

# Committed to Climate Action

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Sustainability Report 2019



# Chairman's Letter

The start of a new decade at Con Edison can be summed up in two words: clean energy.

As leaders and innovators in the industry in addressing climate change, we're already off to a great start having reduced our own carbon footprint by more than 50%. This is in addition to becoming the second largest solar producer in North America and the seventh largest in the world.

But there is so much more for us to accomplish. For our business, and for the planet.

As always, our three priorities—safety, operational excellence, and the customer experience—guide us toward protecting the environment, maintaining our best-in-class reliability, and creating a sustainable future for the company.

Our people—the women and men of Con Edison—are what make us such an incredible company, and so safety is always our top concern. Many parts of the company are going accident free. But we can't feel good about that progress because five of our fellow employees suffered high-hazard injuries last year. That's five too many. In the coming year we are redoubling our efforts toward our goal of a zero-harm workplace.

The first quarter of the year opened with the unprecedented attack of the coronavirus, requiring an extreme attention to safety and wellness, to keep both our customers and ourselves healthy. New York was the epicenter of this terrible crisis, and sadly, scores of our own employees tested positive. Even more heartbreaking, we lost colleagues to the virus. Our workforce had to work differently in many instances to maintain essential service for our customers—from separating crews into multiple vehicles to taking temperatures of employees arriving at our critical facilities.

We have benefited from long term planning—we have had a pandemic planning team for close to a decade that meets regularly, has response procedures, a playbook, and performs drills and table tops periodically. We also have a well-established and effectively honed Incident Command System structure that provides the emergency management resources we need.

In the days following our coronavirus response, we will be assessing long-term impact to our business and the service territory. But as this report will demonstrate, we are a strong company with dedicated employees and a long tradition of commitment to our communities.

When it comes to climate action, Con Edison envisions a clean future for the world's most complex energy grid. Powering the lives of 10 million people, we are committed to building tomorrow's grid in a manner that supports renewable energy sources like solar and offshore wind, while empowering customers to make smarter energy choices.

The first part of our climate response is to mitigate the risks of volatile weather on our systems. Our recent Climate Change Vulnerability Study stresses the importance of preparing our infrastructure to withstand and bounce back from the impacts of these extreme events. Over the next year, we'll be developing an implementation plan that details our priority actions for the next five, 10, and 20 years.

Simultaneously, reducing carbon emissions is vital to our long-term sustainability. We're already a top producer of solar energy, with a presence in 19 states. To accomplish the ambitious state and city climate goals, however, we are advocating for utility ownership of renewable projects right here at home in New York. Bold climate action like this will also help us achieve our own ambitious goal of 100% clean energy by 2040, which is part of our Clean Energy Commitment.

A considerable amount of greenhouse gas emissions in New York City comes from cars, trucks, and other vehicles—estimated at 30% of the city's carbon production. That's why Con Edison is paving the way for more electric vehicles on the road. We're bringing electric vehicle charging stations to streets of New York in all five boroughs. We're also helping customers switch to electric vehicles by offering lower rates for charging off-peak along with tools that allow customers to comparison shop and save.

We're doing our part on this front, too. We are transitioning our fleet of light-duty vehicles to electric vehicles and will explore opportunities and alternative technologies to reduce our use of fossil fuels for our medium- and heavy-duty trucks.

To do all this and more, our electric system needs to advance. It needs to accommodate large-scale wind and solar projects, electric heating, and electric vehicles. Large commercial buildings, businesses, and homes must be more energy efficient to achieve our state and city goals for emission reduction, too.

Our ever-expanding array of energy efficiency opportunities have helped more than one million customers and prevented 7 million metric tons of carbon emissions, equal to taking more than one million cars off the road. We can't stop there, though. As part of our Clean Energy Commitment, we plan to aggressively pursue reductions in overall energy use by tripling our energy efficiency programs and plan to invest over \$1.5 billion by 2025.

While our ambitious efforts to improve the safety of our gas system by replacing gas mains has resulted in carbon reductions, we continue to feel the impact of pipeline constraints. To tackle the tight gas supply, we're ramping up energy efficiency for customers and providing incentives to adopt electric alternatives or new technologies like ground and air-source heat pumps.

To tap into the best and most promising technologies available in clean energy, we're seeking innovative, new solutions that will help customers reduce reliance on natural gas, offset the need to build additional pipeline infrastructure, and help New York State achieve its clean energy goals.

How we accomplish all this begins with solid corporate governance practices and a diverse and inclusive workforce.

Our board of directors is 50% diverse in terms of gender, race, and ethnicity, with an impressive blend of skills, tenure, backgrounds, and experiences. We conduct year-round shareholder engagement to hear from our stakeholders and continuously improve our governance practices and disclosures.

Similarly, the creation of a sustainable business relies heavily on recruitment and retainment of top-notch people at all levels of the company. It starts by investing in the growth of our current workforce through tuition reimbursement, leadership and technical training, and priority access to internal job opportunities.

From there, we turn our attention to recruiting diverse talent, veterans, and women. In fact, the percent of women hired has increased to 41%—that's nearly 10% more than the previous year. By making sure our workplace is diverse, inclusive, and respectful, everyone has an opportunity to offer their best work and ideas.

Finally, a sustainable future isn't possible without an intense focus on enriching the heart of our region—neighborhoods and communities. Last year we provided \$12.6 million to area non-profits, which included organizations helping to foster the next generation of our workforce. We continue to commit time, talent, and treasure to mentoring students through the company's job-shadow program. We partner with Energy Tech High School, Big Brothers Big Sisters, and the Fresh Air Fund, and these efforts promote technical careers and a future diverse talent pool.

In the decade ahead, our ultimate goal is to help our people, our communities, our business, and the planet thrive. Whether we're combating climate change or preparing students for green careers, Con Edison is committed to tackling head-on the challenges of today to make tomorrow cleaner and brighter.

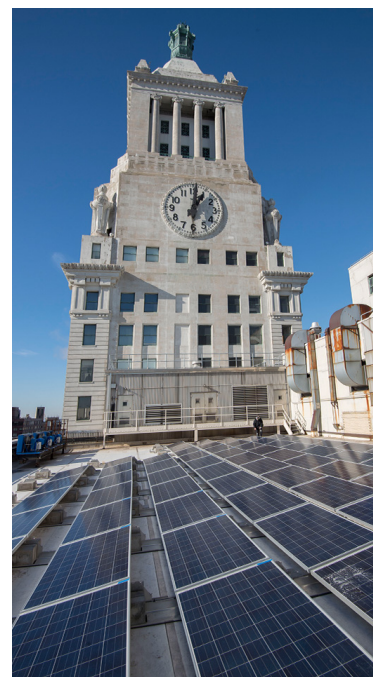
**— John McAvoy,  
Chairman, President, and Chief Executive Officer, Consolidated Edison, Inc.**

# Company Profile

Consolidated Edison, Inc. is one of the nation's largest investor-owned energy-delivery companies, with approximately \$13 billion in revenues and \$58 billion in assets. The company provides a wide range of energy-related products and services to its customers through the following subsidiaries:

- **Consolidated Edison Company of New York, Inc. (CECONY)** (<http://www.coned.com/>), a regulated utility providing electric, gas and steam service to customers in New York City and Westchester County, New York
- **Orange & Rockland Utilities, Inc. (O&R)** (<http://www.oru.com/index.html>), a regulated utility serving customers in a 1,300-square-mile-area in southeastern New York State and northern New Jersey
- **Con Edison Clean Energy Businesses, Inc. (CEB)** (<https://conedceb.com/>), which through its subsidiaries develops, owns and operates renewable energy infrastructure projects and provides energy-related products and services to wholesale and retail customers
- **Con Edison Transmission (CET)** (<http://www.conedtransmission.com/>), which through its subsidiaries invests in electric and natural gas transmission projects

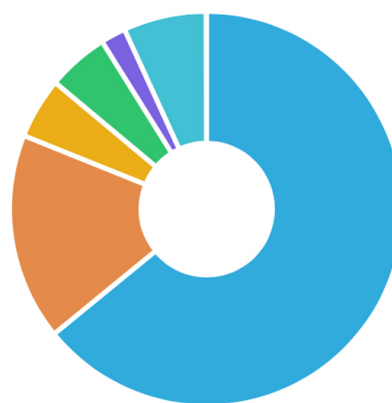
Read our 2019 Annual Report (<https://investor.conedison.com/financial-information/annual-reports?c=61493&p=irol-reportsannual>).



## Revenue by Business

(million \$)

• CECONY Electric	\$8,062
• CECONY Gas	\$2,132
• CECONY Steam	\$627
• O&R Electric	\$634
• O&R Gas	\$259
• CEBs	\$857
• CET	\$4





## Board Of Directors

	Audit Committee	Corporate Governance and Nominating Committee	Safety, Environment, Operations and Sustainability Committee	Executive Committee	Finance Committee	Management Development and Compensation Committee
George Campbell, Jr.		✓	✓	✓		Chair
Ellen V. Futter			Co-Chair	✓		
John F. Killian	Chair	✓		✓		✓
John McAvoy				Chair		
Armando J. Olivera	✓		Co-Chair		✓	
Michael W. Ranger	✓	Chair and Lead Director		✓	✓	✓
Linda S. Sanford	✓	✓			✓	
L. Frederick Sutherland	✓				Chair	✓
William J. Murrow			✓		✓	✓
Deirdre Stanley		✓	✓			

Effective January 1, 2019.

## Financial Highlights

(million \$ except per-share information and statistical data)

	2014	2015	2016	2017	2018	2019
Operating revenues	\$12,919	\$12,554	\$12,075	\$12,033	\$12,337	\$12,574
Net income for common stock	\$1,092	\$1,193	\$1,245	\$1,525	\$1,382	\$1,343
Basic earnings per common share	\$3.73	\$4.07	\$4.15	\$4.97	\$4.43	\$4.09
Dividends per share	\$2.52	\$2.60	\$2.68	\$2.76	\$2.86	\$2.96
Dividend payout ratio	68%	64%	65%	56%	65%	72%
Average common shares outstanding	292.9	293	300.4	307.1	311.7	328.5
Total assets	\$44,071	\$45,642	\$48,255	\$48,111	\$53,920	\$58,079
Capital expenditures	\$2,721	\$3,418	\$5,235	\$3,606	\$5,249	\$3,676
Common equity ratio	52.2%	52.1%	49.3%	51.1%	49.0%	49.6%
Return on equity	8.8%	9.3%	9.1%	10.4%	8.8%	8.2%
Market capitalization	\$19,300	\$18,800	\$22,100	\$26,100	\$24,500	\$30,100
Stock price per share (year end)	\$66.01	\$64.27	\$73.68	\$84.95	\$76.46	\$90.47
Dividend yield (year end)	3.8%	4.0%	3.6%	3.2%	3.7%	3.3%
Total shareholder return	24.8%	1.4%	18.9%	19.3%	(6.6%)	22.5%

# Sustainability Strategy

Con Edison is dedicated to making a transformational impact on the environment, our region, and the lives of the people we serve. We have a governance structure and strategy in place to harness the skills and intellect of our employees consistent with sound, sustainable principles.

## Governance: Setting Priorities and Strategy

As disclosed in our Proxy Statement, the Company is firmly committed to sustainability which is broadly overseen by the Board (see Corporate Sustainability). The Board reviews and discusses various sustainability topics throughout the year and routinely considers environmental issues (including climate issues) and assesses how they impact the Company's operations, strategies and risk profile. In 2019, the Board's strategy meeting focused on climate change. The Board received a presentation on the transition to a clean energy future by an outside consultant as well as presentations on current renewable energy policy trends and the impact of climate change on operations.

In addition, the Board has delegated to the appropriate committees, responsibility for the specific sustainability categories relating to the oversight of risks with which such committees are charged. The Safety, Environment, Operations and Sustainability Committee oversees sustainability issues relating to safety and the environment and reviews the Company's Annual Sustainability Report prior to its publication. In discharging its responsibilities, the Safety, Environment, Operations and Sustainability Committee reviews, at each of its meetings, certain key performance indicators relating to climate risk, including energy efficiency and environmental beneficial electrification. In 2019, the Safety, Environment, Operations and Sustainability Committee also reviewed and discussed presentations relating to safety and customer service. The Corporate Governance and Nominating Committee is charged with sustainability matters relating to governance and in 2019 reviewed and discussed a presentation regarding governance benchmarking. The Management, Development, and Compensation Committee's responsibilities include oversight of sustainability issues relating to human capital management. The Management, Development, and Compensation Committee annually reviews performance results as well as proposed performance indicators for the following year. Committees not specifically tasked with oversight of sustainability also periodically review sustainability related issues. In 2019, the Audit Committee reviewed and discussed presentations regarding fraud prevention and detection activities and certain recommendations with respect to financial governance oversight.

Our sustainability governance structure also extends to management and employee levels, including:

- Vice president-level Environment, Social, and Governance Committee
- Sustainability Leadership Council
- Volunteer sustainability ambassadors

We engaged BSR, a leading sustainability consulting firm, to assist us in developing our sustainability materiality assessment and determine our key sustainability priorities, and in 2019 we worked with New York University in refreshing that assessment and resulting priorities.

We have integrated our sustainability priorities with our long-range planning. Our 20-year plan for our electric and gas businesses is designed to help us navigate today's challenges while preparing for changes in the energy landscape. The plans are available on our website at the following links:

- [Electric Long Range Plan \(https://www.coned.com/-/media/files/coned/documents/our-energy-future/our-energy-projects/electric-long-range-plan.pdf\)](https://www.coned.com/-/media/files/coned/documents/our-energy-future/our-energy-projects/electric-long-range-plan.pdf)
- [Gas Long Range Plan \(https://www.coned.com/-/media/files/coned/documents/our-energy-future/our-energy-projects/gas-long-range-plan.pdf\)](https://www.coned.com/-/media/files/coned/documents/our-energy-future/our-energy-projects/gas-long-range-plan.pdf)

In December 2019, we released our Climate Change Vulnerability Study in conjunction with ICF International and Columbia University's Lamont-Doherty Earth Observatory. The 36-month study evaluated our present-day infrastructure, design specifications and procedures under a range of potential climate futures. The study identified the most climate-driven risks:

- Sea level rise
- Coastal storm surge
- Inland flooding from intense rainfall

- Hurricane-Strength winds, and
- Extreme heat

The study estimates that we may need to invest between \$1.8 billion and \$5.2 billion by 2050 on targeted programs to protect our electric, gas and steam delivery systems and our customers from the impacts of climate change.

An implementation plan is under development and will be completed by December 31, 2020.

## Our Guiding Principles

Our Climate Change Vulnerability Study is consistent with three guiding principles we have adopted for protecting the environment, maintaining our best-in-class reliability, and managing customer costs — safety, operational excellence, and enhancing the customer experience.

Our strategy grows from these three priorities and embraces the growing concern globally over the impacts of climate change and the desire of customers and the public to have increasing say over how their energy is produced and used.

Accordingly, our strategy involves three areas where we can positively impact society and our planet while building value for our stakeholders:

- Strengthen our core utility business
- Pursue additional regulated growth opportunities to add value in the evolving industry
- Grow existing clean energy businesses and pursue additional clean energy growth opportunities consistent with our risk appetite

Customer Focused	Value Oriented	Strategic
Provide safe and reliable service	Provide steady, predictable earnings	Strengthen core utility delivery business
Enhance the customer experience	Maintain balance sheet stability	Pursue additional regulated growth opportunities to add value in the evolving industry
Achieve operational excellence and cost optimization	Pay attractive, growing dividends	Grow existing clean energy businesses and pursue additional clean energy growth opportunities consistent with our risk appetite

## Core Utility Business Strategy: Safety

Safety is the cornerstone of all that we do at Con Edison. We continue to strive for a zero-harm work environment for our employees and the public we serve.

We have been aggressive in upgrading our systems against severe weather, having invested \$1 billion over four years following Super Storm Sandy. We coordinated with Westchester County in New York to invest an additional \$100 million to fortify our electric system following a pair of successive severe storms in 2018.

In our gas systems, we have focused on safety as well as reducing harmful methane emissions through our priority pipe replacement. Orange & Rockland completed its priority pipe replacement program and retired its low-pressure gas system. Con Edison replaced 97 miles of priority pipe in 2019 and is on track to complete its program in 2036.

Con Edison was the first utility in the country to install natural-gas detectors that monitor the air where our gas service pipes enter buildings, and in 2019 we completed more than 9,000 installations.

Surveillance of our electric and gas systems is also a priority as we conduct surveys of our entire electric and gas systems monthly, going far beyond industry standards.

## Core Utility Business Strategy: Enhancing the customer experience

Our customers have made it clear that they want more access to renewables, energy efficiency, demand response, storage, and information to help them manage their energy usage and bills.



As part of our \$1.4 billion, multi-year, smart meter investment, we have installed 3 million smart meters to date and will install the remaining 2 million customer meters over the next several years. Smart meters are the cornerstone of our efforts to meet the evolving needs of customers by providing greater insights into energy use with near real-time data—a truly transformational technology.

Sequenced with our smart meter rollout are two customer-focused investments:

- A new \$421 million customer service system that will further enhance our energy efficiency and demand response programs, and
- A \$68 million Next Generation Customer Experience program that will advance our digital customer experience.

Our energy efficiency programs have helped more than one million customers and prevented 7 million metric tons of carbon emissions, equal to taking more than one million cars off the road.

To advance customer adoption of electric vehicles and support New York's ambitious environmental goals, we are also rolling out 60 electric vehicle charging stations at public parking spaces across New York City's five boroughs.

