

# Responsible Energy

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## Northeast Utilities 2014 Sustainability Report

In February 2015, Northeast Utilities proudly announced our new name, Eversource Energy. We are using this opportunity to enhance our sustainability reporting under our new brand and invite you to visit our updated Responsible Energy report at the end of May to learn about our 2014 initiatives and future plans. We're pleased to provide last year's report here as a pdf. This document has been created for our 2014 results as we transition to a new website. Unfortunately, some hyperlinks in this PDF may not work. However, additional details about our company operations can be found at our Eversource website.

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## OUR BUSINESS

### About Our Company

***"Northeast Utilities is committed to delivering reliable energy and superior customer service."***

Northeast Utilities (NU) and its companies have a long and proud history in the energy industry. Our mission to deliver reliable energy and superior customer service is woven into the fabric of all that we do for customers in Connecticut, Massachusetts and New Hampshire.

Through our regulated utilities — The Connecticut Light and Power Company (CL&P), NSTAR Electric Company, Public Service Company of New Hampshire (PSNH), Western Massachusetts Electric Company (WMECo), NSTAR Gas Company, and Yankee Gas Services Company (Yankee Gas) — we deliver safe, reliable and affordable energy-related products and services to 3.6 million customers in three states. NU is committed to safety, reliability, environmental stewardship and expanding energy options for our region.

### Transmission and Distribution System

NU is one of the nation's largest utilities with four regulated electric utilities serving 3.1 million customers and two natural gas utilities serving 500,000 customers. NU operating company profiles are shown below.

Company Profile As Of December 2013				
Operating Company	Territory in Square Miles	Communities Served	Customers	More Information
CL&P	4,400	149 in CT	1.2 million	<a href="http://www.cl-p.com">www.cl-p.com</a>
NSTAR Electric	1,702	81 in MA	1.2 million	<a href="http://www.nstar.com">www.nstar.com</a>
PSNH	5,628	211 in NH	500,000	<a href="http://www.psnh.com">www.psnh.com</a>
WMECo	1,500	59 in MA	207,000	<a href="http://www.wmeco.com">www.wmeco.com</a>
NSTAR Gas	1,067	51 in MA	274,000	<a href="http://www.nstar.com">www.nstar.com</a>
Yankee Gas	2,187	71 in CT	218,000	<a href="http://www.yankeegas.com">www.yankeegas.com</a>
Natural Gas				
Type	Yankee Gas	NSTAR Gas		
Natural Gas Pipelines	3,291 miles	3,213 miles		
Liquid Natural Gas Plants	1	2		

### Generation Facts Hydroelectric

Station	River	Capability (Kilowatts)	Number of Units	Location
Amoskeag	Merrimack	17,500	3	Manchester, NH
Ayers Island	Pemigewasset	9,100	3	Bristol and New Hampton, NH
Canaan	Connecticut	1,000	1	Canaan, VT and West Stewartstown, NH
Eastman Falls	Pemigewasset	6,500	2	Franklin, NH
Garvins Falls	Merrimack	12,400	4	Bow, NH
Gorham	Androscoggin	2,100	4	Gorham, NH
Hooksett	Merrimack	1,600	1	Hooksett and Contoocook, NH
Jackman	North Branch	3,600	1	Hillsborough, NH
Smith	Androscoggin	15,200	1	Berlin, NH

### Fossil and Biomass Generation

Station	Fuel Type	Capability (Megawatts)	Number of Units	Location
Merrimack	Coal	439.0	2	Bow, NH
Schiller	Coal/Biomass/Oil	139.2	3	Portsmouth, NH
Newington	Oil/Gas	400.2	1	Newington, NH

### Combustion Turbines

Station	Fuel Type	Capability (Kilowatts)	Number of Units	Location
Lost Nation	No. 2 Oil	18,000	1	Groveton, NH
Merrimack	Jet Fuel	43,000	2	Bow, NH
Schiller	Jet Fuel	18,500	1	Portsmouth, NH
White Lake	Jet Fuel	22,400	1	Tamworth, NH

### Solar Generation

Location	Fuel Type	Capability (Kilowatts)	Number of Panels	Location
Energy Park	Photovoltaic	51	183	Manchester, NH
Silver Lake	Photovoltaic	1,800	6,534	Pittsfield, MA
Indian Orchard	Photovoltaic	2,300	8,290	Springfield, MA

## Corporate Governance

***"NU has a long-standing commitment to the highest standards of integrity, accountability and independence."***

Employees of Northeast Utilities (NU), in conducting the day-to-day business of our company, strive to enhance long-term value for shareholders and to fulfill NU's commercial, community and public service obligations. It is the responsibility of NU's **Board of Trustees** to oversee these efforts. Doing what's right – ethically, fairly and honestly – is the cornerstone of both good corporate governance and corporate compliance. In that respect, all of NU's trustees, officers, employees, contractors and agents must abide by NU's **Code of Business Conduct**. The Board has also adopted a **Code of Ethics for Senior Financial Officers** and a **Related Party Transactions Policy** that underscore the company's commitment to the highest standards of integrity, accountability and independence.

The Board seeks to ensure that the company has a clear and acceptable purpose, strategic and operational direction and plan, and that the business of the company is managed effectively, taking into consideration economic circumstances along with regulatory and legal requirements. The **Corporate Governance Guidelines**, along with the **Charters of each of the Board of Trustees' Committees**, provide the framework for the governance of the company. Further information regarding the structure of the Board can be found in our **Proxy Statement** for the Annual Meeting of Shareholders and on our website under "**Corporate Governance**" in the Investors section.

## Ethics and Risk Management

Our strong commitment to corporate governance and compliance is at the heart of our Northeast Utilities (NU) culture. Energy companies like NU comprise one of the nation's most heavily regulated industries, and the laws and regulations that apply to our company can be complex. We strive to maintain the trust and confidence of all customers, shareholders and regulators. We are committed to sustaining a work culture that promotes accountability, transparency, high performance and a sense of pride and service among all employees.

NU's Board of Trustees upholds this trust by overseeing corporate governance on the Board level and by overseeing compliance to make certain that company objectives align with a common purpose. The Board also ensures the objectives are achieved effectively, are part of the overall strategic plan, and that every action is acceptable with regulators and legal obligations.

Our workforce is our most valued resource. Employees of NU and its subsidiaries carry out many roles in the office and in the field. Our employees understand the responsibilities of working for an energy company that continuously affects the lives of millions of people. To ensure accountability in functions at every level, our **Code of Business Conduct** outlines the values and ethics expected. NU's Code of Business Conduct is comprised of the shared principles that govern our business, and underscores the importance of ethical business practices. Regardless of role at the company, all employees have a responsibility to abide by the spirit and letter of the code. New employee orientation is conducted and includes communication of key policies such as *Code of Business Conduct*, *Prevention of Sexual Harassment and Fitness for Work*. Supervisors and managers receive either interactive training or face-to-face training on these subjects, or have taken online programs.

Additionally, we apply an Enterprise Risk Management (ERM) methodology for identifying the principal risks of the company. Our ERM program involves the application of a well-defined, enterprise-wide methodology designed to allow our Risk Committee, comprised of our senior officers and directors, to oversee the identification, management and reporting of principal business risks. Our management analyzes the risks to determine materiality and other attributes such as likelihood, impact, and mitigation strategies. Management broadly considers our business model, the utility industry, the global economy and the current environment to identify risks. The findings of this process are periodically discussed with the Finance Committee of our Board of Trustees.

## DELIVERING RELIABLE ENERGY & SUPERIOR CUSTOMER SERVICE

Values - the principles and standards we follow - cannot be compromised. They are at the very core of who we are, what we stand for and how we behave. At NU, in both word and action, the daily decisions we all make reflect the highest business ethics and our core values:

- Safety first and always
- Maintaining the highest ethical standards
- Having respect for diversity
- Providing superior customer and community service
- Providing a stimulating workplace
- Promoting environmental stewardship

### Financial Performance

In 2013, Northeast Utilities (NU) once again delivered on its promises to shareholders and customers. It has been a year of tremendous progress for our integrated company, the foundation of which has been fiscal discipline, excellent operational performance and a customer-centric focus. We remain a strong company, one that consistently provides the high quality service our customers demand and the solid return on investment our shareholders have come to expect.

In 2013, NU earned \$2.53 per share, an increase of 11 percent over 2012 on a recurring basis. We also raised our common dividend 7.1 percent to an annualized rate of \$1.47 per share, which when coupled with our share price appreciation from \$39.08 to \$42.39, provided our shareholders with a total return of 12.3 percent in 2013. This is our fifth consecutive year of double-digit returns for shareholders. And another dividend increase in February 2014, to an annualized level of \$1.57 per share, marked our fifteenth dividend increase over the past fourteen years.

The company also maintained its strong A- credit rating at Standard & Poor's, one of the industry's top ratings. In January 2014, Moody's raised most of our senior credit ratings further into the "A" category. These strong ratings help us lower our debt costs, saving millions of dollars annually for customers and shareholders.

This solid financial performance was the direct result of three critical factors: a management team dedicated to implementing best practice standardization and cost efficiency; an all-employee commitment to operational performance targets; and our continued focus on improving the regional transmission infrastructure.

We accomplished a number of merger integration initiatives across the company in 2013, all designed to enhance customer service, create efficiency and reduce costs. With the power of One Company we will continue to standardize across all of our operating companies from top to bottom – inventory items, how we configure and operate our system, the equipment we use, and automation and technology. Also, our new outage management system will look and operate the same across our entire electric distribution system. And we are just beginning to optimize our service centers, which will greatly benefit our customers. We'll continue to make NU more efficient and more customer-focused; and by doing so we expect to dramatically improve our customer service.

Operationally, Northeast Utilities met or exceeded our targets for our distribution, transmission and generation systems. In fact, 2013 stood as our best year of service reliability on record. This performance was achieved through employees' steadfast commitment to meet performance targets, as well as vigilant system maintenance and improvements such as system hardening and enhanced vegetation management around our power lines.

We achieved milestones with key transmission and natural gas initiatives—establishing the foundation for future growth. Two of Northeast Utilities' major electric transmission projects were completed in 2013: the Greater Springfield Reliability Project, which was constructed in western Massachusetts and northern Connecticut, and the Lower Southeast Massachusetts Reliability Project onto Cape Cod. In March 2014, we commenced site work on the Interstate Reliability Project, a collaborative effort with National Grid that is designed to improve the delivery of electricity across Connecticut, Rhode Island

and Massachusetts. This project, which is expected to be completed in late 2015, involves the construction of 75 miles of transmission facilities through the three-state region and is particularly timely given the expected shutdown of the Brayton Point coal and oil generating facility in Somerset, Massachusetts, scheduled for 2017.

Our Northern Pass transmission project, which will bring clean hydropower from Québec to the New England region, moved forward with a redesigned route through New Hampshire that incorporates community input. ISO-New England also approved plans to connect the line to the regional grid.

With natural gas heating costs now half those of oil, we added a record 10,356 heating customers in 2013. This was double the level of 2009, and we expect the annual increase in heating customers to rise to more than 16,000 over the next decade. In 2013, Connecticut legislators and regulators endorsed initiatives that will ease the conversion costs for homeowners and businesses - important steps we believe will spur increased gas expansion. Combined with accelerating conversion activity in Massachusetts, we expect to double the earnings of our natural gas segment over the next 10 years.

Further supporting investments in energy infrastructure opportunities, all six New England governors signed a pact in December committing each of their states to natural gas and electric transmission line expansion. This is a clear signal these particular issues will remain of paramount importance in our region, and Northeast Utilities stands ready to help New England address these infrastructure challenges. The reliability risks to New England were underscored during the frigid weather of January 2014, when many of the region's electric generators were unable to procure enough natural gas to reliably operate their units.

We recognize the critical need for renewable energy investments and energy efficiency options for customers. We continue to support the development of economical wind projects, having executed four cost-effective wind contracts in 2013. In 2014, we are slated to provide a total of half a billion dollars in energy efficiency programs for customers in all three states.

We are extremely proud of these accomplishments, but our work certainly is not finished. Like any great organization, we routinely evaluate how we can improve to ensure our customers receive world class service. That is why we are redoubling our efforts to increase customer satisfaction, reviewing customer interactions at all levels of the company for improvement opportunities. Our employees' dedication to their craft and the customer are the lynchpin to this enterprise-wide transformation. We look forward to our continued success at Northeast Utilities, and are very confident in our future.

## Selected Financial Data

(Thousands of dollars, except share information and statistical data)	2013	2012
Operating Revenues	\$ 7,301,204	\$ 6,273,787
Operating Income	\$ 1,529,435	\$ 1,118,206
Net Income Attributable to NU Common Shares	\$ 786,007	\$ 525,945
Diluted Earnings per Common Share (GAAP)	\$ 2.49	\$ 1.89
Diluted Earnings per Common Share (Non-GAAP) <sup>[1]</sup>	\$ 2.53	\$ 2.28
Diluted Common Shares Outstanding (Weighted Average)	316,211,160	277,993,631
Dividends Paid per Common Share	\$ 1.47	\$ 1.323
Sales of Electricity (Regulated Retail, kWh-millions) <sup>[2]</sup>	55,331	54,808
Electric Customers (As of Year End)	3,103,642	3,091,265
Firm Sales of Natural Gas (Million cubic feet) <sup>[2]</sup>	94,083	81,772
Natural Gas Customers (As of Year End)	495,267	487,478
Investments in Property, Plant and Equipment	\$ 1,456,787	\$ 1,472,272
Property, Plant and Equipment, Net (As of Year End)	\$ 17,576,186	\$ 16,605,010
Market Capitalization (As of Year End)	\$ 13,364,446	\$ 12,273,216
Share Price (As of Year End)	\$ 42.39	\$ 39.08

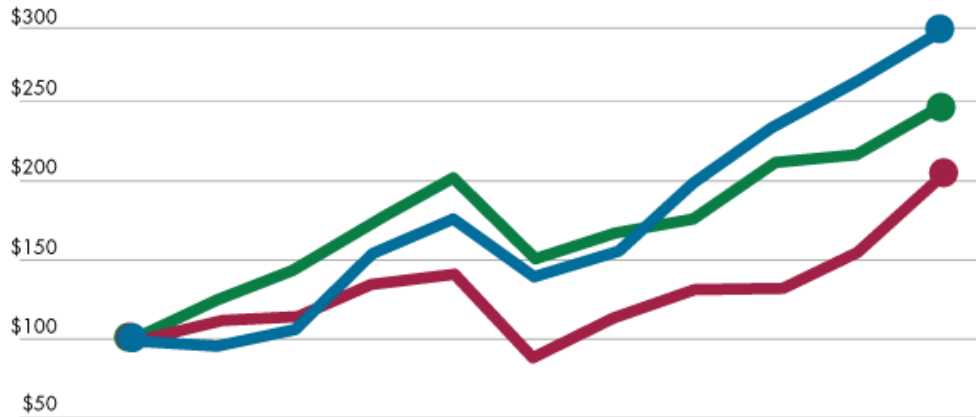
<sup>[1]</sup> Diluted Earnings per Common Share (Non-GAAP) was adjusted to exclude integration and merger-related costs. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," in the accompanying Form 10-K for a reconciliation to GAAP.

<sup>[2]</sup> 2012 results include retail electric and firm natural gas sales of NSTAR Electric and NSTAR Gas from January 1 through December 31 for comparison purposes only.



## Total Shareholder Return

(Assumes \$100 invested on December 31, 2003 with all dividends reinvested)

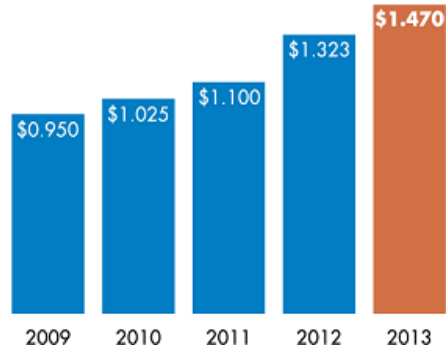


	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
● Northeast Utilities	\$100	\$ 97	\$104	\$154	\$176	\$140	\$156	\$200	\$234	\$262	\$294
● EEI Index	\$100	\$123	\$143	\$172	\$201	\$149	\$165	\$176	\$211	\$216	\$244
● S&P 500	\$100	\$111	\$116	\$135	\$142	\$ 90	\$113	\$130	\$133	\$154	\$204

## Closing Share Price



## Dividends Paid/Share



## Financial Performance Archive

### Selected Financial Data

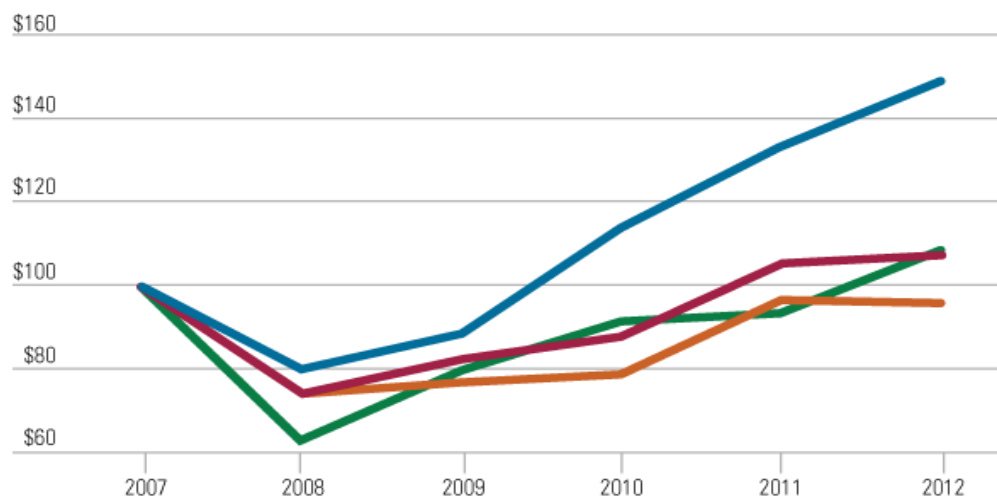
(Thousands of dollars, except share information and statistical data)

	2012	2011
Operating Revenues	\$ 6,273,787	\$ 4,465,657
Operating Income	\$ 1,118,206	\$ 794,176
Net Income Attributable to NU Common Shares	\$ 525,945	\$ 394,693
Diluted Earnings per Common Share (GAAP)	\$ 1.89	\$ 2.22
Diluted Earnings per Common Share (Non-GAAP)	\$ 2.28	\$ 2.38
Diluted Common Shares Outstanding (Weighted Average)	277,993,631	177,804,568
Dividends Paid per Share	\$ 1.323	\$ 1.10
Sales of Electricity (Regulated Retail, kWh-millions)	49,718	33,812
Electric Customers (As of Year End)	3,091,265	1,934,467
Firm Sales of Natural Gas (Million cubic feet)	64,140	38,197
Natural Gas Customers (As of Year End)	487,478	209,595
Investments in Property, Plant and Equipment	\$ 1,472,272	\$ 1,076,730
Property, Plant and Equipment, Net (As of Year End)	\$ 16,605,010	\$ 10,403,065
Market Capitalization (As of Year End)	\$ 12,273,216	\$ 6,390,114
Share Price (As of Year End)	\$ 39.08	\$ 36.07

Note: Diluted Earnings per Common Share (Non-GAAP) was adjusted to exclude merger-related costs and a 2011 storm fund reserve. See Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," in the accompanying Form 10-K for a reconciliation to GAAP.

### Total Shareholder Return

(Assumes \$100 invested on December 31, 2007 with all dividends reinvested.)



● Northeast Utilities	\$100	\$ 80	\$ 89	\$114	\$ 133	\$ 149
● EEI Index	\$100	\$ 74	\$ 82	\$ 88	\$ 105	\$ 108
● S&P Electric Utilities	\$100	\$ 74	\$ 77	\$ 79	\$ 96	\$ 96
● S&P 500	\$100	\$ 63	\$ 80	\$ 92	\$ 94	\$ 109

## Dividends Paid/Share

For the Years Ended December 31



## Closing Share Price

As of Year End



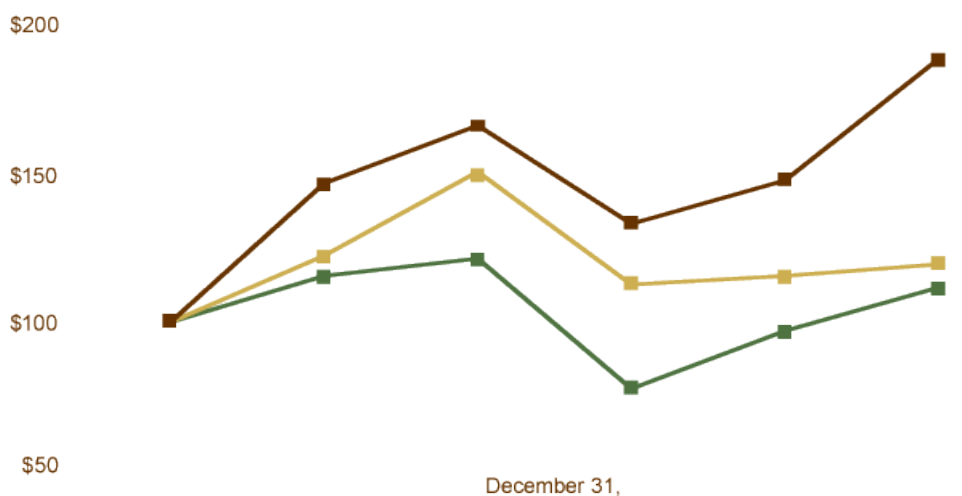
## SELECTED FINANCIAL DATA

(Thousands of dollars, except share information and statistical data)

	2010	2009
Operating Revenues	\$ 4,898,167	\$ 5,439,430
Operating Income	\$ 799,891	\$ 751,375
Net Income Attributable to NU Common Shares	\$ 387,949	\$ 330,033
Diluted Earnings per Common Share	\$ 2.19	\$ 1.91
Diluted Common Shares Outstanding (Weighted Average)	176,885,387	172,717,246
Dividends per Share	\$ 1.025	\$ 0.950
Sales of Electricity (Regulated Retail, KWH-millions)	34,230	33,645
Electric Customers (Average)	1,909,905	1,900,776
Natural Gas Customers (Average)	205,885	206,438
Property, Plant and Equipment, Net (As of Year End)	\$ 9,567,726	\$ 8,839,965
Market Capitalization (As of Year End)	\$ 5,625,165	\$ 4,529,240
Share Price (As of Year End)	\$ 31.88	\$ 25.79

## SHARE PRICE PERFORMANCE

(Assumes \$100 invested on December 31, 2005, in NU common shares, S&P Electric Utilities Index and S&P 500 Index with all dividends reinvested)



	2005	2006	2007	2008	2009	2010
NU Common	\$100	\$148	\$168	\$134	\$149	\$191
S&P Electric Utilities	\$100	\$123	\$152	\$113	\$116	\$120
S&P 500	\$100	\$116	\$122	\$77	\$97	\$112

## DIVIDENDS PAID/SHARE

For the Years Ended December 31,



## CLOSING SHARE PRICE

At Year End



## Economic Benefit

The success of Northeast Utilities (NU) is inextricably linked to the success of our region. We actively partner with local New England leaders to recruit new businesses and boost our area economies. In 2013, we were an active participant in multiple economic development initiatives in Connecticut, Massachusetts and New Hampshire. These initiatives included extensive construction projects that allowed major companies to expand, sponsorships of organizations that support economic development, and the purchase of tax credits, all benefitting the communities we serve.

