy groups working together, CERES provides a framework

for corporations, activists, and socially responsible investors to work toward sustainability. Companies that have committed to continuous environmental improvement are invited to endorse the CERES principles, a ten-point code of environmental conduct, and to issue an annual report that charts their progress. Con Edison's CERES report is an extensive document that offers a detailed analysis of the company's environmental mission, explains the initiatives being applied to carry out that mission, and provides a frank assessment of the company's performance. Con Edison's most recent CERES report is available on the company's Web site at [www.conEd.com](http://www.conEd.com).

Con Edison supports the Community Environmental Center at Stuyvesant Cove Park. This institution provides youngsters with the opportunity to participate in the center's environmental education program that features a broad range of subjects ranging from conservation and recycling to ecological study. The facility is also a GLOBE-approved center. Project GLOBE is an education initiative based on the principle that youngsters learn science best by doing science. As a practical demonstration of energy-conserving technology, Con Edison also sponsored the installation of a solar-powered pavilion for the community center.

At the New York Botanical Garden, a popular destination for visitors young and old is Con Edison's Discovery Garden. This is a wetland that surrounds a small pond and provides a lesson in the ecology of aquatic settings. A boardwalk extends over the water and viewing stations are positioned to provide views of the plant species, visiting birds, and features of the shoreline. Signs posted at each station explain the relationships among plant species, fish, and birds in this ecological niche. The cycle of the seasons draws visitors to the garden all year round. It is a popular destination for class trips and youth groups from throughout New York City and beyond.

Con Edison supports a unique initiative called Green Roofs, a coalition of public and private organizations working to promote use of live gardens on rooftops, especially in urban settings. Green roofs are lightweight, engineered roofing systems that incorporate a soil layer to grow vegetation on conventional rooftops. Unlike traditional roof gardens that rely on planters or containers, a green roof system allows cultivation over a wide expanse of the roof. Green roofs improve insulation of roof surfaces so that, depending on building configuration, energy savings can be realized for heating in winter and cooling in summer. These roof installations also hold storm water in the growing medium, help mitigate the "heat island" effect in urban settings, and provide the potential for planting acres of new vegetation in cities that have no space for planting at ground level.

## Environmental Organizations We Support

Alley Pond Environmental Center, Inc.	Earth Day New York	Magnolia Tree Earth Center of Bedford-Stuyvesant, Inc.	Queens County Farm Museum
American Littoral Society	Earth Pledge	Metropolitan Waterfront Alliance	Queensborough Community College
American Museum of Natural History	Earth Watch Institute	National Academy of Engineering Technology & Environment Program	Rainforest Alliance
Audubon New York	Environmental Education Advisory Council	National Audubon Society	Randalls Island Sports Foundation
Bank Street College of Education/Tiorati Workshop	New York City and State Envirothons	National Parks Conservation Association	Resources for the Future
Battery Conservancy	Fort Tryon Park and The Heather Garden Committee	National Wildlife Federation	Rev. Linnette C. Williamson Memorial Park Association, Inc.
Bay Improvement Group, Inc.	Fresh Air Fund	The Nature Conservancy of New York	The River Project
Beczak Environmental Education Center, Inc.	Friends of Cunningham Park	Neighborhood Open Space Coalition	Riverdale Nature Preservancy, Inc.
Bloomfield Conservancy	Friends of Hudson River Park	New York Botanical Garden	Rocking the Boat
Broadway Mall Association	Friends of Palisades Interstate Park Commission	New York City Department of Environmental Protection	Scenic Hudson, Inc.
Bronx Council for Environmental Quality	Friends of Pelham Bay Park	New York City Soil and Water Conservation District	Seton Falls Park Preservation Coalition
Bronx River Alliance	Friends of the High Line	New York Landmarks Conservancy	South Queens Park Association
Brooklyn Botanic Garden	Friends of the High School for Environmental Studies	New York League of Conservation Voters	Socrates Sculpture Park, Inc.
Brooklyn Bridge Park Coalition	Friends of Van Cortlandt Park, Inc.	Parks & Trails New York	Staten Island Botanical Garden, Inc.
Brooklyn Greenway Initiative	Global Green, USA	New York Restoration Project	Staten Island Zoological Society
Brooklyn Center for the Urban Environment, Inc.	Gowanus Canal Community Development Corporation	New York State Envirothon Committee	Sustainable South Bronx
Brooklyn Children's Museum Corporation	Green Guerillas	New York Water Environment Association, Inc.	Take-A-Kid-Fishing, Inc.
Brooklyn Technical Research Foundation	Greenbelt Conservancy, Inc.	New York Zoological Society/Wildlife Conservation Society	Teatown Lake Reservation, Inc.
Center for Environmental Research and Conservation	Greenburgh Nature Center	New Yorkers for Parks	The Point Community Development Corporation
Central Park Conservancy	Historic House Trust	NYS Urban and Community Forestry Council	The Trust for Public Land
City Parks Foundation	Historic Hudson Valley	Phipps Community Development Corporation	Trees New York
Classroom, Inc.	Horticultural Society of New York, Inc.	Prospect Park Alliance	Trout Unlimited
College of Staten Island Foundation	Hudson River Museum of Westchester	Queens Botanical Garden	United Way
Community Environmental Center, Inc.	I-ma-Green-nation	Queens College Foundation, Inc.	Urban Divers
Council on the Environment of New York City	Inform, Inc.		Wave Hill, Inc.
Dianova USA	Jay Heritage Center		West Side Community Garden, Inc.
Earth Celebrations, Inc.	Lower East Side Ecology Center		Yonkers Downtown Waterfront Development Corporation
	Madison Square Park Conservancy		