### **Core Utility Business Strategy: Operational Excellence and Cost Optimization**

Con Edison's electric system has historically been the most reliable electric system in the country by a sizeable margin. Nevertheless, we recognize that we can do better. We are deploying sensors, using robotics to monitor our systems, leveraging analytics, and using other technologies to achieve the operational excellence that our customers demand.

Minimizing risk is key to operational excellence. We continue to invest in and enhance our cyber and physical security. Last year, we participated in multiple large-scale drills with the government and other major utilities to prepare for cyber and physical threats to the U.S. power grid and to develop technology to speed up restoration.

When it comes to a cleaner, more efficient future, our strategy involves reducing harmful emissions and expanding our portfolio of renewable energy production.

### **Clean Energy Businesses**

The Clean Energy Businesses are forecasted to grow over time, as state-level clean energy targets and advancements in renewable technologies present opportunities for investment. Of our approximately 3,000 megawatts of renewable energy production in operation or under development, 85% is solar and 15% is wind. We have projects in 19 states in the U.S. and are the 7th largest owner and producer of solar electricity in the world and the second largest in North America.

The pursuit of our strategic objectives should enable us to continue to provide steady, predictable earnings, maintain balance sheet stability, and pay attractive, growing dividends for our shareholders.

### **Additional Regulated Opportunities in Electric Transmission**

In order to connect new renewable energy projects to customers, Con Edison is pursuing opportunities to develop and own electric transmission. New York State, our principle state regulatory jurisdiction, has a goal of 70% renewable electricity by 2030.

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# R&D/Innovation

An innovative spirit and hard work are two of our company's greatest assets. Our research and development teams work diligently to find solutions that make the workplace safer and improve our customers' quality of life. Some of our numerous ongoing projects are described below.

## Safety

- The newly patented system and method of monitoring a utility underground structure, which uses sensors to monitor the atmosphere and alert of any changes from "steady state," will improve system safety and reliability by allowing us to take action before a potential event.
- The patent-pending circuit breaker cubicle inspection and repair safety device will allow for repairs without the need to take outages on substation bus sections and provide enhanced safety for mechanics during inspection and repairs, thus saving labor time and enhancing substation reliability.
- Development of a patent-pending breaker-racking robot prototype will allow for remote racking of substation breakers. For substation operators, it will minimize exposure risk to arc flash hazards and decrease soft tissue injuries from handling heavy circuit breakers. Initial testing demonstrated the robot's collision avoidance system, self-alignment and racking engagement capabilities, and ability to provide status indications and robot operations alarms.
- An elevated pressure flow control system utilizing inflatable stoppers for gas mains was modified and tested for the Con Edison system. This is an improvement over traditional methods as it is smaller and lighter, thereby lowering the risk of injury and reducing labor and material costs.



## Operational Excellence

- Installation of a novel on-line oil dehydration system capable of continuously removing moisture from transformer oil could maximize the lifecycle of power transformers, lower maintenance by eliminating the need for replacing exhausted cartridges, and preserve dissolved fault gases in the oil to allow for conventional dissolved gas analysis. A prototype has been developed and successfully tested, with the ultimate goal to develop a portable unit that could be easily transported between substations on an as-needed basis.
- Development of unmanned aerial vehicle (UAV) with cyber forensic capabilities will protect our assets and personnel through identification and the use of digital forensic procedures to support cyber-investigations of embedded systems. The Corporate Cyber Forensic team is now fully equipped to perform manual extraction of data off the UAV and is in process of acquiring the software tool for data analysis.
- A thermal imaging tool for through-cover inspections will reduce jobsite set-up, reduce necessary personal protective equipment, and allow for more frequent inspections. In the final phase of development, this tool will allow us to track low level hotspot conditions and mitigate them before developing into a higher risk condition.
- The newly patented electrofusion repair sleeve is sized to encapsulate an electrofusion coupling for leaking and non-leaking polyethylene pipe, and will negate the need to perform main cut-outs of unacceptable fittings.

## Customer Experience

- Demonstration of the thermal compression heat pump will determine the potential for significant customer energy and cost savings. Thermal compression of helium to produce a temperature difference between the hot and cold sides of the pump will allow for space or water heating (or cooling) applications.

- Global Positioning System (GPS) real-time tracking of mutual aid crews and equipment deployed for storm restoration or other functions will assist in reducing costs and improving restoration time for customers. The R&D phase of this project is complete and successful, and the deployment plan is currently being developed.
  - A patent-pending technology will provide constant power to natural gas detectors capable of communicating over the smart meter network. In addition, by incorporating micro tuning forks to measure a change in frequency, the sensor can alert us to the presence of natural gas.
  - Continued development of a prototype tool using electro-hydraulic energy to fracture rock will facilitate the installation of new infrastructure without the traditional noise and vibration of jack-hammering. This R&D project seeks to make the technology adjustable for varied applications and to create a portable solution.
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# Awards & Recognition

Sustainability is an umbrella that covers everything we do as a company. As we continue to serve our customers, promote safety, and help preserve the environment, we receive many recognitions and prestigious awards for our projects and operational excellence. Here is a sample from our list of recent honors:

## Safety & Environment

- Con Edison was the **Cleanie Awards** Gold recipient for Mid-size Company of the Year. The Cleanie Award is the first comprehensive awards program exclusive to the cleantech industry, recognizing excellence in innovation, business leadership and superior outreach campaigns.
- Con Edison won an honorable mention in **Edison Electric Institute's** 2019 Advocacy Excellence Awards for our work with building support for electric vehicle adoption.
- Con Edison won the **Itron** Innovator Award for the deployment of smart meter gas detectors.
- O&R's Employee Wellness team won the **Northeast Gas Association's** 2019 Excellence in Safety Award for its comprehensive workforce wellness program.
- O&R was awarded the Tree Line USA award from the **Arbor Day Foundation** for the 18th year in a row.

## Operational Excellence

- 18 Con Edison employees won the Technology Transfer Award from the **Electric Power Research Institute**, a national energy research organization.
- **United Way of Rockland County** named O&R its Top Corporate Donor of 2019 for raising over \$128,000 to support United Way programs.

## Diversity & Inclusion

- Our work with diversity and inclusion has been honored by several professional publications, including: **Black EOE Journal** named us one of its Best of the Best in 2019 in Top Utilities, Gas & Oil; **Latina Style** named us among the top 50 companies in the country for Latina professionals; **Professional Woman's Magazine** named us among the "Best of the Best" of Utilities, Energy, Gas & Oil Companies in 2019; **Diversity Inc.** ranked Con Edison No. 2 on its Top Utilities Specialty List.
- Con Edison was ranked No. 37 in New York State on **Forbes'** America's Best In-State Employers 2019. This list is based on an independent survey of U.S. companies employing at least 500 people in their operation.
- Con Edison was included on **US Veterans Magazine's** Best of the Best – Top Veteran Friendly Company list.

## Supply Chain

- The New York/New Jersey chapter of the **Minority Supplier Development Council** named Con Edison its Corporation of the Year in recognition of our supplier diversity program.

## Customer Experience

- Our company won two **PA Consulting Group** ReliabilityOne awards—the 2019 Outstanding Customer Reliability Experience Award, as well as the organization's award for Outstanding Reliability in the Northeast Region.
- Con Edison was honored again in 2019 as an Energy Star Partner of the Year by the **Environmental Protection Agency** for our "outstanding support of Energy Star-certified products as it leverages the Energy Star certification platform to guide its customers to better energy usage decisions."
- Con Edison ranked among the top 33 of 140 largest gas and electric utilities in the country. According to the 2019 **Cogent Reports Utility Trusted Brand & Customer Engagement: Residential Study** Con Edison scored 747 of 1000.



# Employee Health & Safety

Con Edison's 2019 injury and illness rate of 1.26 exceeded our goal of 1.00, but was still one of our three lowest Occupational Safety and Health Administration injury rates after the company achieved its historically lowest rate in 2017. We had 165 recordable employee injuries last year, and experienced five high-hazard injuries. The company remains focused on achieving a zero-accident workplace, and remains committed to making safety not only a top priority, but a core principle embedded in our culture. Con Edison has reduced injuries by more than 64% since 2009. Orange & Rockland achieved its third best injury and illness rate of 1.46 in 2019, had no significant high-hazard injuries, and has seen a 69% reduction in injuries and illnesses since 2009.

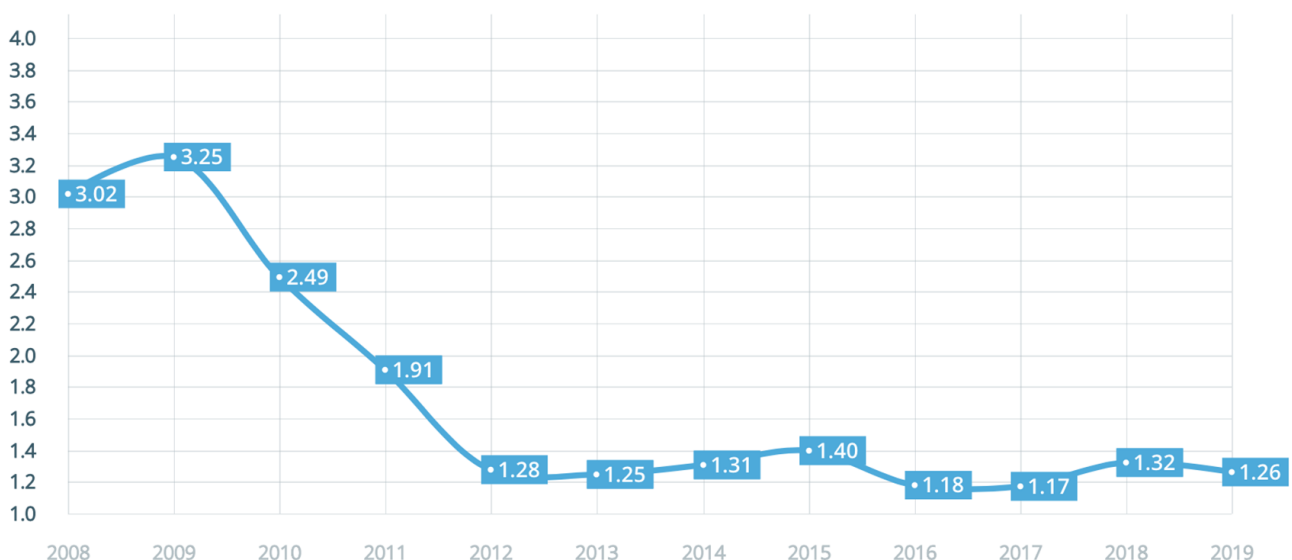
Key focus areas for sustained improvement include:

- Promoting a first-class safety culture by supporting everyone using their voice to participate in safety every day, every task and every job
- Focusing on high-hazard injury prevention by closing gaps prior to injuries through proactively identifying and addressing unseen hazards
- Using and developing tools by leveraging data and thorough job briefings to drive us to a zero hard workplace



## Con Edison of New York

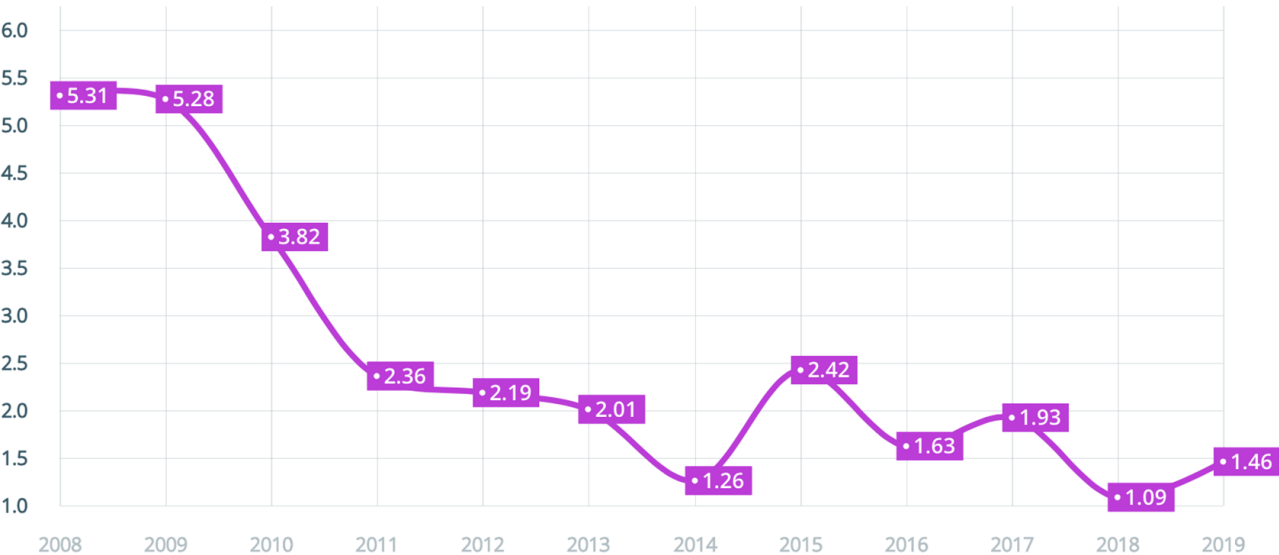
### OSHA Rate



Orange & Rockland continues its progress toward a zero-harm workplace thanks to the joint union-management Corporate Safety Committee, Company Safety Team, and 12 organization-specific safety teams. O&R is seeking to achieve an injury and illness incidence rate in the first quartile comparable to our utility peers. To improve our motor vehicle and driver performance, we have begun using in-vehicle monitoring systems with real-time feedback in many of our vehicles. This helps our drivers remain focused on zero-harm. Our communications program incorporates lessons learned from these systems, root cause analysis results (from injury and collision reviews), close-call reporting, and other measures that have also contributed to our overall performance.

## Orange and Rockland

OSHA Rate



# Public Safety

We invested more than \$3 billion in 2019 to fortify our electric, gas, and steam infrastructure. This investment underscores our commitment to providing energy to millions of customers efficiently and responsibly while protecting the environment and keeping people safe throughout our service area.

## ELECTRIC

Con Edison continues to develop tools, techniques, and management strategies to improve safety, troubleshoot problems, and increase efficiency. Distribution Engineering and Electric Operations teams developed thermal imaging for scanning secondary assets in high-activity areas for incipient faults and introduced latched vented manhole covers. These efforts complement previously existing programs including stray voltage detection, cover venting, and underground inspection.

Con Edison's underground networks are surveyed for contact voltage 12 times a year, using mobile detectors. In 2019, we found and eliminated 7,987 cases of contact voltage. Of those, 2,661 cases (33%) were on non-Con Edison equipment (streetlights, electric signs, and other structures). We performed more than 16,185 inspections of our underground system (manholes, service boxes, and transformer vaults).

O&R's electric system testing is completed at least once every five years. In 2019, O&R found and eliminated eight cases of contact voltage, seven on company-owned and one on non-company owned equipment, and performed 36,490 inspections and 36,711 tests.



## GAS

As part of our ongoing effort to reduce our carbon footprint and sharpen our focus on natural gas safety, we worked with the New York State Public Service Commission, New York City, and the Environmental Defense Fund to develop a program to identify and reduce emissions from small volume, non-hazardous leaks of methane gas. This effort is not mandated by regulations.

Historically, these non-hazardous leaks were prioritized and scheduled for repair based on the availability of resources and other factors such as age of the leak and complexity of the repair. In 2017 and 2018, we focused on reducing the number of non-hazardous leaks on the list by successfully prioritizing and eliminating 140 out of the top 150 gas leaks. We continued to experience historically low levels of total leaks through 2019 and reduce the time it takes to repair all leaks to historically low levels.

We have significantly increased investments that modernize our gas delivery system, further enhancing public safety and reducing leaks. The investments include accelerating our cast iron and unprotected steel gas main replacement program. In 2019, we placed 97 miles of such mains (the most we've ever replaced in one year). We continue to perform monthly gas leak patrols of our entire gas distribution system. Additionally, we have improved our emergency response procedures by working with the Fire Department of New York as well as coordinating with key city agencies. We are also continuing to work closely with the New York City Department of Buildings to establish requirements and protocols related to gas pipe inspections in buildings and the mandated use of residential methane detectors. In 2019 we completed a pilot program to install 9,000 natural gas detectors in buildings. The detectors send a signal to our emergency response center when a leak is detected. We will begin full deployment of these detectors starting in 2020.

Con Edison has a comprehensive, multichannel, and multilingual campaign to educate customers and the public at large—an estimated 10 million people across New York City and Westchester County—about gas safety and the urgency of reporting gas leaks. We reach customers primarily through direct mailings, youth outreach efforts, advertising, digital initiatives (such as email campaigns, conEd.com and social media), and community events.

We also continued our successful media campaign, Smell Gas, Act Fast, featuring videos and social media posts that inform customers on what to do if they smell gas. The videos are in English, Spanish, Chinese, and Korean.

### **Orange & Rockland**

We have continued our focus on enhancing public safety by modernizing our gas delivery system. Investments to replace leak-prone pipe, primarily unprotected steel and Aldyl gas mains, have resulted in fewer incoming, outside leaks. In 2019, we replaced more than 24 miles of gas main.

We quickly respond to gas odor and carbon monoxide calls, and in 2019 we achieved a historical best response rate—responding to more than 92% of calls in 30 minutes.

By providing education to and oversight of those performing excavation work near our gas system, we experienced less damage than ever to our gas system. We continue to perform gas leak patrols of our distribution system, and have kept the number of open leaks low throughout the year.

As a result of a change in regulation, we are performing internal corrosion inspections and offered residential methane detectors free of charge to interested customers. Also last year, we launched a pilot program to install natural gas detectors that send a signal through the smart meter communication network to our gas emergency response center when a leak is detected.