By providing infrastructure support, NU assists major companies growing their businesses in our region. In Plympton, Massachusetts, a major expansion of an existing substation allowed SYSCO Foods to locate a new 700,000 square foot facility in the region. In Rochester, New Hampshire, we worked closely with the City of Rochester Economic Development Office, representatives of Safran Aerospace Composites, Albany Engineered Composites, and Great Bay Community College, to assist in the opening of a new manufacturing plant that will result in the hiring of 400 skilled manufacturing employees.

We also support economic development by sponsoring major events, such as the New Hampshire Annual Economic Development Summit - the largest economic development event in the state. We are a long-time sponsor of the Travelers Championship Tournament, which generates over \$1 million in annual charitable giving to multiple organizations throughout New England and creates many jobs in the state of Connecticut. In 2014, NU will continue to sponsor the Travelers Championship and will also become the premier sponsor of the NU Hartford Marathon. This year's event will introduce solar power in Bushnell Park, a mark of continuing commitment to sustainability, an important platform for both the Hartford Marathon Foundation and NU.

NU subsidiaries Connecticut Light and Power Company and Yankee Gas Services Company presently participate in three different tax credit programs that Connecticut offers as an incentive for businesses to support community programs. Over the past 15 years, we have contributed close to \$90 million to affordable housing in Connecticut by utilizing these tax credits. In doing so, we have transformed neighborhoods, created jobs and housing, and improved Connecticut's economy. In 2013 alone, NU invested over \$10 million dollars in tax credits - \$9,078,670 was invested in the Housing Tax Credit Contribution (HTCC) Program, \$1,988,706 in the Neighborhood Assistance Tax Credit (NATC) Program, and \$1,988,706 in Historical Structures Tax Credits. The State of Connecticut Housing Trust Fund estimates that a \$10 million investment would create 1,290 jobs, 750 housing units, \$120 million in additional housing development, and nearly \$42 million in wages paid on an annual basis.

We partner with over 35 different organizations dedicated to bringing economic development to the states of Connecticut, Massachusetts and New Hampshire. In addition to providing well over \$2 million in funding to various economic development groups throughout New England, we are also actively involved (in most cases at a Board level) in organizations such as the Connecticut Economic Resource Center (CERC), Connecticut Main Streets, Massachusetts Alliance for Economic Development (MassEcon), Economic Development Partners of Western Massachusetts, Northeast Economic Development Association, and the Economic Advisory Council. The goal of all of these organizations is to help boost the economies of New England. NU was there to work hand-in-hand with our economic development partners throughout 2013.

## NU Economic Benefit

	2013	2012
Donations	\$5.2 Million	\$4.6 Million
Employees*	8,697	8,842
Taxes Paid	\$559 Million	\$420 Million

\*Employee numbers are approximate as of end of year, excluding temporary employees, and are in line with anticipated organizational synergies from the NU and NSTAR merger.

## Sustainable Supply Chain

***“NU believes a sustainable supply chain results from collaboration, vision and accountability to meet today’s needs and ensure a sustainable future.”***

### Supplier Code of Conduct

Northeast Utilities (NU) is committed to sustainability in its supply chain and requires all vendors to adhere to its **Supplier Code of Conduct**, which clearly sets out expectations for suppliers. Recognizing the importance of ethical behavior in business relationships and in the workplace, NU and its companies require all suppliers to abide by its Supplier Code of Conduct, directing its suppliers to provide high quality products and services, and to also:

- Be honest, fair and respectful at all times
- Keep their commitments to quality, reliability and service
- Perform to the highest ethical standards
- Understand and operate in compliance with all applicable laws, regulations, policies and procedures
- Maintain a culture of ethical business practices, encourage open communication to all stakeholders and foster awareness of and commitment to the responsibilities outlined by NU
- Effectively communicate standards and procedures to their employees, agents and representatives through training programs and disseminate information on requirements and expectations.

### Green Procurement

NU’s Environmentally Preferable Procurement (EPP), or "green procurement" guidelines, focus on obtaining products or services that have a reduced impact on human health and the environment. Our EPP guidelines and associated tracking mechanisms have led us to the use of Forest Stewardship Council (FSC) certified printing services that utilize FSC certified paper and soy-based or vegetable based inks, low-energy flat screens for computers, recycled and sustainable promotional products and biodiesel fuels. Our electronic based Requests for Proposals require vendors to describe the environmental impacts of their products or services.

### Electric Utility Industry Sustainable Supply Chain Alliance

NU actively supports utility industry-wide expansion of supply chain sustainability through participation in the **Electric Utility Industry Sustainable Supply Chain Alliance** (Alliance). As a standards development organization formed to promote environmental stewardship and provide value to customers and shareholders, the Alliance focuses on non-fuel suppliers. Working with industry suppliers and other interested parties, together with the Alliance, we are improving environmental performance and advancing sustainable business practices for major categories of electric utility purchases.

Supplier education and resources provided online aids for supplier awareness of **sustainability issues**, and includes contact points with available resources, such as the Manufacturing Extension Partnership (MEP) of the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) and the U.S. Environmental Protection Agency (EPA). In addition to educational materials, **videos** and guidance documents for suppliers, the Alliance also presents webinars,

technical support and shared experiences from Alliance utility members, as well as links to other resources such as the U.S. Department of Energy (DOE), the Environmental Protection Agency (EPA), the National Institute of Standards and Technology (NIST) and the Climate Registry.

## **Commitment to Supplier Diversity**

We firmly believe supplier diversity is a proactive business process that seeks to provide all suppliers equal access to purchasing opportunities. It promotes supplier participation reflective of the diverse business community and encourages economic development. Our goal is to engage a group of suppliers who consistently provide exceptional products and services at competitive prices. Minority and women-owned businesses are the fastest growing businesses in this country, and we are proud to engage with diverse firms and their talented teams. Together with our diverse suppliers we are expanding business opportunities, advancing suppliers' visibility and growth goals, and creating valued business relationships.

Through our Diverse Supplier Development Academy (DSDA), a joint venture developed by NU in collaboration with the University of Connecticut and SCORE (formerly known as the Service Core of Retired Executives), we are equipping high-potential diverse businesses with advanced business knowledge, skills and tools to facilitate growth, and competitiveness in the marketplace. A stronger, diverse business community contributes to the economic vitality of the region through job creation and downward pressure on the cost of goods and services brought about by increased competition.

The DSDA 12-week program incorporates three core elements – education, mentoring and hands-on support. The program offers education in core business principals to sharpen the skills and knowledge of each business owner. It provides one-on-one mentoring through SCORE to provide valuable guidance to each entrepreneur in pursuit of attainable goals that encourage business growth. Finally, DSDA includes hands-on support through the University of Connecticut to connect entrepreneurs to other tools, resources, and networks necessary to support their own business needs. Upon graduation, each participant's knowledge and body of work has immediate application and benefit to their own businesses.

## **2009-2013 Awards and Recognition**

NU and its affiliates have been recognized by many organizations for our operating efforts, including:

### **Excellence Awards**

- In March 2014, NSTAR Electric was awarded the *Edison Electric Institute's* Emergency Recovery Award for its exceptional power restoration efforts after major winter storm NEMO in 2013. Extensive preparation and planning enabled NSTAR to restore power within 72 hours to over 90 percent of the 320,000 NSTAR customers who were left without power after the blizzard.
- NU subsidiary Connecticut Light and Power (CL&P) was recognized with the *Edison Electric Institute's* Emergency Recovery Award in 2013 for its outstanding efforts to restore power to customers in Connecticut following Superstorm Sandy in October 2012. The storm impacted all 149 cities and towns served by CL&P, and crews restored power to more than 850,000 customers. In some areas, entire portions of the electric system were rebuilt with more than 1,700 new poles set, and more than 100 miles of wire restrung.
- NU won *Edison Electric Institute's* Emergency Assistance Award in 2013 for its outstanding efforts to aid utilities in New York State and New Jersey in restoring power after Hurricane Sandy. Employees from CL&P assisted Con Edison in Westchester County while workers from subsidiaries Western Massachusetts Electric Company (WMECo) and Public Service of New Hampshire (PSNH) assisted Jersey Central Power & Light in restoring service. Substation and overhead workers from subsidiary NSTAR Electric went to assist Long Island Power Authority while some underground employees from NSTAR Electric were deployed to help Con Edison.
- In 2009, NU was awarded the Edison Award, the *Edison Electric Institute's* highest award honoring leadership, innovation and contribution to the advancement of the electric industry. NU was recognized for the successful completion of four major transmission projects in southwest Connecticut to improve regional reliability.

- NU received two *Edison Electric Institute's* Emergency Assistance Awards in 2009 for the outstanding efforts of its operating companies in restoring power to 417,000 customers in three states following the devastation of the historic ice storm of December 2008. NU was also recognized for providing mutual aid to electric utilities in Ohio and New York following the massive damage and outages caused by the remnants of Hurricane Ike in September 2008.

## Investor Awards

- NU's Investor Relations team has been recognized as having among the best (and, in some cases, the best) investor relations program among U.S. utilities. They have been recognized with many awards over the past several years by *Institutional Investor* (2009-14) and *Investor Relations* (2006-09) magazines.
- *Corporate Knights* ranked NU at No. 13 in its inaugural Standard & Poors (S&P) 500 Clean Capital Ranking in 2012, which rates companies on a suite of 11 transparent quantitative indicators. Companies were ranked relative to their industry peers and all companies on the S&P 500, regardless of their industry, were included.
- Three times, NU was named to *Corporate Responsibility* magazine's 100 Best Corporate Citizens list in 2013, 2012 and 2009. The list ranks U.S. companies that excel at serving a variety of stakeholders and operate with a high level of transparency.
- NU received an award from the *Edison Electric Institute* (EEI) for having the best total shareholder return among all EEI companies for the period of October 1, 2005, through September 30, 2010.
- NU is included in the *Maplecroft* Climate Innovation Index (CII). The index provides investors with insight into climate-related innovation, management, mitigation and adaptation. CIIs have been live on Bloomberg since January 2010 and continue to outperform competitors.
- NU was recognized as one of *Intelligent Utility* magazine's top 25 utilities for 2010 for its commitment to renewable energy and energy efficiency, and its investments in smart grid and information technology.
- *Target Rock Advisors* ranked NU at No. 20 overall and included NU in its High Environmental Index; High Social Index; High Environmental, Social and Governance (ESG) Index; and Medium Sustainability Index.
- *InvestorRelations* magazine recognized NU for the best 2006 annual report among all U.S. small and mid-cap companies, whose stock market value was up to \$10 billion.

## Energy Efficiency Awards

- Many organizations continue to recognize our companies for the success of the energy efficiency programs that NU has implemented. In 2014, the New Hampshire Core Utilities, including PSNH, won the ENERGY STAR Partner of the Year Award for the ENERGY STAR Homes program implementation in New Hampshire. Also in 2014, the sponsors of the Mass Save<sup>®</sup> Lighting and Consumer Products Initiative, including NSTAR Electric and WMECo, received the Association of Energy Services Professionals' Marketing & Communications in Social Media Award for using new channels of sales driving to help meet aggressive program goals.
- In 2013, CL&P, NSTAR, PSNH, and WMECo, along with several other utilities that comprise the Northeast Energy Efficiency Partnership (NEEP), were honored with the ENERGY STAR Partner of the Year - Sustained Excellence Award. This award was given by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) for the Northeast Retail Products Initiative, which promotes energy efficiency in homes and businesses throughout the Northeast, through regionally coordinated programs.
- NSTAR, WMECo and six other Massachusetts electric and natural gas utilities have been recognized with an award of excellence from the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) for their work with the Joint Management Committee in Massachusetts, sponsor of Massachusetts New Homes with ENERGY STAR, a multi-utility and energy efficiency service provider. Additionally in 2013, the EPA awarded Energy Star Partner of the Year Awards to PSNH and the NH CORE Utilities, and also to CL&P in partnership with United Illuminating Co. and the Connecticut Energy Efficiency Fund, for their contributions to reducing greenhouse gas emissions by delivering energy efficiency information and services to their customers.

- In November 2013, the American Council for an Energy-Efficient Economy (ACEEE) released its 2013 State Scorecard naming Massachusetts the number one state in energy efficiency for the third year in a row and Connecticut ranked fifth in the nation. Our operating companies take great pride in their contributions toward helping our states retain their leadership positions. Additionally, in 2013 the ACEEE released its third National Review of Exemplary Energy Efficiency Programs. Seven programs administered by NU operating companies were recognized by the ACEEE as "models for emulation by other utilities and organizations."

## Safety Awards

- For the fifth year in a row, several of NU's operating companies were recognized by insurer Liberty Mutual with the Gold Safe Driver Award for reducing the number of preventable motor vehicle accidents. Less than 1 percent of Liberty Mutual's 18,000 customers receive this award. In 2012, CL&P, Yankee Gas, PSNH, WMECo and NU's Transmission business saw reductions in accidents ranging from 40 to 63 percent.
- In 2011, WMECo and PSNH received a Gold Safe Driver Award. Both companies also received gold level awards in 2010. PSNH, WMECo and Yankee Gas received Gold Safe Driving Awards in 2009. CL&P and Yankee Gas were recognized in 2008.
- On September 12, 2011, the *Northeast Gas Association (NGA)* awarded Yankee Gas an Excellence in Safety Recognition Program Award for initiatives that resulted in significantly reducing injuries.
- NU was recognized with 17 *Telly Awards* in 2011 for safety-focused videos on distracted driving and electrical hazards "Safe Not Sorry", environmentally focused videos on a solar array on NU's main campus, a Zero Energy Award contest about energy efficiency and a community-focused video about heroes being honored by the Red Cross for their help within the community.

## Environmental Initiatives Awards

- The *Environmental Business Council of New England* recognized PSNH in 2013 with an Outstanding Environmental-Energy Technology Application Achievement Award for its initiative to reduce mercury and sulfur emissions from the coal-fired generation facility at Merrimack Station in Bow, NH.
- The United Kingdom-based *Green Organisation* named PSNH's Clean Air Project to reduce mercury and sulfur emissions from Merrimack Station in Bow as the winner of its 2013 Environmental Best Practice Award. They also awarded the project its prestigious Green Apple Award. The independent nonprofit environmental organization honors international environmental best practices.
- In 2013, NSTAR and several other organizations were recognized by the *Environmental Business Council of New England* with the Nicholas Humber Environmental Energy Award for outstanding collaboration on a project to upgrade an underwater electric cable and a communications cable from the mainland to Martha's Vineyard. Two projects were merged into one to reduce the impact to the environment, and save time and money.
- The *Environmental Business Council of New England* recognized NSTAR and a number of organizations in 2012 for their successful collaboration and work to remediate a boat slip site in New Bedford, MA. Coal tar, from a former manufactured gas plant that operated at the site from the 1880s through the 1960s, was removed.
- In 2012, the *Environmental Business Council (EBC)* recognized WMECo with the James D.P. Farrell Brownfields Project of the Year Award for its work to construct the Indian Orchard solar generation facility in Springfield, MA. The facility was built on a brownfield. WMECo, the city of Springfield and the Springfield Redevelopment Authority were recognized.
- Merrimack Station in Bow, NH, PSNH's largest power plant, was one of six power plants in the world to receive a Top Plants Award from *Power Magazine* in 2012 because PSNH was able to build its mercury and sulfur emissions reduction system two years ahead of schedule and 7.5 percent under budget.
- In 2012, NU was recognized as the top-ranked "green" utility in the U.S. by *Newsweek* in the magazine's 2012 Green Rankings, a comprehensive assessment of the environmental performance of the 500 largest American companies. The score was based on environmental impact, management and disclosure.



- WMECo was honored by the *Environmental Business Council of New England* in 2011 with the John A.S. McGlennon Environmental Award for Corporate Leadership in recognition of outstanding comprehensive corporate-wide environmental leadership and development of the Silver Lake solar generation facility in Pittsfield, MA.
- WMECo was recognized with a 2011 Photovoltaic Project of Distinction Award for its work in developing the Silver Lake solar generation facility in Pittsfield. The *Solar Energies Industry Association* and the *Solar Electric Power Association* sponsored the award, which celebrates major achievements in the U.S. solar energy market.
- In 2011, PSNH was recognized by the *New Hampshire Preservation Alliance* for its renovation of Energy Park in Manchester, NH to serve as its corporate headquarters. The Alliance said the project was the greatest preservation achievement in the state in the last 25 years. Energy Park is inside an old PSNH generation facility on the banks of the Merrimack River in downtown Manchester.
- The Clean Air Project at PSNH's Merrimack Station in Bow, NH, was honored in 2011 by *Old Republic Insurance* for its overall safety performance. Employees worked more than one million hours without a lost time accident.
- PSNH was recognized with an Outstanding Support Award from the *Environmental Business Council of New England* in 2009 for the company's service, leadership and dedication to the development of the environmental and energy industry in New England.

### **Customer Service Awards**

- NU's Customer Experience team was recognized in May 2011 with an Expanding Excellence Award for innovation in customer service at the *CS Week Conference* in Florida. NU is the first utility in the nation to develop and implement "Call Logic" software that analyzes the way the company completes customer transactions and interactions to find ways to improve processes, use technology more effectively and help its customer service representatives serve customers easier and faster.

### **Diversity Awards**

- The *Greater New England Minority Supplier Development Council* has named NU as its Local Corporate Member of the Year in 2013 and 2012.
- NU received the Council's 2012 Advocate of the Year Award.
- In 2012, NU was honored by *Summit International* with a Creative Excellence Bronze Award for its workplace diversity and inclusion report called, "Diversity at NU."
- NU was recognized for creating the Supplier Development Academy with the University of Connecticut in 2011 and establishing a mentor/protégé program for minority business owners.

### **Education Awards**

- CL&P and Yankee Gas were recognized by the *Connecticut Department of Labor's Business Enterprise Unit* with a 2011 Champions Award for their ongoing commitment and support of education and workforce development across Connecticut.
- In 2010, the *Connecticut Department of Public Utility Control (DPUC)* recognized NU's Customer Experience (CE) team for its website designed for social agencies and CE's effort to train 121 employees at 15 agencies. CE launched a new website to provide its social agency partners in Connecticut, Massachusetts and New Hampshire with secure, real-time access to customer usage and billing information needed to verify customers' eligibility for energy assistance. With the information online, the social agencies were able to process applications and payments more quickly and efficiently. (Note: The DPUC is now known as the Public Utilities Regulatory Authority or PURA.)

## Community Support Awards

- In 2013, PSNH was awarded the Dewey O'Neil Award by *Easter Seals of New Hampshire* for 33 years of outstanding support from the company and its employees. In 2012, PSNH employees raised \$81,000 for Easter Seals and have raised more than \$2.9 million over the past three decades.
- In 2010, NU was one of 10 companies in the nation recognized by *The Business Committee of the Arts* for their exceptional involvement with the arts that enrich the workplace, education and the community.

## Employee Support Awards

- The *American Legion of Massachusetts* recognized NSTAR Electric with a certificate of appreciation in 2013 for their support to veterans.
- *The American Legion's* National Economic Commission presented NSTAR with its Recognition for Outstanding Achievement Award in 2012 for outstanding recruiting, hiring and support of veterans.
- In 2010, *Military Times EDGE* magazine ranked NU among the 50 best corporate employers for military veterans for recognizing the benefits of military experience in potential employees. NU received high marks for its policies that support and accommodate activated reservists.
- PSNH was recognized with the Patriotic Employer Recognition from the *Air National Guard* in 2008.

## Health Awards

- The *New England Employee Benefits Council* awarded NU a 2010 Best Benefits Practices Award for its "Healthy, Wealthy and Wise" employee education program.

## Operations Awards

- *TRC Companies* in Lowell, MA, honored PSNH with a Top Project of the Decade Award for the upgrade project at its Saco Valley substation. The Saco Valley substation upgrade is significant for improving the electric reliability in central New England without adding additional generating capacity.

## Communications Awards

- NU's Communications team was honored with a Silver Bell Ringer Merit Award for the company's 2009 annual report, "Strength. Stability. Sustainability." The Bell Ringer Awards, sponsored by the *Publicity Club of New England*, honor excellence and achievement in the communications and public relations professions. NU also won a Silver Bell for its 2008 annual report, "Creating an Environment for Growth."

## Research and Development

***"Investments in R&D help us to better serve our customers."***

Northeast Utilities (NU) invests in Research and Development (R&D) to support research on reliability performance and resiliency initiatives, clean energy and our environment, energy efficiency, and other initiatives to better serve our customers. Our R&D budget is spent on programs through the Electric Power Research Institute (EPRI), and targeted projects that foster R&D relationships with universities and industry innovators. NU has spent between \$900,000 and \$1.6 million annually on R&D projects from 2010 to 2013.