## Employees Engaged in the Pursuit of Excellence

Integrating the environmental, health, and safety mission into Con Edison’s “Way We Work” corporate platform of conduct is one of the key EH&S objectives. The “Way We Work” is at the heart of every company undertaking. It frames the working relationships our employees have with their jobs, with each other, and with the customers we serve. “The Way We Work” consists of six principles: plan the work and work the plan; seek and accept responsibility; communicate openly; work in teams; improve continuously; and celebrate success.

Con Edison employees are strongly committed to the company’s EH&S mission. All train and strive to work safely and protect the environment. Every year the company recognizes those employees who embody “The Way We Work” principles, and make exceptional environmental, health, or safety contributions, either as individuals or as members of a team.

In accord with the principle of celebrating success, EH&S awards are presented at three levels. First-level awards recognize notable achievement, and they are presented as warranted throughout the year. Second-level awards are presented by operating organizations throughout the company for significant accomplishments.

Third-level awards are presented once a year, and they represent the highest honor the company can bestow for “best of the best” accomplishments in protecting health, safety, and the environment. The contributions made by the honorees range from innovative technical solutions to operational challenges, to effective implementation of EH&S programs, to making a positive impact on the communities we serve.

The listing that follows names the 66 individuals who received third-level EH&S awards for 2004. They join the 595 other colleagues who have shared the same honor since these awards were instituted in 1996.

Third-level award categories reflect the key EH&S objectives.

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**Research lab at the Cable Center of Excellence in Van Nest** Con Edison’s Distribution Cable and Joint Center for Excellence is a research facility that is studying ways to make transmission and distribution lines more reliable and environmentally benign. The center’s work includes directing an ongoing initiative for replacing older paper-insulated leaded cable (PILC) with new EPR cable that contains no dielectric oil that could enter the environment.



“As Con Edison’s highest honor for environmental, health, and safety accomplishment, the EH&S Excellence Awards recognize the outstanding individuals and teams who truly reflect our corporate values and the principles of ‘The Way We Work.’”

**Kevin Burke**

President and Chief Operating Officer  
Consolidated Edison of New York, Inc.