O&R has a comprehensive campaign to educate customers and the public at large about gas safety and the urgency of reporting gas leaks. We reach customers primarily through direct mailings, advertising, digital initiatives, and community events.

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## **STEAM**

We provide steam service to some 3 million people in Manhattan through an underground network of pipes. By generating steam primarily through co-generation, we provide efficient production and reduce emissions that would otherwise be generated by localized boilers and equipment. We focus on identifying ways to lower costs to customers, maintain high reliability, improve resiliency, and protect the environment.

Throughout 2019, a dedicated Con Edison team worked with various third-party investigators and experts to determine the factors which led to the Flatiron steam main rupture that occurred on July 19, 2018. The team analyzed numerous scenarios and was able to identify the root cause of the event. Based on this determination and associated contributing factors, Con Edison has developed its incident action plan, which includes the following items:

- [A full assessment of the steam distribution system accompanied by a risk scoring model and internal inspection program](#)
- [Pilot projects to investigate enhanced sensing equipment to identify anomalies](#)
- [Enhancement of the remote monitoring system and its components](#)

The action plan items listed above will each independently improve the reliability, resiliency, and overall safety of the steam system.

In 2019, Steam Distribution replaced 17 steel anchors with state-of-the art Inconel-625 anchors. Additionally, using capital funding, we have rebuilt 13 manhole structures, and replaced nine main valves. We installed 473 universal-type trap combinations with thermocouples, which allows for monitoring of uncontrolled steam releases from manholes. A program has been in place to replace all internally pressurized expansion joints in the system. In 2019, we removed and replaced the last two expansion joints that were left on the system for a total of 1,600 since the start of the program.

Throughout 2019, we strived for safe and efficient operations while meeting our customers' needs and maintaining focus on continued bill reductions. We concluded the year with an overall system reliability rate of 100% and met a peak demand of 8.4 million pounds of steam on January 31, 2019.

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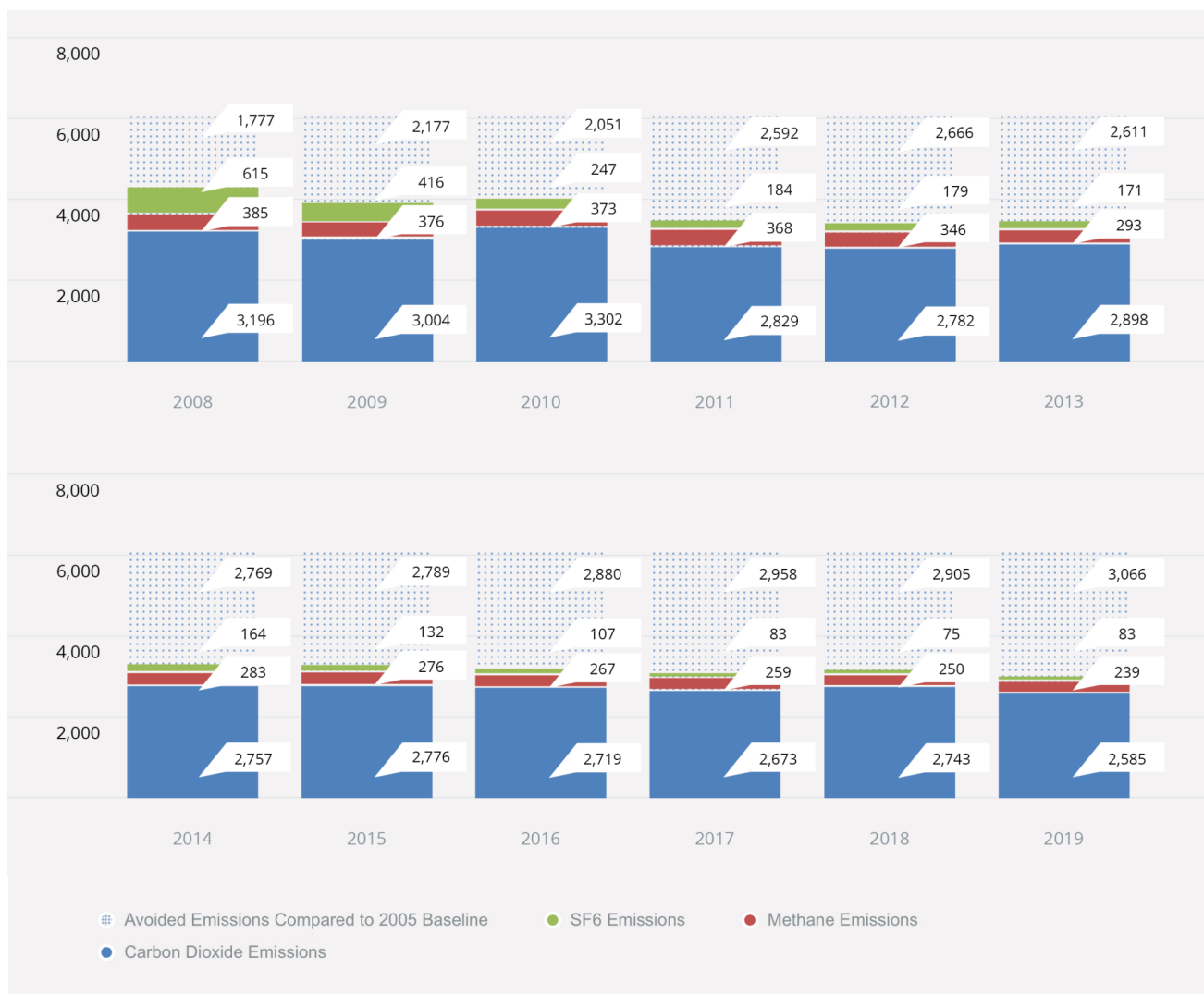
# GHG Emissions Reductions

We are committed to reducing our carbon footprint and firmly support efforts by local, state, and federal agencies to reduce greenhouse gas emissions. We have reduced our carbon emissions by 51% since 2005. Sixty percent of Con Edison's annual steam production comes from co-generation, which lowers emissions by one million tons of carbon dioxide, CO<sub>2</sub>, per year. We continue to report voluntarily to the U.S. Environmental Protection Agency on our efforts to lower emissions of sulfur hexafluoride, SF<sub>6</sub>, from our electrical equipment, and we worked with Electric Power Research Institute to develop a new SF<sub>6</sub> leak sealing technique. We are a founding partner in the EPA's Natural Gas STAR Methane Challenge Program with the aim of reducing methane emissions. We work with experts and seek out new methane leak detection technology to enhance the efforts of our leak survey crews. As part of our ongoing efforts, we continue to accelerate the replacement of leak prone pipe and respond to the vital warning signals provided by our residential methane detectors.

We are installing smart meters in our service area, providing the ability to optimize energy usage and improve efficiency which helps lower carbon emissions.

## Con Edison, Inc. Direct GHG Emissions - Scope 1

(thousand metric tons CO<sub>2</sub>e)



Scope 1: Direct greenhouse gas emissions from CEI-owned or controlled sources (e.g., steam generating stations)

- 33.4 million metric tons of CO<sub>2</sub> equivalent total emission avoided since 2005
- We have reduced our carbon footprint by 51 percent since 2005 – the equivalent of taking 500,000 vehicles off the road
- Note: Emissions from electric generation at the Con Edison Development electric generating plants, which were sold in 2008, have been removed from the above data set.

INDIRECT EMISSIONS	Indirect emissions - Scope 2 (million metric tons CO <sub>2</sub> e)	Other indirect emissions or Scope 3 total (million metric tons CO <sub>2</sub> e)
2019	1.16	32.5
2018	1.24	35.0
2017	1.35	33.9
2016	1.32	41.1
2015	1.32	41.8
2014	1.09	40.9
2013	1.19	N/A
2012	1.11	N/A
2011	1.51	N/A
2010	1.37	N/A
2009	1.42	N/A

Scope 2: Indirect greenhouse gas emissions associated with delivering products to customers (e.g., electrical transmission losses)

Scope 3: Indirect greenhouse gas emissions associated with customers using CEI products (e.g., customers' use of delivered gas)

## STEAM ENVIRONMENTAL EFFORTS

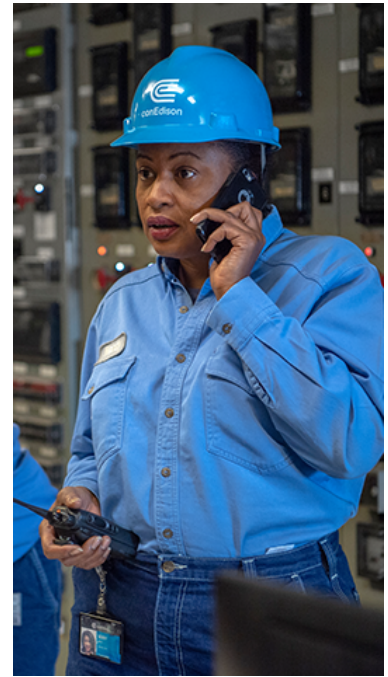
We strive to provide customers with FDA-quality steam, of which 60% is co-generated. Because the steam is co-generated, customers can apply for points toward their Leadership in Energy and Environmental Design certification and increase their score in Energy Star's portfolio manager. Our co-generated steam reduces carbon emissions by approximately 25% of what would have been otherwise emitted through traditional boilers—that's equal to removing approximately 200,000 vehicles from the road every year.

Our customers also benefit from the advantages of steam being a centralized district heating system which reduces onsite emissions. These centralized investments benefit all customer buildings. The ability of the district system to aggregate a wide variety of customer load profiles also allows for a higher average efficiency than what can be achieved at a single location. All these benefits are reflected in the most recent NYC Local Law 97, where our district steam was identified as the lowest greenhouse gas emitting energy source per unit of energy delivered.

In alignment with the city's and state's commitments to significantly reduce greenhouse gases by 2050, we are evaluating all opportunities that could help lower our environmental footprint. We acknowledge that business as usual is not and cannot be the way of the future to achieve these goals, which is why we are taking a more forward-thinking approach, conducting research and evaluating opportunities for more efficient generation while leveraging existing and emerging technologies.

To continue operations and supporting our customers in a changing environment, Steam Operations has been proactive in several efforts, such as benchmarking with other district systems in cities that are leveraging their district energy networks to achieve their carbon reduction goals. Steam Operations has also established an initial list of carbon-reduction technologies to evaluate and determine the feasibility of implementation with the existing steam system. These technologies include: alternative fuel sources, electrification via electric boilers, expanding and/or converting to hot water systems, wasted heat recovery sources, and other emission reduction technologies.

Steam Operations has also been an active member in discussions and studies as regulations and city and state plans evolve.



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## ENERGY EFFICIENCY CUSTOMERS' EMISSIONS

Please refer to the Energy Efficiency section under [Customer & Community](#). ([/customer-and-community/distributed-energy-resources/](#))

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## REDUCTION OF SF<sub>6</sub> EMISSIONS

In accordance with a 1999 memorandum of understanding between the U.S. Environmental Protection Agency and Con Edison, we agreed to reduce our emissions of SF<sub>6</sub> gas (sulfur hexafluoride) by 5% annually from our 1996 baseline. In 2019, we released about 97% less SF<sub>6</sub> than in 1996, well ahead of our commitment to the EPA. SF<sub>6</sub> is a nontoxic, nonflammable greenhouse gas, with a warming potential more than 22,000 times higher than carbon dioxide, that can remain in the atmosphere for up to 3,200 years. There is no viable alternative to SF<sub>6</sub>, which is a highly efficient insulating medium and arc extinguisher used throughout the energy industry in different types of equipment, including high-voltage breakers and gas-insulated switchgear. Limiting emissions will contribute to a cleaner environment and help to reduce global warming.

Con Edison highly values environmental excellence. While we have greatly reduced our emissions in the past decade, we are striving to continue to reduce our emissions even lower. Our goal for the next five years, starting in 2020, is to reduce our emissions by 500 pounds each year. This is a rate of more than 5% annually from the current levels.

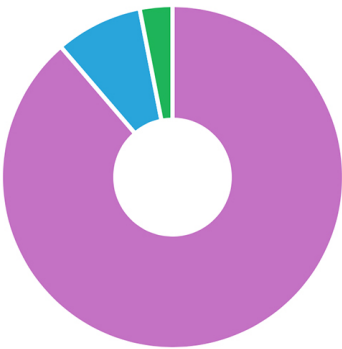
To reduce SF<sub>6</sub> emissions we use varying programs and a dedicated team to address leaking equipment in a timely matter. We have several targeted programs to replace or retire SF<sub>6</sub> equipment, including circuit breakers, automatic ground switches and gas-insulated switchgear. Also, the dedicated team constantly monitors the emissions of all equipment daily using a tracking software program to enable quick and efficient repairs of trouble equipment. The team then uses best management practices, including innovative new leak sealing techniques to make the necessary repairs, as well as handling the gas properly with minimal emissions.

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Con Edison, Inc. GreenHouse Gas Emissions (Pie Chart)

(million metric tons CO<sub>2</sub>e)

CO <sub>2</sub>	2.59
CH <sub>4</sub>	0.24
SF <sub>6</sub>	0.09





# METHANE CHALLENGE

In 2016, Con Edison joined 40 other local distribution companies as a founding partner in the EPA's Natural Gas STAR Methane Challenge program. The goal of this program is to reduce methane emissions by replacing a significant number of natural gas mains. Our participation in this program was a natural extension of our participation in the Natural Gas STAR program, which we helped found in 1993.

The Natural Gas STAR Methane Challenge program is an EPA/partner company collaboration that promotes and tracks ambitious, transparent commitments to voluntarily reduce methane emissions beyond regulatory requirements.

Our goal is to replace 4% of our cast iron and unprotected steel mains (without cathodic protection) each year. Since entering this partnership, we have exceeded that replacement goal by more than six miles the first year, replacing 86.3 miles of main in 2017, which represented 4.3% of our total mains inventory. We also exceeded our 2018 goal of 85 miles by replacing 92 miles of mains, which represents 4.7% of the new total. And in 2019 we continued to exceed our goal by replacing 97 miles of cast iron and unprotected steel mains. (Specific details on how we would reach our goals were in our implementation plan, submitted to the EPA in 2016.) As a comparison of how we've successfully increased main replacement, between 2014 and 2016 we replaced an average of more than 70 miles of main annually.

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# Air Quality/Non-GHG Emissions

We predominantly use natural gas for energy production. However, to maintain reliability during periods of gas-system limitations, we retain a backup fuel source. During the past two years, less polluting No. 4 oil has replaced the heavier No. 6 oil as the backup fuel in all of our steam and electric generating stations. In the next few years, our generating facilities will be further transitioning to No. 2 oil, which is lighter and has a lower concentration of criteria pollutants than No. 4 oil, and aligns with New York City's goal of reducing local air pollution and GHG emissions.

## DIRECT EMISSIONS

(thousand metric tons )

	NO <sub>x</sub>	SO <sub>2</sub>
2019	1.23	0.09
2018	1.37	0.20
2017	1.16	0.11
2016	1.24	0.13
2015	1.49	0.32
2014	1.65	0.33
2013	1.90	0.54
2012	1.79	0.56
2011	2.17	0.93
2010	2.47	1.28
2009	2.49	1.53
2008	2.31	1.41
2007	2.79	1.92
2006	2.27	1.73
2005	3.33	2.63

# Waste Management

Hazardous wastes are captured and shipped by Con Edison and O&R each year to licensed commercial waste-handling facilities. Periodic surveys of sampling results of wastes that come from cleaning our underground electric facilities, including manholes and transformer vaults, indicate that a very small and declining percentage of wastes from these structures contain actionable levels of lead. We conservatively presume much of this waste to contain lead due to infiltration from surface water from city streets and the time lag in obtaining testing results that would confirm the presence or absence of lead. The costs of cleaning these facilities and the amount of hazardous waste generated have been reduced substantially since 1998—the year we launched a waste program managed by our employees that renders lead virtually inert and therefore no longer hazardous. In 2019, Con Edison removed approximately 7,500 tons of hazardous waste in connection with the removal of four retired fuel oil tanks.

O&R's recycling program continues a long-established partnership with Rockland ARC, a local organization that provides support for the mentally disabled. Since 1991, O&R recycling has saved more than 1 million cubic feet in landfill space.

Con Edison and O&R recycle or auction for sale tons of nonhazardous waste, including retired fleet vehicles, forklifts, tool carts, old cables, streetlights, reflectors, meters, and paper products.

## Con Edison of New York Waste

(tons)

	2014	2015	2016	2017	2018	2019
<b>Hazardous waste generated</b>	17,547	11,371	12,070	10,600	10,360	17,381
<b>Remediation waste</b>	545	31	18	7,195	11,939	111

# Habitat & Biodiversity

We continue to work closely with our stakeholders to promote biodiversity, protect environmentally sensitive areas, and to comply with local, state, and federal environmental regulations.

To identify and mitigate environmental impacts, Con Edison's Environment, Health, & Safety department collaborates across our engineering and planning groups to conduct a comprehensive environmental review for projects. Whether it is a large-scale construction project or a small-scale service installation, environmental impacts are reviewed during project planning so that proper controls are incorporated into the project design. We continue to solicit input from the impacted community and government stakeholders early in the design process to further mitigate any concerns.

Our main goal is to minimize our work footprint and restore any disturbed areas to preconstruction conditions, regardless of project size. Each year, we build upon our collaborative and communicative efforts with the New York City Department of Parks and Recreation, and we continue to refine our practices for work in and around city-owned trees and public parks. We understand how vital these resources are to the health and well-being of all New Yorkers and the important role they play in contributing to clean air and water, reductions in energy costs, increases in property values, and beautification of four streets and parks.

