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# Our vision

To create a sustainable energy future by safely providing reliable, cleaner power that enhances people's lives and delivers value to our stakeholders.



## **Letter from our CEO**

While this is NRG's sixth sustainability report, it is my first as CEO. So, I want to take this opportunity to reflect on the profound impact that our industry and our company can have on people's lives and the central role that sustainability plays in allowing us to achieve that in a meaningful way.

## Sustainability at NRG today

It is not a stretch to say that electricity is the lifeblood of the modern world. It runs through the veins of every aspect of our society, providing us comfort in the dead of winter, empowering science and the arts and enabling those we serve to enjoy life that much more. No other commodity affects people's lives so profoundly, and this is what drives our quest for a more sustainable energy future.

Inherently, our business works day after day to meet this critical societal need. As one of the largest and most diversified power companies in the country, we play a crucial role in developing this future and can make the greatest impact by focusing on what we do best: safely provide reliable and cleaner energy in a way that creates value for all stakeholders. In doing so, we must place sustainability at the center of all our decisions, creating a framework that balances environmental, economic and social responsibilities – a framework that ensures our actions today achieve our vision for tomorrow.

#### Environmental

The most significant challenge of our generation is the fight against climate change, and 2015 stood out as a pivotal

year: Pope Francis released his environmental encyclical; the U.S. federal government issued the Clean Power Plan in an attempt to drastically curb carbon emissions from power plants; and the United Nations held its 21st Conference of Parties where governments, public interest groups and corporations took a united stand against greenhouse gas emissions. NRG was an active participant in this dynamic landscape. Present on the ground in Paris to demonstrate industry leadership, we supported the We Mean Business Coalition and joined 154 companies in signing the American Business Act on Climate Pledge.

As we continue our own transformation, I want to reaffirm our goals to reduce carbon emissions 50 percent by 2030 and 90 percent by 2050. These goals remain some of the industry's most aggressive and substantive, placing us at the forefront of sustainability efforts across the country.

For years, we at NRG have taken pride in our environmental practices. Beyond being mindful of our own operations, we help our customers achieve their own sustainability goals through clean energy and retail options. A few highlights from 2015 include commencing construction on the largest community solar project in the U.S., converting three large coal-fired power plants to natural gas and developing several energy storage and preferred resources projects in California, adding to our status as one of the state's largest providers of clean energy solutions.

#### **Economic**

As we plan for the future, we must be disciplined with our resources, flexible in our thinking and flawless in our execution. More than ever, our ability to adapt and endure is fundamental to our success, and over the past year we took important steps to better align our business to the markets in which we operate. Among these was the establishment

of a partnership in our electric vehicle charging business and the streamlining of our operations and organization. I am confident that our integrated competitive power platform is now well-positioned to succeed both under near-term conditions and under longer-term market trends, allowing us to continue providing power to millions of customers and homes throughout the country.

#### Social

To be sustainable also means enhancing the lives of our colleagues and the communities we serve. Across the country, we strive for safety, wellness and to create trusting, transparent relationships among our employees. Our philanthropic arm, Global Giving, which will be known as PositiveNRG going forward, supports well over 100 initiatives across the country focused on education, the environment, human welfare and economic development by partnering with organizations suggested directly by our employees. We also encourage each other to adopt sustainable living practices, both large and small, through programs such as InspireMEnrg and Power up my life, which unite us in a culture of conservation and overall well-being.

## The journey ahead

I am excited by all the steps we have taken to date, but I am even more excited about what we can achieve in the future

I know that my colleagues at NRG understand the great responsibility of our work. We are up for the challenge but recognize that we cannot get there alone. Our partners and customers have been instrumental in helping us reach so many important milestones to date, and I believe that longterm, impactful change requires the continued leadership and commitment of these stakeholders. With their support and partnership, NRG will continue to be a leader in moving our industry forward.

NRG is already leading by example on transparent and voluntary reporting practices. Stakeholders appreciate a set of metrics that extends beyond financial indicators and addresses social, environmental and human-capital objectives while explaining our business and longerterm goals. As we continue to improve our transparency, we recognize that 21st-century companies should be responsive to their stakeholders by providing these metrics, and it is our hope that others in our industry will follow suit.

The commitments reflected by NRG in this report are personal to me. Energy has always been a passion of mine, not for what it is, but for what it represents: a better life. I am constantly reminded of the importance of what we do and the great responsibility we have to think not just about the impacts of our business today, but also about how those impacts will affect tomorrow. I invite you - colleagues, investors, customers, partners and all consumers of electricity – to join us in this journey toward creating an energy future that is cleaner, more reliable and that enables us to continue improving people's lives for years to come.

> Mauricio Gutierrez Chief Executive Officer

Our goal: Reduce carbon emissions 50% by 2030 and 90% by 2050 from a 2014 baseline.

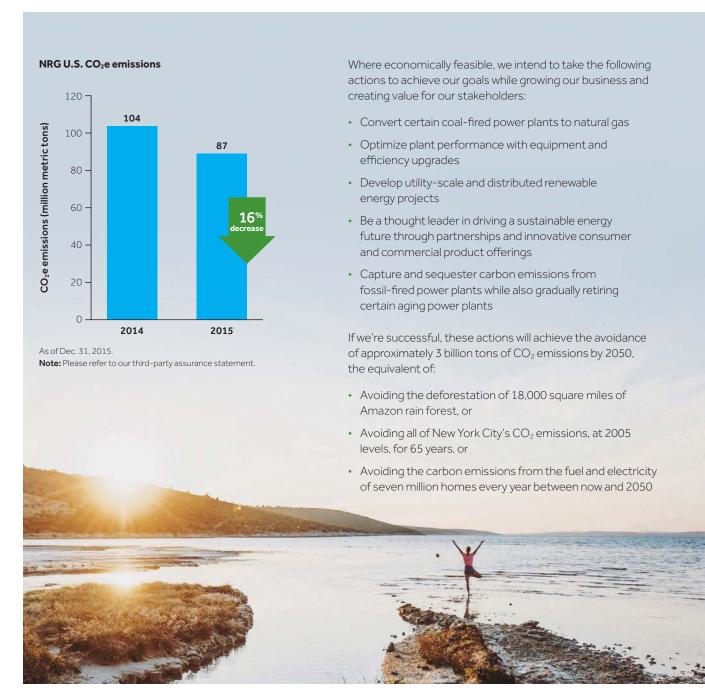
Letter from our CEO Carbon emission goals Commitments to climate action

## **Carbon emission** goals

NRG provides affordable, safe, cleaner and reliable energy produced in ways that don't limit the possibilities of tomorrow. We realize climate change is a significant environmental challenge, and we're working to be part of the solution. We believe future energy production can be both low carbon and low cost, and we're committed to making this vision a reality. And as the nation's largest independent power producer, we have a unique opportunity to lead by example.

"Business as usual" is no longer an option in our industry. We plan to do our part to reduce our carbon emissions while growing our business and facilitating global progress toward a sustainable energy future. In November 2014, we set industry-leading greenhouse gas reduction goals and announced a goal to cut CO<sub>2</sub> and CO<sub>2</sub> equivalent emissions 50 percent by 2030 and 90 percent by 2050 from a 2014 baseline. This goal – the first for any power producer with concrete dates to transition to a low-carbon economy – is consistent with what climatologists say is necessary to limit the most dangerous consequences of climate change.