Research programs enable NU to keep our systems working efficiently, support the development and testing of new technologies to make our systems more effective and provide safe and reliable service to our customers. Recent areas of focus include:

## Reliability & Resiliency

- **Vegetation Management:** CL&P is working with the University of Connecticut (UConn) to reduce the threat of tree-related damage to the electric system through **STORMWISE**, a program that integrates tree education, management and research to provide effective solutions to mitigate tree risk. The program has a goal of developing recommendations that will help to make trees and forests in Connecticut more resilient during severe weather, while maintaining the beauty and character of the state's roadside forest.
- **Storm Prediction Model:** Since 2011 CL&P has been partnering with UConn to develop a reliable storm prediction model. The model brings together weather parameters, such as wind speed forecasts from the National Weather Service, historic data in CL&P's outage management system from various types of storms and information from the company's vegetation management programs, to generate estimates on the expected strength of impending storms, as well as estimates on the location and extent of any damage they may cause. While there is no way for a utility to prevent outages, this new technology is another tool to gather more information to improve emergency preparedness and response. Once the model is refined, NU hopes to utilize it across our service territory.
- **Grid Self-Healing and Efficiency Expansion:** NSTAR received a U.S. Department of Energy (DOE) Smart Grid Investment Grant for a project that involves the installation of significant new equipment for automation and management of the distribution grid. A network of new and existing switches, monitors, and reclosers are installed on selected circuits to provide the grid with the capability to automatically isolate grid power disturbances and to rapidly restore functional portions of circuits. New automated distribution equipment is also being deployed by the utility as a means to better manage power fluctuations on the grid, thus improving power factor and system energy efficiency.
- **Synchrophasor Infrastructure and Data Utilization in the ISO New England Transmission Region:** ISO-New England (ISO-NE) and seven of its transmission owners, including NU, are installing synchrophasor and phasor data concentrator (PDC) devices across New England through a U.S. DOE Smart Grid Investment Grant. These devices, in conjunction with a set of new applications, enable further improvements of the reliability of the transmission grid and prevent the spread of local disturbances to the neighboring regions through enhanced monitoring capabilities and increased situational awareness.
- **Grid Resiliency:** Research focused on studying multiple system hardening options and storm management practices, to evaluate alternatives in varying circumstances.
- **Grid Operations:** Research focused on improving system reliability and outage restoration, situational awareness, reactive power management and voltage control

## Clean Energy & Environment

- **Clean Energy Solutions:** For the seventh straight year, NU collaborated with the U.S. DOE and Massachusetts Institute of Technology (MIT) to sponsor the NSTAR **MIT Clean Energy Prize**, a competition that solicits business plans from teams aiming to develop clean energy solutions that diversify energy resources, increase energy efficiency and reduce environmental impacts from energy use. This year, nineteen semifinalist teams from across the country qualified, and the grand prize winners, Unified Solar, a team comprised of MIT students, was named the Grand Prize Winner for creating cost-effective solar panels whose capacity is not affected when they are partially shaded. Unified Solar received the \$125,000 Grand Prize from NSTAR Electric and Western Mass Electric President Craig Hallstrom. Secretary of the Massachusetts Executive Office of Energy and Environmental Affairs Richard K. Sullivan Jr. was also in attendance. This event, founded by MIT, NSTAR and the U.S. DOE, is a national university business plan competition with a mission to foster a new generation of entrepreneurs.
- **Distributed Generation Integration:** Exploration of options and concepts for system readiness for higher levels of penetration from photovoltaic (PV) generation, energy storage and other distributed energy resources

- **Electric Vehicles:** Involvement in the R&D of plug-in electric vehicles and the supporting infrastructure through EPRI programs, industry organizations and independent projects. NU is in the process of collaborating with various municipalities and large customers to test EV stations at locations in Connecticut and Massachusetts to guide next steps.
- **Urban Grid Monitoring and Renewables Integration:** In this U.S. DOE Smart Grid Demonstration Project, NSTAR has installed sensors with wireless transmitters in manholes, which monitor current and conductor temperature, and send near real-time data to the operations center. The goal is to improve knowledge of the urban grid's status in near real-time allowing proactive maintenance leading to improved safety & reliability.
- **Automated Meter Reading-Based Dynamic Pricing:** In this U.S. DOE Smart Grid Demonstration Project, NSTAR is running a two-year pilot intended to assess energy and load reduction impacts and confirm the functionality of smart meter technologies utilizing two-way communications for load control, dynamic pricing, and customer information.
- **Grid Planning:** Study of bulk system impacts to integrate distributed generation and the development of tools and models to integrate variable generation
- **Energy Storage:** Research to understand developments in energy storage that enable integration of renewable resources and increase effective utilization of transmission assets
- **Environmental:** Research on fish protection at steam electric power plants, as well as wastewater treatment technology and water quality management.

## Energy Efficiency

- **Energy Efficient Lighting:** In collaboration with other Connecticut utilities with funding through EnergizeCT, NU currently supports emerging lighting technology assessments and studies through our co-sponsorship of two programs at the Rensselaer Polytechnic Institute Lighting Research Center in Troy, New York. The "National Lighting Product Information Program (NLPPI)" provides lighting product evaluation results to identify and facilitate use of efficient, quality lighting products, and the new "Lighting Alliance Program" (LEA) goal is to increase the benefits of lighting while reducing its environmental and monetary costs.
- **Energy Efficiency Strategy:** Over the last five years, we have supported MIT's **Energy Efficiency Strategy Project (EESP)**, which enables students to research energy efficiency as a resource strategy and its potential to create societal, economic and carbon benefits. An EESP objective has been to examine new efficiency program models that partner with cities and towns – methods to engage communities to save energy in their public buildings, as well as support campaigns for homes and businesses. A focus in the last year has been on pathways to greater scale in multifamily housing, with potential community partner strategies. With NU support, a pilot program design was developed for potential implementation in the City of Cambridge, with an innovative model for non-low income, tenant occupied, smaller multifamily buildings – a large but hard-to-reach segment for efficiency.
- **Energy Efficient Buildings:** To help address energy efficiency issues in existing buildings, NU is also co-sponsoring research at the Fraunhofer Center for Sustainable Energy Systems around new insulation methods and materials.

NU supports R&D that will enable us to operate and serve our customers as efficiently and effectively as possible.

## Industry Associations

NU and its companies proudly participate in a wide variety of associations. As active members of these various organizations, our employees build relationships, share information, stay abreast of the latest trends and help to shape the future of our industry. Some of our many associations include:

- **American Association of Blacks in Energy (AABE)**
- **American Gas Association**
- **Ceres**
- **Edison Electric Institute (EEI)**
- **Electric Power Research Institute (EPRI)**

- Electric Utility Industry Sustainable Supply Chain Alliance
- Equal Employment Advisory Council
- Greater New England Minority Supplier Development Council
- New England Clean Energy Council
- New England Council
- Northeast Energy Efficiency Partnership
- Northeast Gas Association
- Regional Electric Vehicle Initiative (REVI)

## OUR PEOPLE

### Health and Safety

#### ***“Safety First and Always”***

At Northeast Utilities (NU), safety is a core value and a responsibility we take seriously to ensure the safety of our employees, contractors and the public. We work continuously on many fronts to keep our employees safe, healthy, well-trained and engaged. Our shared commitment to “Safety First and Always” is a principle and a mindset we weave into the fabric of every job and every task—whether in the field or in the office. We are a successful organization only if our employees go home safely every day, which is why we are proud of our safety and wellness record at NU.

#### **Safety**

NU implemented and achieved a number of key safety milestones in 2013. We launched our “Safety First and Always” campaign with coordinated communications, education and training for employees across all three states.

We conducted comprehensive outreach to businesses and contractors who work on or around our electric and gas distribution systems. NU’s operating companies already had a strong history of producing contractor safety communications; this recent outreach reinvigorated existing messaging and directed contractors to new and already-established resources and information including direct mail, social media, web-based videos and bill inserts.

To learn more about NU’s programs, and to view important safety videos, please visit our [website](#).

In 2013, NU was once again honored by Liberty Mutual with Gold Awards for its 2012 performance, recognizing the company’s impressive reductions from the prior year in preventable motor vehicle accidents:

- Yankee Gas achieved a 46 percent reduction.
- WMECO achieved a 53 percent reduction.
- PSNH achieved a 63 percent reduction.
- Transmission achieved a 46 percent reduction.
- CL&P achieved a 40 percent reduction.

Gold Awards recognize our leadership in safe driving—in the utility industry and across all business sectors.

NU established a Tri-State Ergonomics Team in 2011, which conducted a careful two-year review of injury reports and feedback from employees. This cross-functional team wrapped up its work in 2013, implementing a series of safety action items which successfully resulted in reductions in ergonomic-related injuries at NU. Since the team began in 2011, NU saw a roughly 50 percent drop in these types of injuries.

**OSHA DART Rates 2013****(OSHA DART Rates are the number of employee injuries requiring restricted duty or days away from work per 100 employees)**

	TARGET	ACTUAL
CL&P	3.09	2.62
PSNH	1.33	1.73
WMECo	1.32	0.73
NSTAR Electric	2.56	1.79
NSTAR Gas	3.93	4.09
Yankee Gas	3.37	5.27
NU Transmission	1.00	0.45
<b>NU TOTALS<sup>1</sup></b>	<b>1.70</b>	<b>1.56</b>

<sup>1</sup>NU Totals include all companies**Preventable Motor Vehicle Accidents 2013****(PMVA Rates are based on the number of accidents per 1 million miles driven.)**

	TARGET	ACTUAL
CL&P	3.00	2.77
PSNH	2.46	3.78
WMECo	2.85	2.13
NSTAR Electric	4.03	3.41
NSTAR Gas	4.47	3.70
Yankee Gas	2.50	2.41
NU Transmission	1.71	0.35

**Health and Safety Archive****Safety 2012****OSHA DART Rates 2012****(OSHA DART Rates are the number of employee injuries requiring restricted duty or days away from work per 100 employees)**

	TARGET	ACTUAL
CL&P	3.81	3.52
PSNH	1.67	1.09
WMECo	1.70	1.83
NSTAR Electric	2.93	2.57
NSTAR Gas	4.80	4.15
Yankee Gas	2.77	3.97
NU Transmission	1.00	0.20
<b>NU TOTALS<sup>1</sup></b>	<b>2.07</b>	<b>1.85</b>

<sup>1</sup>NU Totals include all companies

**Preventable Motor Vehicle Accidents 2012**  
 (PMVA Rates are based on the number of accidents per 1 million miles driven.)

	TARGET	ACTUAL
CL&P	3.25	2.60
PSNH	2.84	2.54
WMECo	2.42	3.03
NSTAR Electric	6.75	4.26
NSTAR Gas	7.78	3.43
Yankee Gas	1.61	2.38
NU Transmission	1.67	1.25
<b>NU TOTALS<sup>1</sup></b>	<b>4.11</b>	<b>2.92</b>

<sup>1</sup>NU Totals include all companies

**Safety 2011**

**OSHA DART Rates - 2011**  
 (OSHA DART Rates are the number of employee injuries requiring restricted duty or days away from work per 100 employees)

	TARGET	ACTUAL
CL&P	3.91	4.13
PSNH	1.28	1.83
WMECo	1.61	1.68
Yankee Gas	2.39	4.04
NU Transmission	1.00	1.15
<b>NU TOTALS<sup>(1)</sup></b>	<b>NA</b>	<b>2.51</b>

(1)NU Totals include all companies

**Preventable Motor Vehicle Accidents - 2011**  
 (PMVA Rates are based on the number of accidents per 1 million miles driven.)

	TARGET	ACTUAL
CL&P	3.52	3.68
PSNH	3.19	2.40
WMECo	1.86	7.60
Yankee Gas	1.78	1.63
NU Transmission	1.67	1.92
<b>NU TOTALS<sup>(1)</sup></b>	<b>NA</b>	<b>3.35</b>

(1)NU Totals include all companies

**NU Transmission Safety Performance – 2011**  
**(Chairman’s 2011 Safety Award Winner)**

	TARGET	ACTUAL
Employee Recordable Injury Rate	1.00	1.15
Employee Preventable Motor Vehicle (Accidents per 1 million miles driven)	1.67	1.92

**Safety 2010**

**OSHA DART Rates - 2010**  
**(OSHA DART Rates are the number of employee injuries requiring restricted duty or**

	TARGET	ACTUAL
CL&P	2.70	4.34
PSNH	1.58	1.37
WMECo	2.7	1.79
Yankee Gas	2.9	2.87
NU Transmission	1.21	0.96
<b>NU TOTALS<sup>(1)</sup></b>	<b>NA</b>	<b>2.51</b>

(1)NU Totals include all companies

**Preventable Motor Vehicle Accidents - 2010**  
**(PMVA Rates are based on the number of accidents per 1 million miles driven.)**

	TARGET	ACTUAL
CL&P	3.06	4.14
PSNH	3.47	3.19
WMECo	2.87	1.86
Yankee Gas	1.78	3.05
NU Transmission	1.78	2.24
<b>NU TOTALS<sup>(1)</sup></b>	<b>NA</b>	<b>3.41</b>

(1)NU Totals include all companies

**PSNH Safety Performance – 2010**  
**(Chairman’s 2010 Safety Award Winner)**

	TARGET	ACTUAL
Employee Recordable Injury Rate	1.58	1.37
Employee Preventable Motor Vehicle Accidents (Accidents per 1 million miles driven)	3.47	3.19



## Safety 2009

### OSHA DART Rates - 2009

(OSHA DART Rates are the number of employee injuries requiring restricted duty or days away from work per 100 employees)

	TARGET	ACTUALS
CL&P	2.38	4.02
PSNH	1.61	1.82
WMECo	1.50	4.21
Yankee Gas	4.00	3.16
NU Transmission	1.08	1.70
<b>NU TOTALS <sup>(1)</sup></b>	<b>NA</b>	<b>2.51</b>

(1)NU Totals include all companies

### Preventable Motor Vehicle Accidents - 2009

(PMVA Rates are based on the number of accidents per 1 million miles driven.)

	TARGET	ACTUALS
CL&P	2.95	3.56
PSNH	3.97	4.24
WMECo	3.08	4.03
Yankee Gas	3.00	1.78
NU Transmission	1.94	2.01
<b>NU TOTALS <sup>(1)</sup></b>	<b>NA</b>	<b>3.24</b>

(1)NU Totals include all companies

### Yankee Gas Safety Performance - 2009

(Chairman's 2009 Safety Award Winner)

	TARGET GOAL	ACTUAL
Employee Recordable Injury Rate	4.0	3.16
Employee Preventable Motor Vehicle Accidents	3.0	1.78

(Accidents per 1 million miles driven)

## Wellness

NU employees and spouses in Connecticut, Massachusetts and New Hampshire are offered WellAware, a comprehensive health enhancement initiative designed to encourage employees and their families to adopt and maintain healthy lifestyle habits. Participants have lowered health risks, become more educated health consumers, and better managers of chronic conditions such as heart disease and diabetes.

The WellAware program benefits provide:

**Resources** to help employees and their families learn about making and maintaining positive changes through a health risk assessment, fitness activities, on-site programs, screenings, self-study guidebooks, disease management programs and self-guided activities.

**Incentives** to help keep employees motivated. Cash and non-cash incentives (fitness equipment, gift certificates and more) are awarded to participants throughout the year.

**Support** to help employees and their families succeed. Making changes and maintaining a healthy lifestyle is more successful in a supportive environment. WellAware's resources and incentives are available to all NU employees in Connecticut, Massachusetts and New Hampshire, as well as their spouses.

NU's WellAware program has been recognized as a 2013 Gold Level recipient of the American Heart Association's Fit-Friendly Worksites Recognition program. The program recognizes employers that champion the health of their employees and work to create a culture of physical activity in the workplace.

To learn more about the 2014 WellAware program visit our [WellAware](#) website.

## Workforce Investment

***“NU is committed to creating an engaged workplace and building a high-performing culture that is focused on delivering reliable energy and superior customer service.”***

### Employee Engagement

NU recognizes that an engaged workforce is critical to our mission of delivering reliable energy and superior customer service. Highly engaged workplaces are characterized by a workforce of commitment and contribution. NU leaders strive to create employee engagement through continuous communication, developing talent, fostering teamwork and creating a diverse, inclusive workplace.

Key performance measures are clearly articulated and prominently displayed at all company locations. Employee communications provide monthly updates to all employees, and managers are expected to engage in regular discussions with their teams about company and local area performance.

In 2013, NU hosted approximately 100 employee town meetings led by executives from across the company. These meetings were designed to keep employees updated on important happenings in our business, and on our performance against key goals while providing an opportunity to engage in discussions about our business.

Furthering our commitment to customer service, NU launched an internal initiative called “Above and Beyond for the Customer” (ABC) in 2013, which is aimed at finding opportunities to enhance the customer experience. A critical component of this is creating a customer-centric culture and engaging employees in the process.

As part of the ABC initiative, NU established the Customer Excellence Award which recognizes employees who demonstrate a commitment to providing superior service to customers. Employees are nominated by co-workers, managers or customers

and award winners are honored at local ceremonies led by company officers and attended by fellow employees, friends and relatives.

In 2014, NU administered an employee engagement survey to measure our progress in building employee engagement. This first survey will be a baseline year from which to build on in future years.

### **Workforce Planning**

NU develops a plan to ensure we have the workforce required to successfully execute our business plan. We assess current workforce trends including projected retirements, general turnover and critical skills needed to meet our business requirements.

Staffing plans are developed for each business area to ensure that we acquire, develop and retain diverse, capable talent. This includes leveraging our educational partnerships in our critical craft areas and developing proactive sourcing strategies to attract experienced professionals in highly technical roles such as Engineering and Energy Efficiency. We also plan for knowledge transfer in critical roles where we project a vacancy to ensure we have a capable supply of talent for the future.

### **Professional Development**

Professional development occurs for employees at all levels, helping them learn new skills and grow in their jobs. NU provides employees with a variety of field and classroom training opportunities throughout their career to support their ongoing success on the job. NU also supports new employees with “onboarding” that helps to foster a positive transition into the company. The company offers a variety of formal and informal learning opportunities to company leaders to help develop their leadership skills.

NU also has a performance management process that rewards employees for their contributions and supports individual development. Employees set performance goals, receive feedback and have performance reviews throughout the year.

### **Continuing Education**

Through our tuition assistance program, NU shares the costs of continuing education for professional development and career growth. Employees use this benefit to take advantage of some of the learning institutions located throughout NU’s service territory. In 2013, six percent of NU employees took advantage of this program.

### **Internships and Co-ops**

NU offers paid internships and co-op programs partnering with local educational institutions to provide on-the-job learning opportunities. Interns and co-ops apply their academic learning and also contribute professionally, network and explore potential career opportunities.

### **Military and Veteran Support**

NU has a long and rich history of appreciating the brave men and women who serve or have served in the military. As a long-time supporter of military and veteran employees, we are committed to hiring veterans who can make an important contribution to the success of our organization.

Military Times EDGE surveyed Fortune 1,000 companies and top government contractors and rated their vet-friendliness in three areas: recruiting, corporate culture and reserve policies. We were selected as one of the top 50 companies because we have made veterans a priority—not just with slogans and statements of support, but with programs, policies and a positive track record.

We support Troops To Energy Jobs, and as a long-time supporter of military and veteran employees, we have programs and communities devoted specifically to veterans transitioning into the civilian workforce. To find out more please visit our [website](#).

## Partnerships

Utility Technology Programs:NU partners with local community colleges in Connecticut and Massachusetts to offer tuition assistance and on-the-job training to students who pursue certificates and associates degrees in utility technology. Programs include at least 16 weeks per year of cooperative work experience. Successful graduates who meet all the program requirements have an opportunity to apply for future employment opportunities as utility workers.

## Workforce Statistics

- As of the end of 2013 NU has 8,697 employees: 26.5 percent are female, 14 percent are minority, 47.8 percent are represented by trade unions.
- NU has a very stable workforce: Staff turnover for NU and its companies was six percent in 2013. Retention rates for the past four years are more than 94 percent.
- The senior-most management positions responsible for training and development are the Senior Vice President Human Resources and the Vice President Operations Services (technical training).
- The company affords training opportunities for all of its employee population. E-learning, compliance and leadership training are available for supervisors and above.
- The average number of training days in 2013 was one week per individual outside any apprentice training.

## Diversity and Inclusion

Diversity and inclusion (D&I) are critical aspects of a positive, high-performing work environment. Creating an inclusive and respectful workplace brings us together as one company to leverage diverse perspectives and focus on meeting our diverse customers' expectations. A diverse workforce and inclusive culture contribute to the company's success and sustainability by driving innovation and creating trusted relationships with employees, customers, suppliers and community partners. NU recognizes that the company benefits from the diversity of workforce and the ideas and experiences our employees share. This forms the foundation of NU's D&I strategy, which is directly linked to the company's mission – inclusive, respectful, honest and ethical behavior enables NU to deliver reliable energy and superior customer service.

### Diversity Statement

We align our D&I efforts with our corporate mission and organizational business objectives and commit to:

- Creating one inclusive workplace where all employees, customers and stakeholders are respected and valued.
- Leveraging the talent, unique perspectives, cultural and life experiences of every employee to ensure our continued success.
- Attracting, developing and retaining a diverse workforce that enables us to work together to meet the changing needs of the customers we serve and deliver reliable energy and superior customer service.

### Diversity and Inclusion Councils

NU's three D&I Councils, representing employees based in Connecticut, Massachusetts and New Hampshire (38 total employee members), serve as champions of diversity to help identify and recommend strategies and actions to assist in creating an inclusive environment, diversifying the workforce, improving customer service, increasing supplier diversity and providing support to our communities. The Councils represent the unique needs and perspectives of our customers and stakeholders across the geographic areas we serve.

For 2014, the D&I Councils' plans include developing a new-hire mentoring program for new employees, serving as a diverse consulting resource for corporate initiatives, and following up on employee engagement survey results.

## **Leading the Way**

Each D&I Council has an executive sponsor who provides leadership and continuity, drives accountability and supports the Council's efforts. NU's executive leadership team, led by the CEO, promotes and supports diversity and inclusion by building diverse, inclusive work teams with high engagement, growing a pipeline of diverse talent, leveraging multiple perspectives to improve customer service, utilizing diverse suppliers, engaging with multi-cultural organizations in our communities, and supporting the work of the D&I Councils.