Con Edison has continued to build upon our relationship with the New York City Landmarks Preservation Commission by codifying best management practices and permitting guidelines for projects within designated historic districts and individual landmarks, in addition to archaeologically significant locations. We added a construction guidance document to protect NYC Department of Environmental Protection's newly installed "green infrastructure assets," such as bioswales, rain gardens, and porous pavement that are being constructed along the Department of Transportation rights-of-way in the outer boroughs.

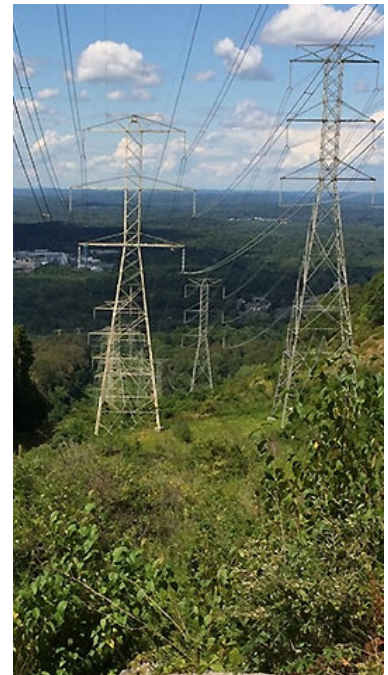
Outside of New York City, Con Edison continues to maintain compliance with our New York State Public Service Commission-approved Overhead Transmission Vegetation Management Program, which encompasses more than 2,000 acres. Our cumulative efforts have encouraged biological diversity by protecting native plants, selectively pruning or cutting undesirable species, and increasing public awareness for threatened and endangered species through community partnerships. As a founding member of Electric Power Research Institute's Power-in-Pollinator Initiative, our vegetation management program currently supports the protection of the monarch butterfly, which are at risk of becoming listed as threatened under the Endangered Species Act.

Additionally, our Clean Energy Businesses collaborate with our stakeholders to incorporate responsible environmental stewardship that promotes biodiversity, protects environmentally sensitive areas, and compliance with local, state, and federal environmental regulations.

In the solar sector we have multiple projects, such as Panoche Valley Solar, Wistaria, Lost Hills, and Copper Mountain, where we are monitoring listed and protected species and have implemented extensive mitigation and conservation measures for the various species and habitats. We also support third-party research on and around sites in order to better understand habitat behaviors.

In the wind sector, we have teamed up with regional wind energy producers and the American Wind Energy Association to mitigate potential impacts to the California condor by supporting extensive species recovery efforts with the U.S. Fish and Wildlife Service and third-party organizations such as the San Diego Zoo and Peregrine Foundation. Additionally, we monitor whooping crane migration zones and seasonal flights that allow our operations to adjust turbines as needed to prevent mortalities.

Ongoing operations and maintenance procedures utilize best land management practices to monitor and repair potential areas of storm-related erosion into nearby waterways.

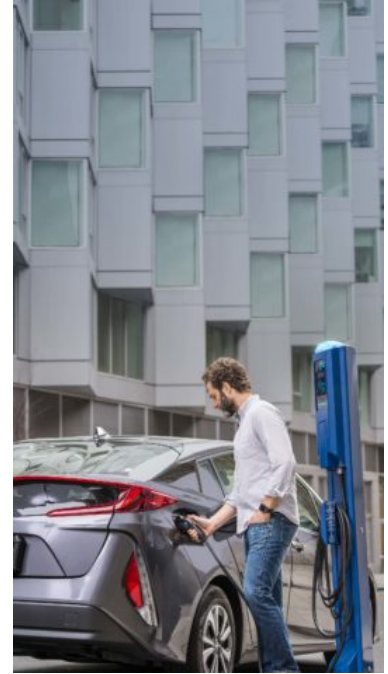


# Electric Vehicles

Recognizing that the transportation sector is a large source of carbon emissions, we are helping reduce the customer cost of operating electric vehicles and increasing public-charging options to support the growth of electric vehicles.

In 2019, the company accelerated our efforts to aid the growth of electric vehicle adoption by adding additional incentives and programs to our electric vehicle portfolio. Key additions include a DC fast charge incentive that helps station operators offset the demand charge costs and improve station economics. In our recent rate filing, we received approval for an expansion of the SmartCharge New York program, which rewards customers for charging their vehicles in the off-peak period, that represents a greater than 100% increase in funding. The company estimates the program delivered more than 1 megawatt in peak load reduction. We also developed a proposal to offset developer costs, which can be relatively high in an underground network environment. The programs are available for both publicly accessible fast charging and fleet fast charging infrastructure costs. We expect our electric vehicle infrastructure investments to continue to increase.

As of the end of 2019, Con Edison's fleet contained 107 plug-in vehicles comprised of 24 battery electric vehicles, 62 plug-in hybrid electric vehicles, and 23 ePTO/eAPU bucket trucks/step vans. To accommodate these plug-in fleet vehicles, we've installed 119 networked electric vehicle charging stations across 12 company locations (108 level 2 and 11 DC fast chargers). The fleet also contains more than 128 conventional hybrids, 243 vehicles operating on compressed natural gas, and more than 1,700 vehicles running on biodiesel blends.

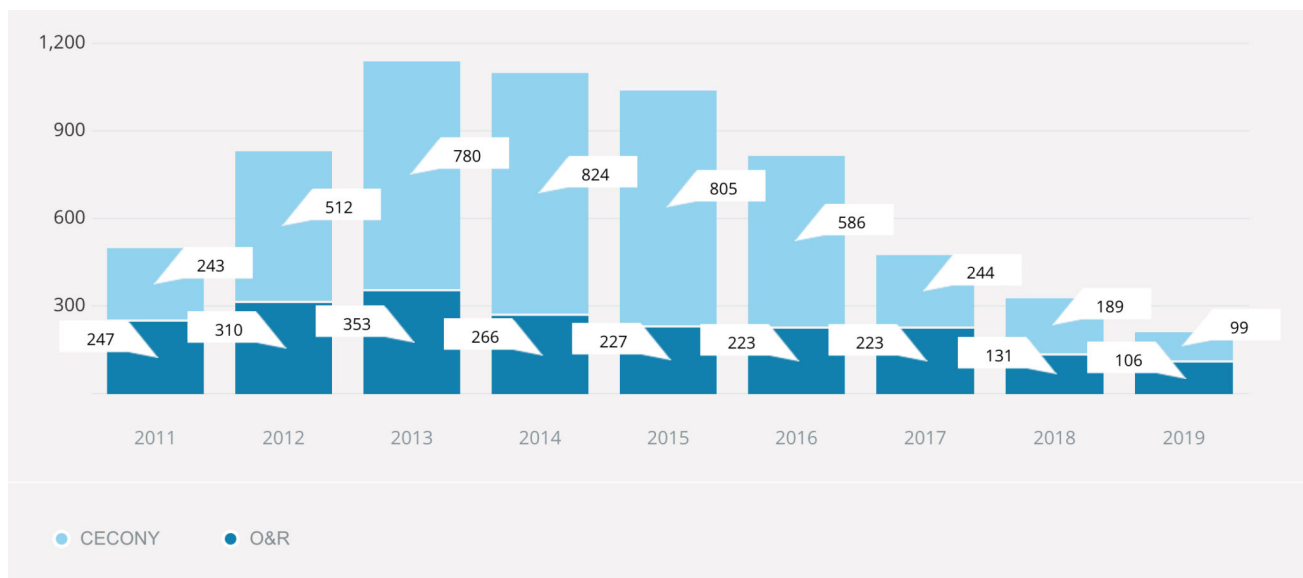


# Oil-to-Gas Conversions

In 2019 Con Edison converted 99 buildings from heavy heating oil to gas. Since the start of our conversion program in 2011, we have converted more than 4,500 large buildings burning heavy heating oil; we also converted more than 3,500 customers from No. 2 grade oil. The company's program has kept more than 570 tons of fine particulate matter from the air, which is a significant impact on air quality within the New York City portion of our service territory. New York City has the cleanest air in five decades, largely as a result of these building conversions.

While adhering to best practices to achieve operational excellence, the Gas Marketing and New Business teams at O&R added 1,003 new customers in 2019. These additions included 106 conversions from oil/propane to cleaner natural gas. The conversions were spurred by a robust gas conversion rebate program, targeted marketing efforts, and the introduction of the Contractor Connect program that helps connect customers to qualified HVAC contractors to assist with completing their gas conversion projects. In addition to these efforts, southeastern Orange County is experiencing significant community growth which is expected to continue; this will contribute to the substantial use of natural gas in this market over the next five years.

## Con Edison, Inc. Utility Customer Conversions to Gas





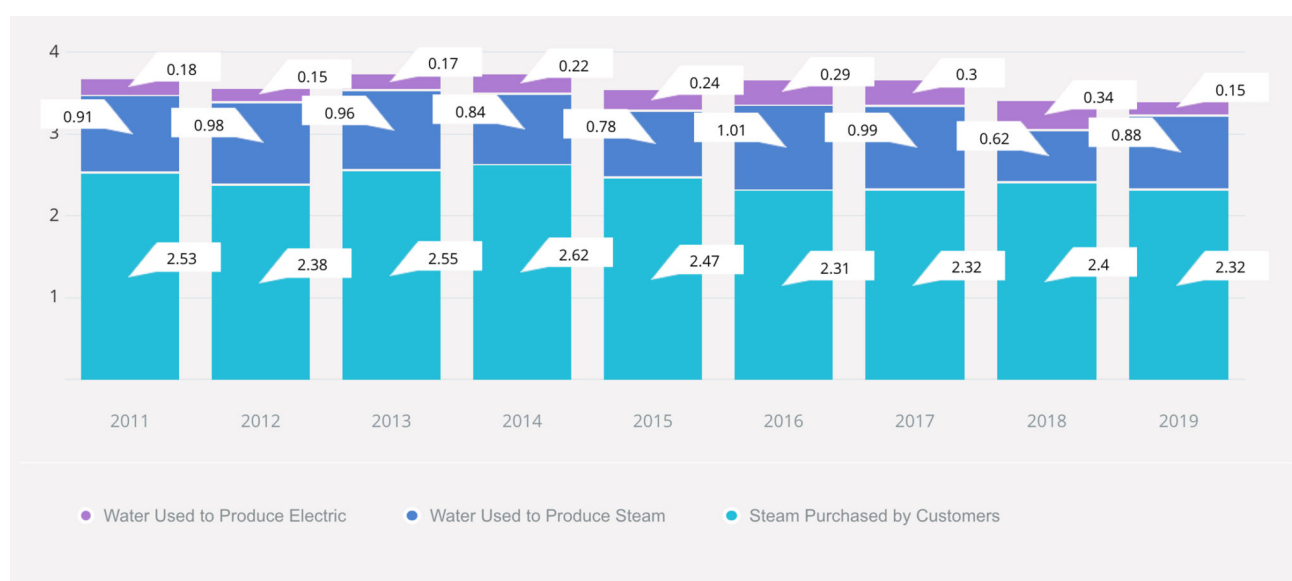
# Water

We recognize the importance of preserving natural resources. As one of the New York City Department of Environmental Protection's largest water customers, we are obligated to our customers and the environment to minimize the amount of water we use to produce steam for our system. The company's overall water footprint is largely converted into steam, which is an integral source of clean, efficient energy distributed to our customers for a variety of uses such as heat, hot water, air conditioning, sterilization, and food processing.

We are continually focused on efficiency improvement initiatives to minimize our water footprint throughout the steam system.

## Con Edison Steam Operations - DEP Municipal Water Use

(billion gallons)



On average, more than 65% of Steam Operations' water footprint is distributed to customers as steam energy purchased for their needs.

This chart displays steam operations data only. Con Edison facility adds approximately 0.11 billion gallons in 2019, or 3% of water use.

# ISO Certification

The Con Edison Environmental Management System (EMS) is certified to the International Organization for Standardization (ISO) 14001:2015 standard. The purpose of the ISO 14001:2015 standard is to provide a framework and systematic approach to environmental management. ISO 14001:2015 requires a commitment from all levels of the Con Edison organization, led by the top management, to environmental protection through pollution prevention and continuous improvement. ISO 14001 certification gives Con Edison and our stakeholders a means of verification that the EMS is operating at a world-class standard.

Con Edison through implementation of an ISO 14001 certified EMS is committed to:

- Improving safety and environmental performance
- Strengthening regulatory compliance
- Enhancing relationships with our stakeholders
- Identifying and reducing significant EH&S risk potential
- Promoting wise and effective use of natural resources

We have, over 17 consecutive years, maintained our ISO 14001 certification through a rigorous third-party certification process. In 2017, our certification was upgraded from ISO 14001:2004 to the new ISO 14001:2015 standard by a two-week audit conducted by Intertek Testing Services NA, a third-party auditor.

Our chemical laboratory operations are third party certified to the ISO/IEC 17025:2005, general requirements for the competence of testing and calibration laboratories standard.



# Physical/Cyber Security & Data Privacy

New technology brings new challenges, and cybersecurity has been identified as a key enterprise risk for the company. Our information security group works with local, state, and federal agencies, as well as our peers in the energy business, to identify and employ the latest technological tools to protect our customers and our equipment. We collaborate with these partners to share threat information and best practices, and conduct large-scale joint cybersecurity drills to help protect the electric industry against cyber attacks.

Internally, as disclosed in our Proxy Statement, Con Edison has cybersecurity key performance indicators that are tied to executive compensation. An annual presentation on cybersecurity risks continues to be provided to the Board of Directors and the Audit Committee of the Board has commenced reviewing more in-depth cybersecurity matters on a semi-annual basis. In addition, the Board of Directors receives regular updates as to cybersecurity risks from management.

With the threat of cybercrime constantly becoming more acute, we continue to strengthen our data-protection efforts. They include 24/7 monitoring, vulnerability assessments, employee education, regular drills, and phishing tests. We consistently earn passing grades on audits that assess our cybersecurity and data-protection standards, and we are in compliance with reporting requirements from the Federal Energy Regulatory Commission and North American Electric Reliability Corporation. As for grid resiliency, there have been no material violations or fines due to non-compliance with physical and/or cybersecurity standards or regulations.

To hear more about our cybersecurity program and other topics, visit <https://soundcloud.com/con-edison> (<https://soundcloud.com/con-edison>)

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# Ethical Business Practices

Our strong business ethics are founded on our corporate values and help us achieve our three priorities—safety, operational excellence, and customer service. We are committed to conducting business using the highest ethical standards. How we do business, how we treat our customers and business partners, and how we treat one another all contribute to how we are perceived in the marketplace and, ultimately, to our long-term viability. Our Values in Action Advisor network of 110 employees and our Business Ethics Council with 15 members assist the organization in maintaining a culture of integrity in their departments.

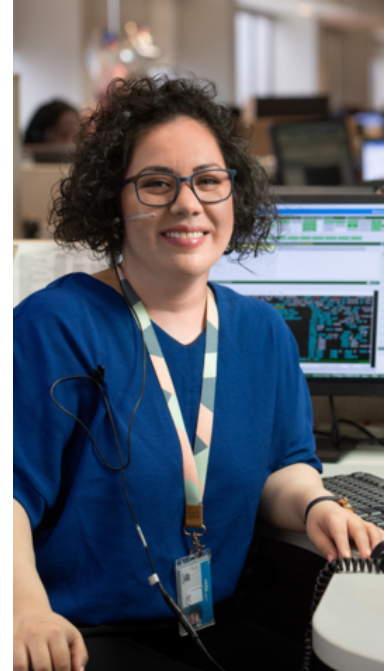
In 2019, Business Ethics & Compliance raised awareness of ethics-related resources by engaging with employees at ethics awareness and fraud prevention events hosted with other departments at numerous facilities across the New York area. Employees participated in the events to test their knowledge answering ethics-related questions and speaking with representatives for guidance relating to ethics, fraud, cyber security, and the importance of records management, including protecting personally identifiable information.

Standards of Business Conduct training for 2019 featured an interactive game format, and employees visited virtual office locations around the country to identify ethics-related issues.

Avoiding conflicts of interest, or the appearance of one, is essential to acting with integrity. In 2019, we surveyed all employees about potential conflicts of interest. After reviewing the disclosures, Business Ethics & Compliance worked with employees to create plans to reduce the risks from self-disclosed potential conflicts.

As part of our effort to continually improve the tools and resources we provide to support an ethical culture, we rolled out a next-generation digital version of our Standards of Business Conduct. Interactive content featured animated graphics, entertaining videos starring company employees, and an easy-to-search format with links to important resources on the employee intranet, Conor.

The compliance management team engaged with company departments to confirm the data integrity of applicable laws, rules, and regulations within the technology platform that houses the data. The technology platform is designed to capture compliance obligations and company controls to address the populated legal requirements. Also, the compliance management team created a framework for us to identify areas for improvement in our operations by using structured process review. The team collected data on the results of the reviews and analyzed them for trends and commonalities sharing them with the organization to support business decisions. The reviews led to process improvements in various organizations that improved safety and employee wellness, realizing cost savings and other benefits.



# Climate Resilience

Con Edison completed our Climate Change Vulnerability Study on schedule in December 2019. We leveraged the latest available climate science data to identify vulnerabilities from climate change impacts on our present-day infrastructure, design specifications, and procedures. As a result, we better understand our options to address potential future impacts on our energy delivery systems. The company's electric, gas and steam systems are all potentially subject to increased flooding from coastal storms, while the electric system may also be challenged during increasing periods of sustained heat and wind.

The 36-month study, authorized by the New York State Public Service Commission as part of a collaborative created after Superstorm Sandy, describes historical and projected climate changes across Con Edison's service area in New York City and Westchester County. While climate change's exact pace, effects and impacts are uncertain, the study provides a strong foundation upon which to plan, design, and invest in our energy delivery systems.