## Improving Safety Performance

### Individual award:

**Richard Binko** – gas fitter chief,  
Orange & Rockland Utilities

### Team awards:

**Fared Abbassi** – senior auditor

**George Tabone** – project auditor

**Troy Bruce** – field operations planner

**Vaso Nikprelaj** – mechanic A

**Lawrence Sutherland** – operating supervisor

**Peter Mulholland** – operating supervisor

**Reinaldo Vera** – splicer

**Danny Woods** – splicer

## Ensuring EH&S Compliance

### Team award:

**Jim Lucente** – technical specialist

**Hugh McMunn** – senior analyst

## Integrating EH&S into “The Way We Work” at Con Edison

### Individual award:

**Vincent de Pass** – manager

### Team awards:

**Michael Draskin** – inspector

**Joseph Floryshak** – senior engineer

**Rica Johnson** – engineer

**Dennis Kooney** – project specialist

**Alicia Martinez** – senior procurement specialist

**Neal Carlson** – operating supervisor

**Joseph Catalano** – senior field operator

**Peter Franzi** – senior field operator

**Gary Levy** – field operations planner

**Mark Martello** – operating supervisor

**Ronald Parisi** – senior field operator

## Identifying and Reducing EH&S Risk Potential

### Individual awards:

**Robert Anderson** – field designer X

**Louis Cardillo** – field designer X

**Greg Cennamo** – operating supervisor

**Vincent Kisarewski** – senior engineer

**Nick Luberto** – supervisor

### Team awards:

**Michael Crea** – senior substation operator

**Russell Godwin** – field designer X

**Henry Lauro** – field operations planner

**Scott Otero** – senior substations operator

**Michal Bednarz** – designer

**Frank Doherty** – project manager

**Martin Fink** – senior electrical technician

**Mark O'Brien** – mechanic A

**Jerry Pilate** – technical specialist

**Winnie Yueh** – manager

**Maurice Lee Martin** – special inspector

**Donald Ockers** – operating supervisor

**Manuel Sanchez** – special inspector

**Barney Duffy** – manager

**Harry Goff** – project specialist

**Dennis Michaelides** – senior specialist

**Joanne Owens** – senior specialist

**Lou Pinneri** – administrator

**Tom Rogers** – manager

**Brenda Torres** – supervisor

**Joseph Deluca** – outside mechanic A

**Salvatore Russo** – operating supervisor

**George Shute** – outside mechanic A

**Thomas Zegle** – outside mechanic A

**Joseph Bonaiuto** – operating supervisor

**Joseph Bonsignore** – outside plant mechanic A

**Michael Brigante** – general utility worker

**Joseph King** – outside plant mechanic A

**Carlos Rivera** – outside plant mechanic A

**John Smart Jr.** – mechanic B

## Promoting Wise and Effective Use of Natural Resources

### Individual award:

**Anthony Scavone** – mechanic A

### Team award:

**Robert Ciullo** – section manager

**Harry Coates** – section manager

**Carol Ann Conslato** – director

**Jeffrey Riback** – assistant general counsel

**David Roche** – senior scientist

**Charles Tricomi Jr.** – specialist

**Estelle Volpe** – senior specialist



## **Risk Management**

Con Edison has a structured approach to identifying, analyzing, and managing potential environmental, health, and safety risks that have implications for our business, our employees, and the public. The objective is to predict where risks may originate, and prevent them by taking appropriate measures.

A tool called a Failure Modes and Effects Analysis (FMEA) is applied. Potential risks are identified, then prioritized by evaluating specific variables that assign numerical values to the potential severity of the risk, the frequency at which the potential risk might be manifested, and the ability to detect or control it.

The FMEA uses a team approach by bringing together staff from several functions and trains them in this methodology. Teams are active throughout the company, and they rely on fieldwork to make observations, gather data to establish risk priority classifications, and assemble information that can be used to develop design and control initiatives to help mitigate risks.

## **Active Risk Mitigation**

Over and above complying with regulatory and legal requirements, Con Edison has a tradition of implementing effective programs to help diminish risks to the environment, to employees, and to the public.

## **Stray Voltage Initiatives**

Stray voltage can affect the underground electric system at service box structures, manholes, gratings, lampposts, railings, or other types of outdoor structures. Likewise, the overhead electrical distribution system can be affected by stray voltage. Stray voltage may occur as a result of several factors including compromised cable insulation, cable arcing, or discontinuity in cable systems. Con Edison control measures to help preclude stray voltage include extensive technical and operational specifications of design

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### **Street crew replacing older manhole cover with new vented manhole lid**

Con Edison is replacing many older manhole covers with new vented units. The new covers are designed to stay in place if there is a sudden pressure rise in the equipment spaces beneath them. By freely venting the high pressure, displacement of covers is virtually eliminated.

and periodic inspection, repair, and maintenance programs for underground structures and cables. To confirm the effectiveness of these measures, the company has a system-wide stray voltage testing program covering all underground structures, overhead electrical distribution systems, and city-owned lampposts. If stray voltage is detected, repair crews are dispatched immediately to correct the condition and make it safe. The inspection cycle schedule has been created to assure that all company facilities are tested at regular intervals.