## **Commitment to Supplier Diversity**

We firmly believe supplier diversity is a proactive business process that seeks to provide all suppliers equal access to purchasing opportunities. It promotes supplier participation reflective of the diverse business community and encourages economic development. To learn more about our efforts and the Diverse Supplier Development Academy, please visit our Sustainable Supply Chain section.

# **SERVING OUR CUSTOMERS**

## **Customer Experience**

***“NU is firmly and fully committed to meeting the highest expectations of our customers.”***

Northeast Utilities (NU) is firmly and fully committed to meeting the highest expectations of our customers. As a customer-centric company, our mission to be the region's most respected energy provider is achieved by continually engaging with our customers to deliver reliable energy and superior customer service. With key insights from our customers, we are enhancing our services to deliver a consistently positive and meaningful experience.

## **Delivering a Superior Service Experience**

To ensure our customers receive world-class service, we proactively engage our customers in meaningful conversations through online customer panels, field audits and surveys. We listen carefully to feedback and reciprocate with valued information and resources.

- We are notifying our customers of local service disruptions and providing valuable projected restoration information and the cause of the outage – key drivers of customer satisfaction.
- We are developing a new triage hotline to offer customers a single point of contact for resolving issues within a 24-hour period.
- Our **Image Summit Program**, the single company-wide standard for proactively communicating with our customers and resolving any customer property impact issues in the field, enables our employees working on or near a customer's property to communicate with customers about work to be performed and to quickly address any incidents of property or service impact.

## **Multi-channel Customer Support**

Our promise of reliable energy and superior customer service drives us to invest in and support the various service channels our customers prefer; channels that are online, electronic, digital and notably sustainable in their scalability and value. We strive to deliver a seamless experience for every customer, regardless of his or her preferred channel. Investing in emerging

best practices, launching new technologies, and engaging customers as partners in energy efficiency are priorities in our customer-centric approach.

- Our customers are interested in sustainable energy solutions. In 2014, we are slated to provide over half a billion dollars in energy efficiency programs for our customers in Connecticut, Massachusetts and New Hampshire.
- Currently, close to 60 percent of our customers are paying bills, managing their accounts and making other transactions online.
- We enhanced service to our business customers in each of our service territories via dedicated business centers – connecting customers to energy efficiency, incentives, and technology information.
- Our three new Electric Vehicle Center websites for **CL&P**, **NSTAR** and **WMECo** provide residential and business customers with timely information – from how to buy an electric vehicle and where to find charging stations, to installing electric charging and how to determine if an electric vehicle fleet is a good fit for the business.

## Customer Service Culture

The delivery of the right service at the right time involves every employee’s ownership and pride in delivering a positive customer experience. Our Customer Excellence Awards honor employees whose efforts delivered superior customer service and set a high standard for all of our employees. Two new tools are in development to also assess qualified applicants’ customer focus skills: one will screen candidates as part of the hiring process and, once hired, the second will enable the employee and their manager to provide feedback on core service competencies and especially those related to customer service.

We have set a high bar for service excellence for every employee and contractor on the NU team. Our more than 3.6 million customers look to us for safe, reliable energy and rely on us for prompt, responsive service 24 hours a day. We are proud of our employees and our drive for service excellence. Additional information about our customer programs is featured on our company websites: **CL&P**, **NSTAR**, **PSNH**, **WMECo**, **Yankee Gas** or the **Assistance Programs** section of this report.

For information about our energy efficiency programs and initiatives, please see the **Energy Efficiency** section of this report.

## Reliability Performance & Resiliency Initiatives

A key tenet of Northeast Utilities’ (NU) mission is to provide reliable service. To ensure that we are responding proactively to our customers’ needs for reliable energy, we establish challenging targets at the start of each year, and track specific operating performance measures each and every month.

### Reliability Performance

Operating performance results are communicated to employees on a regular basis through monthly charts illustrating specific performance compared to target and prior year. For 2013, the first full year of combined operations since our merger, NU’s total electric system operating performance was the best on record.

Our internal metric results specific to reliability are presented below:

Performance Measure	2013 Actual	2013 Target	2012 Actual
Electric Reliability (1)	14.4	12.5	13.4
Electric Restoration (2)	86.2	108.3	104.1
Gas Emergency Response (3)	99.0%	99.1%	99.5%

\*IEEE-1366 2.5 Beta Method, Excluding Planned Outages is used for electric reliability calculations.

1. Average Number of Months Between Interruptions
2. System Average Time in Minutes to Restore Service to Customers (SAIDI)
3. Respond to Site Within Specific Time Threshold

We are proud of the performance we delivered to strengthen the reliability of our distribution and transmission systems.

### **Transmission Reliability Initiatives**

The **New England East-West Solutions (NEEWS)** family of transmission projects will improve regional reliability by providing a strong transmission connection for the flow of power throughout southern New England. The Greater Springfield Reliability Project (GSRP) was fully placed in service on November 20, 2013. The Interstate Reliability Project began preparation for construction of the overhead line portion of the Project in March 2014 with right-of-way clearing and access road and construction pad installation.

The **Stamford Reliability Project** includes the installation of a new underground transmission line extending approximately 1.5 miles between two CL&P substations in Stamford, Connecticut, which will improve reliability and functionality at the substations. Once complete, this project will improve the transmission system in the Stamford area so customers will have reliable electric power to meet their growing energy needs.

CL&P's 1990 Line project will improve the reliability of the electric transmission system by replacing all of the aging structures along 21 miles of existing 115-kV transmission rights-of-way from the Stevenson Dam in Monroe through the towns of Oxford, Middlebury, Waterbury and Watertown, Connecticut. The new transmission structures will support larger conductors so CL&P can serve the area's increasing electric needs, and be better prepared to withstand extreme weather events.

The Newton-Boston Cooling Line Reliability Project was kicked off in 2013 to help NSTAR meet the growing energy needs of the area, while also increasing overall system reliability. The underground cooling pipe helps prevent overheating of important transmission lines feeding electricity to the Newton and Boston areas of our service territory and will also extend the life of existing NSTAR infrastructure.

Over the next five years, NSTAR Electric expects to implement a series of new transmission initiatives as part of the Greater Boston Reliability and Boston Network Improvements, which are a result of continued analysis of the transmission needs to enhance system reliability and improve capacity in eastern Massachusetts.

Transmission projects serving Cape Cod in the Southeastern Massachusetts (SEMA) reliability region consist of an expansion and upgrade of NSTAR Electric's existing transmission infrastructure, including construction of a new 345-kilovolt (kV) transmission line that crosses the Cape Cod Canal and associated 11- kV upgrades in the center of Cape Cod (Lower SEMA Project) and related 115-kV projects (Mid-Cape Project). The Lower SEMA Project line work was completed and placed into service in 2013. The Mid-Cape Project is scheduled to be constructed in the 2017/18 timeframe.

PSNH is in various stages of completing the transmission projects identified by ISO-NE that are needed to provide additional 345/115-kV transformation capability and additional 115-kV transmission support in various parts of New Hampshire. PSNH expects to complete these projects over the next five years.

### **Gas Business Reliability Initiatives**

Reliability, safety and the sustainability of our environment and precious natural resources are embedded components in the daily operation of our natural gas systems in Connecticut and Massachusetts.

Our natural gas distribution companies' Integrity Management Plans directly align with 2011 Federal regulations requiring all U.S. natural gas companies to identify and address the greatest risks affecting the reliability and integrity of their distribution systems.

Both Yankee Gas' and NSTAR's Distribution Integrity Management Programs mitigate potential risks, identify and prioritize operational and infrastructure enhancements, and improve service for our customers. Replacement of aging bare steel and cast iron gas infrastructure is an example of a top priority to minimize the potential for gas leaks, and the release of greenhouse gases into the atmosphere.

#### State Firsts:

In Connecticut, Yankee Gas was first in the state to implement an accelerated replacement and reliability program. Similarly, in Massachusetts, NSTAR Gas developed its replacement plan, prioritizing an upgrade to new state-of-the-art plastic pipe. As a result, NU's Gas Businesses are helping the environment, improving system reliability, and increasing potential capacity to support natural gas expansion within NU's gas service territories.

#### Operational Excellence:

NU's Gas Business employees' expertise and knowledge of the distribution system ensures reliability improvements are planned, engineered, constructed and maintained with the highest regard for safety and environmental stewardship. Visible examples include:

- Winter leak patrols of gas mains most prone to frost conditions.
- Regular leak surveys more frequent than required by State and Federal code requirements.
- Gas services are leak surveyed every three years, again a more frequent schedule than established State and Federal code requirements.
- Annual inspections of critical valves to ensure operability and reliability.
- Emergency back-up generators installed at critical facilities to improve and ensure reliability.

These activities and programs reflect our company's one high standard for delivering reliable energy and superior customer service.

## System Resiliency

In addition to infrastructure improvements to strengthen the reliability of our system, we are continually working to improve our system resiliency. Over the past few years, we have dramatically improved our storm response plans, focusing on storm restoration and communication with customers, local leaders and state officials. We also require annual emergency preparedness training for all employees.

Each year, our customers experience outages on "Blue Sky" days, which are outages that impact small groups of customers and can be caused by a number of factors, such as vehicle accidents or equipment failures. During a typical year, three million customers are impacted by these "Blue Sky" outages, which can last a few minutes or a few hours - but all provide an opportunity for us to make lasting, positive impressions with customers. We are building the infrastructure and processes to quickly obtain and communicate key points of information, including restoration times and the location and cause of the outage.

Our Vegetation Management programs have a goal of ensuring safe, reliable electric service for our customers, while ensuring the proper growth of trees around power lines. Tree trimming activities reduce both the number and duration of outages, and are the most effective means of improving service reliability. Tree trimming also benefits the communities we serve by removing dead or diseased trees that not only threaten power lines and rights-of-way but also public roads. To find out more about our program, please visit our [CL&P](#), [NSTAR](#), [PSNH](#), and [WMECo](#) websites.

Additionally, CL&P is working with the University of Connecticut (UConn) to reduce the threat of tree-related damage to the electric system through [STORMWISE](#), with a goal of developing recommendations that will help to make trees and forests in Connecticut more resilient during severe weather, while maintaining the beauty and character of the state's roadside forest.

Since 2011, CL&P has been partnering with UConn to develop a reliable storm prediction model. The model brings together weather parameters, such as wind speed forecasts from the National Weather Service, historic data in CL&P's outage management system from various types of storms and information from the company's vegetation management



programs, to generate estimates on the expected strength of impending storms, as well as estimates on the location and extent of any damage they may cause. While there is no way for a utility to prevent outages, this new technology is another tool to gather more information to improve emergency preparedness and response. Once the model is refined, NU hopes to utilize it across our service territory.

In 2013, CL&P launched a new damage assessment tool that will add efficiency to the process of surveying damage to the electric system following a storm, and provide real-time information about the materials and resources needed to make repairs. CL&P is the first utility in the country to use this state-of-the-art technology, integrating a new damage assessment tool with the company's existing outage management system. With the new system, patrollers travel with laptops that automatically display detailed information about the electrical equipment on the street. When the patrollers encounter damage, they click on the screen and indicate the specific problem – such as a broken pole, downed wires or a damaged transformer – and the system sends the information back to the office instantly. This technology drastically reduces the amount of time it takes to transmit information about damage and required repairs from the field to the planning and logistics teams in the office. Those teams can better plan the work and deploy crews more efficiently with the exact materials needed, and better estimates can be provided regarding the length of time to complete repairs.

In 2013, CL&P's "[System Resiliency Plan](#)," a five-year, \$300 million infrastructure strengthening plan, was approved by the Connecticut Public Utilities Regulatory Authority (PURA). It is designed to improve reliability and reduce the impact of severe weather. The plan focuses on [tree trimming](#); electrical hardening, which makes the wires more weather and tree resistant; and structural hardening by strengthening poles, cross-arms and hardware, and equipment automation.

## Emergency Preparedness

***"We are taking preparedness to the next level."***

Northeast Utilities takes a comprehensive "All Hazards" view to address business risks, including preparing for and responding to threats to continuity of services. We have recently enhanced our approach to emergency preparedness and business continuity by creating an enterprise-wide function to direct and coordinate preparedness and response functions across business units and across threat spectrums. Building off our extensive and well-tested emergency response capabilities, we are taking preparedness to the next level by tightly integrating our individual business response plans under a unifying enterprise umbrella framework that evaluates risk presented by all types of hazards ranging from storms to cyber or physical security, to broad-scale supply disruptions. By leveraging our resources and experience, we are able to mount significant and creative response strategies to all manner of threat or disruption. In late 2013, we participated in the national GRIDEX II exercise sponsored by the North American Electric Reliability Corporation (NERC) that tested our responses to coordinated cyber and physical attacks on our electric grid. The exercise demonstrated efficiency of response and communications actions.

As a bigger, stronger utility in the Northeast, we play a pivotal role in the newly formed North Atlantic Mutual Assistance Group (NAMAG), recently assisting regional companies such as Central Maine Power, Philadelphia Electric Company and Consolidated Edison with significant restorations. We were a driving force in the formation of the National Response Event (NRE) structure for nation-wide mutual assistance under Edison Electric Institute (EEI) auspices, a recommended action following Superstorm Sandy.

All of our preparedness and response plans place an emphasis on partnership with our key stakeholders. Beginning with our customers and extending to communities, states, federal and elected officials, we place as much focus on ensuring timely and accurate information to our stakeholders as we do on a safe and prompt restoration. We realize that ours is a society that moves as much on information as it does on energy, and we strive to meet those needs. We have trained our employees through Federal Emergency Management Agency (FEMA) training modules, and conducted drills and exercises, covering weather risk, business continuity and data breach risks in all of our business units. In 2013, we further enhanced our customer outage map available through our web portal, simplifying and standardizing the information it presents for our customers and communities.

As long as threats keep evolving, so too will our preparations, mitigations and responses to remain at least a few steps ahead of the risks.

## Distributed Generation

Distributed Generation (DG) involves the production of electricity from many small energy sources, including solar, wind, fuel cells, and micro turbines. It is also commonly referred to as on-site generation, co-generation, combined heat and power, dispersed generation, or distributed energy. Distributed Generation can lower customer costs, improve reliability, reduce emissions, and expand energy options for our customers. As of December 31, 2013, CL&P, NSTAR Electric, PSNH, and WMECo have just over 1 million kilowatts (kW) of distributed generation interconnected with our facilities as shown below.

KW of Interconnected Distributed Generation (As of Dec. 2013)	Solar	Wind	Hydro	Other	Combined Heat & Power (CHP)	Total
CL&P	62,054	120	103,294	16,300 <sup>1</sup>	181,071	362,839
NSTAR Electric	129,687	26,734	222	130,005	767	287,415
PSNH	5,869	24,298	78,080	89,795 <sup>2</sup> 20,585 <sup>3</sup> 4,900 <sup>4</sup>	11,102	234,629
WMECo <sup>6</sup>	30,677	15,622	32,921	72,411 <sup>4</sup>	N/A <sup>5</sup>	151,631
Total	228,287	66,774	214,517	333,996	192,940	1,036,514

<sup>1</sup> Fuel Cell, <sup>2</sup> Biomass, <sup>3</sup> Landfill Gas, <sup>4</sup> Municipal Solid Waste, <sup>5</sup> CHP is not separately tracked at WMECo, <sup>6</sup> Distributed Generation 2013 numbers reported by WMECo include historic generators, which are interconnected with the distribution system that are now being tracked.

Generating facilities using renewable forms of energy may be eligible to receive incentives and grants. Incentives are available for conservation and load management projects that reduce system demand. Additional financial incentives for distributed generation projects vary by state, and may include:

- Low-interest loans
- Discounts for the cost of natural gas (i.e., Gas DG Rider)
- An exemption from certain electric costs for backup service (i.e., Electric DG Rider)
- Capital grants
- Renewable Energy Credit (REC) contracts for different REC types, including the Connecticut Low Emission RECs and Zero Emission RECs (**LREC/ZREC Program in Connecticut**) for projects less than 2 MW in size.

To learn more about these incentives and how customers can safely interconnect with our system, please refer to the generator interconnection guidelines available at [CL&P](#), [NSTAR Electric](#), [PSNH](#) and [WMECo](#).

## Infrastructure Protection & Reliability Compliance

The U.S. power grid is the largest interconnected machine on earth, with over 9,000 electric generating units connected to over 300,000 miles of transmission lines. We operate 4,500 miles of this transmission system infrastructure with an intense focus on safety and reliability. Protecting, operating and upgrading our transmission assets requires a comprehensive team approach spanning our three-state geography, leveraging the operational, technical and compliance expertise of employees across NU. Our Reliability Compliance Program, recognized by regional auditors as an indicator of “an excellent Culture of Compliance and commitment to reliability” is integral to our success in operating New England’s largest utility system.

Our Reliability Compliance program consists of:

- Senior officer leadership and engagement in sustaining NU's strong compliance culture.
- A dedicated Reliability Compliance department overseeing all compliance activities related to the standards and governance activities of the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council (NPCC) and ISO-New England (ISO-NE).
- Board of Trustee and management oversight committees.
- Active industry involvement on committees and task forces dedicated to best practice and lessons-learned dialogue and continuous improvement.
- Comprehensive programs, policies and procedures to ensure full compliance with all reliability standards, monitor emerging industry issues and identify improvement opportunities.

### **Critical Infrastructure Protection (CIP)**

Our involvement in the development and implementation of NERC CIP standards reflects our leadership and commitment to providing secure, reliable energy to our customers. Specifically, we:

- Established a CIP Compliance Program with the extensive expertise of our IT Security, Physical Security, Corporate Communications, Operations, Asset Management and Business Continuity & Threat Assessment teams.
- Implemented policy changes, physical and electronic security enhancements, robust training curriculum and improved documentation requirements.
- Maintain comprehensive Critical Infrastructure Protection Plans for physical and cyber assets important to the continuous safety and security of all power generation and delivery infrastructure.

### **Our Compliance and Self-Improvement Culture**

Our reliability compliance and continuous process improvement culture is driven by our employees' commitment to meet the highest expectations of our customers and regulators. Our robust corrective action program includes a multi-faceted approach for continued success:

- Self-assessments and formal root cause analysis investigations
- Internal audits
- Process improvements
- Benchmarking
- Automated action tracking system
- Key performance indicators

### **NU Audit Success**

Implementation of our Reliability Compliance programs is regularly audited by the Northeast Power Coordinating Council (NPCC) to confirm full implementation of federally mandated standards designed to protect and ensure the reliable operation of the bulk electric system. This infrastructure and technology is vital to the security of the nation's electric grid and to providing secure, reliable energy to our customers.

From 2007 to present, NPCC audit teams have conducted rigorous on- and off-site compliance audits, concluding our programs are in full compliance with NERC reliability standards and applicable regional standards.

For six consecutive years, all NU operating companies [Connecticut Light and Power (CL&P), NSTAR Electric (NSTAR), Public Service Company of New Hampshire (PSNH), Western Massachusetts Electric Company (WMECo), and Northeast Utilities Services Company (NUSCO)] received high marks from the NPCC following comprehensive on-site NERC audits. Three audits assessed our compliance with eight Critical Infrastructure Protection (CIP) NERC reliability standards for critical facility (transmission systems and equipment, control centers, substations) and cyber asset (electronic devices,

security systems and computer hardware, software and data) operation and protection. Three on-site operation and planning audits assessed reliability performance for operations and planning activities. All companies were found to be compliant with all reliability standards; audit findings of excellence were attributed to NU's exceptional compliance culture and understanding of the relationship between compliance and system reliability. In conclusion, auditors stated, "The audit results are a strong indicator of an excellent Culture of Compliance and commitment to reliability."

## **Sustaining Our Commitment to Compliance**

Our company-wide commitment to CIP compliance lives in our pledge to "Continuously improve compliance with all NERC CIP standards by establishing a compliance culture of communication, training and adherence to all CIP compliance processes, policies and procedures." We have charted three internal oversight committees to ensure continued compliance:

Compliance and Ethics Committee (CEC) – Executive-Level Committee:

- Provides guidance and assistance to the management of NU System operating companies to help ensure ethical business conduct and adherence to applicable laws and regulations by employees.

NERC Reliability Compliance Officer Committee (NRCOC) - chaired by the Vice President- Transmission Strategy & Operations, and operates under the CEC:

- Ensures NU's policies, procedures and practices relative to bulk electric system reliability and critical infrastructure protection are sufficient to achieve and maintain compliance with applicable laws, regulations and standards.
- NRCOC members are officers and directors of NU organizations with the primary functional responsibility for compliance with applicable NERC and regional reliability standard requirements.

NERC Compliance Oversight Committee (NCOC):

- Provides senior management with the status of reliability compliance activities.

Members of the Reliability Compliance organization and the CIP Compliance organization regularly attend, and provide input to, Federal Energy Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC), Northeast Power Coordinating Council (NPCC), North American Transmission Forum (NATF), Edison Electric Institute (EEI), and Task Force on Infrastructure Security & Technology (TFIST) committees, working groups and task forces.

## **In The Community**

***"NU, through our foundations and operating companies, plays a vital role in the health and economic well-being of the communities we serve."***

Northeast Utilities (NU) plays a vital role in the health and economic well-being of the residents, businesses and institutions of Connecticut, New Hampshire and Massachusetts. Through dedicated community outreach and corporate philanthropy, NU recognizes and values its role as a corporate citizen in the cities and towns across our service territory.

### **Corporate Charitable Giving**

NU has a long history of partnering with local and regional community organizations. Through grants, we support economic and community development, the environment and initiatives that address local, high-priority concerns and needs.

In line with our philanthropy strategy, NU targets giving to ensure greater community impact, focusing specifically on the areas of health and well-being of youth in our service territory and the advancement of clean energy and related technologies.

Through our foundations and operating companies, NU provided over \$5 million in grants to nonprofit organizations and worthwhile regional activities across our tri-state service area in 2013.

## **Volunteer Programs and Employee Giving**

NU employees are encouraged to get out and get involved in the communities we serve through a number of company-sponsored volunteer opportunities. Throughout the year, hundreds of employees engage in meaningful, high-impact events at local food banks, children's organizations and other venues, supporting non-profit programs with their time and service.