To account for climate uncertainty, the study considered a range of potential climate futures reflecting unabated carbon emissions (where global warming exceeds 4 degrees Celsius by the year 2100), reduced greenhouse gas concentrations (warming slightly exceeds 2 degrees Celsius) and extreme "stress test" scenarios.

The analysis identified the following most significant climate-driven risks to Con Edison's systems:

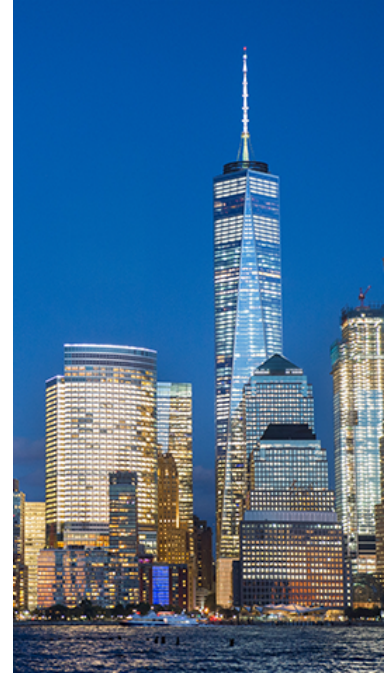
- Sea level rise
- Coastal storm surge
- Inland flooding from intense rainfall
- Hurricane-strength winds
- Extreme heat

While Con Edison already uses a range of measures to build resilience to weather events, the vulnerabilities the study identifies will guide the company's future strategy to strengthen its reliability and resilience against increasingly severe weather.

Con Edison typically invests approximately \$3 billion every year on our energy infrastructure and since Superstorm Sandy the company has invested an additional \$1.1 billion in resiliency and climate change protections. The report estimates the company may need to invest between \$1.8 billion and \$5.2 billion by 2050 on targeted programs to protect our electric systems against rising temperatures, humidity and sea level. Con Edison will further evaluate future adaptation strategies and associated costs through the development of 5-, 10- and 20-year plans.

As a next step from the study, Con Edison will develop a detailed Climate Change Implementation Plan by the end of 2020. The implementation plan will consider updates in climate science; finalize an initial climate design pathway; integrate that pathway into company specifications and processes based on input from subject matter experts; consider climate change influenced actions for near and long term reliability and resiliency measures; develop signposts to monitor climate science and the rate of climate change; and enable a viable governance model. Similar to this study, the company will continue to engage stakeholders in the development of the plan.

For more information please visit [conEd.com/resilience](https://www.coned.com/resilience) (<https://www.coned.com/resilience>).



## Core System Upgrades

The Advanced Meter Infrastructure project is the largest project in company history. Some 5.25 million smart meters—comprised of roughly 3.9 million smart electric meters and 1.35 million gas devices—are being deployed across our service territory and will result in significant environmental, operational, and customer benefits.

Smart meters put unprecedented control into the hands of our customers. With the company's updated website and digital customer experience, customers can see their energy usage in near real-time and make smarter, more informed decisions about managing their energy usage, controlling costs, and helping the environment.

Deployment of the communications network and smart meters began in 2017 and ends in 2022. More than 10,000 communications network devices have been installed throughout the company's entire service area. In 2017, meter installations began in Staten Island, Westchester, and Rockland County and mass deployment has been completed in these areas. Mass meter deployment continues in Brooklyn, Manhattan, the Bronx, Queens, and Orange and Sullivan counties.

To date, more than 3 million devices have been installed. The AMI Operations Control Center has been staffed 24/7 to monitor the communications network, as well as the meters and gas modules connected to the network.

The AMI project team has worked closely with Gas Operations and the AMI vendor to develop a first-of-its-kind, battery-powered natural gas detector that is integrated with the smart meter communications network. The natural gas detectors are safety devices that monitor the atmosphere where Con Edison's gas pipes enter our customers' homes and buildings. They provide an alert when natural gas levels in that area indicate a potential dangerous leak. Through the communications network, the detectors send a wireless alert to Con Edison if a potential gas leak has been detected, allowing Con Edison and the fire department to respond quickly. A pilot program to install 9,000 detectors began in October 2018 in parts of Westchester and this pilot extended into Manhattan in 2019. The pilot program has been completed and the company plans to begin a multi-year program to deploy the natural gas detectors across our service territory starting in the third quarter of 2020.

Smart meter data provides Con Edison with insight into outages and restoration, allowing us to see when a customer has power and to avoid sending a crew to a location where power has been restored. These avoided "truck rolls" reduce costs as well as assist in our overall environmental goals by reducing CO2 emissions. In 2019, nearly 5,400 unnecessary truck rolls were avoided.

AMI will let the company operate the system at optimal voltages—known as conservation voltage optimization—reducing total energy consumption, as well as associated power-generation emissions. Analysis shows that information from the AMI system can be leveraged to reduce energy usage across our service territory by approximately 1.5% on average, decreasing associated fuel use for committed generation resources. This results in an environmental impact of 1.9% less total CO2 emissions, due to reduction of power generated annually by fossil fuel plants across our service territory, and 1% total carbon reductions in New York state. Engineers and planners will get more granular data, enabling potential design and operational improvements. Con Edison began implementing voltage optimization in Staten Island at the end of 2018 and across Westchester and portions of Manhattan in 2019. Voltage optimization will continue to be implemented across our service territory through 2022.

Con Edison invested \$1.312 billion in our transmission and distribution systems in New York City and Westchester County to prepare for the summer 2020. The investment includes upgrades and reinforcements of 37 network transformers and 121 overhead transformers. We also plan to upgrade 67 underground feeder sections and 225 spans of overhead cable.

Con Edison projects that peak demand for electricity in the summer of 2020 will reach 13,220 megawatts. The record is 13,322 megawatts, which occurred at 5 p.m. on July 19, 2013. We are integrating new technology to make service more reliable. Con Edison has installed 4,800 devices in manholes to detect stray voltage, heat and carbon monoxide in underground structures, and communicate this information back to our engineers. Another 3,000 are planned for 2020. These devices have already detected instances of energized objects in those structures. By remotely monitoring these conditions, we were able to eliminate a condition that could have led to an event or a shock. Con Edison is also using tools that take infrared images of hot spots not visible to the human eye in cables and connections. The technology helps identify problems that would otherwise go undetected and leads to prompt repairs.

## ELECTRIC TRANSMISSION PIPE ENHANCEMENT



We are investing \$25 million in 2020 to upgrade our underground transmission system. Using the new refurbishment method of carbon fiber wrap application, we plan to totally encapsulate 2,492 linear feet (623 trench feet) of leak-prone transmission feeder pipe. This is in addition to addressing another 2,500 trench feet using the method of installing welded steel sleeves or barrels in corroded areas.

In 2019, we refurbished a total of 4,576 trench feet of piping and invested more than \$17 million in spill response and remediation to improve the environment. We expect to make significant progress in research and development to reduce the potential for future oil spills. We're also investing in research and development that can replace existing oil-filled feeders with solid dielectric cable.

The bulk of our underground transmission system consists of 660 miles of 69-, 138-, and 345-kilovolt feeders encased in steel pipe surrounded by high-pressure dielectric fluid (a nontoxic synthetic compound similar to mineral oil). The conductors inside our steel pipes are wrapped in paper insulation, filled with and pressurized by the dielectric fluid at a nominal pressure of 200 pounds per square inch. In some feeders the dielectric fluid is circulated and cooled to provide enhanced current-carrying capability. Approximately nine million gallons of dielectric fluid is contained within the feeders and the associated pressurization and cooling plants.

Our leak-detection methods are some of the most sophisticated in the world:

- We use real-time monitoring of some of the largest volume feeders to constantly check their integrity.
- We infuse our oil with a special tracer gas to help us rapidly locate and uncover leaks.
- If significant leaks occur, we often remove feeders from service, placing them on reduced pressure to slow the leak rate.

To repair leaks, we excavate to uncover the feeder pipes and apply a mechanical clamp to stop the flow. Permanent repairs are complete when a concentric steel barrel is welded over the clamp and the pipe. The pipe is then re-coated before the excavation is restored.



# RELIABILITY PERFORMANCE

Con Edison is a recognized leader in reliability performance, consistently earning industry awards. Our overall system reliability in 2019 was 99.995%.

**Con Edison's system reliability exceeds national and New York standards**

## Customer Interruption Rate 2019

Customer Interrupted per 1,000 Customer Served

National	1,000
New York (w/o Con Edison)	1,030
Con Edison (Overhead)	526
Con Edison (Overall)	152
Con Edison (Network)	22

National and New York State numbers from 2018

CECONY's electric system is comprised on an overhead system as well as the largest underground network in the U.S

The standards for measuring the reliability of distribution service are the System Average Interruption Frequency Index (SAIFI) and the Customer Average Interruption Duration Index (CAIDI). SAIFI is compiled annually, and the figure represents the number of service interruptions divided by the number of customers served. CAIDI, also compiled annually, represents the average time to restore service to interrupted customers. The CAIDI figure results from the total customer minutes of interruption divided by the total number of customers affected. For both figures, a low number indicates a better performance.

### 2019 NUMBERS FOR CECONY (electric)

SAIFI: 0.152  
CAIDI: 189.6 minutes

### 2019 NUMBERS FOR O&R (electric)

SAIFI: 1.094  
CAIDI: 104.2 minutes



# GAS MAIN REPLACEMENT



In 2019, Con Edison replaced 97 miles of cast iron and unprotected steel pipe. This replacement level exceeded our company's commitment to the New York State Public Service Commission by more than six miles and was the company's highest ever in a single year. It also met the 4% replacement rate that we targeted in accordance with the EPA's methane challenge.

Methane is the primary element in natural gas and a major greenhouse gas. Replacement of cast iron and unprotected steel pipe with polyethylene plastic pipe or protected steel pipe prevented an estimated 12.0 million cubic feet of annual natural gas leakage.

In 2019, O&R replaced 24 miles of leak-prone pipe. This replacement level exceeded our company's commitment to the New York State Public Service Commission by four miles.

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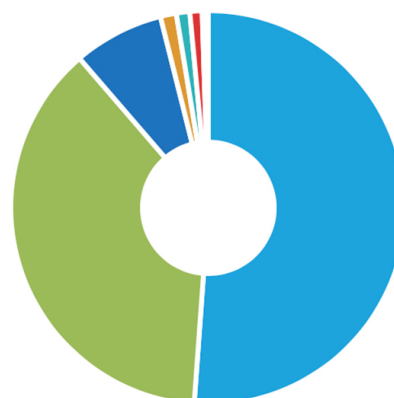
# Fuel Mix and Generating Capacity

Con Edison is committed to advancing a clean energy future. We do not own coal fired power plants and 76% of Company-owned generation capacity was sourced from solar and wind in 2019.

Additionally, Con Edison supports New York's ambitious goals to transition to a low-carbon, clean energy future, which include but are not limited to, 100% carbon-free power by 2040 and 70% renewable electricity by 2030. The fuel mix delivered through our energy systems is not controlled by the Company and is allocated by the New York Independent System Operator.

## CECONY Fuel Mix Allocated by NYISO

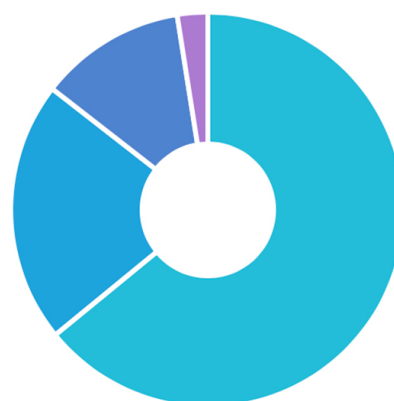
• Natural Gas	51.1%
• Nuclear	37.5%
• Hydro	7.4%
• Other	1.3%
• Oil	1.1%
• Wind	1%
• Coal	0.3%
• Solar	0.2%



## Con Edison Owned Generating Capacity

Total 3,463 MW

• Solar	64.1%
• Natural Gas	21.4%
• Wind	12%
• Petroleum	2.5%



# Supply Chain

In 2019 Supply Chain continued to leverage activities related to our procurement of goods and services to support our commitments to safety, operational excellence, environmental stewardship, social responsibility, and cost savings. Our Supply Chain efforts are having a positive impact within our company, our industry, and within the communities we serve.

Last year we created a new corporate social responsibility section within Supply Chain and expanded its role in developing sustainability initiatives.

We partnered with our Business Ethics & Compliance group to recruit vendors to establish formal ethics and compliance programs. This pilot program will be expanded in the future to reduce risks within our Supply Chain. In addition, all vendors who do business with Con Edison are required to abide by our vendor code of conduct, which outlines our standards for ethics, human rights, labor laws, environmental management, and supplier diversity. In order to promote safety, our construction vendors involved in excavation work are required to enroll in the Gold Shovel Safety Certification Program.

We also partnered with our Energy Efficiency department, Willdan Energy, and the non-profit organization Green City Force to create an initiative that will develop contract opportunities for minority-owned business enterprise subcontractors and jobs for New York City housing residents.

We collaborated with our facilities group to create a pilot program that repurposed used office furniture that was previously sent to landfills. The furniture was redirected to a woman-owned business that processed these materials to remanufacture office furniture that we bought back from them at a 40% savings. This pilot program has helped us to avoid waste disposal costs, divert more than 3,000 pounds of waste from landfills, save energy, and reduce CO2 emissions.

Our company's Supply Chain sustainability efforts extend beyond our own internal operations. As an active member of the Electric Utility Industry Sustainable Supply Chain Alliance, Con Edison has led initiatives to collaboratively develop sustainable supply chain best practices for peer utilities and vendors.

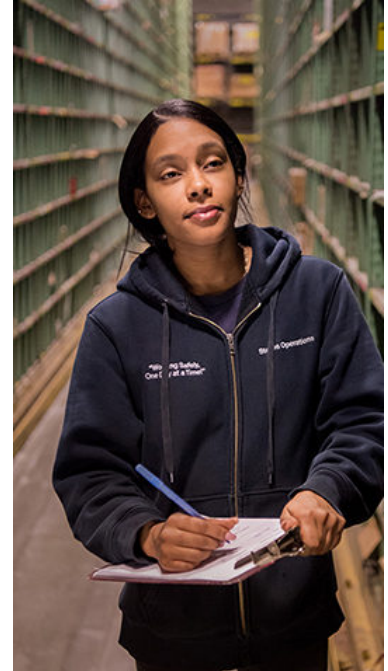
For example, we are working proactively with our industry partners and equipment manufacturers to develop alternatives for SF6 gas-filled equipment. SF6 gas, which is used to insulate electrical equipment, including high-voltage breakers and gas-insulated switchgear, is a greenhouse gas with warming potential more than 22,000 times higher than carbon dioxide.

Con Edison helped to lead an initiative within the alliance that will provide vendors access to an online tool that allows them to benchmark their sustainability practices among other vendors and develop plans to achieve cost savings and improve their environmental performance related to factors such as water use, waste production, energy use, and greenhouse gas emissions.

In 2019, Supply Chain issued 51 agreements worth more than \$70 million in support of our energy future. This included agreements for energy efficiency and demand management worth \$39 million; two agreements to support grid transformation worth \$23 million; two agreements for solar projects worth \$2.5 million; and three agreements for electric vehicle technology and fleet rightsizing worth \$2.6 million. In addition, we purchased more than \$5 million in environmentally friendly products (such as hybrid vehicles, low-carbon fuels, recycled paper, and carpet).

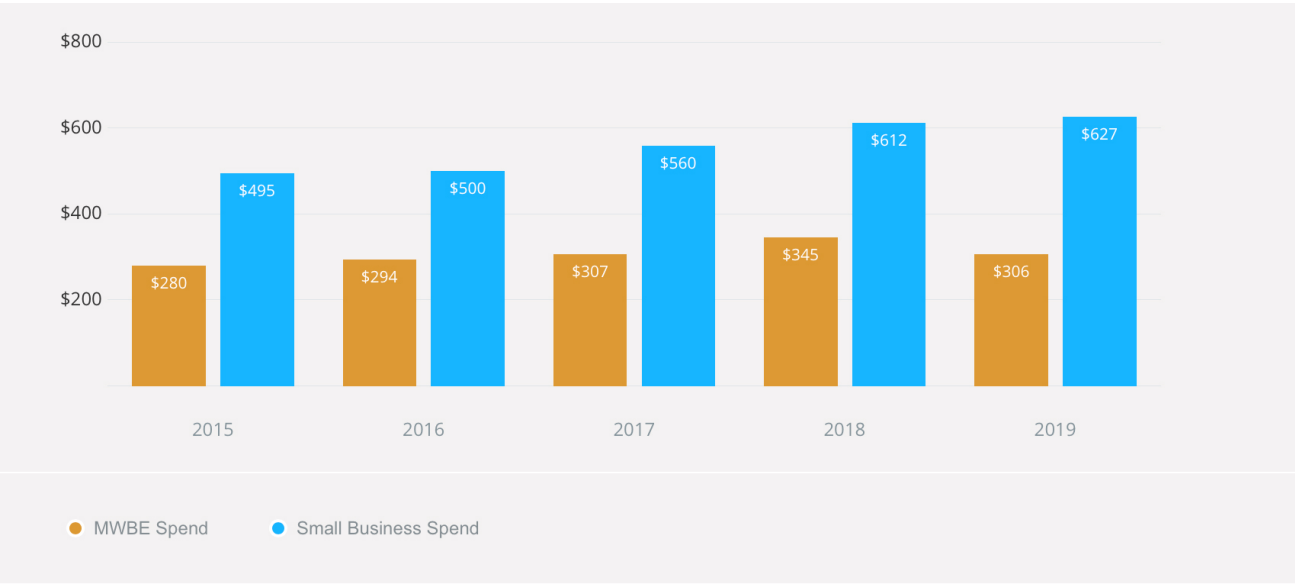
Our Supply Chain sustainability initiatives also help to spur job creation and economic growth within the communities we serve. In 2019, we purchased \$306 million from women-owned and minority-owned businesses. Our expenditures with small businesses exceeded \$627 million, which is the highest level of small business expenditures in the history of our program.