Con Edison has also developed specialized equipment that scans for stray voltage in underground areas. This trailer-mounted monitoring equipment is deployed by being driven on streets throughout the service area. When it provides an alert, crews investigate the specific stray voltage source and correct it.

### **Curbing the Risk of Manhole Events**

Manhole events in which manhole covers are displaced from their mountings can result from a combination of factors including road-salt runoff entering equipment spaces and affecting cable integrity. To help preclude the risk of manhole events, significant system upgrades are being put in place. In addition, more than 80,000 manhole covers throughout Con Edison's service territory are being replaced with new covers that feature a vented design. The new vented covers are designed to release smoke or high-pressure surges freely from the underground space so that the manhole cover is not raised off its mount.

### **Reducing the Risk of Transformer Oil Releases**

Con Edison operates an underground network of approximately 24,000 transformers. Underground network transformers each contain approximately 300 to 500 gallons of dielectric oil that cools and insulates the units. To minimize the risk of releasing this dielectric oil, Con Edison procures only transformers that meet stringent design requirements for operating in harsh environments. In addition, the company has an inspection, maintenance, and testing program that covers not only the transformers, but also the underground spaces that house them. Transformers are equipped with a Remote Monitoring System (RMS) that lets electrical system operators check the sta-

tus of the units and take appropriate action if a transformer shows signs of exceeding operational thresholds. The company is also researching promising technologies that can help predict the likelihood of transformer malfunction, so that units could be serviced, or taken out of service, before they fail and possibly release dielectric oil.

### **Cable Integrity**

Con Edison engineers are studying the future of reliable electricity at the Con Edison Cable and Splice Center for Excellence research facility. Computerized testing equipment that is unique in North America is used to examine a spectrum of physical and operating characteristics for a large variety of conductors. In addition to validating performance and reliability of new cable products, the researchers also carry out forensic examinations to determine how and why cable performance is compromised over time. These findings are applied to develop a better understanding of the life cycle of many different cable types in particular applications. The information can be applied to predicting the potential risk for cable deterioration so that conductors approaching the limit of their useful lives can be replaced before they compromise service reliability. In addition, the center examines ways to use cables incorporating the newest technology to substitute for older conductors.



#### **Testing cable**

A technician at the Cable and Splice Center for Excellence examines a section of cable to determine possible causes of failure.



## Resource Conservation

From improving operating efficiency to purchasing goods and services, Con Edison strives to make prudent use of resources. Whenever possible, the company buys materials that have substantial recycled content. For example, the paper used in office printers and copiers incorporates post-consumer recycled material. This Environment, Health and Safety annual report is printed on recycled paper. For business operations, Con Edison is expanding the use of paperless communications. Whenever possible, correspondence is carried out by e-mail, and distribution of working databases and information management systems is done with intranet-based Web resources available to users throughout the organization.

Once materials have reached the end of their service lives, the company recycles as much material as possible. Coordinators in all operating groups work to curb waste and maximize recycling of paper, batteries, scrap metal, scrap cable, wooden pallets, cardboard, and other recyclable materials.

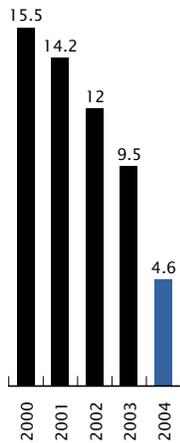
### Recycling Totals for 2003 and 2004

	2003	2004
Mixed paper and cardboard	1,165 tons	2,059 tons
Scrap AC/DC meters	213 tons	157 tons
Scrap OB meters	640 each	1,200 each
Scrap cable (regular)	3,307 tons	2,344 tons
Scrap cable (PILC)	3,627 tons	3,205 tons
Scrap iron and steel	957 tons	461 tons
Toner cartridges	10 tons	10 tons
Tin and aluminum gas meters	23 tons	28 tons
Network protectors	190 each	71 each

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**Oil minder unit** Storm water in underground facilities and equipment vaults normally empties to sewers, but if oil is present in the water, oil minder units like this one prevent the liquid from draining to sewers. Instead, the oil and water are pumped into a truck, then taken to a water treatment plant so that oil is not released to the environment.