Meanwhile, NU's employees across all three states we serve have raised millions in support for charities. The results of our 2013 United Way and Employee Giving Campaign once again highlight our long-standing commitment to helping others in need, as exemplified by our total donation of over \$2 million to various charities that employees support through the United Way. Our collective pledges exceeded our goal and reflect NU employees' exceptional generosity.

## **Community Outreach**

In addition to enriching our communities through philanthropic programs, NU regularly works with community leaders, public officials, health and human service administrators and educators on critical issues facing the community. Communications and open dialogue with customers and key stakeholders is a vital component of the work we perform every day.

For major transmission projects that impact communities for a sustained period of time, NU supplements these efforts by keeping our customers and communities informed through a variety of mechanisms including meetings with local officials, mailings, door hangers, and public open houses. We also provide ongoing updates to the communities as projects progress and maintain an [NU Transmission website](#), so that our customers can conveniently stay informed.

NU also launched a best-practice school outreach program in all three states last year, offering 4th to 6th grade teachers the option to receive free activity books and lesson plans around electric and gas safety. The program includes children's e-learning web sites as well, with videos and activities.

Additionally, during storms or other emergency events is when customers rely on us most. That is why community outreach and customer communications are priority elements of NU's emergency response preparation and planning.

## **Assistance Programs**

NU is committed to ensuring that our customers are aware of and have access to basic services. We understand there are times when customers may have problems paying their bill, and for this reason in each state that we operate in, we partner with state and federal agencies to help those customers who need assistance.

Our Customer Care representatives are ready to help customers set up a payment plan and to access arrearage forgiveness, winter protection, discounted rate and energy efficiency programs. Customers are also referred to their local Community Action Agency to apply for the federally funded Low Income Home Energy Assistance Program that provides income eligible residents with energy assistance. Since programs vary by state, we invite you to visit our energy assistance web pages at [CL&P](#), [Yankee Gas](#), [NSTAR](#), [WMECo](#), and [PSNH](#).

Families or individuals who experience a temporary crisis, do not qualify for federal or state funds, or have exhausted their benefits, may apply for private fuel funds through [Operation Fuel, Inc.](#) in Connecticut, [Good Neighbor Energy Fund](#) in Massachusetts, or [Neighbor Helping Neighbor Fund](#) in New Hampshire. You may also consider helping others in your community by making a contribution.

NU's dedication to helping customers learn about energy programs extends to providing year-round face-to-face outreach during social agency meetings, energy workshops, senior fairs and community events.

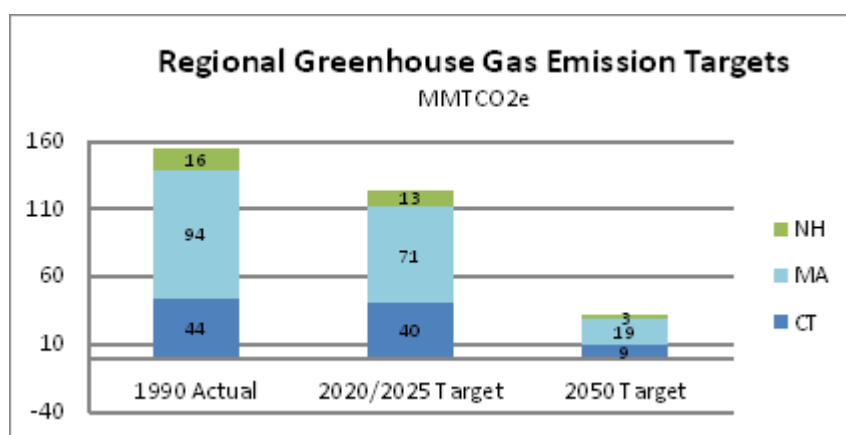
# CARBON STRATEGIES

## Overview

***“With the carbon intensity of the New England electrical grid among the lowest in the country, we continuously strive to enhance these results.”***

The carbon intensity of the New England electrical grid is among the lowest in the country, continuously supported by state program goals in Connecticut, Massachusetts, and New Hampshire focused on further reductions. As the leading supplier of energy in the northeast, Northeast Utilities (NU) brings more than 100 years of experience and an in-depth knowledge of our region and its energy needs. We welcome the opportunity to be part of the energy transformation currently under way.

Each state has its own carbon goal or action plan to reduce greenhouse gas (GHG) emissions. NU works with stakeholders in each agency to contribute to targeted reductions.



State	Targeted Reduction by 2020 (CT, MA) or 2025 (NH)	Targeted Reduction by 2050
Connecticut	10% below 1990 level	80% below 2001 level
Massachusetts	25% below 1990 level	80% below 1990 level
New Hampshire*	20% below 1990 level	80% below 1990 level

\*Recommendation of the New Hampshire Climate Change Policy Taskforce

Our strategies to facilitate achievement of these GHG reduction targets focus on four broad areas:

### (1) Reducing traditional, end-use energy consumption

This includes expanding energy efficiency, appropriate deployment of smart grid and related infrastructure; and providing customers with information, management tools and pricing options to promote the use of lower carbon energy.

### (2) Adding renewables to the energy mix either through generation or transmission expansion

This includes expanding renewable and low-carbon generation through **direct investment** as well as **developing infrastructure** to bring renewable and low-carbon resources to market and offering clean energy options to our electricity customers at **CL&P, NStar Electric, PSNH** and **WMECo**.

### (3) Expanding distribution of natural gas

Expansion of natural gas distribution systems provides more residents and businesses with the opportunity to switch to clean-burning, affordable natural gas.

#### **(4) Using electricity or natural gas for emerging end uses, such as transportation**

Emerging uses for electricity and natural gas include transportation alternatives and deployment of associated infrastructure to support electric vehicle charging and natural gas vehicle fueling. Other programs include promoting conversion from fuel oil to natural gas, geothermal heat pumps and solar thermal for home heating.

### **Energy Efficiency Programs**

*“Energy efficiency programs produce ‘negawatts’ - power that is never used.”*

#### **Nationally Recognized Programs Provide Significant Customer Benefits**

In November 2013, the American Council for an Energy-Efficient Economy (ACEEE) released its 2013 State Scorecard naming Massachusetts the number one state in energy efficiency for the third year in a row, Connecticut ranked fifth in the nation. Our operating companies take great pride in their contributions toward helping our states retain their leadership positions. Additionally, in 2013 the ACEEE released its Third National Review of Exemplary Energy Efficiency Programs. Seven programs administered by NU operating companies were recognized by the ACEEE as “models for emulation by other utilities and organizations.”

Energy efficiency is an inherent part of our region's generation mix. At Northeast Utilities (NU), energy efficiency programs are a critical component of our overall balanced strategy for meeting customer needs. Today, energy efficiency is one of the most cost-effective ways to collectively save money, create jobs, reduce greenhouse gas emissions, enhance energy security, and reduce the need for additional generation plant construction. Energy efficiency programs at **CL&P**, **NSTAR Electric**, **PSNH**, and **WMECo**, as well as **NSTAR Gas** and **Yankee Gas**, were created with the direct purpose of helping homeowners and renters, small and large businesses, and state and local governments use energy more efficiently.

Many organizations continue to recognize our companies for the success of the energy efficiency programs that NU has implemented. In 2014, the New Hampshire Core Utilities, including PSNH, won the ENERGY STAR Partner of the Year Award for the ENERGY STAR Homes program implementation in New Hampshire. Also in 2014, the sponsors of the Mass Save<sup>®</sup> Lighting and Consumer Products Initiative, including NSTAR Electric and WMECo, received the Association of Energy Services Professionals' Marketing & Communications in Social Media Award for using new channels of sales driving to help meet aggressive program goals.

In 2013, CL&P, NSTAR, PSNH and WMECo, along with several other utilities that comprise the Northeast Energy Efficiency Partnership (NEEP), were honored with the ENERGY STAR Partner of the Year - Sustained Excellence Award. This award was given by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) for the Northeast Retail Products Initiative, which promotes energy efficiency in homes and businesses throughout the Northeast through regionally coordinated programs.

NSTAR, WMECo and six other Massachusetts electric and natural gas utilities have also been recognized with an award of excellence from the EPA and the DOE for their work with the Joint Management Committee in Massachusetts, sponsor of Massachusetts New Homes with ENERGY STAR. Additionally in 2013, the EPA awarded ENERGY STAR Partner of the Year Awards to PSNH and the NH CORE Utilities, and also to CL&P in partnership with United Illuminating Co. and the Connecticut Energy Efficiency Fund, for their contributions to reducing greenhouse gas emissions by delivering energy efficiency information and services to their customers.

By using energy more responsibly, we are in effect building virtual power plants by saving energy in thousands of homes and businesses. Energy efficiency programs in effect produce "negawatts" -- power that is never used. In 2013, energy efficiency programs administered by NU electric operating companies resulted in our customers saving nearly 828 gigawatt hours (GWh) of electricity annually, and 9.8 terawatt hours (TWh) over the lifetime of the projects (one terawatt equals one trillion watts). To put that number in perspective, the annual savings of 828 GWh from 2013 energy efficiency initiatives could power all 3.1 million of our NU electric customers for five days and lifetime savings from the projects of 9.8 TWh could power the same number of customers for 64 days. NSTAR Gas and Yankee Gas customers saved over 7.2 million CCF (100 cubic feet) in 2013 or over 104 million lifetime CCF. Electric and gas energy efficiency initiatives are estimated to have



saved our customers over \$137 million in 2013. In total, over the last five years, energy efficiency savings by NU customers were approximately equivalent to building a 500 MW power plant.

In addition to electric and gas savings shown below, many customers also enjoy the benefit of savings from "fuel neutral initiatives" such as weatherization and insulation. As a result of these initiatives administered by NU electric operating companies, our customers also saved an estimated 440,678 MMBTU (1 million British Thermal Units) annually from reductions in home heating fuels such as oil, natural gas, liquid propane, kerosene and wood in 2013.

The following tables show 2013 energy efficiency program results by NU operating company:

	CL&P	NSTAR Electric	PSNH	WMECo	Electric Total
Energy Efficiency Data	2013 Preliminary	2013 Preliminary	2013 Preliminary	2013 Preliminary	2013 Preliminary
Customers Participated	344,792	909,969	75,313	264,039	1,594,113
Spend (US\$)	\$90,100,753	\$167,177,303	\$20,310,571	\$38,925,332	\$316,513,959
Annual kWh Saved	218,304,574	475,952,296	48,269,922	85,665,452	828,192,244
Lifetime kWh Saved	2,355,405,795	5,780,503,658	629,019,380	1,003,050,981	9,767,979,814
Summer Peak Annual kW Saved	27,721	69,974	5,940	13,461	117,096
Winter Peak Annual kW Saved	41,599	60,467	6,376	13,980	122,422
Annual CO <sub>2</sub> reduced in Ton	118,732	221,869	23,433	40,527	404,561
Lifetime CO <sub>2</sub> reduced in Ton	1,398,901	2,589,855	305,364	460,842	4,754,962
Customer \$\$ Saved Annually	\$37,428,329	\$72,986,918	\$7,323,030	\$12,929,116	\$130,667,393
Customer \$\$ Saved Lifetime	\$442,412,706	\$845,669,320	\$95,428,530	\$145,307,197	\$1,528,817,753
Fuel Neutral MMBTU Savings Annual	138,093	190,388	75,741	36,456	440,678
Fuel Neutral MMBTU Savings Lifetime	2,765,667	3,411,193	1,287,792	681,148	8,145,800
	NSTAR Gas	Yankee Gas	Gas Total		
Energy Efficiency Data	2013 Preliminary	2013 Preliminary	2013 Preliminary		
Customers Participated	111,130	6,479	117,609		
Spend (US\$)	\$30,717,826	\$7,936,197	\$38,654,023		
Annual ccf Saved	5,578,027	1,646,309	7,224,336		
Lifetime ccf Saved	80,189,871	24,415,626	104,605,497		
Winter ccf Peak	-	11,492	11,492		
Annual CO <sub>2</sub> reduced in Ton	34,132	9,927	44,059		
Lifetime CO <sub>2</sub> reduced in Ton	490,257	147,218	637,475		
Customer \$\$ Saved Annually	\$5,520,179	\$1,385,289	\$6,905,468		
Customer \$\$ Saved Lifetime	\$78,171,161	\$21,822,381	\$99,993,542		

DISCLAIMER: Please note that the above tables are for informational purposes only and include both planned results and preliminary actual data subject to revision, reconciliation, and approval by regulatory bodies in the state in which each company operates.

In 2013, NU's Connecticut utilities launched a Statewide Energy Efficiency Dashboard ([www.ctenergydashboard.com](http://www.ctenergydashboard.com)). The purpose of the dashboard is to enhance public reporting on energy efficiency programs for the benefit of multiple stakeholders, including regulators, legislators and the general public. Program Administrators in Massachusetts, including



NSTAR Electric, NSTAR Gas and WMECo, are developing a similar tool to enhance public reporting on energy efficiency program performance.

Residential, commercial and industrial customers that invest in energy efficient retrofit measures such as lighting, heating, air conditioning and weatherization benefit from a variety of financing alternatives. In Connecticut, financing options were expanded in 2013 to include additional low-interest rate products and the ability to repay certain loans on the utility bill. Also, an “Energize CT Heating Loan” program was developed, which allows on-bill repayment for loans to customers who replaced their heating systems. This option is particularly attractive to customers converting to natural gas. In Massachusetts, NU offers seven different financing options for customers, targeted by segment. Residential customers leverage the Mass Save HEAT Loan, the most successful residential energy efficiency loan program in the nation. This program offers zero percent financing for up to seven years to customers installing approved energy efficiency measures. Small business customers have a zero percent financing option, with either on-bill repayment or on a supplemental bill over up to two years. Large business customers are offered attractive financing for up to seven years and up to \$500,000. In 2013, we made several changes to our financing programs to make them more attractive to Massachusetts commercial and industrial customers including expanding the financing program to gas equipment and increasing the loan limit to \$500,000.

## 2014 and Beyond

NU has set aggressive goals for 2014 and beyond through a sustained and integrated energy effort that is intended to provide innovative energy efficiency services and advance the energy efficiency policy objectives and clean energy and climate plan goals of the states in which NU operates. See below for each operating company’s goals.

	CL&P	NSTAR Electric	PSNH	WMECo	NSTAR Gas	Yankee Gas
Energy Efficiency Data	2014 Goals	2014 Goals	2014 Goals	2014 Goals	2014 Goals	2014 Goals
Spend (US\$)	\$134,356,026	\$203,642,742	\$19,148,968	\$48,869,963	\$40,939,329	\$17,928,175
Annual kWh Savings	298,690,729	503,300,192	40,687,864	98,220,735	-	-
Summer Peak KW Savings	39,105	62,454	7,220	14,415	-	-
Winter Peak KW Savings	53,469	58,785	8,100	14,571	-	-
Annual ccf/therm Savings <sup>(1)</sup>	-	-	-	-	5,584,659	2,526,316

<sup>(1)</sup> NSTAR Gas Company's Annual Savings Goal is reported in therms consistent with its reporting to MA regulators. Yankee Gas Company's Annual Savings Goal is reported in ccf consistent with its reporting to CT regulators.

DISCLAIMER: Please note that the above table is for planning purposes only.

### Further information on each operating company’s Energy Efficiency Plans:

#### Connecticut - CL&P and Yankee Gas

CL&P and Yankee Gas contributed to the development of the Comprehensive Energy Strategy for Connecticut that was released by the Connecticut Department of Energy and Environmental Protection in February 2013. The **2013-2015 Electric and Natural Gas Conservation and Load Management Plan** was submitted jointly by all utilities in Connecticut on November 1, 2012.

Additionally, a 2014 annual update of the 2013-2015 Electric and Natural Gas Conservation and Load Management Plan was submitted jointly by all utilities in Connecticut on February 28, 2014.

#### Massachusetts - NSTAR Electric, NSTAR Gas and Western Massachusetts Electric Company

In 2008, Massachusetts enacted the Green Communities Act to enhance the development of renewable energy and energy efficiency. The Act requires all gas and electric utilities, including NSTAR Electric, NSTAR Gas and WMECo, to develop energy efficiency plans that provide for the acquisition of all available energy efficiency and demand resources that are cost effective or less expensive than supply. The 2013-2015 [Massachusetts Joint Statewide Three-Year Electric and Gas Energy Efficiency Plan](#) was submitted November 2, 2012.

Additionally, an update of the 2013-2015 Electric and Gas Energy Efficiency Plan was submitted by all Program Administrators in Massachusetts in February 2013.

### **New Hampshire – Public Service of New Hampshire**

In New Hampshire, the CORE energy efficiency programs were launched in 2002 as a coordinated effort by the New Hampshire electric utilities to offer the same programs statewide and were recently expanded to include the New Hampshire gas utilities. Every two years the electric and gas utilities jointly file a plan with the New Hampshire Public Utilities Commission that provides descriptions of programs, results to date, budgets and goals. The latest two-year filing for the 2013-2014 CORE New Hampshire Energy Efficiency Programs, along with updates and reports, is available at their [website](#).

To learn more about our Research and Development efforts in Energy Efficiency please visit the [Research and Development](#) section of this report.

### **Energy Efficiency Programs 2009 – 2012**

	CL&P	NSTAR Electric	PSNH	WMECo	Electric Total
Energy Efficiency Data	2012 Actual	2012 Actual	2012 Actual	2012 Actual	2012 Actual
Customers Participated	366,963	419,002	84,067	223,546	1,093,578
Spend (US\$)	\$92,599,982	\$162,571,180	\$13,753,565	\$31,641,002	\$300,565,729
Annual kWh Saved	249,317,468	452,788,322	41,547,435	67,971,194	811,624,419
Lifetime kWh Saved	2,536,324,282	5,336,714,492	511,729,394	747,611,442	9,132,379,609
Summer Peak Annual kW Saved	33,348	56,308	5,723	8,676	104,055
Winter Peak Annual kW Saved	47,999	66,167	6,760	11,556	132,482
Annual CO <sub>2</sub> reduced in Ton	138,956	231,779	20,349	34,906	425,990
Lifetime CO <sub>2</sub> reduced in Ton	1,529,530	2,728,640	250,635	383,674	4,892,479
Customer \$\$ Saved Annually	\$37,147,578	\$70,607,361	\$6,188,490	\$10,050,627	\$123,994,057
Customer \$\$ Saved Lifetime	\$410,676,912	\$806,729,191	\$76,222,093	\$106,086,429	\$1,399,714,624
Fuel Neutral MMBTU Savings Annual	129,130	164,408	32,999	38,736	365,272
Fuel Neutral MMBTU Savings Lifetime	2,560,793	3,236,986	674,675	735,767	7,208,221

	NSTAR Gas	Yankee Gas	Gas Total		
Energy Efficiency Data	2012 Actual	2012 Actual	2012 Actual		
Customers Participated	24,734	; 6,132	30,866		
Spend (US\$)	\$23,969,094	\$6,468,765	\$30,437,859		
Annual ccf Saved	4,057,346	1,234,230	5,291,576		
Lifetime ccf Saved	60,048,675	18,408,014	78,456,689		
Winter ccf Peak	-	11,686	11,686		
Annual CO <sub>2</sub> reduced in Ton	2,769	7,442	10,211		
Lifetime CO <sub>2</sub> reduced in Ton	41,631	110,994	152,625		
Customer \$\$ Saved Annually	\$3,194,712	\$1,071,225	\$4,265,937		
Customer \$\$ Saved Lifetime	\$48,857,699	\$16,796,044	\$65,653,743		

DISCLAIMER: Please note that the above tables are for informational purposes only and are subject to revision, reconciliation and approval by regulatory bodies in the state in which each company operates.

2011 Energy Efficiency Data	CL&P	WMECO	PSNH	Total
Customers Participated	523,453	89,640	73,263	<b>686,356</b>
Spend (US\$)	\$93,222,634	\$20,489,572	\$13,872,769	<b>\$127,584,975</b>
Annual kWh Saved	290,843,768	48,033,182	47,023,905	<b>385,900,855</b>
Lifetime kWh Saved	2,397,877,009	575,353,468	549,835,397	<b>3,523,065,874</b>
Summer Peak Annual kW	33,627	6,638	10,400	<b>50,665</b>
Winter Peak Annual kW	56,462	6,663	9,120	<b>72,245</b>
Annual CO <sub>2</sub> reduced in Ton	146,062	24,123	24,504	<b>194,689</b>
Lifetime CO <sub>2</sub> reduced in Ton	1,204,214	288,951	286,519	<b>1,779,684</b>

2011 Energy Efficiency Data	Yankee Gas
Customers Participated	4,649
Spend	\$7,972,013
Annual ccf Saved	3,034,424
Lifetime ccf Saved	53,176,226
Annual CO <sub>2</sub> reduced in Ton	18,297
Lifetime CO <sub>2</sub> reduced in Ton	320,634

2010	CL&P	WMECO	PSNH	Total
Customers Participated	652,120	55,256	50,422	<b>757,798</b>
Spend	\$111,337,854	\$19,480,227	\$13,589,475	<b>\$144,407,556</b>
Annual kWh Saved	310,748,103	41,754,000	51,417,232	<b>403,919,335</b>
Lifetime kWh Saved	2,643,107,925	505,235,000	616,634,030	<b>3,764,976,955</b>
Summer Peak Annual kW	39,635	7,984	11,547	<b>59,166</b>
Winter Peak Annual kW	65,485	5,545	10,854	<b>81,884</b>

2010 Yankee Gas	
Customers Participated	5,745
Spend	\$4,656,226
Annual ccf Saved	1,030,703
Lifetime ccf Saved	16,041,296

2009	CL&P	WMECO	PSNH	Total
Customers Participated	254,537	34,226	65,930	<b>354,693</b>
Spend	\$47,948,228	\$12,429,909	\$12,829,561	<b>\$73,207,698</b>
Annual kWh Saved	161,468,418	28,064,000	45,886,479	<b>235,418,897</b>
Lifetime kWh Saved	1,729,507,998	327,170,000	596,524,231	<b>2,653,202,229</b>
Summer Peak Annual kW	24,383	4,530	10,908	<b>39,821</b>
Winter Peak Annual kW	444	4,969	13,075	<b>18,488</b>

2009 Yankee Gas	
Customers Participated	3,408
Spend	\$3,948,964
Annual ccf Saved	1,059,377
Lifetime ccf Saved	16,911,356

## Clean Energy Solutions

***“Infrastructure investments enable us to strengthen the reliability of our electric and natural gas delivery systems and deliver added renewable energy to the region.”***

Northeast Utilities (NU) has established itself as a regional and national leader delivering innovative, forward-looking energy solutions, supporting the customers we serve and enabling our states to meet their environmental and clean energy goals.