In recognition of the positive contributions made in the areas of supplier diversity and sustainability within the communities we serve and also the energy industry, our company won awards from the Electric Utility Sustainability Supply Chain Alliance, the Regional Alliance for Small Contractors, and the Tri-State Chapter of National Association of Minority Contractors.



# Supplier Diversity Expenditures

MWBE / Small Business Spend (\$millions)



# Governance

Experience has taught us that the combination of a solid financial foundation, operational excellence, the highest ethical standards, and the utmost regard for our employees and the people and communities we serve are the bedrock qualities of a successful company.

With that in mind, the company's board of directors establishes committees to oversee various aspects of the company's operations. Currently, the board of directors has six standing committees: (i) the audit committee, (ii) the corporate governance and nominating committee, (iii) the executive committee, (iv) the finance committee, (v) the management, development and compensation committee, and (vi) the safety, environment, operations and sustainability committee (SEOS committee), further information about each of which can be found here: <https://www.conedison.com/en/about-us/corporate-governance/board-of-directors> (<https://www.conedison.com/en/about-us/corporate-governance/board-of-directors>).

A standing committee of the company's board of directors, referred to as the planning and environmental committee, existed as early as 1973. In 1995, this committee became the company's environment, health and safety committee (EH&S committee), whose primary responsibility was to oversee the company's efforts relating to the protection of the environment, sustainability, and the health and safety of company employees and the public. At the end of 2018, the EH&S committee was dissolved and as of January 1, 2019, the company established a newly constituted SEOS committee. The primary responsibility of the SEOS committee is to oversee our efforts relating to corporate responsibility and sustainability, which includes operating in a safe, environmentally sensitive and socially responsible manner, guarding the health and safety of company employees and the public, supporting the development and success of company employees, delivering value to customers and fostering growth to meet the expectations of investors. The SEOS committee, which meets at least four times a year, reviews at each of its meetings certain key performance indicators relating to climate risk, including energy efficiency and environmentally beneficial electrification. The company's board of directors also receives presentations on climate-related issues such as the company's transition to a clean energy future, current renewable energy policy trends, and the impact of climate change on operations.

At the management level, the company's EH&S vice president, together with senior management, is responsible for developing strategic goals and programs to promote compliance and support the company's commitment and continued work to achieve EH&S goals and operational excellence. As detailed in our [Sustainability Strategy](#), ([report-introduction/sustainability-strategy/](#)) the company's environment, social, and governance committee works to strengthen sustainability across all aspects of the company.

Part of senior management's commitment to safety, the environment, operational excellence and sustainability includes independent oversight. The corporate ombudsman's office, reporting directly to the chairman, provides employees with an independent office to which they may confidentially report suspected violations of our Standards of Business Conduct, including ethical, legal, sustainability or EH&S concerns.

Our environment and safety review board consists of two outside attorneys who report directly to the chairman. The role of the environment and safety review board is to review the company's management of both regulatory and internal requirements and assess whether such implementation is consistent with the company's commitment to safety and environmental excellence.

Public policy decisions can have significant implications for our customers, the energy systems we manage, and the future direction of our company. That's why we participate in the political process, adhering to all the national, state, and local laws and regulations. Our engagement in the political process is grounded in and guided by our commitment to our Standards of Business Conduct.

For further details: <https://www.conedison.com/en/about-us/corporate-governance/political-engagement> (<https://www.conedison.com/en/about-us/corporate-governance/political-engagement>)



# Enterprise Risk Management

The enterprise risk management program was established to help protect the company's long-term value for its shareowners, customers, and the communities it serves. The risk management team works closely with senior management and employees across all four subsidiaries (Con Edison, Orange & Rockland, Con Edison Transmission, and the Clean Energy Businesses) to proactively identify emerging issues and trends, align risk exposure to organizational priorities, drive risk informed business decisions and resource allocation, and monitor and assess known risks using quantitative metrics, sometimes known as key risk indicators.

The cornerstone of Con Edison's enterprise risk management program is its governance practices, which are designed to focus on managing relevant and material risks to its strategy and operations and to recognize emerging issues and trends that may shape future risk exposure. The team is led by the director of Enterprise Risk Management. The director reports to the chief financial officer and works broadly with hundreds of employees across operating, shared service and corporate functions to manage the risk profile.

The team creates and facilitates a risk management process framework, which includes risk identification, assessment, mitigation, monitoring and reporting. The audit committee of the board oversees the risk management framework and meets with the director of risk management at least annually to discuss program initiatives and to provide strategic direction for the program.

The board of directors and its committees provide oversight of most material risks; these risks are managed by senior management and assessed, mitigated, monitored, and reported by employees. Public and employee safety, along with system reliability, the state of regulation within our service territories, and the viability of our business model, are some of the most important risks facing Con Edison. Some of these material risks are discussed here in Con Edison's [2019 Annual Report](https://investor.conedison.com/financial-information/annual-reports?c=61493&p=irol-reportsannual) (<https://investor.conedison.com/financial-information/annual-reports?c=61493&p=irol-reportsannual>).

To improve our ability to navigate an increasingly dynamic business landscape, in 2019, the risk management team enhanced its framework to include the identification and monitoring of emerging issues and trends. Review of emerging issues and trends stretches our lens of focus, identifying risks and opportunities that may develop in the next two to ten years. The following are a few of the issues and trends that are being monitored as they develop and evolve: climate change's impact to the company's operations (see the [Climate Resilience \(/operational-excellence/climate-resilience/\)](#) section for more detail including our Climate Change Vulnerability Study), a trend towards decarbonization of heating systems, the electrification of the transportation sector, and integration of distributed energy resources and renewable generation into the traditional electric grid.

# Stakeholder Engagement & Collaboration

Con Edison works closely with local communities to keep them informed, address their concerns, and convey our company's mission. We inform local community groups—including business improvement districts, chambers of commerce, and local development corporations—about major capital projects, new initiatives such as smart meters, energy efficiency programs, and how to do business with Con Edison. We coordinate with operating departments to respond to inquiries about topics like construction noise, service restoration, and outages. We maintain close working relationships with local stakeholders so Con Edison remains aware of changes and new developments in the communities we serve. These relationships are also critical to our coordination during emergencies and they help us collaborate on new initiatives.

## POLICY & REGULATORY IMPACT

Con Edison and O&R support New York State's clean energy policies and goals, including plans to reduce GHG emissions 85% from 1990 levels by 2050, provide customers with 70% of their energy from renewable resources by 2030, and increase energy efficiency.

We work in partnership with our customers, policy-makers, various third parties, and other energy companies to seek innovative ways to bring a clean energy future. This includes exploring new ways to advance clean energy technologies through adoption of distributed resources, including energy storage and solar connected to the distribution system. We are also developing a solar program for low-income customers and are advocating for the ability to own large-scale renewable generation. This is in addition to installing smart meters throughout our service areas and piloting new rate designs that will help customers manage their energy usage and bills.

We're active in regulatory proceedings, including those which seek to expand energy efficiency, develop offshore wind, provide customers with high efficiency electric heating options, and grow the electric vehicles sector. We work with regulators, customers, and other stakeholders to develop solutions that will promote a clean energy future in a cost-effective way for all New Yorkers. We also serve these goals by being an active participant in the legislative process at all levels of government.

## POLITICAL CONTRIBUTIONS & LOBBYING

No Con Edison corporate funds are used directly for political contributions to candidates, political parties, or political committees other than contributions to the Consolidated Edison, Inc. Employees' Political Action Committee (CEIPAC). No corporate payments have been made, nor do we intend to make payments, to influence the outcome of ballot measures. Additionally, neither Con Edison nor CEIPAC makes independent expenditures in support of, or in opposition to, candidates, political parties, or ballot measures. Finally, we do not contribute to "independent expenditure" committees organized under section 527 of the Internal Revenue Code.

For further information on CEIPAC and links to our publicly disclosed lobbying reports, please refer to our [Corporate Governance – Political Engagement page \(https://www.conedison.com/en/about-us/corporate-governance/political-engagement\)](https://www.conedison.com/en/about-us/corporate-governance/political-engagement).

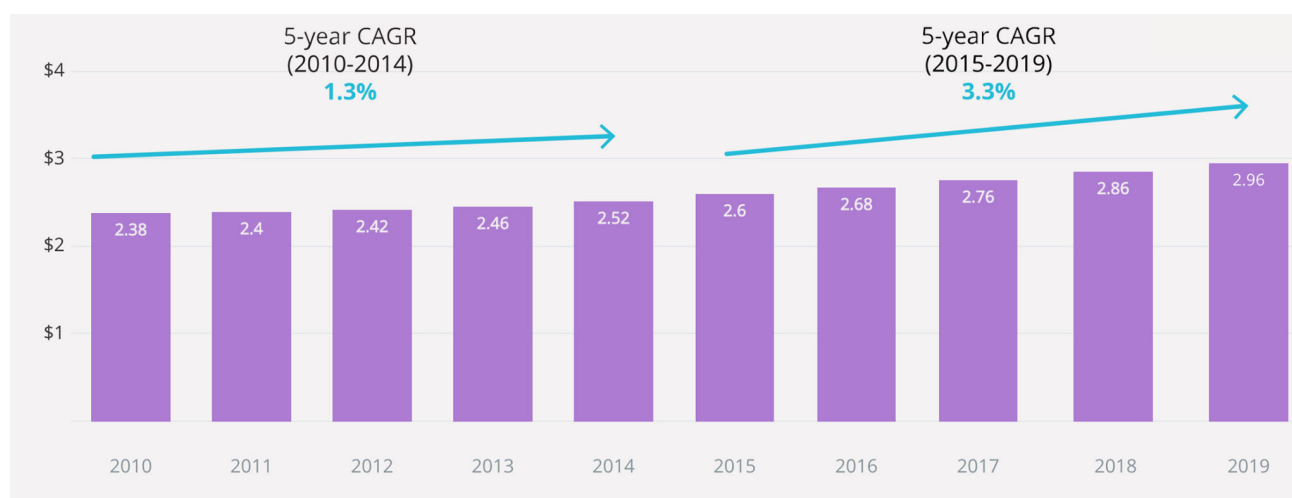
## SHAREHOLDERS

We are the longest, continuously-listed company on the New York Stock Exchange and have increased dividends to shareholders for 46 consecutive years.

For more information, refer to our [Shareholder Services page \(https://www.conedison.com/en/investors/shareholder-services\)](https://www.conedison.com/en/investors/shareholder-services).

## Con Edison, Inc. Dividend Growth for Shareholders

(per share)



## PROACTIVE, YEAR-ROUND, SHAREHOLDER ENGAGEMENT

### Shareholder Engagement Team

Our core shareholder engagement team, consisting of our Chief Financial Officer, Treasurer and Investor Relations, proactively engages with shareholders to discuss matters of interest with the input of subject matter experts, including the Office of the Controller, Office of the Corporate Secretary, and Environmental, Health and Safety

Shareholder topics:

- Corporate strategy
- Disclosure practices
- Corporate governance
- Political spending and lobbying practices
- Operational and financial issues
- Environmental, social, health, and safety

### Shareholder Feedback

Shareholder engagement activities are reported to the Board of Directors to convey feedback received from shareholders and propose implementation of appropriate practices in response to shareholder feedback.

Management responds to shareholder inquiries with enhanced company disclosures, including:

- Financial and operating metrics in our quarterly earnings presentations and investor presentations
- Sustainability reporting, including our Edison Electric Institute and American Gas Association ESG/Sustainability Reports
- Climate-related disclosures, including the Climate Change Vulnerability Study released in December 2019 and collaborative efforts with other companies in the utilities industry on environmental advocacy

### Shareholder Meetings

Management meets with a broad range of shareholders, including index funds, union and public pension funds, actively-management funds and stockholder advisory firms in the U.S., Europe, Asia and Canada.

To address environmental, social and governance (ESG) issues with our shareholders, our team contacts our top 100 shareholders and smaller shareholders with an identified interest in ESG

We engage in discussions with shareholders that have submitted proposals for inclusion in the annual proxy statement.

Our team participates in national and international ESG forums to identify ESG issues important to shareholders, adopt best practices, and improve related disclosures.

## 2019-2020 Shareholder Engagement Season

Number of target investors	We held engagement meetings with investors representing
110	19% of our shares outstanding, and 25% of our debentures outstanding

Con Edison has continued to proactively engage with shareholders this year and to accept invitations to discuss matters of interest to them. The core shareholder engagement team consists of:

- Chief Financial Officer
- Treasurer
- Investor Relations

The company's engagement efforts also include the Office of the Controller, the Office of the Corporate Secretary, the Environment, Health and Safety department, and the Corporate Affairs department. In addition, the chairman and chief executive officer, the presidents of each of the subsidiaries, and other company officers participate in face-to-face meetings with shareholders during the year.

During 2019, the company participated in 23 shareholders conferences and organized 10 roadshows in the U.S., Europe, Asia, and Canada, engaging in the process with a broad range of shareholders, including index funds, union and public pension funds, actively-managed funds and stockholder advisory firms. Key topics of discussion during the year included corporate strategy, disclosure practices, corporate governance, political spending and lobbying practices, operational and financial issues, and environmental, health and safety matters.

As a result of shareholder feedback during the year on financial disclosures, Con Edison enhanced disclosures in its quarterly earnings presentations to include business segment income, cash flow, and balance sheet statements; detailed analysis of the utilities' regulatory filings for new rates and the ensuing joint proposal; and a comprehensive shareholder fact book.

Con Edison also has a targeted environmental, social and governance shareholder-engagement team that consists of:

- Chief Financial Officer
- Corporate Secretary
- Treasurer
- Investor Relations

We are actively involved in national and international ESG forums that bring companies and shareholders together to identify ESG issues important to its shareholders, adopt best practices, as appropriate, and to improve related disclosures. In 2019, we actively participated in the trade association efforts of the Edison Electric Institute and the American Gas Association to develop industry templates for ESG reporting. Those templates are available on our website.

Following the close of the annual proxy-voting season and in advance of the preparation of the next annual proxy, the company reaches out to its top 100 shareholders as well as smaller shareholders with an identified interest in ESG issues to discuss related issues and trends as well as company-specific issues. We respond to shareholder inquiries focused on ESG issues, including shareholders that have submitted proposals for inclusion in the annual proxy statement. As a result of this ongoing engagement, we have enhanced disclosures in our proxy, including this more detailed description of our engagement efforts, and in last year's proxy, clearer and more accessible information on board diversity, tenure, and skills and experience. We will continue our proactive engagement and responsiveness to shareholder inquiries and expect that our disclosures will continue to be enhanced as a result.

In addition, we have engaged with shareholders, who urged studies of climate-change risk to the company's infrastructure, and who urged we assume an advocacy role as federal environmental rules and regulations have been rolled back. As a result of these engagements, the company has done the following:

- publicly joined other companies in the utility industry to defend strong state auto emission standards
- publicly supported a science-based climate policy agenda
- released its science-based Climate-Change Vulnerability Study in December 2019
- begun preparation of a Climate-Change Vulnerability Study implementation plan to be released by year-end 2020

The results of our engagement activities during the year are reported by the shareholder engagement team directly to the nominating and corporate governance committee, other committees as needed, and the board to convey the feedback received from shareholders, and to propose implementation of appropriate practices in response to such feedback. During the 2019 to 2020 engagement season, the company engaged with shareholders holding in aggregate 19% of shares outstanding and 25% of corporate debentures outstanding.

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## STRATEGIC PARTNERSHIPS

We are proud to support hundreds of nonprofit organizations across New York City and Westchester to further our commitment to sustainable communities and a clean energy future. Our partnerships strengthen the neighborhoods we serve by offering cash grants, employee volunteers, and more. Here are three examples of programs we support as part of our commitment to investing in renewables, promoting the green careers of the future, and strengthening communities.

### *Groundwork Hudson Valley*

For 20 years, Groundwork Hudson Valley has worked to restore the environmental conditions in Yonkers and other urban communities as a means of revitalizing neighborhoods and business districts.

Con Edison supports Groundwork's award-winning STEM education destinations, the Science Barge and the EcoHouse. The barge is a floating environmental education center that is powered by renewable energy and is entirely off-the-grid. Its greenhouse grows the equivalent of an acre of farmland, with tomatoes, melons, and beans hanging from its rafters. More than 10,000 visitors tour it each year.

The EcoHouse complements the barge, demonstrating how to live more sustainably in our homes by reducing our carbon footprint. It offers interactive exhibits revealing what is behind the walls and underneath the floor of a typical home—and energy-saving, environmentally conscious alternatives.

### *Billion Oyster Project*

The Billion Oysters Project's mission is to restore New York City's oyster reefs, revitalizing New York Harbor as the center of a rich, diverse, and abundant estuary. Restoring oysters and reefs will, over time, restore the local marine ecosystem's natural mechanisms for maintaining itself, resulting in cleaner water and greater biodiversity.

Con Edison supports this hands-on science of reef construction and monitoring. Programs include in-school restoration-based STEM learning opportunities, volunteer programs, community science and research, and restaurant shell collection. New York Harbor School, a maritime high-school located on Governors Island, is the flagship school of the Billion Oyster Project, and its students contribute to Billion Oyster Project as part of their career and technical education experience.