In 2015, NRG became one of the first 10 companies to have their carbon emission reduction targets approved by the Science Based Targets initiative, a joint effort of CDP, the World Resources Institute, the World Wildlife Fund and the U.N. Global Compact. The initiative works with companies and approves only corporate targets that meet its strict criteria.



## **Commitments to climate action**

In December 2015, NRG attended COP21 in Paris, where nearly 200 countries agreed to pursue efforts to limit global warming to 1.5°C above preindustrial levels. Members of our sustainability team spoke at the conference about how businesses can fuel these efforts. Additionally, we were active participants in panel discussions, roundtables, receptions and working groups - all in hopes of pushing for a more sustainable energy future.

In partnership with the We Mean Business coalition, which works with influential businesses and investors, NRG committed to:

- Report climate change information in mainstream reports
- Pursue responsible corporate engagement in climate policy

NRG also was honored for its leadership in sustainability with various awards and recognitions, including:

- The 2015 Intelex Ignite Performance Environmental Stewardship Award
- · Joining the NASDAQ OMX CRF Global Sustainability Index, which includes 100 companies taking a leadership role in sustainability performance reporting
- The 2015 C.K. Prahalad Global Sustainability Leadership Award



Members of our sustainability team went to Paris in December 2015 to attend COP21, an international climate conference.



Our sustainability strategy is built on several key principles and goals. Focusing on these essential parts of our strategy enables us to serve our customers, our investors, our key stakeholders and the environment.

## Renewables

We provide customers unique and proven sustainable options to power their business operations and personal lives by tapping into the sun, harnessing the wind and using certified renewable energy credits. NRG Renewables, previously NRG Renew, operates NRG's existing renewables business, including NRG Yield's renewable assets. NRG Renewables also is one of the largest solar and wind power developers and owner-operators in the U.S., having developed, constructed and financed a full range of solutions for utilities, schools, municipalities and commercial market segments.

### Solar

In 2015, NRG's combined utility-scale and distributed solar portfolio reached approximately 1,400 gross MW of capacity under management. There's only one sun, but we're finding more and more ways to power homes and businesses with our planet's most abundant energy source.

### Utility-scale solar projects

Utility-scale solar power plants sell their electricity to utility buyers, many of whom provide consumers with clean, reliable power. In 2015, NRG operated 16 utility-scale solar facilities that produced more than 2.6 million MWh of electricity.

Also in 2015, NRG Yield acquired a 25 percent interest in the 550-MW Desert Sunlight project, the largest operating solar farm in North America. By accelerating the growth of utility-scale solar, we're helping diversify the country's energy portfolio, demonstrating how to deploy smart capital and keeping millions of tons of  $CO_2$  out of the atmosphere.

#### NRG and NRG Yield Utility Scale Solar Capacity (MW)



As of Dec. 31, 2015.

#### Projects in operation

- A Alpine (Lancaster, CA): 66 MW
- B Avenal (Kings County, CA): NRG Yield 50% ownership = 23 MW
- C Blythe (Riverside County, CA): 21 MW
- D Borrego (Borrego Springs, CA): 26 MW
- E California Valley Solar Ranch (San Luis Obispo County, CA): 250 MW
- Community 1 (Brawley, CA): 5.7 MW
- G Desert Sunlight (Riverside County, CA): NRG Yield 25% ownership = 138 MW
- H Ivanpah (Nipton, CA): NRG 50.1% ownership = 196 MW

- 1 Kansas South (Kings County, CA): 20 MW
- Oasis (Palmdale, CA): 20 MW
- K TA-High Desert (Lancaster, CA): 20 MW

## Projects under construction or development

■ Blythe II (Sonoran Desert, CA): 20 MW

### Arizona

B

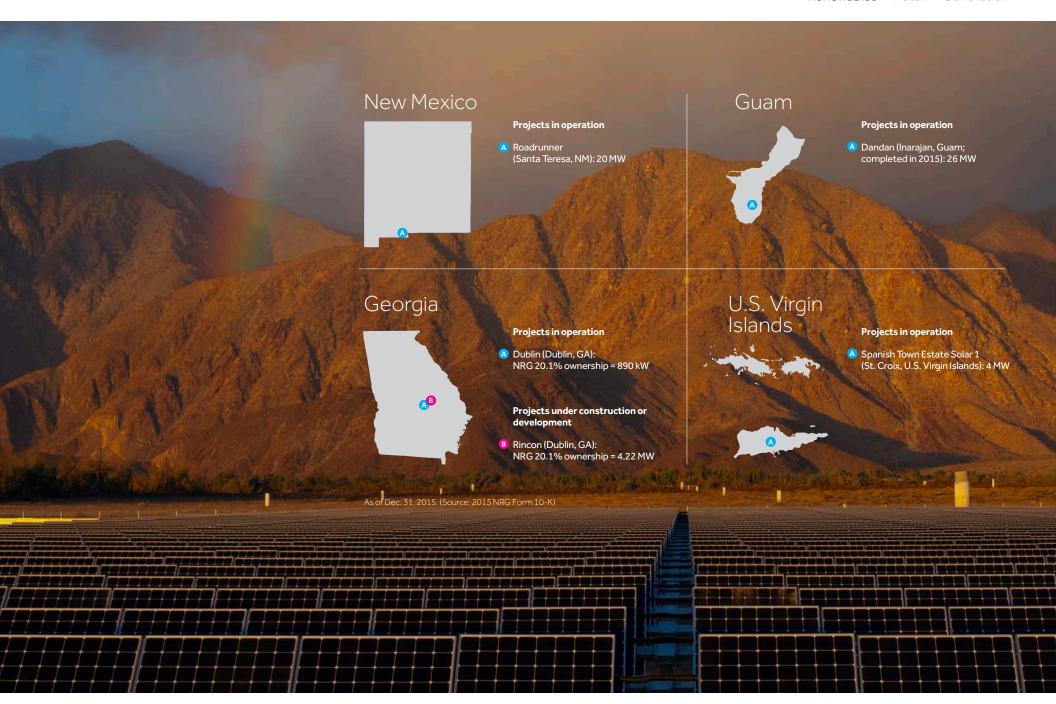
- La Laka- L

California

#### Projects in operation

- Agua Caliente (Dateland, AZ): NRG 50.1% ownership = 148 MW
- B Avra Valley (Tucson, AZ): 26 MW

As of Dec. 31, 2015. (Source: 2015 NRG Form 10-K)



#### Distributed solar projects

Distributed generation refers to electricity produced at or near the point of consumption. Distributed solar can be ground-mounted or on rooftops and typically connects to the local grid. In 2015, we operated 148 total distributed solar projects that produced 102,000 MWh of sustainable energy.

#### Community solar

The idea behind community solar is simple: empower people to tap into clean and renewable solar energy even when their homes or businesses can't support solar panels. The demand for solar energy has increased. Oftentimes, however, those who want it most are excluded because they live in an apartment or townhome community or their roofs simply face the wrong direction.