## Transmission

NU has proposed a unique and innovative project, Northern Pass, a high-voltage, direct-current transmission line that will bring 1,200 megawatts (MW) of low-carbon, primarily hydro-electric power from Canada to New England's energy load centers. Northern Pass would lower CO<sub>2</sub> emissions by up to 5 million tons annually, which is equivalent to taking 900,000 cars off the road. At a time when officials are expressing concern about the future reliability of our energy supply, the addition of 1,200 megawatts of clean, reliable, competitively priced hydropower from Northern Pass will benefit everyone in the state of New Hampshire and the New England region.

## Renewable Power Procurement

NU's distribution companies are instrumental in helping Connecticut, Massachusetts and New Hampshire to achieve their renewable portfolio standard (RPS) goals. The RPS goals require that electricity providers obtain a minimum percentage of their retail load by using renewable energy.

### Percent of Energy from RPS by:

State	2014	2015	2016	2017	2018	2019	2020	2025	Total Program Goal
Connecticut	18	19.5	21	22.5	24	26.5	27	--	27% by 2020
Massachusetts	19.6	20.85	22.1	23.35	24.6	25.85	27.1	33.35	33.4% by 2025
New Hampshire	9.7	15.8	16.7	17.6	18.5	19.4	20.3	24.8	24.8% by 2025

Each of our four electric subsidiaries enters into state specific agreements to facilitate development of clean and renewable projects. In 2013, CL&P entered into renewable power supply contracts, approved by the Connecticut Public Utilities Regulatory Authority (PURA), for 80 percent of the output for a 15-year term with the Number Nine Wind Farm, a 250 MW wind project located in Aroostook County, Maine, developed by EDP Renewables North America, LLC and for a 20-year term with Fusion Solar Center, a 20 MW solar photovoltaic system located in Sprague and Lisbon, Connecticut, developed by Heliosage Energy.

In February 2014, NSTAR and WMECo also received approval from the Massachusetts Department of Public Utilities, of long-term renewable power supply contracts with three new proposed wind power projects that were awarded as the result of an RFP concluded in August 2013. NSTAR and WMECo's combined share of the agreements amounts to 53 percent of the output over the 15-year term of the contracts. The three projects are: Oakfield Wind Project, a 148 MW wind project located in Oakfield, Maine, and is being developed by Evergreen Wind Power II, LLC, a First Wind Energy company; Bingham Wind Project, a 186 megawatt wind project located in Mayfield Township, Maine, and is being developed by Blue Sky West, LLC, a First Wind Energy company; and Wild Meadows, a 76 MW wind project located in Merrimack and Grafton Counties, New Hampshire, and is being developed by Iberdrola Renewables, LLC. In May 2014, Iberdrola notified the companies that they had decided not to move forward on the Wild Meadows project.

## Natural Gas Expansion

Connecticut's first-ever Comprehensive Energy Strategy (CES), established by law in Public Act 11-80, is a far-reaching, comprehensive energy strategy, with recommendations in the areas of energy efficiency, industrial energy needs, electricity supply including renewable power, natural gas, and transportation.

One of the objectives of the CES is to "align Connecticut's energy future with the emerging opportunity provided by shale gas for a lower-cost, less-polluting, and domestically available (and thus more reliable) foundation for society's energy needs." The CES calls for an expansion of the natural gas distribution systems in the State to provide more residents and businesses with the opportunity to switch to clean burning, affordable natural gas. As specified in the CES, Yankee Gas, along with the other state gas companies, filed a Joint Natural Gas Expansion Plan that was approved by PURA in November 2013.

The Gas Expansion Plan goal is to convert approximately 280,000 new gas heating customers across the state and 82,000 customers for Yankee Gas. The Gas Expansion Plan provides an avenue for customers to cost-effectively and efficiently switch to natural gas, and ultimately, significantly cut their heating bills. These savings will, in all likelihood, flow back to the local Connecticut economy. In addition, the plan will also help reduce emissions by 820,000 tons or a 7 percent reduction of total emissions in Connecticut.

## **Solar Generation**

NU embarked on the construction of large-scale [solar generation in Massachusetts](#), which contributes to Massachusetts' goal to install 250 MW of solar energy by 2017. Our solar program focuses on developing large-scale solar facilities on sites that offer economies of scale and cost-effective energy production. Of particular interest are capped landfills and environmentally challenged sites that have few, or very restricted, alternative uses.

In October 2010, our WMECo subsidiary completed the Silver Lake Solar facility in Pittsfield, Massachusetts, installing 1.8 MW of solar generation. In April 2011, WMECo proudly received the Photovoltaic Projects of Distinction Award from the Solar Electric Power Association and the Solar Energy Industries Association in recognition of the Silver Lake Solar facility. In June 2011, the Environmental Business Council of New England presented WMECo with the John A.S. McGlennon Environmental Award of Corporate Leadership for the facility.

A second, larger WMECo facility has been generating power since November 2011. Located on twelve acres of brownfield in the Indian Orchard neighborhood of Springfield, Massachusetts, the facility contains 8,200 solar panels and produces 2.3 MW of electricity - enough to power 500 homes. In June 2012, the Environmental Business Council of New England presented the Indian Orchard Solar facility with the James D.P. Farrell Brownfields Project of the Year Award in recognition of the brownfield site redevelopment into one of the largest solar facilities in the region.

WMECo is currently constructing a third solar photovoltaic (PV) facility on the site of a capped landfill off of Cottage Street in Springfield. The 3.9 MW plant is expected to begin commercial operation in April 2014. The Cottage Street project is the final phase of the program, completing our commitment to install a total of 8 MW of utility-owned solar generation.

## **Clean Air Project**

In New Hampshire, the [Clean Air Project](#) at PSNH's Merrimack Generating Station is complete. The power plant is now one of the nation's cleanest coal-burning energy facilities. The plant utilizes wet flue gas desulfurization technology, which dramatically reduces mercury and sulfur dioxide emissions from Merrimack's two units. Merrimack Station continues to provide the region with competitively priced energy and needed fuel diversity.

## **Northern Wood Power Project**

PSNH's Northern Wood Power Project (NWPP) replaced a 50-megawatt coal-burning boiler at Schiller Station in Portsmouth, NH, with an environmentally friendly system that uses wood chips and other clean, low-grade wood materials for fuel, effectively reducing PSNH's air emissions by more than 400,000 tons annually. The NWPP has been the recipient of state, regional, national, and international [awards](#) for innovation and positive environmental changes, including being one of 11 national winners of the 2008 U.S. Environmental Protection Agency's Clean Air Excellence Award.

To learn more about our Research and Development efforts in Clean Energy please visit the [Research and Development](#) section of this sustainability report.

## **Transportation Alternatives**

Northeast Utilities (NU) recognizes that more than one third of New England's CO<sub>2</sub> emissions come from the transportation sector. We are sensitive to the importance of reducing the carbon footprint; we have created alternatives for our customers, and employ a multifaceted approach to reducing emissions for our fleet vehicles as well.

## Electric Vehicles

Customers are increasingly considering electric vehicles (EVs) as a viable transportation alternative, offering a clean, lower-cost fuel option. As of the end of 2013, there were over 3,400 plug-in EVs in our service territory, an increase of over 140 percent from the end of 2012, with more models becoming available each year. There are also currently over 300 publicly accessible charging stations in our region.

We have a considerable history and ongoing investment in research, pilot programs, and demonstration projects to help make this technology an option for our customer's use. We offer multiple sources of information for our customers, and are actively engaged with policy leaders, automakers, neighboring utilities and technical experts to prepare our infrastructure to support EVs.

Since 2013, we have offered an electric vehicle information center hotline, 855-463-6438, staffed Monday through Friday from 8 a.m. to 5 p.m. with a team of specialists dedicated to providing customers with helpful information about EVs and supporting technology. We also launched a [Plug My Ride resource website](#), to provide our customers with fast access to EV information and resources any time of the night or day.

We have installed 11 EV charging stations at our facilities and operate six plug-in hybrid electric vehicles, which allows us to explore the benefits of this technology in our own operations. Beginning in 2012, NU partnered with volunteer municipalities and businesses on a research project focused on understanding charging station installation requirements, EV driver charging habits and potential future electric system requirements. The research project was very successful in identifying challenges associated with installing charging stations, which will enable us to develop mitigating strategies to better serve our customers. We are also a founding member and currently chair the [Regional Electric Vehicle Initiative \(REVI\)](#), a collaboration of northeastern utilities, working to advance the region's understanding of EVs, and the infrastructure that supports them.

Each of the states that we serve has recently developed, or is in the process of developing, comprehensive plans that include the advancement of electric vehicles. Connecticut and Massachusetts are two of eight states that signed the [State Zero-Emission Vehicle Program Memorandum of Understanding](#) in 2013, with a collective target of having 3.3 million zero-emission vehicles on the road by 2025, along with the supporting infrastructure.

In Connecticut, we are working with the Department of Energy and Environmental Protection (DEEP) on programs to support the development of EV charging infrastructure, with funding provided by NU pursuant to our 2012 merger settlement agreement. Details on these programs can be found at [EV Connecticut](#).

In Massachusetts, the [Massachusetts Electric Vehicle Initiative \(MEVI\)](#) was formed in 2013 to accelerate the deployment of alternative fuel vehicles. We are a member of the MEVI Task Force, which is working to develop programs to provide incentives, supporting infrastructure and customer education.

## Natural Gas Vehicles

Natural gas vehicles (NGVs) are similar to gasoline or diesel vehicles with regard to power, acceleration, and cruising speed, and are good for the environment. Natural gas burns cleaner than conventional gasoline or diesel due to its lower carbon content, and when used as a vehicle fuel, it can offer life cycle greenhouse gas (GHG) emissions benefits over conventional fuels, depending on vehicle type, drive cycle, and engine calibration. In addition, using natural gas may reduce some types of tailpipe emissions. As a nontoxic, non-corrosive, and non-carcinogenic fuel source, natural gas presents no threat to soil, surface water, or groundwater. Why promote alternatively fueled vehicles? It's only natural. The fuel used in these vehicles is the same natural gas that we deliver to homes and businesses for cooking, heating and more.

We have been promoting the use of compressed natural gas (CNG) vehicles by using them at Yankee Gas and NSTAR. In 2013, these companies avoided 161 metric tonnes of CO<sub>2</sub>e emissions by using CNG vehicles instead of vehicles fueled by gasoline.



In Massachusetts, we currently have 25 CNG vehicles in service that in 2013 consumed 22,265 gallon equivalents of natural gas. Our NSTAR subsidiary has entered into an agreement with VNG.CO LLC for the installation of compressed **CNG fueling facilities** which will support NSTAR's deployment of light-duty **NGVs** in the Greater Boston Area. The initial five VNG fueling facilities will be installed in 2014 in existing retail gasoline stations and will provide CNG fueling for all light-duty NGVs in the region. These fueling facilities will serve NSTAR service centers in Southborough, Somerville, New Bedford, Plymouth and Hyde Park, Massachusetts.

NSTAR will be purchasing approximately 50 NGVs cargo vans per year with the goal of ultimately operating hundreds of NGVs. Fuel costs savings will be on the order of \$1,300 per NGV cargo van per year. However, more significantly, by having a green fleet, this enables NSTAR to more effectively promote the environmental and cost savings benefits of this technology to other fleets.

NGVs located at the Worcester, Massachusetts service center will be served by a new Public Access Fast Fill CNG station owned by iNATGAS. The iNATGAS facility will be constructed on land owned by NSTAR. In addition to the fast fill station, the iNATGAS facility will also include private access to CNG modules being fueled by CNG and trucked to locations not being served by local natural gas distribution companies. This will provide the end-use customer with substantial cost savings by offsetting other more expensive and less environmentally friendly fossil fuels.

Our Yankee Gas subsidiary has three Honda Civic GX NGVs in service based at our Berlin, Meriden and Waterbury, Connecticut offices for easy refueling. These vehicles have been certified as AT-PZEV (Advanced Technology Zero-Emission Vehicle), producing almost no emissions. Moreover, they rely on domestic North American supplies of natural gas, not imported oil.

## Our Footprint

***“NU’s longstanding commitment to sustainable business practices and operational excellence remains ever-present.”***

We are continually evaluating the risks presented by climate change. Connecticut, New Hampshire and Massachusetts are all members of the Regional Greenhouse Gas Initiative (RGGI), a cooperative effort by northeastern and mid-Atlantic states to develop a regional program for stabilizing and reducing carbon dioxide (CO<sub>2</sub>) emissions from fossil fuel-fired electric generating plants. Northeast Utilities (NU) participated in a two year RGGI program review that resulted in an updated RGGI Model Rule released in February 2013 that guided updates to state CO<sub>2</sub> Budget Trading Programs.

PSNH is NU's only operating company with fossil fuel generating facilities and it has a robust Clean Energy Plan. In the electricity generation sector, two programs help New Hampshire advance its objective: the state's Renewable Portfolio Standard (RPS) and RGGI. Consistent with the New England Governors/Eastern Canadian Premiers resolutions, the state of New Hampshire has adopted the goal of reducing its total greenhouse gas (GHG) emissions 80 percent below 1990 levels by the year 2050.

PSNH's goal is to meet or surpass the state RPS requirement of 25 percent renewable energy by 2025, and to continue reducing emissions from existing power plants. PSNH is working to implement a **multi-pronged approach** that ensures reliability of service, cost stability and success.

NU's GHG emission inventory accounts for and reports all direct CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and sulfur hexafluoride (SF<sub>6</sub>) emissions for operations of NU and its subsidiaries. The general emission source categories included in NU's GHG inventory are stationary combustion sources; mobile combustion sources; indirect emissions from purchased electricity, transmission and distribution losses; fugitive CH<sub>4</sub> emissions from process equipment including pipelines for natural gas transmission and distribution; and fugitive SF<sub>6</sub> emissions from equipment related to electrical transmission and distribution. NU reports GHG emissions to the **Carbon Disclosure Project (CDP)**.



This is the first year we have used the same methodology to complete the calculations for all business units. For that reason, we are calling it the “first combined inventory.” Emissions from the NSTAR companies have been added to the NU inventory for years 2009 to 2013 to analyze trends in emissions.

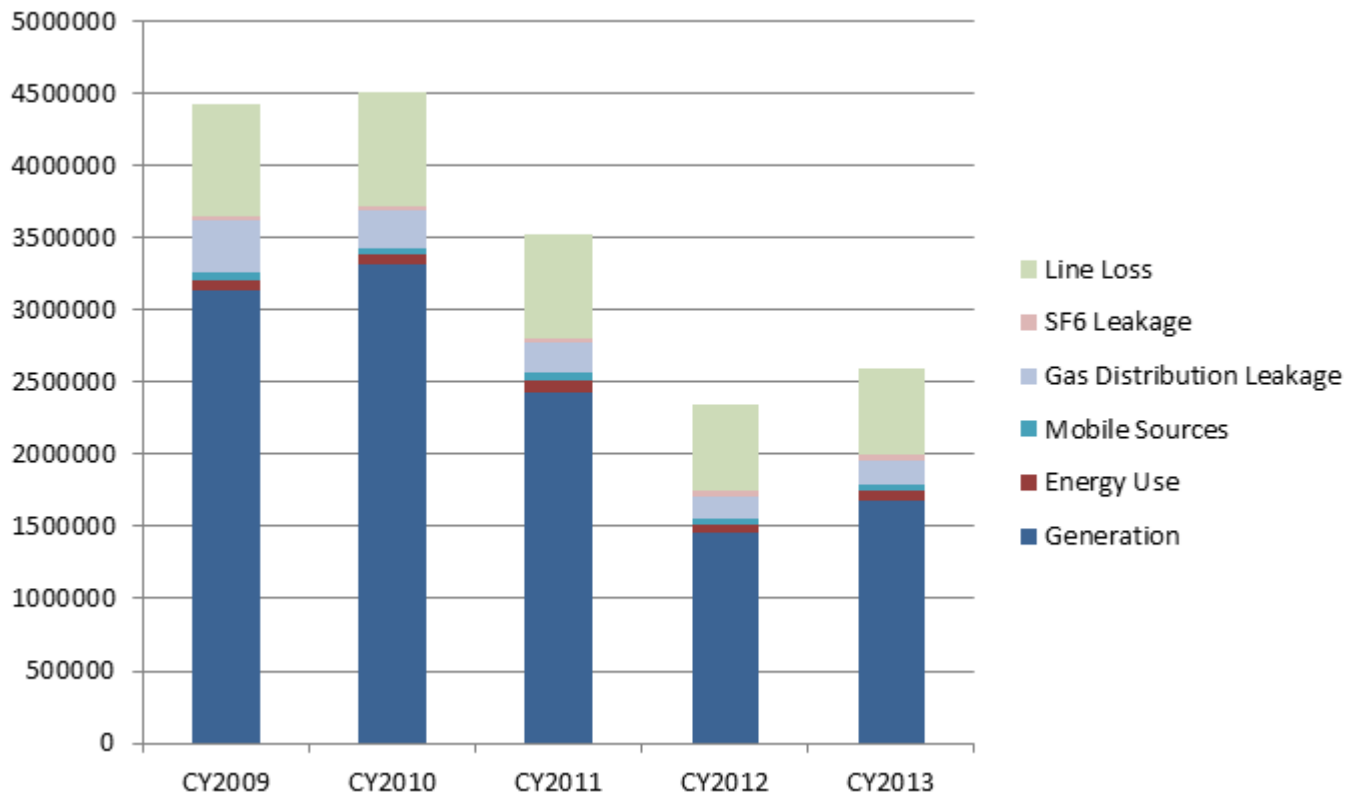
**Detailed Emissions Summary (metric tonnes CO<sub>2</sub>e):**

	2009	2010	2011	2012	2013
Generation	3,140,740	3,311,538	2,432,622	1,460,058	1,676,660
Energy Use	69,147	73,520	83,474	51,841	73,300
Mobile Sources	43,515	43,835	44,248	46,035	40,520
Gas Distribution Leakage	360,284	257,771	217,736	148,500	171,758
SF <sub>6</sub> Leakage	34,403	28,954	26,648	47,029	30,700
Line Loss	769,729	790,115	712,409	583,884	606,021

Overall emissions for NU went up in 2013 primarily due to increased demand for power from PSNH. The three main components of NU’s GHG footprint are emissions from generation, line loss and CH<sub>4</sub> gas leakage.

**GHG Emissions Trends:**

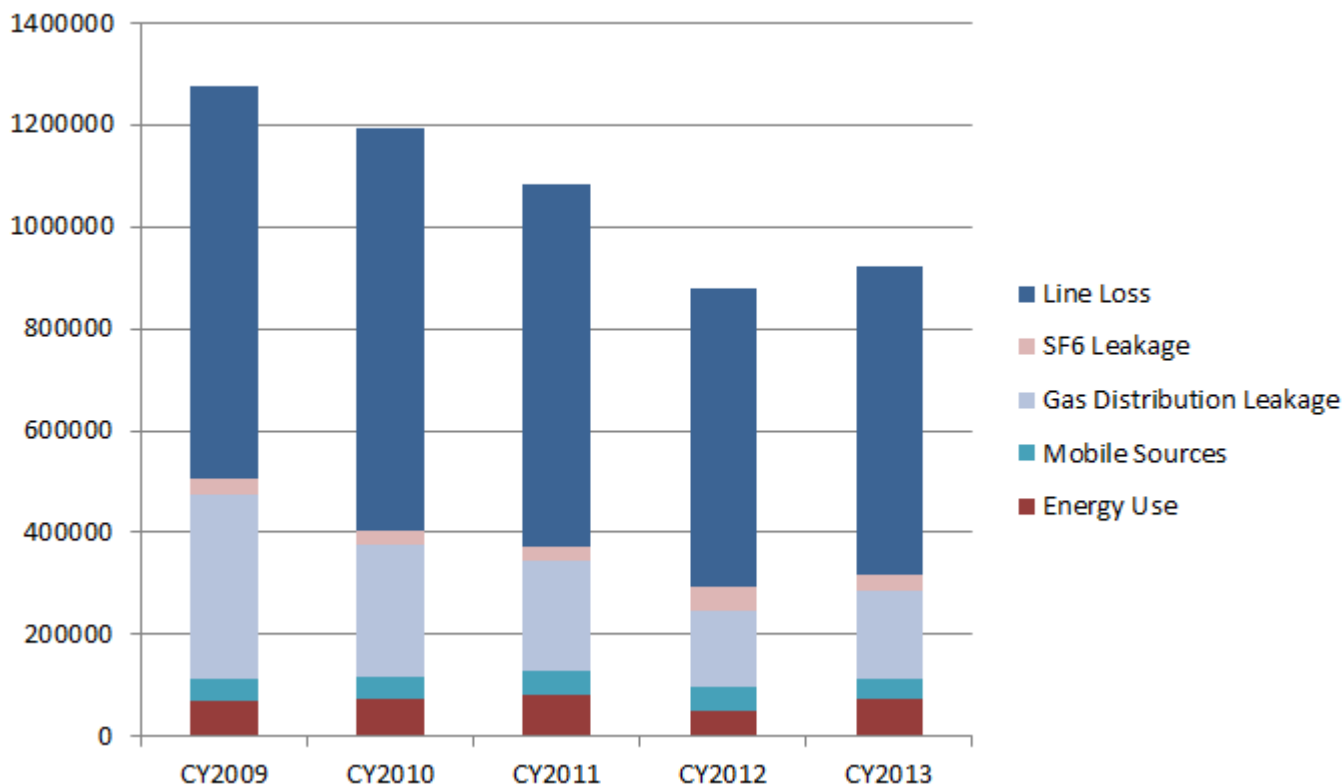
*GHG emissions including generation (metric tonnes CO<sub>2</sub>e):*



Emissions from generation have generally decreased, with a slight increase in 2013 due to increased production. Emissions from generation typically follow operational patterns of the generation facilities. A combination of market forces, fuel supply,

and customer demand influence generation output, and thus NU's emissions. For example, as natural gas prices decrease, the demand for energy produced from coal also decreases. The increased demand for production in 2013 was primarily due to a combination of a cold winter and the increase in natural gas prices due to constraints in the natural gas delivery system.