**Hazardous Waste Manifested Off-site**  
(thousands of tons)



## Hazardous Waste

During 2004, Con Edison shipped approximately 4,600 tons of hazardous waste, excluding remediation waste, to licensed commercial waste-handling facilities. As in years past, the majority of this hazardous waste consisted of lead-contaminated sediment that accumulates over time and is removed from underground structures, such as manholes. In 2003, the NYSDEC approved the limited use of a lead stabilization process that renders the sediment non-hazardous before it is removed from underground structures. Con Edison is working with the NYSDEC to implement the lead stabilization process throughout its service territory. Once approved, this will further reduce the largest component of our hazardous waste.

## Greenhouse Gases

Con Edison's emission of greenhouse gases is associated with different aspects of its energy businesses. The steam business is the principal source of carbon dioxide (CO<sub>2</sub>), along with emissions from the company's fleet of vehicles. Methane emissions are almost entirely from its natural gas distribution system. Sulfur hexafluoride (SF<sub>6</sub>) emissions are associated with electrical substation operations.

### Carbon Dioxide (CO<sub>2</sub>)

Con Edison operates several facilities to provide steam for its district steam system that serves customers from lower Manhattan to mid-town. The CO<sub>2</sub> emissions result from burning fuel to generate steam. This system is optimized through the use of cogeneration technology so that energy released during steam production can also be used to generate electricity as a byproduct. To help keep emissions low, Con Edison has increased the use of clean-burning natural gas in its utility boilers. The environmental benefit is that, for a given quantity of heat output, natural gas combustion creates approximately one-third less CO<sub>2</sub> than oil. Coupled with an emphasis on maximizing boiler efficiency, the company is working to keep the levels of CO<sub>2</sub> and other gases to a minimum.

## Sulfur Hexafluoride (SF<sub>6</sub>)

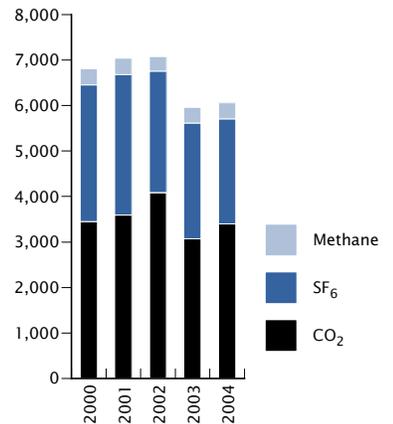
In 1999, Con Edison entered into a memorandum of understanding with the United States Environmental Protection Agency (EPA), voluntarily enlisting in the Sulfur Hexafluoride (SF<sub>6</sub>) Emissions Reduction Partnership for Electric Power Systems. SF<sub>6</sub> is an insulating material for high-voltage switching contacts and buswork. It has 23,900 times the heat-trapping potential of carbon dioxide. This potential is represented as (CO<sub>2</sub>,e) and is used to compare greenhouse gases. To date, no suitable alternative has been found for SF<sub>6</sub> in this application. To better manage the SF<sub>6</sub> in our electric infrastructure, Con Edison developed a special monitoring device that quickly spots equipment that is releasing SF<sub>6</sub>, even in minute quantities. Con Edison works to prevent SF<sub>6</sub> releases by implementing rigorous technical and procedural controls. Using 1996 as a baseline, the company has reduced its SF<sub>6</sub> emissions by nearly 50 percent.

## Methane

Methane is a greenhouse gas that has 21 times the heat-trapping potential of CO<sub>2</sub>. This potential is represented as (CO<sub>2</sub>,e) and is used to compare greenhouse gases. Methane emissions result chiefly from the company's natural gas distribution system. The sources of these emissions include leaks from supply stations and surface facilities as well as releases from pipe emissions. To reduce these emissions, Con Edison has enhanced inspections and maintenance at gas facilities, and continues to implement equipment upgrades on an ongoing basis. In 1993, Con Edison became one of the first companies to join the EPA's Natural Gas STAR program. As a STAR partner in the program's transmission and distribution sector, the company evaluates the program's best management practices for reducing natural gas emissions and works to implement those that are applicable to our operations.