Community solar solutions make it easier than ever to enjoy the economic and environmental benefits of solar power — no roof required. Users sign up to join an off-site solar garden near their community. Once assigned, they have the opportunity to reduce their average energy bills over the course of their lease. They also potentially share the cost of a solar installation with their neighbors and collectively reap the benefits of clean and renewable solar power.

In Colorado, we partnered with SunShare to finance and build 8.7 MW of community solar along the state's Front Range, which includes Denver and Colorado Springs. We expect the project, which more than doubled our community solar portfolio, to generate about 350,000 MWh over 20 years. That's enough to power 1,400 Colorado homes for two decades.

In July 2015, we brought 1.1 MW of community solar online in Freetown, Massachusetts. Freetown residents can subscribe to the Freetown Shared Solar project through a 20-year agreement that provides price stability and cost savings. Projects like Freetown, which currently powers

160 households, are a blueprint for communities looking to reduce their energy costs and carbon emissions.

We also have community solar programs, with projects under development, in New York, Minnesota and Massachusetts, including one of the largest community solar projects in the country.

#### Business partnerships

We're turning the dream of sustainable energy into reality through customized solutions that are good for the Earth and good for business.

#### **NRG Park**

In October 2015, we completed an energy-efficiency project at Houston's NRG Park, a 350-acre sports and entertainment complex comprising NRG Stadium and its surrounding facilities. The project's smart energy features include solar panels, electric vehicle charging stations, outdoor roof lighting, mobile device charging stations and energy-efficient LED lights.

We installed hundreds of solar panels and colorful lighting atop a pair of pedestrian walkways, one of the stadium entrances and over the new NRG EVgo charging station lot. The installations complement the complex's design while providing shade and clean power for the facilities. Additionally, NRG Stadium houses seven NRG Street Charge stations, 12.5-foot towers equipped with solar panels and a multitude of mobile device charging cables for visitors to plug in for free.

We completed the project during Energy Action Month, a nationally recognized initiative that encourages people to improve their energy efficiency.



Distributed solar projects like the one in Freetown, Massachusetts, help communities reduce their energy costs and carbon emissions.



Our energy-efficiency project at Houston's NRG Park included installing solar panels atop one of the stadium entrances.

#### Miami Heat

In January 2015, we announced our business and clean energy partnership with the NBA's Miami Heat. With the only sports and entertainment complex in the world to receive LEED Gold recertification, the Heat sought to further its commitment to clean energy sources and its status as an international leader in operational sustainability. In the arena's 23,000-square-foot outdoor space, the Xfinity East Plaza, NRG helped the team do just that. We equipped the arena with a series of skylights made using building-integrated photovoltaic solar technology. In the end, we transformed the space from an underused, weather-worn structure into an elegant solar pavilion that showcases clean energy technology to thousands of fans each year.

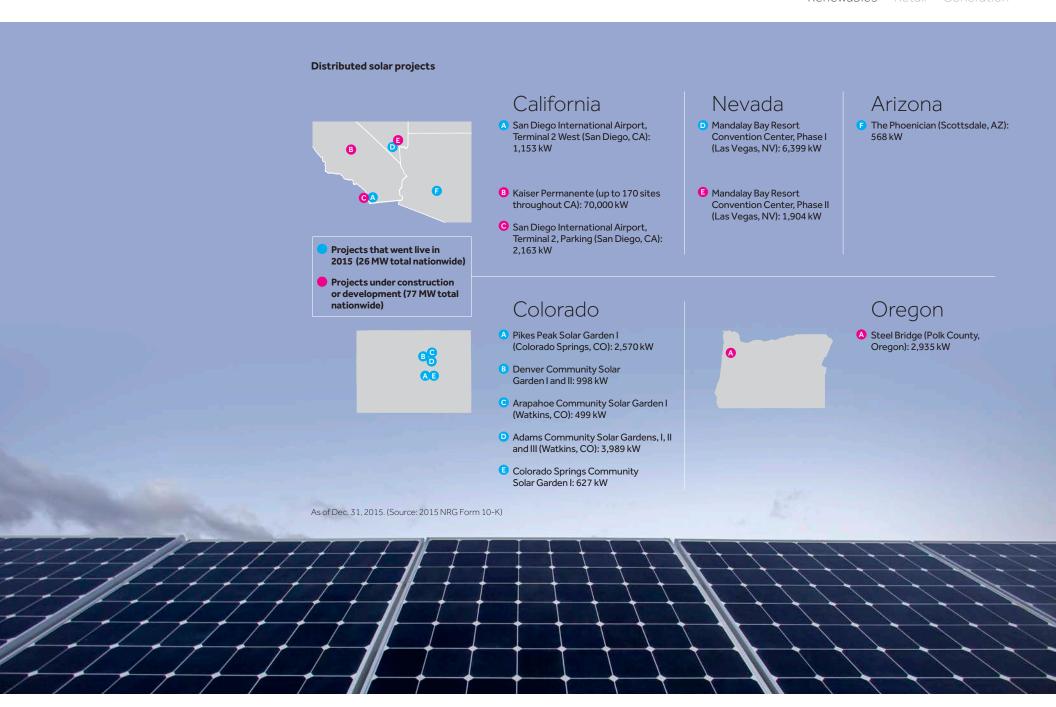


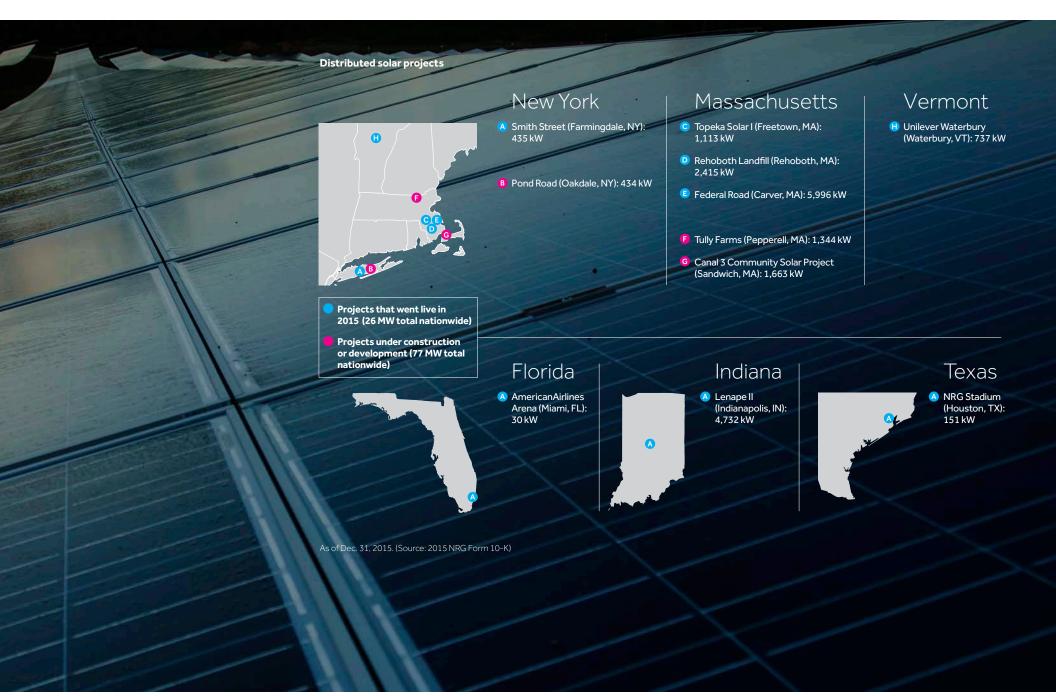
#### **Kaiser Permanente**

Our multisite distributed-solar program, which is expected to start construction in 2016, will generate clean power for as many as 170 Kaiser Permanente sites, including hospitals, medical offices, clinics and data centers in California. The solar installations themselves will integrate into existing locations and be located primarily on carports and parking structures where they'll also provide welcome shade to visitors, patients and employees. With the project's expected solar capacity of up to 70 MW, we'll help Kaiser Permanente meet its daily energy needs and achieve its goal of reducing greenhouse gas emissions by 30 percent by 2020.