*GHG emissions excluding generation (metric tonnes CO<sub>2</sub>e):*



Fugitive emissions from gas loss from NU's distribution system have also steadily decreased over time. Methane (and thus CO<sub>2</sub>e) emissions have been reduced by main replacement and cast-iron replacement programs at both NSTAR and Yankee Gas. Also, there are robust leak mitigation plans in place that reduce the time for repairs. It is expected that as these programs continue, NU will continue to see a decrease in methane emissions. The small increase in emissions in 2013 is due to US EPA's increase in the global warming potential of methane used in the calculations.

Emissions from SF<sub>6</sub> leakage also remain low due to reduction programs in place at all operating companies since the 1990s. SF<sub>6</sub> leakage from operations at NU companies continues to be below industry averages.

Emissions reductions from line loss since 2009 are also notable. Although line loss is directly related to electricity sales, it can be (and has been) reduced by system improvements and infrastructure hardening. For those system upgrades which result in a capacity increase (a new transmission line or new substation to reduce load on neighboring substations), the net effect of those projects is to reduce line losses. Equipment replacement programs and technology improvements will continue to curtail emissions from line loss.

Company energy use continues to remain fairly steady over the years, with fluctuations being caused by external factors, such as weather. With facility consolidation and more efficient use of space, energy use is expected to decrease in the next few years. Also, increased use of Leadership in Energy & Environmental Design (LEED) inspired renovations at existing facilities should decrease energy needs.

## Reducing Our Carbon Footprint

We are proud of the initiatives under way to improve the GHG footprint of the company.

NU continues to be an industry leader in SF<sub>6</sub> emissions reductions; our company-wide SF<sub>6</sub> emission rate is estimated to be 0.85% (61% below the industry average of 2.2%). Data collection and reporting is conducted with ever-increasing precision. This allows us to focus in on potential areas of SF<sub>6</sub> loss to further reduce emissions risks.

Our operating companies maintain a fleet of approximately 4,500 vehicles across Connecticut, Massachusetts and New Hampshire, including light duty trucks for meter readers and bucket trucks for line workers. A portion of our equipment operates on biodiesel, an alternative fuel created by mixing diesel fuel and soybean oil. The companies use B20, which has a blend of 20 percent soybean oil and B5, which has a blend of 5 percent soybean oil and can be used in the colder months. With the addition of B5 to the fuel mix, the cleaner burning biodiesel fuel can now be used year-round. NU operating companies burned nearly 450,000 gallons of B5 and B20 biodiesel fuel in 2013, displacing approximately 78,000 gallons of diesel fuel with an 874 ton reduction in carbon emissions.

Beginning in 2009, PSNH began piloting another emissions-reduction technology to reduce its transportation-related carbon footprint - gas/electric hybrid line trucks. That same year, PSNH was awarded a grant through the Granite State Clean Cities Coalition to cover the additional cost of two hybrid bucket trucks. Each hybrid bucket truck replacing a diesel-only bucket truck reduces PSNH's CO<sub>2</sub> emissions by more than 13 tons a year. PSNH also purchased seven light duty plug-in hybrid bucket trucks. The booms will operate 4–6 hours on battery power, minimizing the need to run the truck.

In 2013, NSTAR purchased three passive hybrid bucket trucks and are expecting delivery of three additional trucks in 2014. The passive hybrid system runs the hydraulics operating the booms on the bucket trucks, eliminating idling of the engine to run equipment.

In an additional technology deployment, global position systems (GPS) have been installed in all CL&P, NSTAR Electric, WMECo, NSTAR Gas and Yankee Gas vehicles. GPS is reducing fuel consumption by optimizing the dispatch of vehicles already deployed in the field and by helping drivers to find the most direct route to the customer or job site.

In 2009, we first introduced Eco-Miles, an innovative program to track employee mileage savings through a variety of commuting options. Employees use an online payroll reporting system to track miles not driven through carpooling, using public transportation, telecommuting, or other mileage-savings options. To date, NU employees have collectively logged over 2.8 million Eco-Miles since the program started - that's the equivalent of saving 135,588 gallons of gasoline and 64 tons of CO<sub>2</sub>.

In 2009, PSNH installed one of the state's largest solar photovoltaic systems on the roof of its Energy Park headquarters building in Manchester. This 51-kilowatt (kW) array produces enough power to satisfy about five percent of the facility's energy needs, or the same amount of energy used by about seven average New Hampshire homes. The power produced by this array offsets more than 100,000 pounds of CO<sub>2</sub> emissions each year that would otherwise be created through the burning of fossil fuels, and helps PSNH meet its state RPS requirements.

Extensive renovations to our Hartford, Connecticut, Area Work Center were completed in 2012, creating a model in energy efficiency and environmental design, and exceeding the Leadership in Energy & Environmental Design (LEED) silver certification standards. The building features a daylight harvesting system, chilled beam HVAC technology and energy management control system, which reduces overall energy consumption by 60 percent, and 20 percent of the entire building materials are made of recycled content.

In 2011, we installed a green roof with a 10.92-kW solar array on the roof of our Community Building in Berlin, Connecticut. The solar array consists of 60 panels that produce 182 watts each, which are connected to monitor to show how much energy is being produced each day. The goal of this demonstration project is to help us understand the technologies being used and evaluate their benefits to the environment. Unlike the typical photovoltaic panel that get mounted along a sloped roof or has to be tilted itself, the panels used in this project are round and feature tubes of thin film known as "CIGS" that have proven to be more efficient than traditional flat panels converting sunlight into electricity. This

solar array works in conjunction with a reflective roof membrane, or "cool roof" to further enhance the energy output of the panels. In addition, the roof also includes a section of vegetative roof which acts to absorb and filter rain water as well as provide additional insulating qualities to the existing roof structure.

## OUR ENVIRONMENT

### Environmental Policy

Northeast Utilities (NU) continually manages field and office operations with a commitment to environmental stewardship for today and future generations. We protect land and water resources, offer customers significant energy efficiency choices and work to improve regional air quality. Close collaboration with regional leaders and stakeholders has also resulted in the development of reliable, sustainable energy solutions featured throughout this report.

Our employees are proud to have been recognized as the top-ranking green utility in the United States and 179<sup>th</sup> overall in [Newsweek's Green Ranking](#), its most recent comprehensive assessment of the 500 largest U.S. and global companies. Conducted in partnership with Trucost and Sustainalytics, each company received a "Green Score" based on its environmental performance, management and disclosure.

In 2013, Dividend Channel named NU as a Top 25 Socially Responsible Dividend Stock. NU was also honored to receive two prestigious awards from the [Environmental Business Council of New England \(EBC\)](#):

- NSTAR Electric received the [Nicholas Humber Award for Outstanding Collaboration](#), in recognition of a public-private partnership which resulted in expedited development of an innovative Martha's Vineyard hybrid submarine cable. NSTAR collaborated with Comcast to combine two separate submarine cable projects into a single electric distribution/fiber optic communication hybrid, minimizing environmental impacts and costs.
- Public Service of New Hampshire received the [EBC Ira W. Leighton, Jr. Outstanding Environmental-Energy Technology Achievement Award](#) for the Merrimack Station [Clean Air Project](#), which included the first-in-the-nation installation of a wet flue gas desulfurization system and state-of-the-art wastewater treatment facility. With drastic reductions in mercury and sulfur emissions, Merrimack is now one of the cleanest coal plants in the nation.

Committed to environmental leadership in all business areas, our environmental policy protects and enhances the environment and fosters environmental stewardship and sustainable business practices. The tenets of our policy include:

**Compliance:** All employees are responsible for maintaining compliance with applicable environmental protection laws and regulations and NU's work standards at all times.

**Leadership:** We pursue initiatives that protect the environment and advance clean energy solutions for our customers and stakeholders through energy efficiency and conservation programs, efficient operating practices, renewable or low-emission energy sources, technology and consumer education.

**Accountability:** We maintain accountability by monitoring and assessing the environmental impacts of our operations, using measurable objectives and targets to promote continuous improvement and reporting our environmental performance for transparency.

**Stewardship:** We manage our operations to prevent or reduce our impact on the environment, conserve natural resources, and engage customers and stakeholders in meaningful partnerships that advance sustainable environmental results. Our environmental stewardship is visibly reflected in our commitment to conservation of open space, balancing our corporate operating requirements with natural resource conservation.

## **Environmental Management System**

***"NU is committed to environmental leadership in all business areas."***

Northeast Utilities' (NU's) Environmental Management System (EMS), modeled after the internationally accepted ISO 14001 standard, is the framework for assessing environmental considerations to ensure thorough analysis, identifying responsible alternatives and establishing consistent and sustainable operating practices. We anticipate and proactively meet changing environmental requirements and expectations, mitigate risks, improve environmental performance, introduce new efficiencies and enhance our compliance with legal requirements and obligations.

We use the streamlined Enviance tool, a robust EMS software solution to centralize all EMS information, reduce administrative burden and provide access to data in real time. With improved communication and reporting of performance metrics to our field operations organizations, we are driving operational priorities and improvements and tracking targeted reductions.

### **Compliance Assurance**

Early identification of the environmental considerations of projects is critical to project success. We perform formal project assessments utilizing our customized screening tool to determine air, water, waste, chemical and natural resource management options, ensuring environmental compliance and best practices.

Our Enterprise Risk Management program has effectively identified potential risks, which we mitigate with operational controls. We further ensure environmental best practices by rigorously auditing our facilities and corporate processes (e.g., inspections, chemical management). Certified internal environmental compliance auditors regularly audit NU-owned facilities, vendors and processes.

### **Stakeholder Communication**

We partner with state regulatory agencies and industry organizations to shape new policies to protect the environment and benefit our customers and shareholders. In 2013, NU proposed significant enhancements to three regulatory priorities: waste site clean-up programs required of all businesses by Connecticut and Massachusetts regulators, wetland protection water quality certifications in Massachusetts and beneficial reuse of road spoils in Connecticut. Expanding on a program offered by CL&P, Yankee Gas provided a voluntary gas safety training program to Connecticut Department of Energy and Environmental Protection spill response personnel.

### **Employee Training Requirements**

We ensure all employees receive ongoing environmental training in accordance with all federal and state environmental regulatory requirements. In addition, our Environmental Affairs Department works in concert with operating company personnel and physical skills trainers to develop tailored training programs ranging from basic information required for a majority of employees to field-specific content for our physical workforce.

### **Environmental Performance**

We are committed to conducting our operations in accordance with all applicable environmental laws and regulations and maintain operational controls, policies, and procedures to ensure compliance. If an issue is identified, root cause investigations are expeditiously conducted to prevent recurrence.

Our strong compliance record through 2013 surpassed our Environmental Performance Index target, established annually to reinforce accountability and leadership oversight and involvement.

U.S. Dollars	2013	2012	2011
Citations	2	4	3
Penalties	\$7,251	\$2,590	\$0

## Stewardship and Biodiversity

***“Our rights-of-way maintenance practices promote critical diverse habitats.”***

Our construction and maintenance work is planned and executed with utmost care to prevent, whenever possible, and minimize impacts to wetlands, threatened and endangered species and cultural resources. We manage our lands to preserve – and in many cases to create – wildlife habitats. Our **rights-of-way** maintenance practices promote critical diverse habitats beneficial to numerous species of reptiles, amphibians, birds, insects and plants.

### Protection of Wetlands

Wetlands are a vital link to the health of waterways and downstream biotic communities, as they improve water quality, trap floodwaters, recharge groundwater, provide fish and wildlife habitat and support recreation activities such as boating and fishing.

To help protect these valuable resources, we have increased our use of helicopters for transmission line construction and maintenance work, including wire stringing operations, tower deconstruction and annual line inspections. Conventional transmission line work often requires construction of access roads to mobilize equipment, and the use of track- and four-wheel drive vehicles to gain access to transmission towers for inspections. By using helicopters for transmission line activities, we significantly reduce the need to use stone or timber mats as fill in road construction and minimize the use of off-road vehicles.

While helicopter use is not the solution for all phases of transmission line maintenance and construction, the practice has significantly minimized disturbance of wetlands and sensitive habitats. If wetlands disturbance is unavoidable, great care is taken to mitigate and restore the area.

WMECo recently completed an enhancement project at the popular Wentworth Farm Conservation Area and Owens Pond as a component of our rights-of-way improvement work. The completed project includes a newly created, 140-foot natural stream channel to restore fish migration from the Fort River, two new footbridges and multiple habitat enhancements including replacement of invasive species with re-plantings of native vegetation. Informational kiosks and bird houses were also installed.

### Protecting Wildlife and Habitat

Where our equipment intersects with nature, our trained specialists ensure that the needs of wildlife are considered before commencing utility work. We implement avoidance and protection measures, schedule work to minimize disturbance and educate construction crews to ensure habitat preservation and minimal disruptions.

In 2013, working in partnership with the Connecticut Department of Energy and Environmental Protection (CT DEEP) and the United States Fish and Wildlife Service (USFWS), our employees installed new osprey and Great Blue Heron nesting platforms, relocated existing nests to new locations, and in some cases, abandoned some distribution poles with osprey nests, installing new distribution structures nearby to hold electric equipment. A PSNH partnership with the Audubon Society of New Hampshire offers an **“Osprey Online”** website that offers facts and a streaming webcam that engages the public with these majestic birds.

Eastern box turtles are a state-listed species in our region, and are sometimes found in the early successional habitat of our rights-of-way (ROW). The Massachusetts Natural Heritage & Endangered Species Program (NHESP) requires that staff

responsible for vegetation management activities within state-listed turtle Priority Habitat complete turtle protection training. NSTAR partners with NHESP to offer an annual turtle training event open to utilities and vegetation management companies. At the 2013 event, more than 75 utility contractors were instructed on turtle identification and performance of work zone sweeps as required by the Massachusetts Endangered Species Act. In Agawam, Massachusetts, our Transmission team used a turtle tracking dog and locating equipment to clear an access path for vehicles entering priority habitat.

We are also partnering with the CT DEEP and the USFWS to create habitat for the New England cottontail, a species in decline. New England cottontails require 25-acre tracts of early successional habitat to thrive. As our ROWs are maintained in a permanent state of early succession, the agencies sought our assistance in using the ROWs to supplement other properties under consideration for habitat restoration. NU ROWs have also been used to provide USFWS habitat restoration crews access to a federally owned, land-locked property in Stonington, Connecticut.

Our vegetation management efforts help preserve rare plants and minimize the spread of invasive species. While planning a recent project, WMECo staff observed the Climbing Fern (*Lygodium palmatum*), a species of concern due to loss of habitat. The project manager reported the matter to appropriate agencies and protected the species during construction.

Our practices focus on establishment of native, low-growing plant species and require that disturbed soils be stabilized with native, fast-growing seed mixes to prevent the establishment of invasive species such as multiflora rose, buckthorn, autumn olive, Japanese barberry, purple loosestrife and mile-a-minute vine. NU has partnered with University of Connecticut integrated pest management scientists to release insect predators as biological control for invasive plants, including host-specific weevils to combat [mile-a-minute vine](#) and Galerucella beetles for [purple loosestrife](#).

The NU Foundation and PSNH recently provided a \$100,000 grant to the University of New Hampshire's Department of Natural Resources & the Environment to study the effects of invasive shrubs on insects, as well as the breeding success of declining songbirds in powerline corridors. The [project](#) is being conducted on PSNH rights-of-way in the seacoast area to determine if a reduction in caterpillars caused by a proliferation of exotic shrubs (as opposed to native shrubs) affects the breeding success of declining shrubland songbirds, such as the Common Yellowthroat. Researchers hope to gain a better understanding of how power line corridors function as habitat for shrubland songbirds.

Our employees are our greatest asset and are committed to environmental responsibility in all business decisions. They actively participate in voluntary environmental conservation projects, including trail-building on company-owned property, construction of osprey platforms and projects sponsored by external partners. Recently, CL&P volunteers assisted [The Last Green Valley](#) on a river clean-up project which removed 239 vehicle tires from the Quinebaug River in Brooklyn, Connecticut.

## Cultural Resource Protection

Our NU land holdings contain a myriad of cultural, historic and archaeological features. Winding stone walls, house foundations, notable utility structures such as old dams and Native American sites are among the New England treasures found in forests, fields and wetlands. We recognize the importance of these cultural relics and incorporate their protection into our property management activities. New construction projects along rights-of-way require formal consultation/cultural resource investigations. We proactively work with both the State Historic Preservation Officer of each respective state and with Tribal Historic Preservation Offices to identify and protect resources of significance during construction where possible.

## Land Management

***“NU's undeveloped lands provide abundant and diverse habitats for wildlife species. Species and habitats known to be rare or of special concern are accommodated in both our operational activities and in our land management planning.”***

Northeast Utilities (NU) owns and manages approximately 43,000 acres of land in Connecticut, Massachusetts and New Hampshire. Many of these properties are associated with electric or natural gas operations, including transmission line corridors, substations and office buildings, while others are held for future utility uses or inherent conservation value. We

value our role as a responsible land steward and dedicate professional resources to maintain the integrity and long-term viability of the land we manage.

Through decades of work, we have established formal plans for ensuring the careful management of the land's natural and cultural resources. Our focus is on the following criteria:

- Forest health improvement, wildlife habitat protection, enhancement and diversification
- Soil and water resources preservation and agricultural stewardship
- Cultural resource protection
- Public recreational and educational uses
- Developing relationships with federal, state, municipal and private land-use agencies and not-for-profit land, wildlife and conservation groups to collectively coordinate management objectives
- Increasing shareholder value through natural resource improvement, revenue generation and improved access

For additional information and to join us in discovering our great outdoors, please visit NU's [Land Management website](#).

### **Northeast Utilities Land Trust**

As one of the largest regulated electric and natural gas utility companies in the United States, we created the NU land trust in 2012 to promote the preservation of open spaces in New England.

This gift to the people of Connecticut and the region ensures that important open spaces currently owned and operated by certain NU companies will be preserved in perpetuity. These lands will be retained in their natural beauty for future generations to enjoy.

### **Vegetation Management on our Rights-of-Way**

Today, New England has more forest land than it did just 100 years ago. Unfortunately, encroaching forest also means our shrubland is disappearing, along with the wildlife that thrives in this habitat. Shrublands provide animals with food, shelter and breeding areas, offering a diverse ecosystem comprised of numerous plant and animal species. Shrubland habitat is commonly found along power line rights-of-way. Rights-of-way are managed to remove tall-growing tree species, which may contact the overhead transmission and distribution lines, compromising the safe and reliable operation of the electric system. By carefully removing trees from the rights-of-ways, the result is low-growing plant communities of shrubs, forbs and grasses.

The goal of our vegetation management activities is to maintain stable, low-growing grass, shrub and wildflower communities in the power line rights-of-way we manage. This type of vegetation provides the ideal environment for the safe and reliable operation of our electric system and offers the greatest potential for wildlife habitat to flourish. See our [NU Transmission Rights-of-Way Vegetation Management](#) program and watch the [video from Treeland to Shrubland](#).

Our management of distribution and transmission rights-of-way produced a positive benefit on the ecosystem. Our right-of-way maintenance practices promote biodiversity by controlling selected invasive species and preserving open low shrub, grass and forb plant communities comprised of a multitude of native plant species beneficial to a wide range of wildlife. NU employs an integrated vegetation management (IVM) approach to control targeted plant species through a combination of manual, mechanical, chemical and biological methods. These integrated methods allow for the development of low growing, early successional plant communities while also ensuring the safe and reliable operation of the electric system. Early successional habitats are beneficial to numerous species of plants and animals of special concern, including the Eastern Hog Nose Snake and [Eastern Towhee](#). Our publication, [Tree and Shrub Planting Guide for Transmission Rights-of-Way](#), is an excellent resource for property owners to help in choosing native, low-growing plants that will support both shrubland habitat, as well as electric system reliability. To learn more about acceptable uses of transmission rights of way, visit our [website](#).



## Forest Management

We manage approximately 11,800 acres of forest land (about 120 properties) in Connecticut, New Hampshire and Massachusetts. These forests contain wetlands, vernal pools, water courses, diverse habitats and scenic resources. Nearly all of these properties are open to the public for passive recreational uses, such as hiking, bird watching, river access or nature study. Our forest lands are typically considered “working forests” and one of our management objectives is to promote regeneration by removing unacceptable growing stock and enhancing site quality. A result of this management is the sustainable production of timber, accomplished via periodically thinning the forest. A goal of forest thinning is to create growing space that promotes regeneration while maintaining species diversity and stand vigor.

We conduct thorough forest resource inventories to analyze forest health, age, stocking and species composition. Environmental agencies are consulted to identify plant and animal species of concern and sensitive habitats and to map sensitive areas like vernal pools and intermittent streams. This information assists NU land administrators in developing management objectives which are then incorporated into comprehensive plans focusing on sustainable forest productivity and wildlife habitat enhancement, while protecting soil and water resources. Management tools include selective harvests, invasive plant removal and **timber stand improvements** that remove unacceptable growing stock via periodic treatments outlined in our management and stewardship plans.

## Protected Lands

Several of our company properties receive special protection through conservation easements and **project licenses**. For example, licensed hydroelectric facilities in New Hampshire owned by Public Service of New Hampshire (PSNH) create wildlife conservation lands, provide stable habitat for many kinds of wildlife, support healthy fisheries, help control floods and create recreational opportunities for New Hampshire residents and visitors. PSNH hydroelectric facilities preserve a buffer between the river and uplands creating scenic waterways.

In Connecticut, a 74-acre parcel of land in the Maromas section of Middletown is protected by a conservation easement granted to the Connecticut Forest and Park Association. This land is entirely wooded with both upland and wetland forest habitats, a freshwater pond, a tidal marsh and a half-mile of Connecticut River frontage. A formal, two-mile pedestrian trail has been mapped and blazed. The conservation easement assures this important open space will be protected in its natural state in perpetuity.