### *Ramapo College's Mobile Food Lab*

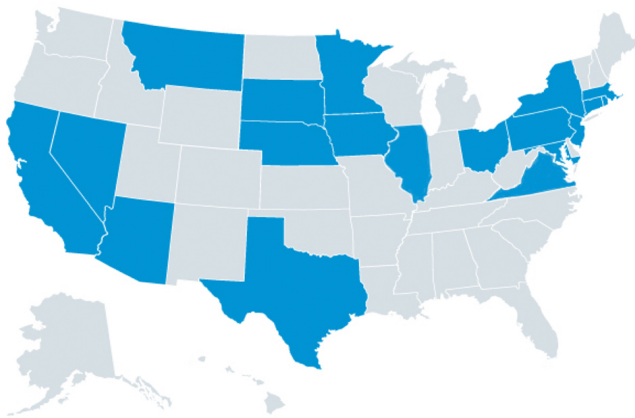
The Mobile Food Lab is a multi-sensory educational experience on wheels. It is a retrofitted bus that brings the "field trip" to schools allowing students to take part in STEM activities without traveling. The program is designed to improve student understanding of experimental science; human physiology; plant science; and the chemistry and biology that are the basis of nutrition through hands-on learning.

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# Energy Efficiency, Renewables & Distributed Energy

As part of our continuous commitment to renewable energy, Con Edison's Clean Energy Businesses continued growing by investing approximately \$240 million in renewable projects in 2019, expanding its footprint to 19 states and operating a total of 2,682 megawatts of aggregate solar and wind capacity at the end of 2019.

CLEAN ENERGY BUSINESSES SOLAR AND WIND LOCATIONS



COPPER MOUNTAIN SOLAR



BIG TIMBER WIND PROJECT



Renewable sources, such as solar and wind, produce energy when the sun is shining or the wind is blowing. That makes battery storage especially important to store power when it is produced and deliver it when it is needed. Storage can help ensure reliability and can reduce peak demand. Con Edison Clean Energy Businesses added a dedicated battery storage team in the fourth quarter of 2018 to position itself for the emerging growth of energy storage. They are actively integrating storage into new renewable development as well as into operating assets where economical and are offering battery storage for projects they are developing on behalf of their renewable energy and energy efficiency customers.

We continue to make our customers aware of energy efficiency improvements that will help them save money on their bills and give them more control over their energy usage. We work regularly with customers and regulators to test new models for the distribution of energy.

## ENERGY EFFICIENCY & DEMAND RESPONSE

Con Edison and O&R offer a broad array of energy efficiency initiatives designed to reduce harmful greenhouse gas emissions, lower customer bills, and give New Yorkers control over their energy choices.

Our customers are as diverse as the area we serve. That's why we have targeted efficiency programs to help us deliver cost-effective and customer-centric energy efficiency offerings that emphasize the clear benefits and impacts of energy efficiency. We focus on four primary customer segments—commercial and industrial, small business, multifamily, and residential—designing our offerings to meet each customer group's needs. Our goal is to give customers multiple options and opportunities to reduce their energy use.

Con Edison's electric customers who chose energy-saving HVAC, lighting, building management systems, and other equipment received \$102.4 million in incentives in 2019, a 50.3% increase from the previous year. Our gas customers received \$12.6 million in incentives, a 13.3% increase from the previous year. Technology is giving households and businesses new ways to reduce energy use, and we're at the forefront of helping customers get more value for their money while protecting the environment. Upgrades made by customers last year through our energy efficiency programs reduced electrical usage by 561,347 megawatt hours and saved 546,410 dekatherms of gas—that's equivalent to taking more than 90,404 cars off the road or powering 49,135 homes for one year. The proposals would put New Yorkers on a path toward a cleaner energy future, with reductions in carbon emissions and more renewable energy options that achieve goals in both the short term and potentially through 2050.

Con Edison Inc. is a leader in sustainability and has ramped up energy efficiency efforts that are facilitating New York's ambitious clean energy goals. We are working with partners across the service territory to better serve low- and moderate-income customers as well as providing choices to our customer to reduce their reliance on fossil fuels through adoption of beneficial electrification technologies such as heat pumps and electric transportation. Additionally, Con Edison is increasing its focus on achieving deeper and longer-lived energy efficiency savings by targeting more impactful technology upgrades.

O&R customers who upgraded to high efficiency energy-saving HVAC, lighting, building management systems, and other equipment received \$5.4 million in incentives from us in 2019, a 98% increase from the previous year. As a result of these upgrades, more than 14,000 O&R customers reduced their bills and lowered their carbon footprint. The My ORU Store, our online customer marketplace, provided a one-stop shopping experience for customers by introducing them to innovative smart home technologies, including smart thermostats, security cameras, smart plugs, wireless dimmable lighting, and electric vehicle chargers. Through instant rebates at checkout, incentives were given to customers to help lower costs and increase adoption of energy efficient technologies. Through the My ORU Store, O&R partnered with the local water utility, SUEZ NY, to support their water conservation program by offering instant rebates to mutual customers on water and energy efficient products. The program strives to help customers save water and energy and in turn lower their utility bills.

We are on the forefront of using technology to give households and businesses new ways to reduce their energy use, get more value for their money, while protecting the environment. For example, upgrades made by customers through our energy efficiency programs reduced electrical usage by 53,373 megawatt hours and saved 31,001 dekatherms of gas. This increased our carbon reduction by more than 133,000 tons, which is equivalent to taking more than 30,000 cars off the road.

Of the total O&R rebates issued in 2019, two large projects stand out. Rockland Community College installed a combined heat and power system with an estimated savings of 3,832 megawatt hours, which is equal to approximately \$650,000 per year. This concludes a three-year energy savings project that addressed several opportunities at the college including lighting, an integrated building management system, variable speed drives, and a computer load management system. Secondly, a town in Rockland County upgraded all of their street lights to LED lighting and is estimated to save 863 megawatt hours, or about \$147,000 per year.

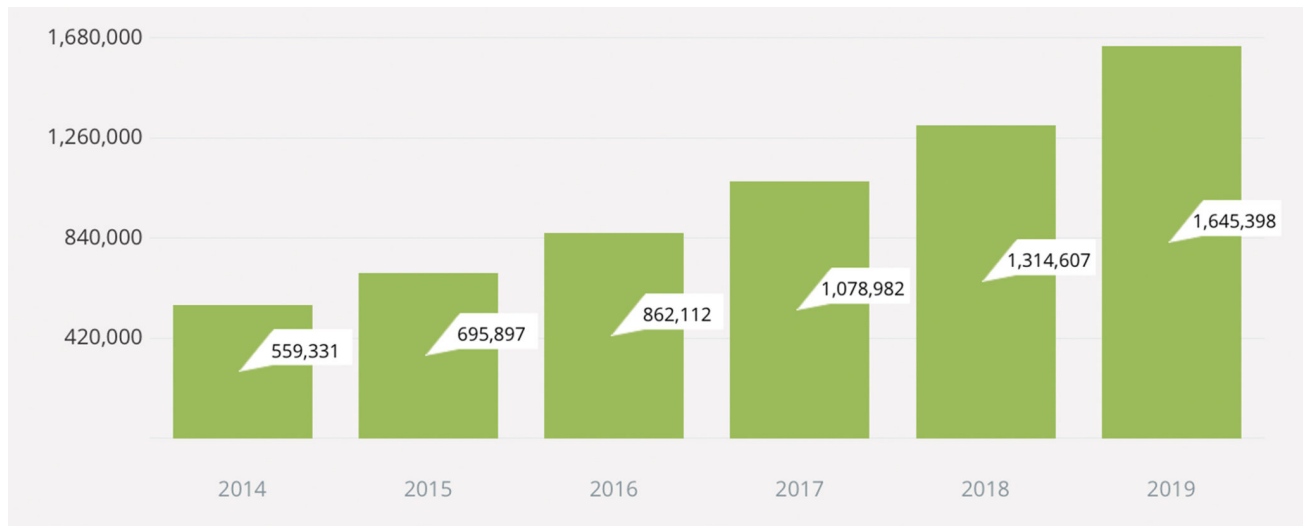
Learn more about how energy efficiency upgrades can save money and protect the environment at our website [www.oru.com/save](http://www.oru.com/save) (<http://www.oru.com/save>).





## Annual Incremental CO2 Reductions Through Energy Efficiency Programs

(metric tons)



## REFORMING THE ENERGY VISION PROJECTS

Con Edison continues to take a leading role in facilitating the adoption of distributed energy resources by our customers through non-wires solutions. The Brooklyn-Queens Demand Management program eliminated the need for a \$1.2 billion substation to serve customers in Brooklyn and Queens by implementing smart thermostats, LED lighting upgrades, lighting controls, energy storage, combined heat and power, and other distributed energy resources to meet the demands of customers during peak periods. We're currently implementing additional non-wires programs in the Water Street and Plymouth Street substation networks. In these communities we are focusing on energy efficiency measures, and energy storage to meet grid needs.

Additionally, our Customer Energy Solutions group is running new business model demonstrations in the areas of storage integration, electric vehicle infrastructure, community distributed generation, energy efficiency, and delivering energy services to low- and middle-income customers. For example, two front-of-the-meter storage projects, which demonstrate both grid support and energy market revenue-sharing partners, were selected through a rigorous RFI process and are in the construction stage. One low- and middle-income demonstration project is progressing seeking to deliver packages of energy efficiency measures to this customer segment. Three electric vehicle infrastructure projects that facilitate growth and reduce barriers to EV ownership are expected to make substantial progress in 2020, including a project in White Plains where electric school buses will feed battery power back into the grid. We also have a new electric vehicle comparison shopping site, [cars.coned.com](https://cars.coned.com) (<https://cars.coned.com>). A pilot program will see up to 3 megawatts of solar panels installed across a number of company rooftops to create a community solar project for low- and middle-income customers.



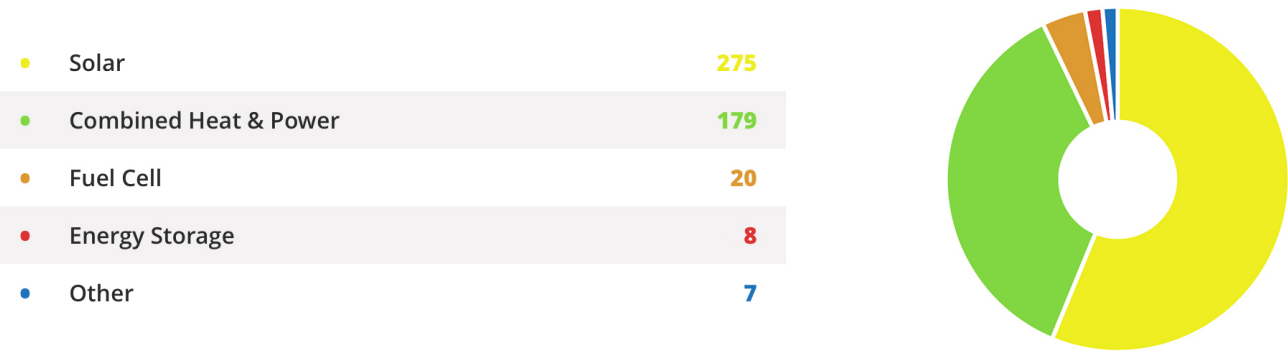
# RENEWABLES

Con Edison and O&R continue to support New York’s ambitious clean energy policies, including the state’s goal to source 70% of its energy from renewable resources by 2030, and 100% carbon-free electricity by 2040.

For the past decade, Con Edison and O&R, along with Sustainable CUNY at City University of New York, government agencies, and other parties, have encouraged residents and businesses to consider solar to reduce their energy bills and protect the environment. Our customers are responding. Using the power of the sun, we generated more than 275 megawatts of clean, renewable power by year-end 2019. A total of 30,138 Con Edison installations and 8,597 O&R installations are generating enough renewable energy to power almost 65,000 homes.

## Con Edison Cumulative Installed Distributed Energy Resources Capacity (MW)

\*through December 2019



Con Edison believes that all customers should have access to clean energy, regardless of income level, whether they own or rent or whether they live in a house or an apartment.

Con Edison continues to explore opportunities to be more innovative in renewable and energy storage installations. Through a piloted device, ConnectDER, residential customers witnessed additional savings that allowed a cost-effective alternative to the traditional solar installation, while providing Con Edison’s engineering teams with solar production data to better forecast and plan system needs. Con Edison also enhanced microprocessor relays to allow additional solar capacity to export power into our network systems, enabling the construction of additional community solar projects at higher capacities across the territory.

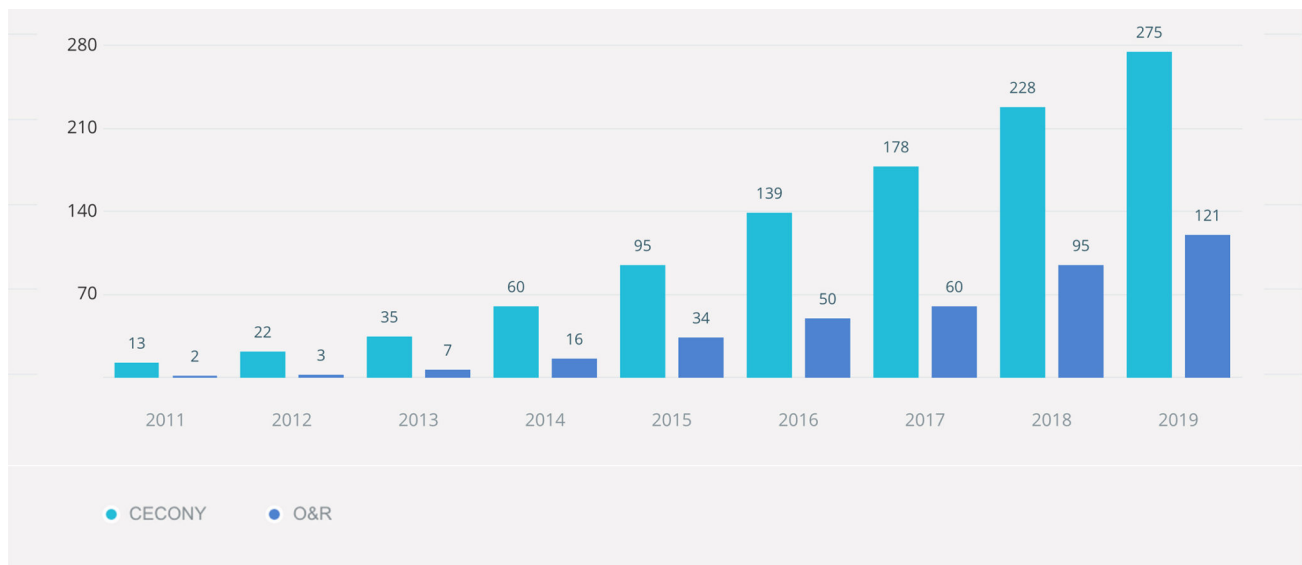
Lastly, innovation in battery installations will provide power when and where customers need it the most, via the mobile emergency battery generator pilot. The effort replaces diesel emergency generators during outages with a clean, quiet source of energy.

O&R has automated interconnection studies and other aspects of the interconnection process to assist customers with technical evaluations of projects for distributed energy resources. O&R is connecting community DG and battery storage projects at an increasing rate. The company participated in the Enabling Extreme Real-Time Grid Integration of Solar Energy project, or ENERGISE, that will help develop the technology and strategy to improve the electric grid’s ability to accommodate power generated from renewable energy sources. O&R is participating in NYSERDA PON 3770 Smart Inverter Settings Guidance for High Performing Smart Grid Applications project that will inform utilities on best practices for enabling smart inverter technology. O&R has also applied for NYSERDA PON 4074 Distribution System of the Future project that become the model of future distribution systems.

Through these initiatives, Con Edison and O&R are helping realize a greener energy future.

## Cumulative Utility Customer Solar MW Installation

(MWs)



## ENERGY STORAGE

Con Edison and O&R are helping New York achieve its ambitious energy storage goals of 1,500 megawatts by 2025 and 3,000 megawatts by 2030 through a variety of efforts. Energy storage plays a critical role in our clean energy future and we continue to actively engage with the city's department of public service and the New York State Energy Research and Development Authority to support storage policy goals. In 2019, we developed and implemented a request for proposals that targeted utility-scale storage projects connected directly to the grid. We are negotiating contracts with selected projects which are expected to be in service by the end of 2022. We are also leading a variety of projects and programs where we are test new business models, build utility capabilities, engage third party providers, and support customers to interconnect energy storage.

Through 2019, Con Edison has interconnected a total of 47 behind-the-meter energy storage systems, totaling 8,042 kilowatts of capacity, and O&R also interconnected 73 behind-the-meter energy storage systems, totaling 610 kilowatts of capacity. In 2018, Con Edison commissioned its first utility-owned storage project, a lithium-iron phosphate battery designed for 2 megawatts / 11 megawatt-hours in Ozone Park, Queens. The battery was built to provide grid support in the Brooklyn Queens Demand Management area. Last year, the battery was deployed six times to provide load relief during summer heat related events. In 2020, Con Edison plans to use this battery to provide market services to the New York Independent System Operator. Building on this model, Con Edison requested funding and received authorization for both utility owned and third party owned "make ready" energy storage in the recent rate case filing. We will be installing a utility-owned battery at a Staten Island substation to provide peak shaving, system load relief, system support to absorb power during periods of high customer solar output, and replace temporary fossil generators needed during system contingencies. In addition, this battery will participate in the NYISO electricity markets. We will also be interconnecting a first-of-its-kind "make ready" storage model for the co-location of 10 megawatts / 40 megawatt-hours of energy storage and multiple electric vehicle charging stations on utility property. We are facilitating direct access to the distribution grid to monetize multiple value streams and developing a better understanding of how energy storage can facilitate the adoption of EV charging on the grid through localized peak demand management.