We helped the Miami Heat turn the Xfinity East Plaza at American Airlines Arena into an elegant solar pavilion.





## Wind

Wind power is crucial to our renewable portfolio. In 2015, with NRG Yield, we expanded our wind generation fleet to include 36 wind farms in 12 states, turning a cool breeze into renewable electricity. By year's end, our total U.S.-installed wind capacity stood at 2,759 MW, making our company the nation's fifth-largest wind generator. That includes the acquisition of the 60-MW Spring Canyon wind farm, which sits on 222 acres in Logan County, Colorado.

### Unilever's clean-power challenge blown away

Before 2015, Unilever offset the impact of its energy consumption by buying unbundled renewable energy certificates (RECs) - renewable energy attributes bought separately from the actual electricity. Unilever wanted a closer connection to its energy and sought to buy all its manufacturing energy from one source. But it needed an energy partner that could handle its requirements.

Our Langford Wind Farm in Texas gave Unilever that single source with enough capacity to power all of its U.S. manufacturing facilities. The 150-MW project located 25 miles south of San Angelo uses 100 General Electric 1.5-MW wind turbine generators on an approximately 35,000-acre tract of land. Under a three-year power purchase agreement, Unilever now buys 80 percent of Langford's production, allowing the company to offset its electricity consumption and contribute to a more sustainable future for its employees, shareholders and customers.





WIND CAPACITY



WIND GENERATOR

Our Langford Wind Farm in Texas powers all of Unilever's U.S. manufacturing facilities.

As of Dec. 31, 2015. (Source: 2015 NRG Form 10-K)

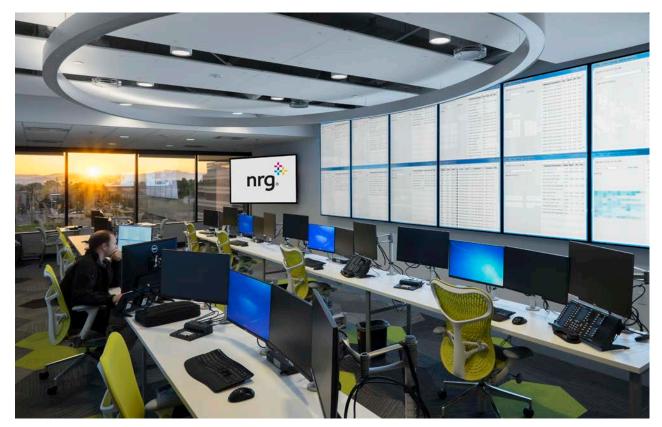
## Renewable operations and maintenance

Our renewable operations and maintenance (O&M) program provides full-service support for wind energy, utility-scale solar and microgrid projects in addition to self-operating NRG's renewable fleet. Central to the effectiveness of our maintenance program are three key components:

 Preventive maintenance – calendar and run-hour scheduled maintenance based on manufacturer recommendations and our experience

- Predictive maintenance performed in response to trend analysis of temperatures, pressures, oil quality and other key parameters
- Corrective maintenance performed when a piece of equipment fails

Clients include the 162-MW Colorado Green Wind Power Project, owned by Iberdrola Renewables and Shell. In 2015, our O&M team signed contracts with Shell's 42-MW Whitewater Hill wind farm and the city of Lamar, Colorado.



NRG's Performance Monitoring Center in Scottsdale, Arizona, helps support our renewable fleet and our O&M clients.

### NRG EVgo®

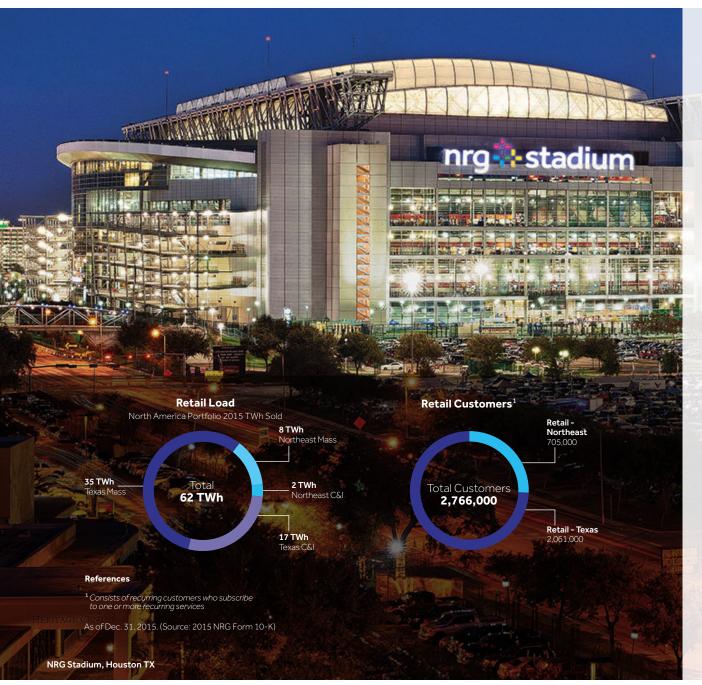
NRG formed EVgo in late 2010 and has grown the business since its inception. In May 2016, NRG agreed to sell a majority interest in the EVgo business to Vision Ridge Partners to provide EVgo with the opportunity to increase agility and enhance the structure for continued development of public electric vehicle (EV) DC fast charging. Following the completion of the sale, NRG will retain a minority interest in EVgo.

The NRG EVgo network of more than 500 DC fast-charging stations gives EV owners continually expanding means to stay charged on the road. Service plans provide EV owners with options around the use of EVgo Freedom Station® charging sites based on commuting patterns and cost considerations. Located along major transportation corridors in 31 of the largest metropolitan markets, EVgo charging stations have powered almost 22 million electric miles.

In 2015, EVgo made charging even more accessible to EV drivers. Over the course of one week in November, EVgo added to its nationwide partnership with Nissan by teaming up with two more of the world's largest automakers. EVgo's program with BMW, called ChargeNow DC Fast, includes the installation of 500 DC Combo Fast charging stations to benefit BMW i3 customers and all EV drivers in the U.S. Qualifying i3 customers also get two years of complimentary charging on the EVgo network. Also powered by EVgo, the Ford EV 1-2-3 Charge program offers three years of free Level 2 charging with the purchase or lease of a Ford C-MAX Energi Plug-In Hybrid in California and the Washington, D.C. area.