In Agawam, Massachusetts, conservation easements protect 12 acres of agricultural land and 33 acres of critical species habitat at one location, and 80 acres of wetland creation and habitat protection at another. Our partners in these endeavors include the **Massachusetts Audubon Society** and a local land trust.

In our wetland mitigation for the Middletown-Norwalk Transmission Project, CL&P created a wetland within the town-owned Eisenhower Park in Milford, Connecticut. This work restored the South Meadow landscape excavated decades ago as a gravel pit for the newly constructed Merritt Parkway, and established a diverse wet meadow environment attracting wild birds, reptiles and amphibians. The project created 2.2 acres of wetland and approximately six acres of enhanced surrounding buffer. The newly created wetland fits perfectly into the City of Milford's Master Plan for Eisenhower Park and resulted in a successful partnership between the City of Milford, CL&P and the Army Corps of Engineers.

## Wildlife Management

Our undeveloped lands provide abundant and diverse habitats for wildlife species. Species and habitats known to be rare or of special concern are accommodated in both our operational activities and in our land management planning. A conservation easement of 25 acres in Massachusetts was granted for the preservation of Eastern Box Turtle and Eastern Wormsnake habitat under the purview of the Massachusetts Natural Heritage & Endangered Species Program.

In Connecticut, we work with the Department of Energy and Environmental Protection (DEEP) Wildlife Division to make 2,500 acres available to the public for regulated hunting activities. In exchange for NU's land availability, DEEP provides law enforcement, management recommendations and administration of hunting permits. Wildlife areas are managed for both

game and non-game species, and also to accommodate public recreation activities. We administer a private land hunting program on another 2,500 acres of land in Connecticut. For information, please contact NU's Property Management group at (860) 665-6176.

## Recreation

Unless otherwise posted, most NU lands are open to the public for passive recreational uses, including hiking, nature study, fishing and cross country skiing. Informal (not blazed) trails are present on many of the company-owned woodlands and rights-of-way lands. These rustic paths include old logging roads, maintenance roads, fishermen's trails and wildlife corridors. In addition, many segments of the Connecticut Forest & Park Association's (CFPA) 700-mile Blue-Blazed Trail System cross our properties and rights-of-way. Formal trails include the Ridgefield Rail Trail, a 2.4-mile walking trail which occupies a transmission line right-of-way in Ridgefield, Connecticut, and the **Scovill Loop Trail**, located near the Connecticut River on company-owned land in the Maromas section of Middletown, Connecticut. NU and the Connecticut Forest and Park Association (CFPA) cooperatively administer this trail, which is part of the CFPA Blue-Blazed Hiking Trail System.

PSNH has several public boat ramps and portage trails on company properties, and also works with snowmobile clubs and the State of New Hampshire to provide access, use and maintenance of snowmobile trails along designated stretches of transmission line corridors. As part of the Jackman Hydro penstock reconstruction project, PSNH deeded an easement to the Town of Hillsborough for a recreational trail. Some stretches of PSNH transmission corridors are part of the Heritage Trail.

## Agriculture

Our land holdings also include nearly 480 acres which are actively managed for agricultural purposes. Our objectives for these lands are to protect soil and water quality while maintaining long-term agricultural productivity. NU encourages local farm initiatives and currently licenses property to members of **The Farmer's Cow** in Brooklyn, Connecticut and to Graystone Farm, an organic farm in New Milford, Connecticut. We license these properties to interested farmers and work with the farmer, in addition to state and federal agricultural agencies, to identify best management practices that include crop selection and **soil conservation**. Other considerations include erosion control, buffers and pest and weed control methods.

## Water Resources

***"Water and energy are mutually dependent resources. Conservation and efficiency in one equates to sustainability in the other."***

Water is a shared natural resource critical to producing electricity and vital to a sustainable environment. Water and energy are mutually dependent resources—the production of energy requires large volumes of water and water infrastructure requires large amounts of energy. Conservation and efficiency in one equates to sustainability in the other.

Sensitive to this balance, we develop and implement innovative and responsible solutions to assure the protection of water resources necessary to our operations and our communities' well-being. Our companies use water in a variety of ways, from running our hydroelectric facilities to cooling our generation plants. Our New Hampshire fossil and biomass power generation facilities use municipal water, groundwater and river water for steam production and cooling. Circulating water used for cooling water in our generation plants (as shown in the table below) is returned to the source water body and is not consumed. Permits establish water discharge limits for each facility. Our gas and electric transmission, distribution and administration buildings consume municipal water for domestic use.

Estimated Water Use (Millions of Gallons)	2013	2012	2011
Fossil Generation Cooling Water	76,119	65,959	99,648
NU Facilities Municipal Water Use <sup>1</sup>	35	30	43

With our operating companies located in Connecticut, Massachusetts and New Hampshire we are not in states that are now, or in the future, predicted to be considered "water stressed." The World Resources Institute (WRI) uses global indicators and categories of risk (quantity, quality and regulatory/reputational) to determine an overall water risk score by industry.

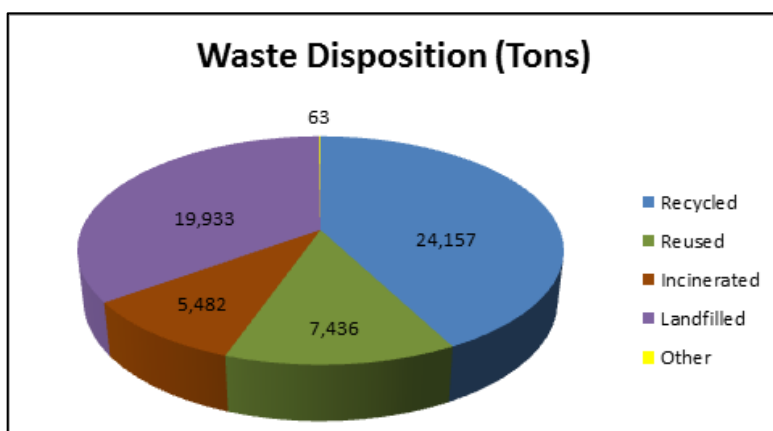
The recently revised **WRI Water Risk Atlas** (Aqueduct Atlas) shows much of our New England territory to be in low to medium risk areas, with medium to high risk areas limited to coastal locations. We are conscious of the energy-water nexus and apply strategies to reduce water discharges in our generating facilities and building locations.

Our recent efforts include practices to ensure the protection of water resources and a new initiative culminating in 2013 with an update of more than 230 spill prevention plans. We have also partnered with local communities and organizations to preserve water quality. In 2013, CL&P provided a \$25,000 grant to **The Last Green Valley** to support water quality monitoring programs and watershed stewardship. CL&P volunteers also assisted the organization on a river clean-up project.

## Waste Management and Pollution Prevention

Northeast Utilities (NU) is working to manage and reduce its waste streams on a number of fronts. Our largest waste streams include:

- Water and solids removed from manholes that contain electrical equipment. Water is extracted, treated and discharged; solid debris is stabilized prior to landfill.
- Non-RCRA soil and debris resulting from electrical equipment spills (landfill).
- Municipal waste, which is primarily sent for energy recovery (incineration).
- Fly ash, wood ash, electrical equipment, metal, wood, paper and cardboard are reused and/or recycled.



### Estimated weight of waste by type and disposal method (Tons) – 2013

	Incinerated	Landfilled	Recycled	Other	Total
Hazardous Waste	31	1,824	2	27	1,884
PCB Waste	609	532	57	6	1,204
Non-Hazardous Waste	76	16,292	659	30	17,057
Universal Waste	0	0	28	0	28
Municipal Waste (Estimated)	4,767	1,285	2,821	0	8,873
<b>Total</b>	<b>5,482</b>	<b>19,933</b>	<b>3,567</b>	<b>63</b>	<b>29,046</b>

## Waste Prevented (Tons) – 2013

	Prevented/Recycled
Electrical Equipment	2,237
Fly Ash	625
Metal	4,574
Fly Ash/Wood Ash (recycled)	20,419
Mixed Recyclables	2,821
Wood	171
<b>Total</b>	<b>30,847</b>

## Waste Management Archive

In 2012, NU's service territory experienced another severe weather year, with two major storms causing significant damage to our system. Super Storm Sandy resulted in the greatest number of transformer oil spills in the company's history. As a result, the volume of spill debris generated and sent to landfills exceeded the number from prior years.

### Total weight of waste by type and disposal method (Tons) – 2012

	Incinerated	Landfilled	Recycled	Other	Total	% Recycled
Hazardous Waste	33	1,483	689	17	2,222	31%
PCB Waste	380	952	93	29	1,454	6%
Non-Hazardous Waste	1,409	20,222	1,615	1,521	24,768	7%
Universal Waste	0	0	33	0	33	100%
Municipal Solid Waste*	4,777	1,290	2,331	0	8,398	28%
<b>Total</b>	<b>6,600</b>	<b>23,947</b>	<b>4,761</b>	<b>1,567</b>	<b>36,875</b>	<b>13%</b>

\*Municipal solid waste information excludes NSTAR. We are working to amend contracts with municipalities to enable tracking NSTAR going forward.

### Total weight of waste by type and disposal method (Tons) – 2011

	Incinerated	Landfilled	Recycled	Total	% Recycled
Hazardous Waste	31.79	212.86	450.92	695.57	65%
PCB Waste	285.70	1,975.25	0.00	2,260.95	0%
Non-Hazardous Waste	15.46	4,097.09	1,074.17	5,186.72	21%
Universal Waste	0.19	0.00	25.65	25.84	99%
Municipal Solid Waste	2,508.00	769.00	1,087.00	4,364.00	25%
<b>Total</b>	<b>2,841.41</b>	<b>7,054.20</b>	<b>1,550.74</b>	<b>11,446.08</b>	<b>14%</b>

Note: In Connecticut and Massachusetts, manhole sludge is managed conservatively as a hazardous waste and accounts for 61 percent of the hazardous waste disposed of by NU in 2011. Water from the sludge is extracted, treated and discharged and is included in the recycled numbers above. Sludge solids are landfilled.

### Total weight of waste by type and disposal method (US Tons) – 2010

	Incinerated	Landfilled	Recycled	Total	% Recycled
Hazardous Waste	114.77	860.53	769.64	1,744.94	44%
PCB Waste	234.26	664.84	18.29	917.42	2%
Non-Hazardous Waste	509.03	1,884.07	837.47	3,230.57	26%
Universal Waste	0.29	0.19	18.50	18.98	97%
Total	858.35	3,409.66	1,643.90	5,911.91	28%

Note: In Connecticut, manhole sludge is managed conservatively as a hazardous waste and accounts for 61 percent of the hazardous waste disposed of by NU in 2010. Water from the sludge is extracted, treated and discharged and is included in the recycled numbers above. Sludge solids are landfilled.

## Pollution Prevention Archive

Northeast Utilities (NU) has established a robust Investment Recovery Program that reuses, recycles or sells out-of-service items including cable reels, scrap cable, transformers, coal fly ash and waste oil. Each year NU submits a report to the EPA summarizing our waste prevention and recycling achievements and purchases of materials made with recycled content.

### Waste Prevented

Material	Amount Prevented (US Tons) - 2012
Electrical Equipment	2,080

### Material Recycled

Material	Amount Recycled (US Tons) - 2012
Mixed Recyclables*	1,394
Mixed Metal	6,521
Fly Ash	18,504
Wood Ash	8,646
Wood	635

\*Mixed Recyclables does not include NSTAR

### Waste Prevented

Material	Amount Prevented (US Tons) - 2011	Amount Prevented (US Tons) - 2010	Amount Prevented (US Tons) - 2009
Mixed Metal	555	426	441
Paper	*	3	3
Wood	158	197	169

<b>Material Recycled</b>			
<b>Material</b>	<b>Amount Recycled (US Tons) - 2011</b>	<b>Amount Recycled (US Tons) - 2010</b>	<b>Amount Recycled (US Tons) - 2009</b>
Mixed Metal	5,033	3,298	2,758
Fly Ash	36,619	30,752	96,205
Wood Ash	43,466	7,665	4,359
Cardboard/Paper	*	789	237
Mixed Recyclables	1,071		

\*Note: In 2011, NU began conversion to single stream recycling and no longer tracks paper and cardboard as a separate category.

## GRI LINKAGES

The following table illustrates how this report aligns with the Global Reporting Initiative (GRI) Performance Indicators. This website includes Corporate Social Responsibility Reporting for all NU entities, including our four electric subsidiaries CL&P, NSTAR Electric, PSNH and WMECo as well as our two natural gas distribution companies, NSTAR Gas and Yankee Gas, and our corporate service company, Northeast Utilities Service Company. The report also addresses the upstream considerations of supply chain and the downstream considerations of energy efficiency and customer experience. With this report we believe we meet GRI G3.1 Guidelines Application Level B.

<b>GRI Indicator</b>	<b>GRI Description</b>	<b>Report Section Links</b>
<b>Strategy and Analysis</b>		
1.1	Statement by CEO	<a href="#">Chairman's Message</a>
1.2	Description of key impacts, risks, and opportunities	<a href="#">Ethics and Risk Management</a> <a href="#">Financial Performance</a>
<b>Organizational Profile</b>		
2.1	Name of the organization	<a href="#">About Our Company</a>
2.2	Primary brands, products, and/or services	<a href="#">About Our Company</a>
2.3	Operational structure of the organization	<a href="#">About Our Company</a>
2.4	Location of organization's headquarters	<a href="#">NU – Business to Business</a>
2.5	Countries in which the company has operations	<a href="#">NU - About NU</a>
2.6	Nature of ownership and legal form	<a href="#">NU - About NU</a>
2.7	Markets served	<a href="#">About Our Company</a>
2.8	Scale of the reporting organization	<a href="#">About Our Company</a> <a href="#">Financial Performance</a> <a href="#">Workforce Investment</a>
2.9	Significant changes during reporting period	<a href="#">Financial Performance</a>
2.10	Awards received in the reporting period	<a href="#">2009-2013 Awards</a>
<b>Report Parameters</b>		
3.1	Reporting period	<a href="#">Chairman's Message</a>

3.2	Date of most recent previous report	Updated online annually, Last paper version published in 2008.
3.3	Reporting cycle	Annual
3.4	Contact point for questions regarding the report	Contact Us
3.5	Process for defining report content	About this Website
3.6	Boundary of the report	Global Reporting Initiative
3.7	Limitations on scope or boundary	Global Reporting Initiative
3.8	Joint ventures, subsidiaries, leased facilities, outsourced operations	Other Reporting
3.9	Data measurement techniques and bases for calculations	Data Measurement
3.10	Explanation of re-statements from earlier reports	Water Resources
3.11	Significant changes from previous reporting periods	NU - What's New
3.12	Table identifying location of Standard Disclosures (this)	Global Reporting Initiative
3.13	Policy and current practice with regard to external assurance	External Assurance
<b>Governance</b>		
4.1	Governance structure of the organization	Corporate Governance
4.2	Chair of the Board is also an executive officer	Board of Trustee Information
4.3	Independence of the Board	Board of Trustee Information
4.4	Mechanisms to provide feedback to the Board	Investor Relations
4.5	Linkages between executive compensation & performance	Proxy Statement
4.6	Mechanism to avoid conflict of interest	Corporate Governance
4.7	Composition, qualifications and expertise of the Board	Board of Trustee Information
4.8	Corporate mission and values; Code of Conduct	Chairman's Message Corporate Governance Ethics and Risk Management
4.9	Board oversight of sustainability risks & opportunities	Corporate Governance
4.10	Process for evaluating Board's performance	Corporate Governance Guidelines
4.11	How the precautionary approach is addressed	Chairman's Message
4.12	Externally developed economic, environmental, social charters	Industry Associations
4.13	Memberships in associations	Industry Associations
4.14	List of stakeholder groups engaged by organization	Stakeholder Groups
4.15	Basis of identification and selection of stakeholders	Stakeholder Selection
4.16	Approach to stakeholder engagement	Stakeholder Engagement
4.17	Key topics and concerns raised by stakeholders	About this Website
<b>Economic</b>		
EC1	Direct economic value generated and distributed	Financial Performance
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Our Footprint Emergency Preparedness Reliability Performance & Resiliency
EC3	Defined benefit plan coverage	NU – Comp & Benefits
EC6	Locally based suppliers	NU Business to Business
EC8	Investment and services for public benefit	In the Community Economic Benefit Assistance Programs

		Emergency Preparedness Reliability & Resiliency Initiatives Infrastructure Protection and Reliability Compliance
EC9	Indirect economic benefits	Economic Benefit
<b>Environmental</b>		
<b>Energy</b>		
EN5	Energy saved due to conservation and efficiency improvements	Our Footprint
EN6	Initiatives to provide energy efficient or renewable energy based products and services	Energy Efficiency Programs Clean Energy Solutions Distributed Generation
EN7	Initiatives to reduce indirect energy consumption	Our Footprint Sustainable Supply Chain Transportation Alternatives
<b>Water</b>		
EN8	Total water withdrawal by source	Water Resources
<b>Biodiversity</b>		
EN11	Land in protected areas or areas of high biodiversity value	Land Management Stewardship and Biodiversity
EN12	Impacts on biodiversity	Land Management Stewardship and Biodiversity
EN13	Habitats protected or restored	Land Management, Stewardship and Biodiversity
EN14	Strategies for managing impacts on biodiversity	Land Management Stewardship and Biodiversity
<b>Emissions, Effluents and Waste</b>		
EN16	Total direct and indirect greenhouse gas emissions	Our Footprint
EN17	Other relevant indirect greenhouse gas emissions	Our Footprint
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	Clean Energy Solutions
EN19	Emissions of ozone-depleting substances by weight	Our Footprint
EN22	Total weight of waste by type and disposal method	Waste Management
EN23	Total number and volume of significant spills	Environmental Management System
EN24	Weight of transported, imported, exported or treated hazardous waste	Waste Management
<b>Products and Services</b>		
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Environmental Management System Waste Management and Pollution Prevention
<b>Compliance</b>		
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Environmental Management System
EN29	Environmental impacts of transporting products use for operations, and transporting members of the workforce	Transportation Alternatives Our Footprint
<b>Human Rights</b>		
<b>Investment and Procurement Practices</b>		
HR1, HR6, HR7	Policy regarding human rights and labor practices	NU Supplier Code of Conduct Ethics and Risk Management
HR3	Hours of employee training on policies and procedures concerning human rights	Ethics and Risk Management



<b>Labor Practices and Decent Work</b>		
<b>Compliance</b>		
LA1	Total workforce by employment type, employment contract and region	Workforce Investment
LA2	Employee turnover	Workforce Investment
LA3	Full time, temporary, part-time employee benefits	NU – Comp & Benefits
<b>Labor Management Relations</b>		
LA4	Percentage of employees covered by collective bargaining agreements	Workforce Investment
<b>Occupational Health and Safety</b>		
LA7	Rates of injury, occupational diseases, lost days, absenteeism and number of work-related fatalities by region	Health & Safety
LA8	Serious disease education programs for employees	Wellness
<b>Training and Education</b>		
LA10	Average hours of training per employee	Workforce Investment
LA11	Programs for skills management and lifelong learning	Workforce Investment
LA12	Percentage of employees receiving performance reviews	Workforce Investment
<b>Diversity and Equal Opportunity</b>		
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership and other indicators of diversity	Board of Trustee Information Diversity and Inclusion
<b>Society</b>		
<b>Community Development</b>		
SO1	Community engagement and development programs	CL&P - In the Community NSTAR - In Your Community PSNH - Community Relations WMECo - Our Community Yankee Gas - Community Support Transmission - Stay Informed Diversity and Inclusion Customer Experience In the Community
SO3	Percentage of employees trained in organization's anti-corruption policies and procedures	Ethics and Risk Management
SO9	Operations with potential or actual negative impacts on local communities	In the Community Emergency Preparedness Reliability & Resiliency Initiatives Infrastructure Protection and Reliability Compliance
SO10	Prevention and mitigation measures in operations with potential or actual negative impact on local communities	In the Community Emergency Preparedness Reliability & Resiliency Initiatives Infrastructure Protection and Reliability Compliance
<b>Corruption</b>		
SO6	Contributions to political parties	Political Contributions
<b>Product Responsibility</b>		
<b>Customer Health &amp; Safety</b>		
SO7	Policy on anti-competitive behavior	Code of Business Conduct

PR1	Health & safety impacts of product	CL&P Consumer Safety NSTAR Consumer Safety PSNH Consumer Safety WMECo Consumer Safety Yankee Gas Consumer Safety Transmission Consumer Safety Transmission Contractors Emergency Preparedness
PR5	Customer Satisfaction	Customer Experience
PR6	Programs for adherence to laws, standards, codes	Code of Business Conduct
<b>Electric Utility Supplement</b>		
EU1	Installed capacity (MW)	About Our Company
EU3	Number of customer accounts	About Our Company
EU4	Transmission & Distribution Lines	About Our Company
EU6	Electricity availability and reliability	Infrastructure Protection & Reliability Compliance Reliability Performance & Resiliency Initiatives Distributed Generation
EU7	Demand-side management programs	Energy Efficiency
EU8	Research & Development	R&D
EU9	Decommissioning nuclear power sites	Annual Report
EU10	Planned capacity against projected electricity demand over the long term	Clean Energy Solutions
EU14	Programs to ensure availability of skilled workforce	Workforce Investment
EU16	Health and safety policies for employees and contractors	Supplier Code of Conduct Health and Safety
EU19	Stakeholder participation in decision making processes related to energy planning and infrastructure development	In the Community
EU21	Contingency planning & disaster/ emergency management plan	Ethics and Risk Management Infrastructure Protection & Reliability Compliance Emergency Preparedness
EU23	Programs, including those in partnership with government, to maintain access to electricity and customer support services	Customer Experience Assistance Programs
EU24	Practices to address language, cultural, low literacy and disability related barriers and safely use electricity and customer support services	Assistance Programs
EU28	Power outage frequency	Reliability Performance & Resiliency Initiatives
EU29	Average power outage duration	Reliability Performance & Resiliency Initiatives