## Greenhouse Gas Emissions

(Carbon Dioxide Equivalence, CO<sub>2</sub>,e, thousands of tons)



## Conservation and the Environment

Beyond adopting conservation and practicing recycling in its own operations, Con Edison engages its customers and partners with many organizations to help broaden the wise and effective use of natural resources and preserve the environment.

### Con Edison Participates in WasteWise

During 2004, Con Edison was selected for the second time as an honoree and awarded an Honorable Mention by the EPA for “commendable achievements” as part of the WasteWise Electronics Challenge. A Con Edison representative received the award on behalf of the company at an October ceremony held during a two-day event in Washington, D.C. The award acknowledged Con Edison’s electronics recycling program that resulted in extending the useful life of more than 3,000 pieces of equipment in a program coordinated with *PerScholas*, a recycling organization. *PerScholas* disassembles electronic equipment at the end of its useful life, and sorts plastic, metal, and glass components for recycling within the United States. Equipment with useful life remaining is cleaned, upgraded, and then either sold or donated to schools or economically disadvantaged families. In addition, *PerScholas* trains economically disadvantaged persons as computer technicians, thereby providing the skills these individuals can put to work seeking employment and building better lives. Con Edison also donates obsolete cell phones to Verizon, which refurbishes them and donates them to persons at risk, such as battered women or needy families.



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**Con Edison honored by EPA** Vanessa DeVillez accepts a WasteWise award on behalf of Con Edison from Matt Hale, director of EPA's Office of Solid Waste.

## Research in New Energy Technology

Con Edison has a number of experimental installations that use fuel cells to generate electrical energy. The company is researching the potential of fuel cell technology to provide a clean, renewable source of power in a variety of settings. Fuel cells are supplied with a source of hydrogen, and they use this gas in a chemical process that yields electrical energy. The only waste products are heat and water. At present, there are certain economic and technical impediments to widespread use of fuel cells for powering homes and businesses on a large scale. Costs are high compared with traditional sources of electricity, and the output available even from large units limits the scope of their application. Nevertheless, by conducting this research, the company can establish a database that can be useful in making future advances and developing new concepts for practical application as fuel cell technology matures. One interesting possibility, called distributed generation, involves installing local sources of electrical energy to power a single block, or a small district covering several blocks. If fuel cell performance makes significant gains in the future, these units could be part of distributed generation installations that efficiently supply electricity for homes and businesses.

## Incentives for Business

Sound energy management is crucial to conserving resources and the environment, but it is equally important to businesses and their bottom line. To encourage wise use of energy, Con Edison offers load-reduction programs that help to manage energy usage during times of excessive demand year-round while rewarding commercial customers and other large energy users with financial incentives. The programs include Emergency Demand Response, an arrangement whereby, during power shortages or other emergencies declared by the New York Independent System Operator (NYISO), Con Edison will contact program participants with a request to voluntarily curtail their power use. A related offering is Distribution Load Relief, where program participants in a local network will be requested to voluntarily curtail power during times of heavy demand. With the Installed Capacity Program, incentives are available for customers who reduce electric load by using generators or other means of demand curtailment. By participating in the Day-Ahead Demand Reduction Program, customers may request market-based monetary compensation for their agreement to curtail energy use. The Steam Air Conditioning Program is structured to help reduce peak summer electric load. Customers who participate are provided with reduced steam rates to help offset the costs of installing new steam air-conditioning systems. Provisions for all these initiatives are keyed to customer needs. Con Edison works with businesses to tailor the right package of one or more programs that can best conserve energy, while providing participants with incentives that benefit the environment and their profitability.

## Clean, Renewable Energy

By far the majority of electrical energy in the United States is generated through combustion of fossil fuels. This is necessary because it is presently the only way to meet energy demands. Use of fossil fuels consumes finite energy resources and also contributes to air emissions. But now there is an alternative available. Con Edison Solutions, a subsidiary of Con Edison, Inc., is an energy services company (ESCO) that offers its customers a GREEN Power option. Con Edison Solutions is now working with a leading wind energy marketer and developer to provide an environmentally friendly energy alternative. Wind power generates no emissions and does not deplete fossil fuel reserves. An infinitely renewable resource, it relies on wind turbines to produce electricity. Residential, commercial, and industrial customers who choose Con Edison Solutions' GREEN Power are directly supporting pollution-free renewable electricity and a more sustainable energy future. In addition, GREEN Power is Green-e-certified. The Green-e program certifies renewable electricity products that meet the environmental and consumer protection standards established by the organization. As part of this certification, electricity providers are asked to disclose information about their product to their customers in a standardized format. This enables consumers to make informed purchasing decisions and helps to build wider acceptance of renewable electricity. For more information about GREEN Power, visit the Con Edison Solutions Web site at [www.conedsolutions.com](http://www.conedsolutions.com).