Additionally, EVgo is a founding member of ROEV, an industry trade association created to maximize EV adoption in the U.S. by enabling charging network interoperability. Together, EVgo and its ROEV partners operate 91 percent of the 19,000+ public networked EV charging stations across the nation.

Renewables Retail



## Retail

We design our retail electricity plans, products and services to fit our customers' lifestyles and environmental goals. With offerings like rooftop solar, home services, security, portable power, 100 percent renewable plans and customized energy solutions, we've expanded what our retail business offers as we continually work to best serve our nearly three million recurring residential and commercial customers across the country.

Through our multi-brand retail business, we consistently deliver customers a broad range of energy services and products, including system power, smart energy services, solar and wind products, electric vehicle services, protection products, distributed generation and specialty services.

Our Texas-based brands have the largest retail market share in the Electric Reliability Council of Texas (ERCOT), which manages the flow of electricity for 90 percent of the state. NRG companies serve Texas and businesses with a range of plans and offerings.

The NRG Business Solutions team develops unique energy solutions based on each customer's needs. These solutions include demand response, commodity sales, energy efficiency and energy management services.

Retail

### Residential and small business

NRG Retail is a multi-brand business focused on providing mass-market consumers (residential and small business) compelling power solutions and related services at home, at work and on the go. Primary brands include NRG and Reliant, supported by Green Mountain Energy and Goal Zero.

#### NRG

NRG offers a variety of electricity and natural gas plans to residents in the northeastern and midwestern United States. Customers are allowed to choose a plan that fits their needs. These unique plans offer different rewards, renewable energy and pricing options. For example, an offering for Philadelphia customers featured a 12-month fixed electric supply price,

100 percent wind-generated energy and a suite of on-the-go products from Goal Zero. This and other offerings are part of NRG's strategy to help customers lower their environmental footprint and potentially lower their electricity bill. With NRG, switching electricity and natural gas suppliers is easy and there's no interruption of service.

NRG serves electricity and/or natural gas utility markets in Pennsylvania, Maryland, Massachusetts, New Jersey, New York, Ohio, Connecticut, Delaware, Illinois and Washington, D.C. In 2015, we explored new channels that included the opening of NRG retail locations in Pennsylvania and New York.

#### NRG Smart Home at MainStreet America

NRG's Smart Home at MainStreet America, a home improvement theme park in Houston, opened in July 2015, allowing consumers to interact with the latest home automation, energy management, home security, backup power and renewable energy solutions offered by both the NRG and Reliant brands. These products include:

- Smart thermostats and plugs
- Alarm panels, wireless door locks, sensors and cameras
- Backup generators
- Rooftop solar installations
- Electric vehicle charging stations
- Goal Zero portable solar-powered products

# Home power









## Home services



services



management



services



Protection plans

## Portable power









#### Reliant

Reliant, an NRG company, has been recognized many times for its exemplary customer service. It also provides innovative, one-of-a-kind solutions that keep more than 1.2 million Texans powered, secure and connected at home, at work and on the go.

#### Reliant Customer First

Putting customers at the center of everything it does is a cornerstone of the Reliant culture. The Customer First initiative includes a cross-functional team of 40 "champions," as well as active engagement by the president of Retail and other executive leadership. This helps them develop genuine long-term relationships with customers by treating them all in a consistently helpful way.

#### Home security and automation

Reliant's new suite of home security packages and automation tools make the smart home more accessible than ever. These solutions help customers connect anywhere, anytime to what is often their largest investment – their home. Customers who want home automation can sign up for an electricity plan that includes an easy-to-install package with a smart thermostat, smart plug and gateway device.

#### Energy assistance programs

NRG's continued commitment to local communities includes a variety of energy assistance programs. The Reliant Beat the Heat Centers in Houston, Dallas and Corpus Christi are open to provide area residents relief from summer's high temperatures. Since 2005, Reliant has contributed nearly \$9 million through its Community Assistance by Reliant Energy (CARE) program for Texans who need help with summer electricity costs. Additional programs include average billing and Reliant Home Energy Checkup, a free home energy-efficiency evaluation.

#### Save energy, save money

Through Reliant, NRG rewards customers who curb their energy usage through innovative electricity products. The Degrees of Difference program allows customers to earn a bill credit of \$0.60 per kWh for using less energy than normal during designated periods. And with the Reliant Conserve plan, customers can get a lower energy charge for the first 1,000 kW used per month.



NRG empowers homeowners with energy management tools such as smart thermostats.



NRG offers an array of home security solutions such as alarm panels, wireless door locks, sensors and cameras.

Renewables Retail



#### **Green Mountain Energy**

Green Mountain Energy (GME) is one of the NRG retail companies with a growing multi-state presence. GME is the nation's longest-serving company dedicated to providing 100 percent renewable energy and continues to be among the nation's most trusted names in renewable energy. Ranked No. 1 in customer service in Texas for 2014, in 2015, GME also took home the No. 1 ranking in New York state, where one of its largest customers is the Empire State Building.

GME has powered the Empire State Building with 100 percent renewable energy since 2011. The building, one of New York City's largest commercial purchasers of renewable energy, has used 238,052 MWh of renewable power and avoided 366 million pounds of CO<sub>2</sub> over the life of its five-year contract. That's the equivalent of:

- Every house in New York state turning off its lights for three weeks or
- Taking every New York City taxi off the road for 10 months

GME added two new states and 13 new service markets in 2015 as it worked to deliver cleaner energy choices that helped people achieve more sustainable lifestyles. GME, which now operates in nine states, grew its customer base and began offering new water conservation and solar products. GME customers have been helping to make a difference for the environment since 1997. As of 2015. GME customers' choice to use clean energy has avoided the equivalent of 45.7 billion pounds of CO2, which is the equivalent of taking 4.9 million cars off the road for a year.

#### Sustainable offerings

GME customers embrace renewable energy like solar. **SolarSPARC**, the first electricity plan of its kind, enables residential customers to power their homes with solar energy. SolarSPARC customers also accelerate the adoption

REPORTING



of solar by helping to make solar more affordable and available to others. Every month, GME sets money aside on behalf of every SolarSPARC customer. These funds help pay for a variety of projects, programs and solar-related technologies. The SolarSPARC program began in Texas and spread to three new states in 2015: Illinois, Massachusetts and New Jersey.

Since 2014, the Pollution Free 12 plan has helped customers eliminate  $CO_2$  from the atmosphere and has rewarded them with a Goal Zero Rock Out 2 Solar Rechargeable Speaker. The weatherproof speaker uses a highly efficient monocrystaline solar panel to keep the music from your MP3 player, phone or laptop going wherever you are. In 2015, the number of customers enrolled in the Pollution Free 12 plan increased by 13 percent.