Con Edison and O&R continue to implement energy storage demonstration projects to test new business models. Con Edison is advancing its Storage-on-Demand demonstration, a 1.5 megawatt / 4 megawatt-hour mobile storage model that will deploy three separate 500 kilowatts / 1.34 megawatt-hour mobile storage trailers to areas of grid need—in areas of local grid constraint or locations that may have otherwise been temporarily served by diesel generators. Con Edison expects commercial operations to begin in late 2020. As part of the 4 megawatt / 4 megawatt-hour customer-sited business model demonstration, Beyond BTM, will deploy front-of-the-meter storage at up to four customer sites to provide grid support. Two of the projects are expected to be operational in the first quarter of 2020 with the remaining two projects to be completed later this year. Each project will provide distribution load and voltage relief and reduce network peak demand while testing the ability to garner revenues for participating in NYISO markets. Con Edison is also testing how technology, such as energy storage combined with solar, could be used to help customers respond to more dynamic rates. In our Smart Home Rate demonstration project, up to 100 participants with rooftop solar photovoltaic systems will receive storage systems with advanced controls, for customers use in optimizing

their overall usage, taking into account the output of their rooftop photovoltaic systems and the timing of their storage charge and discharge.

Through its Innovative Storage Business Model demonstration project, O&R is working with partners to develop innovative business models for driving down the cost of energy storage investments by enabling storage assets to participate in multiple markets, providing benefits and incentives to multiple stakeholders. We're working with a vendor to explore how residential solar plus storage systems can be leveraged to provide resiliency benefits to customers, provide load relief benefits to the utility's local distribution system and also earn additional revenues from participating in NYISO electricity markets. We plan to deploy at least 400 residential solar plus storage systems within the next three years as part of this demonstration project. The total project portfolio will be approximately 2.1 megawatts / 4.7 megawatt-hours.

Con Edison and O&R also support energy storage through non-wires solutions (sometimes referred to as non-wires alternatives). Both companies consider and often include storage as part of our load relief portfolios. Con Edison is supporting and incentivizing third-party owned and operated energy storage for local load relief as part of its Brooklyn-Queens Demand Management program. Completed and in operation demand management projects include a 300 kilowatts / 1.2 megawatt-hour storage system at the Marcus Garvey apartment complex in Brooklyn and a 4.8 megawatts / 16.4 megawatt-hour system at Gateway Center—the largest grid support battery system in New York City to date. Con Edison is also engaged in procurements for energy storage dispatch rights from projects to be developed under our Water Street and Newtown programs.

O&R has two open procurements for energy storage systems to meet distribution system needs in place of traditional utility solutions. O&R's Monsey project will aim to defer the upgrade of an existing substation. Due to extensive load growth in the Monsey area, the current substation does not have adequate capacity to serve the forecasted load. The Monsey non-wires alternative plans to deploy a portfolio of 15 megawatts / 58 megawatt-hour batteries at three separate locations in the Monsey area to defer the upgrade of this substation. O&R is also developing an energy storage system that will be utility-owned and installed on property jointly owned by Con Edison and O&R in Pomona. The project will use a 3 megawatt / 12 megawatt-hour battery to defer the construction of a new transmission/distribution substation. Both the Pomona and Monsey projects are currently in the contract negotiation process with their respective winning vendors. O&R expects the Pomona Battery to be deployed by the summer of 2020. O&R is also currently soliciting vendors for two additional non-wires alternatives RFPs (West Warwick and Mountain Lodge Park). These two projects may also include battery storage projects in the technology portfolio. In 2020, O&R plans to release three additional non wires solicitations.

Con Edison's 2017-2019 demand management program was a market transformational effort targeting system peak demand reduction during the summer peak of 2 to 6 p.m. Through this program, Con Edison incentivized energy storage systems across the service territory and supported the advanced technology through contributing to energy storage certifications and testing aligned with industry best practices. The program installed roughly 1.5 megawatts over the course of the three-year program in both lithium ion and valve regulated lead acid chemistries.

Con Edison continues to take the lead in addressing energy storage safety and zoning concerns, working closely with New York City's department of buildings, fire department, the mayor's office of sustainability, and department of city planning, as well as battery technology developers and NYSERDA. Con Edison proactively engages with City and State agencies and storage stakeholders on storage issues including the development of emergency response procedures, technical requirements, and energy storage rules. Con Edison will continue to collaborate with stakeholders to advance the safe installation and operations of energy storage systems in New York.

O&R has also led multiple initiatives to educate and inform their various "authorities having jurisdictions." These include multiple meetings with the local town and county fire departments and first responders to discuss energy storage systems and address any questions they might have on battery storage safety. As local towns and municipalities are updating their local zoning and permitting to incorporate battery storage systems, O&R has taken an active role to make sure proper requirements are being reflected for storage. O&R also held a battery fire prevention seminar for the county of Rockland, to facilitate discussion between all the stakeholders. This seminar was conducted by a retired FDNY lieutenant who is well-known and widely recognized as a battery safety and fire prevention expert.

Energy storage is a transformational technology that can provide numerous benefits to the electric system, and ultimately, to electric customers. Con Edison and O&R envision a future where storage provides support to our electric delivery system, enables the operation of intermittent renewable resources, and reduces GHG emissions and other local emissions. Declining costs and broader proliferation of storage will help customers and communities adopt these technologies. Storage will allow for customers to manage their usage, participate in energy programs, respond to more cost-reflective rate designs, such as hourly pricing and demand-based rate structures, and integrate new applications, like EV charging.

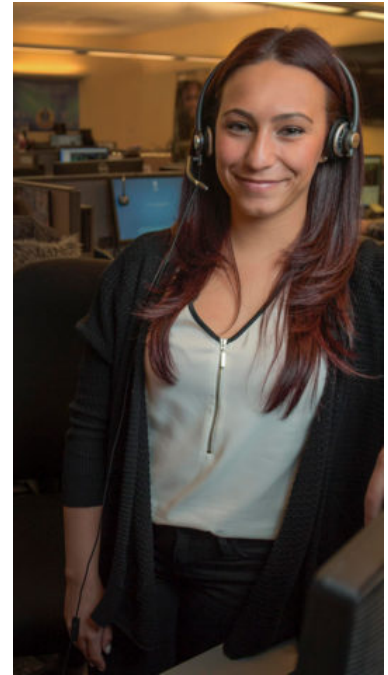
# Talent Attraction, Development & Retention

We continually look at who we are, how we work, and how we engage with each other to make sure we are valuing and including the talents, skills, backgrounds, and experiences of our diverse team. We regularly examine and strengthen our policies and procedures, especially those related to our talent-management processes.

Our overall philosophy is to provide compensation and benefit opportunities that are aligned with overall company performance and business conditions. Our intent is to align employee performance with the interest of our customers and shareholders by compensating employees fairly based on their contributions to our success. Among the benefits we offer are retirement and health, as well as tuition assistance, adoption assistance, and wellness programs. The majority of Con Edison's workforce is employed full time.

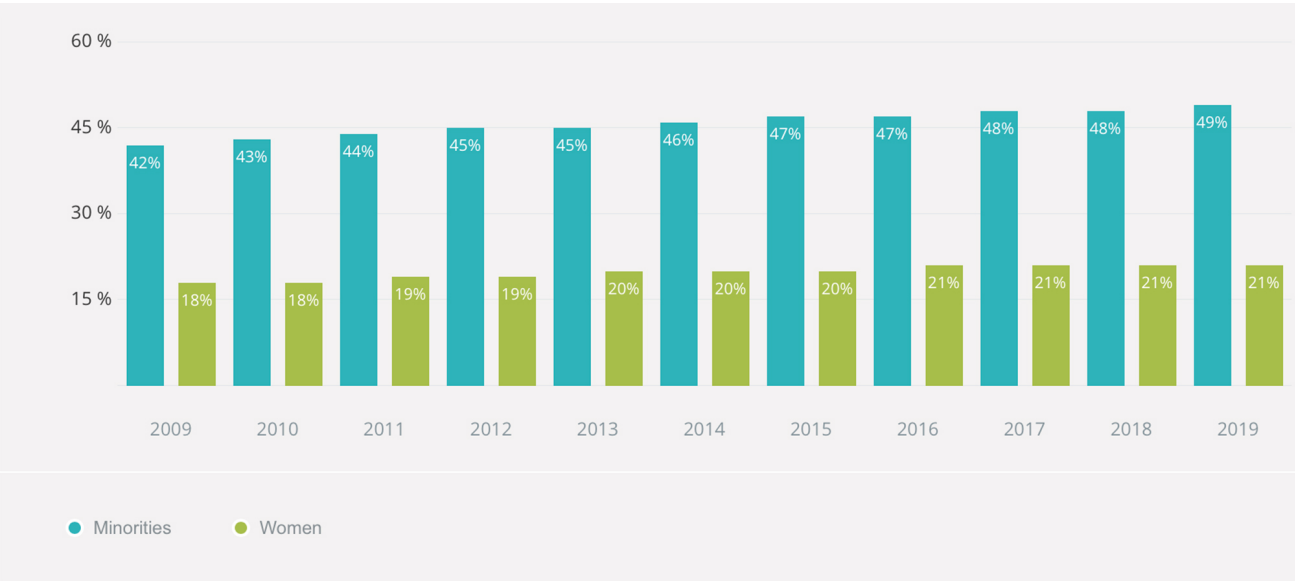
To attract, develop, and retain a diverse and inclusive workforce, we accomplished the following in 2019:

- Strategically recruited women in non-traditional careers, veterans, and people with disabilities through our continued partnership with programs such as:
  - Big Brothers Big Sisters' STEM education mentorships
  - Nassau Community College's URGENT Women, which trains women seeking careers in energy
  - Power Your Future, a company recruitment event focused on educating female candidates from partner programs about nontraditional career opportunities
  - U.S. Army's Soldier for Life, which provides veterans the resources to learn necessary skills for natural gas jobs
- Awarded as a Best for Vets company by the Military Times in recognition of our supportive culture for veterans – ranked No. 48 out of 100 top companies.
- Honored for our veteran recruitment and retention efforts with the Pro Patria Award from the New York State Committee of the Employee Support for Guard and Reserves. It is the highest award bestowed by the state for companies supporting its employees who are veterans.
- Recognized as a patriotic employer by the U.S. Secretary of Defense's Employer Support of The Guard and Reserve program for contributing to national security and protecting liberty and freedom by supporting employee participation in America's National Guard and Reserve.
- Supported working parents with the employee resource groups Moms ON IT and Dads Matter, which help with work-life balance, benefits and resources, including backup childcare services, eldercare solutions, and awareness of the NY State Paid Family Leave policies. Working with the Employee Wellness Center's Well Baby Care program, we opened three additional lactation rooms across the company.
- Continued to support the development of a diverse and inclusive workplace by offering tuition reimbursement, internal and external training to enhance job-related skills, mentoring and coaching, career counseling workshops, and online career management resources.
- Continued to offer conflict management resources that include mediation, training, and coaching to empower employees to accept responsibility for their performance and relationships with others.



# Con Edison, Inc. Minorities and Women in the Workplace

Share of Promotions



# Workforce Diversity & Inclusion

At Con Edison, an inclusive culture is one that values everyone as an important member of the team. It's a feeling you have when those around you recognize your importance and want your contributions.

We strive for strong diversity numbers. Equally, we need everyone to feel respected, included, and valued. In other words, diversity ensures a wide range of views, and inclusion makes sure all of those ideas get heard.

Our employees are on the frontlines every day of increasingly higher customer expectations and unprecedented technological change. In addition to delivering safe, reliable energy to more than 10 million people, our employees are making a smarter grid, boosting the use of electric vehicles, and generating more renewable energy for people all around the country. They're making it easier for our customers to choose cleaner, more efficient energy and have more control over how they use it. A culture of inclusion creates fertile ground for new ideas and innovations that make our energy future bright.

**To learn more, read our [2019 Diversity & Inclusion Report](#)**  
([/files/Div2019\\_Book\\_v10\\_singles.pdf](#)).



## Diversity

	2014	2015	2016	2017	2018	2019
<b>Total workforce</b>	14,637	14,805	14,941	15,255	14,955	14,596
<b>Management</b>	5,866	5,983	6,151	6,430	6,424	6,394
<b>Union</b>	8,771	8,822	8,790	8,825	8,531	8,202
<b>Minorities in the workforce</b>	6,733	6,890	7,025	7,317	7,220	7,080
<b>Minority share</b>	46%	47%	47%	48%	48%	49%
<b>Women in the workforce</b>	2,946	3,009	3,063	3,210	3,179	3,123
<b>Women share</b>	20%	20%	21%	21%	21%	21%
<b>General Managers, Directors and Above</b>	240	255	253	266	270	282
<b>Minorities in GMs, Directors and Above</b>	68	77	75	78	78	80
<b>Minority Share</b>	28%	30%	30%	29%	28%	28%
<b>Women in GMs, Directors and Above</b>	69	78	77	82	84	89
<b>Women Share</b>	29%	31%	30%	31%	31%	32%



# Training & Professional Development

As the industry continues to evolve, our critical focus is to ensure that our workforce has the right skills, knowledge, and capabilities to work in a safe manner while meeting the needs of our customers. To achieve this goal, we provide continuous state-of-the-art training and development to our employees in a wide variety of areas.

The company offers robust training programs in gas, electric, customer operations and central operations. These programs ensure employee skills, knowledge, and operational performance are maintained at the highest levels. We are focused on preparing our employees to work safely, effectively, efficiently, and in a way that is compliant with our policies, procedures, and regulatory expectations. To that end, our Learning Center fosters a work culture centered on safety, operational excellence, and the customer experience by continually making improvements to our learning experiences.

With safety as our key business priority, we partner with our operating organizations to strengthen our focus on a zero-harm culture, which includes several digital learning modules. Our Operational Excellence guiding principles are integrated into our training curriculum and highlight the need to respect the complexity, power, and unforgiving nature of our energy systems and encourage all to manage them safely. This effort includes a focus on Human Performance Improvement tools, safety precursors, and programs such as, "Are You Doing Enough for Safety?"

Our purposeful field visit program uses real-life events to assess potential gaps or requirements in related training. These visits are also opportunities to gain insight from employees on safety improvements and current work practices, and provide real-time constructive feedback. The training effectiveness committee serves as the liaison between our operating areas and training teams to achieve, improve and maintain high quality and consistency in training. Ongoing meetings with subject matter experts from various areas allow a collective review of training activities, including curriculum, new policies and procedures, annual goals, career path and tests to ensure consistency, relevancy, and effectiveness in training offerings.

Our digital learning vision and strategy is to transform learning through innovation. We are using the digital space to improve curriculum, provide employee access to training outside of the classroom and enhance the employee learning. A multi-year program supports integrating digital technologies into our training platforms and allows us to train and develop highly competent employees. Our digital content includes e-books, technical training videos, micro-learning, and virtual- and augmented-reality modules. More than 55 digital tools were created in 2019 and this will continue for 2020 and beyond. School safety and electric service box inspection videos are just a few examples of videos created in 2019 to help teach and refresh important tasks and behaviors. We continue to add training simulators and equipment, such as the flange assembly demonstration unit, the substation area station simulator and the STAR human performance communications simulator all designed to enhance the training experience of our employees.

We pay significant attention to the development of our future leaders. Guided by competencies geared toward leadership effectiveness, emerging leaders are provided with a broad array of training options that prepare them to meet current responsibilities and future challenges. Development efforts include more than 450 course offerings in leadership and professional development, career planning, performance management, and mini-workshops—all designed to improve the ability of managers to lead employees effectively, handle problems creatively, and lead teams to elevated performance. More than 10,000 employees attended these programs and continue to benefit from an array of tools, assessments and resources that assist with the professional development. We continued the enhancement of our mentoring programs, introducing mentoring circles to our corporate mentoring program and "pop up" mentoring workshops for all employees. These efforts support our culture of continuous learning and development and encourage meaningful discussions about our company, our culture, and our future.

The company's training and development strategy fosters a highly engaged workforce that produces strong performance. It also supports a high retention environment where we get to keep our best employees and enhances the company's reputation and profile, making the company more attractive to potential new recruits.

## Training

	2016	2017	2018	2019
Hours of instructor-led, skill-based and leadership training	604,173	703,385	544,557	543,706
Hours of eLearning	173,182	157,197	132,490	121,861
Employees taking part in a mentoring program	97	114	77	298
Employees taking advantage of tuition aid	607	589	572	575

# Volunteerism

Enhancing the fabric of our communities is not only what we do, it's who we are. We provide financial support, in-kind contributions, and board service to hundreds of nonprofits dedicated to the arts, environmental stewardship, community, civics, and education.

Employees at Con Edison and O&R donate their own time and resources through our volunteer program to give back to the communities we serve. During 2019, 635 Con Edison and O&R employees volunteered 6,300 hours of their own time at over 170 company-sponsored events. Whether it's helping at a soup kitchen, installing solar LED lights through residential areas to create safer neighborhoods, building composts using 6,000 pounds of food-scrap, planting and pruning trees, re-seeding a formerly barren area of the Bronx River coastline, mentoring students, rehabilitating homes for veterans, career coaching, or any number of other activities, volunteering gives our employees renewed energy, fulfillment and the happiness of knowing they made a difference in their community.

A dedicated employee engagement platform makes it easy for employees, as well as retirees and their families, to choose how to give back.