**An award for environmental excellence** Con Edison is a long-time supporter of Clean Air Communities (CAC), which was a winner of the first New York State Department of Conservation Environmental Excellence Awards for four projects that were executed in partnership with Con Edison. Pictured at the awards ceremony are (from left) are Glenn Goldstein, program director, NESCCAF/Clean Air Communities; Erin Crotty, commissioner, NYSDEC; Randy Price, Con Edison vice president, EH&S; Oleg Krotoff, Con Edison senior scientist.

### Helping to Promote Wise Energy Choices

The National Energy Resources Organization (NERO) is a nonprofit group established in 1975, during the aftermath of the oil shocks, to promote dialogues about energy issues among energy companies, nonprofit foundations, and government policymakers. In May 2004, the organization presented Con Edison with its Public Education Award for an information campaign the company had run in 2003. The award recognized the company's efforts in developing an energy education campaign that discussed complex energy topics, such as infrastructure, reliability, energy prices, usage, and energy deregulation in a way the public could understand. The campaign included print and radio messages addressing frequently asked questions about electric supplies, energy costs, and effective conservation strategies for homes and businesses. The messages appeared in large and small newspapers throughout the New York metropolitan area and aired on a mix of local radio stations. Messages encouraged the public to visit Con Edison's Web site and EnergyLine phone service for more information.

### Encouraging Conservation

All Con Edison customers receive a copy of *Customer News* six times a year. This colorful, easy-to-read newsletter keeps readers informed about energy issues that may affect them. Articles feature useful suggestions for trimming energy use in the home during winter and summer. There are also messages about electrical safety both at home and outdoors that customers should keep in mind. There are tips for dealing with extreme weather, such as thunderstorms in summer or blizzards in winter. The popular "Bulletin Board" segment promotes local civic events, and encourages readers to participate in environmental activities, such as the American Littoral Society's annual beach cleanups, and the Bronx River Alliance's shoreline reclamation efforts. Customers are also offered Con Edison publications that can help them conserve energy and resources and help them choose energy-efficient products when buying appliances and other electronic equipment. In addition, customers are encouraged to participate in America Recycles Day activities and Earth Day observances. Timely information on energy conservation and other environmental issues is also provided at the company's Web site, [www.conEd.com](http://www.conEd.com). For youngsters interested in the environment and in having fun, there is a special children's Web site at [www.conEd.com/kids](http://www.conEd.com/kids). Visitors to this site can learn more about energy, how it is used in the home, how to help parents be energy-smart, and how to use energy safely.



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#### **Customer News**

With energy-efficiency tips and stories about environmental organizations in Con Edison's service area, *Customer News* offers a wealth of information for our 3.1 million customers.

## **A Word About the Topics in This Report**

Since 1996, Con Edison has been publishing EH&S annual reports to keep stakeholders informed about our environmental mission, and about health and safety issues that affect our workforce and the public. In the nine-year interval since we began documenting our EH&S performance, there has been an evolution in thinking about how businesses can best communicate their environmental vision and explain how that vision is being pursued.

This new way of talking about the way businesses carry out their environmental mission acknowledges that measures of environmental performance are essential, but they are not the whole story. In addition to environmental impact, every business also has an economic and a social impact as well. So the growing trend in corporate reporting is to chart progress in environmental activities, and also describe the social and economic effects that companies produce. This would represent a triple bottom line to excellence.

In this year's EH&S annual report, Con Edison has continued to provide key metrics that document our environmental and safety progress. We have also introduced more information about the company's financial profile and described some of the ways we contribute to the social fabric in the communities we serve. In future EH&S annual reports, we will continue to present a focused and accurate picture of our environmental and safety efforts. In addition, this report will broaden its scope to provide even more information about how we contribute to the economy of our region, how we play a role in the communities that rely on us for energy services, and how we affect the lives of our employees, our customers, and our fellow New Yorkers.





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