Also in 2015, GME became the first retail electricity provider to give its customers the option of water conservation. When customers chose the Pollution Free<sup>TM</sup> Water Saver, a 100 percent wind energy plan, they also received a free Rachio Iro smart sprinkler controller. The smart sprinkler helps them save money and protect the environment by reducing outdoor water usage by up to 30 percent.

#### Goal Zero

In 2015, Goal Zero reached 600,000 customers worldwide, providing portable solar products that allow people to go anywhere regardless of battery life. New products included the Lighthouse Mini Lantern, which brought home a Best in Show award at the Outdoor Retailer Summer Market 2015. Goal Zero also played a major role in NRG's 2015 **global outreach efforts**.

#### Solar Ready program

In March 2015, Goal Zero announced its Solar Ready™ program, a partnership with other industry-leading outdoor brands to integrate Goal Zero solar panels and power packs into their products. These products include everything from backpacks and kayaks to rooftop tents and pop-up trailers.

Gregory Mountain Products introduced two new Solar Ready backpacks and is working on the Solar Ready version of its award-winning Baltoro 75 backpack. The new version incorporates Goal Zero's newest, smartest solar panel, the Nomad 7 Plus. Other companies with Solar Ready products include Jackson Kayak, Treeline Outdoors and SylvanSport.

Renewables Retail

## Large business

Making sustainable attainable is a big part of what we provide our business customers. NRG Business Solutions offers a wide range of solutions through four main categories: renewables, services, distributed and thermal. NRG Curtailment Solutions and NRG Reliability Solutions are offerings from the distributed category. Learn more about NRG Business solutions here

#### NRG Curtailment Solutions

We have to work together to avoid major brownouts and blackouts. Energy demand is ever-increasing, but the NRG Curtailment Solutions demand response provider allows consumers to help keep the grid stable and earn valuable cash payments or bill credits by lowering power consumption during specific time periods when the grid is under stress.

Utilities and regulatory commissions across the continent are setting goals to increase energy supplies from renewable resources and decrease reliance on costly power plants, and demand response has become an increasingly important component of electrical system planning in North America.

The U.S. Supreme Court agrees. On Jan. 25, 2016, the Supreme Court issued a 6-2 decision affirming the ability of the Federal Energy Regulatory Commission (FERC) to exercise jurisdiction over demand response resources seeking to voluntarily participate in the wholesale markets. Additionally, the Supreme Court upheld FERC's preferred scheme for pricing demand response in the energy market. With the Supreme Court's decision, FERC will resume exercising jurisdiction over demand response, which NRG views as a positive for both its wholesale and distributed businesses

#### NRG Reliability Solutions

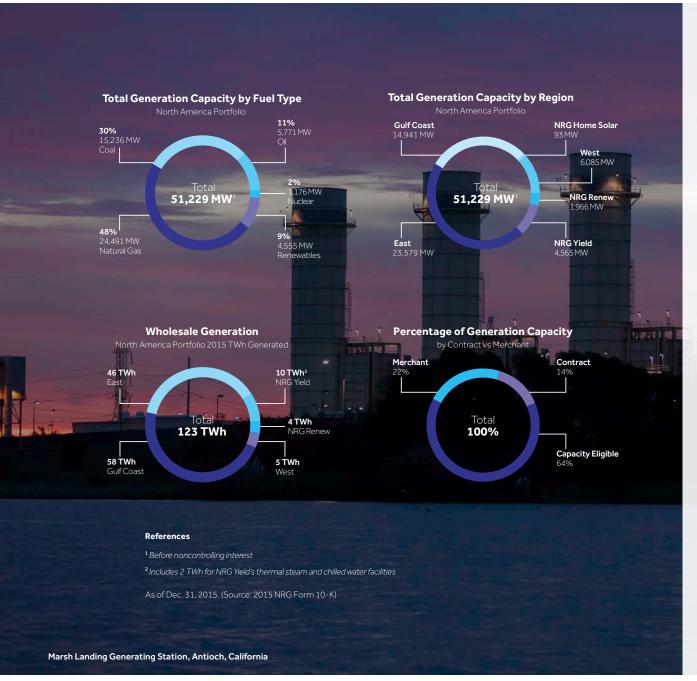
With NRG Reliability Solutions, business consumers don't have to turn anyone away due to an outage. We deliver custom, quality energy solutions to hundreds of businesses and organizations across the U.S. Our power generation capabilities are tailored to fit each customer, from retail stores and schools to industrial refineries and water treatment plants.

As a single-service provider, we own, install, operate and maintain the equipment that powers our customers' businesses. We also manage every stage of every project, which allows our customers to focus on what they do best - running their business.





An NRG Reliability Solutions backup generator



## Generation

NRG's core business is wholesale generation, and we have one of the largest and most diversified power generation portfolios in the U.S. Building a brighter tomorrow requires repowering and refueling our fleet, reducing emissions and providing reliable power for millions today as we explore alternative energy solutions.

In addition to its traditional functions, the wholesale power generation business involves NRG's conventional distributed generation business, which includes reliability, combined heat and power, thermal and district heating and cooling and large-scale distributed generation.

### Conventional

### Natural gas

Our focus on natural gas generation continues to expand, with new plants under construction and efficiency measures being deployed across our fleet. These efforts help support a more sustainable grid while also creating the flexibility needed to integrate more renewables. Highlights from a few of our plants below showcase some of the milestones of our newer natural gas assets.

#### Carlsbad Energy Center

In May 2015, the California Public Utilities Commission approved San Diego Gas & Electric's power purchase and tolling agreement for NRG's Carlsbad Energy Center in Carlsbad, California. The five-unit, 527-MW natural gas peaking plant is expected to shorten start-up time from half a day or more to 10 minutes, which reduces carbon emissions and enables better integration of renewable generation into the grid. The facility is expected to help the city and state reach their environmental goals while enhancing grid



reliability for Southern California. Carlsbad Energy Center is expected to replace the capacity of the San Onofre Nuclear Generating Station, which closed in 2013, and our Encina Power Station. The smaller, more efficient Carlsbad plant is expected to come online in 2018. In addition, NRG is working with the city of Carlsbad to redevelop part of the Encina Power Station to support the community.

#### Cielo Lindo

In Texas, construction is nearing completion on a 360-MW gas-fired peaking plant near the city of Bacliff, southeast of Houston (the plant is currently named P.H. Robinson but will be called Cielo Lindo once ownership transfer is completed). The station is expected to be operational in the third quarter of 2016 and will use six GE 7E economical fast-start combustion turbines, which require no water for cooling, to produce enough electricity to power 72,000 Texas homes. Because of their fast-start capability, the units potentially

allow us to help integrate renewable power from intermittent wind and solar generation into the ERCOT grid.

#### NY Prize microgrid competition

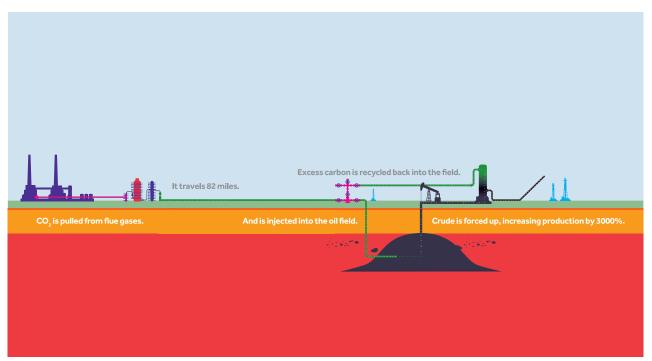
In July 2015, NRG and Central Hudson Gas & Electric Corporation were awarded funding through the New York State Energy Research and Development Authority's NY Prize for a feasibility study of a proposed microgrid project at Stewart International Airport in New Windsor, New York. Among other benefits, the proposed microgrid would help the airport maintain full terminal operations and keep critical services online in the event of grid failure. NRG also was named a partner for other awarded studies through NY Prize and will team up with the cities of Long Beach, Yonkers and Oswego to evaluate proposed projects in those municipalities.

#### Coal

We understand that coal will remain a significant part of the global power generation portfolio, but we're also working to reduce emissions at our existing coal-fired plants. That way we can keep the lights on for millions of homes and businesses as we transition to more renewables and natural gas.

#### Petra Nova

In a 50/50 joint venture with JX Nippon Oil & Gas Exploration, we're building the world's largest post-combustion carbon capture project at our WA Parish Generating Station southwest of Houston. Petra Nova, scheduled to come online on budget at the end of 2016, will use the proprietary carbon capture technology known as the KM CDR Process to separate  $\rm CO_2$  from coal plant emissions.



The Petra Nova project at our WA Parish Generating Station, southwest of Houston, will separate CO, from the coal plant's emissions.

Kansai Electric Power Co. and Mitsubishi Heavy Industries (MHI), which currently has 10 natural gas-fired CO $_2$  capture systems in operation, developed the proven technology. For four years, MHI has successfully operated a 500-ton-a-day carbon capture system at the coal-fired James M. Barry Electric Generating Plant in Mobile, Alabama.

Before entering the carbon capture process, virtually all sulfur dioxide from the flue gas will have been removed. Since the unit uses low-sulfur coal and already has controls for mercury, sulfur dioxide, nitrogen oxides and particulate matter, the flue gas leaving the  $\rm CO_2$  capture system could be the cleanest fossil fuel plant emissions in the world.

But  $CO_2$  sequestration is just the first step. The Petra Nova project will combine carbon capture with enhanced oil

recovery (EOR) to keep  $CO_2$  out of the atmosphere, increase domestic crude oil production and provide revenue to help pay for the entire system. NRG and JX teamed with Hilcorp Energy Company to inject captured  $CO_2$  from WA Parish into an oil field about 80 miles southwest of Houston. The  $CO_2$  acts as a solvent that loosens oil stuck on rock surfaces and enables the oil to flow freely to production wells. Once it's on the surface, we separate the oil- $CO_2$  mixture, recompress the  $CO_2$  and reinject it to release more oil.

The  $CO_2$ -EOR process presents the most current economical use of  $CO_2$ . It has the potential to decrease global emissions while also reducing the amount of  $CO_2$  released into the atmosphere. The process doesn't involve hydraulic fracturing and is conducted in oil fields already producing oil.

#### Big Cajun II

In the summer of 2015, we completed the conversion of Big Cajun II Generating Station's Unit 2 in New Roads, Louisiana, from coal to natural gas. The conversion significantly reduces mercury, particulate matter and sulfur emissions from the unit and cuts  $CO_2$  emissions by nearly 50 percent.

Prior to its conversion, we installed selective noncatalytic reduction technology to reduce nitrogen oxide (NO<sub>x</sub>) emissions on all three units. On the remaining two coal units, which already use low-sulfur coal, we've installed activated carbon injection to reduce mercury and added dry-sorbent injection to one of the units to further reduce sulfur emissions. Also, cleaner natural gas replaced oil as the units' startup fuel.

With Big Cajun II's conversion done, NRG now operates approximately 3,500 MW of natural gas plants and more than 900 MW of low-sulfur coal in MISO's South Region.



Big Cajun II Generating Station's Unit 2 now runs on cleaner natural gas, cutting its  $CO_2$  emissions by almost 50 percent.



Installing BECs at our Waukegan Generating Station contributes to the overall modernization of our Illinois fleet.

#### Environmental retrofit

Our Engineering & Construction department continues to look for and evaluate new decarbonization technologies that could be deployed at our coal-fired facilities. At times, we'll support and partner in research, development and demonstration projects when we see potential in viable new technologies. Additionally, Engineering & Construction implemented a Sustainability Policy and protocol within the department for designing and building sustainability into our new projects.

In 2015, we finished installing back-end emission controls (BECs) on the coal units at our 797-MW Waukegan Generating Station. We also retired coal Unit 3 at our Will County Generating Station. At our Powerton plant, we installed BECs on one unit and expect to complete installation on the second unit by the end of 2016. These investments will bring our Illinois coal plants into compliance with the state's Combined Pollutant Standards.



The \$20 million NRG COSIA Carbon XPRIZE will help develop solutions that convert carbon emissions into something valuable.

Back in Waukegan, we're funding a \$3 million solar project on several Waukegan Public School buildings that will begin generating renewable energy by the end of 2016. The solar installations will help reduce long-term energy costs for the school district and educate the community on the power of renewables.

We have natural gas conversion projects underway at two additional locations: New Castle Generating Station in West Pittsburg, Pennsylvania, and Shawville Power Plant in Shawville, Pennsylvania. We expect to begin operations at both the New Castle project and Shawville projects in 2016.

#### NRG COSIA Carbon XPRIZE

In partnership with COSIA and XPRIZE, we've created the NRG COSIA Carbon XPRIZE to help develop solutions that power the future while taking carbon out of the equation. The \$20 million competition will incentivize the world's brightest minds to develop new and emerging technologies that

convert captured carbon emissions from power plants and industrial facilities into something valuable. Over the course of four years, teams will accelerate their ideas from laboratory testing to demonstration under real-world conditions to turn  $CO_2$  into economically valuable assets such as building materials, alternative fuels and everyday consumer products. Learn more at **carbon.xprize.org**.

#### Nuclear

Nuclear power generation is zero-carbon and plays a part in the broader transition to a sustainable energy future.

NRG indirectly owns a 44 percent interest in a 1,176-MW nuclear power facility in Bay City, Texas. (In 1997, STP Nuclear Operating Company was founded by the plant's then-owners to operate the plant.)

There are unique risks involved with owning and operating a nuclear power facility, but the U.S. Nuclear Regulatory Commission requires all U.S. nuclear energy plants to operate under strict regulation. Such regulation includes licensing, inspection, enforcement, testing, evaluation and modification of all aspects of nuclear reactor power plant design and operation; environmental and safety performance; technical and financial qualifications; decommissioning funding assurance; and transfer and foreign ownership restrictions. For more information, see the **2015 NRG Form 10-K** (pages 31-32 and 46).

### Preferred resources contracts

In July 2015, NRG partnered with Ice Energy to provide 25.6 MW of energy storage for Southern California Edison and help reduce California's peak energy demand. Ice Energy will attach about 1,800 of its innovative Ice Bear units to standard rooftop commercial HVAC units starting in early 2016.

Ice Bears freeze water at night when power is cheaper and cleaner, and then use that ice to provide cooling during the day instead of power-hungry AC compressors that use more expensive power. By displacing natural gas generation during

the day with renewable generation at night, each Ice Bear unit can offset four tons of  $CO_2$  a year, helping to create a more efficient and reliable grid.

NRG's partnership with Ice Energy will bring our total commitment to California's growing preferred resources market to more than 133 MW, including 5 MW of demand response and energy-efficiency products secured in a Southern California Edison RFO. These preferred resources are innovative commercial and industrial energy products and technologies that will be marketed, installed and commissioned by NRG and its partners. They'll help reduce energy demand, cut carbon emissions and improve grid reliability in Southern California.

NRG's preferred resources contracts with Southern California Edison are still awaiting final approval by the California Public Utilities Commission. Other contracts, which range from four to 20 years, include:

- The NRG Cool2Save program, which will reduce 72.5 MW of grid-power demand through Evaporcool's advanced hybrid evaporative precooling technology that works with existing commercial HVAC units
- 30 MW of energy-efficiency contracts with Lockheed Martin to develop projects at large commercial and industrial sites in Southern California Edison territory
- 5 MW of demand response contracts with commercial and industrial sites in Southern California Edison territory

## District energy

NRG Energy Centers are energy-efficient, highly reliable and environmentally sound methods of heating and cooling buildings that use emissions controls to help improve air quality. NRG (primarily through NRG Yield) owns and operates Energy Centers, which are district energy systems, and combined heat and power (CHP) plants that generate power and use heat from that process to create steam and/or chilled water.

Each facility exhibits a unique configuration and set of services offered. Some heat, some cool and some do both. Others provide steam for industrial processes. Several systems serve one or two large users, while others serve hundreds of customers of all types and sizes within the core of major U.S. cities.

Our Energy Centers provide district heating and/or cooling to more than 10 million square feet of building space, including hospitals, hotels, commercial office buildings and sports arenas in the following locations:

- Bridgeport, Connecticut
- Dover, Delaware
- · Harrisburg, Pennsylvania
- Minneapolis, Minnesota
- · Omaha. Nebraska
- · Phoenix. Arizona
- Pittsburgh, Pennsylvania

- · Princeton, New Jersey
- San Diego, California
- · San Francisco, California
- · Smyrna, Delaware (operated, not owned)
- Tucson, Arizona
- Arizona State University, Arizona

into steam, hot water or even chilled water that can then be distributed to users based on their needs

We operate our network of CHP facilities with professional teams that are available 24/7. The CHP process is inherently more efficient than and nearly half as fuel-intensive as traditional generation technologies. This reduces energy costs and emissions and, in some locations, enables realtime sales of power back to the grid.

Operational details of some of our CHP plants include:

- University of Bridgeport providing thermal energy and electricity to the campus through a highly efficient fuel cell provided by FuelCell Energy
- Arizona State University providing heating, cooling and electricity to the university's distribution system connecting 88 buildings on ASU's Tempe campus and its research facilities
- University Medical Center of Princeton providing power, steam, chilled water and backup power to this new, stateof-the-art hospital campus

## Better fleet-wide chemistry

Following a 2014 water chemistry audit of our Distributed Generation fleet, we identified ways to reduce water and chemical consumption, saving on costs and lowering environmental impact. As part of our centralized chemistry program, which began in Phoenix, we put systems in place to treat the condenser water. Additionally, we found ways to:

- Decrease the storage and disposal of hazardous chemical containers, creating a safer workplace
- Reduce risks associated with legionella bacteria growth in cooling towers
- Simplify proprietary chemical feed systems and put NRG in control of our chemistry program

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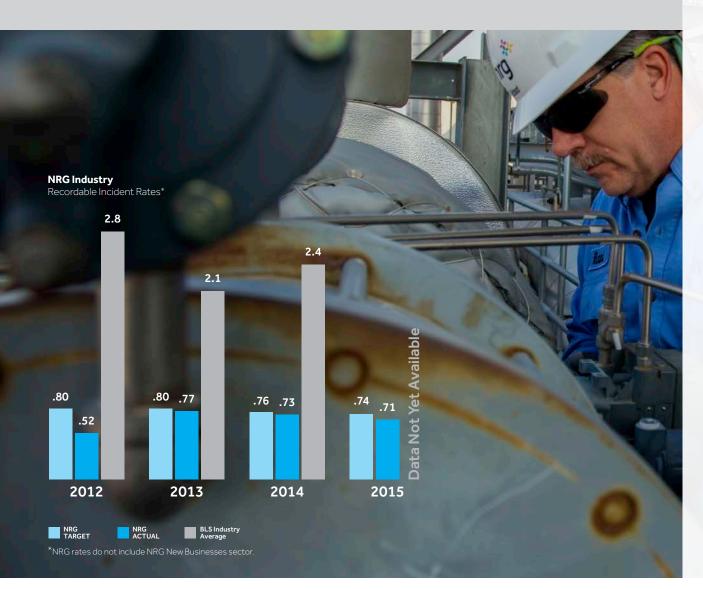
Our CHP plant at Arizona State University provides heating, cooling and electricity to the university's distribution system.

### The next cogeneration

CHP, also known as cogeneration, captures the heat in waste exhaust gas and turns it into useful energy by converting it

Employees

# Our focus areas



Embedding sustainability at NRG means identifying the issues that matter most to our company and our stakeholders. It means providing a workplace that allows our employees to execute at the highest levels and return home to loved ones safely. It means actively engaging in our communities and supporting our partners. It means investing in our colleagues and supporting causes and organizations in which we believe.

We operate with integrity and transparency, focusing on continuous improvement to ensure that we can safely provide reliable, cleaner energy into the future.

## **Employees**

Our approximately 10,500 employees (as of Dec. 31, 2015) deserve a safe, healthy, empowering and diverse work experience. Providing this remains important to our corporate philosophy and sustainability efforts.

## Safety

"Safety first" is more than a catchy expression at NRG. It's our No.1 core value. Our goal is to achieve topdecile performance for Occupational Safety and Health Administration (OSHA) recordable injuries (higher decile performance means a better safety record) with the ultimate goal of a zero-injury record every year. The continuous improvement and implementation of our preventive safety practices and programs keeps our employees safe and productive at work.

Employees Community Environmental

In 2015, we honored our safety commitment to stay below the industry average incident rate by registering our second-best year-end incident rate (0.71) since 2006.

### Star performance

We showcased our commitment with 10 NRG fleet facilities maintaining their OSHA Voluntary Protection Program (VPP) Star status – the highest possible level of recognition - in 2015:

- Big Cajun II
- Ormond Beach
- · Cedar Bayou
- San Jacinto
- Central Repair Shop
- Seward
- Cabrillo I (Encina)
- TH Wharton
- Greens Bayou
- WA Parish

The VPP Star program recognizes the exceptional occupational health and safety achievements of employers and employees through an application review and in-depth, on-site evaluation by a team of OSHA experts.

#### Keeping contractors safe

Our comprehensive safety program includes everyone who works within an NRG facility: employees, contractors, vendors and visitors. We prequalify contractors and assign them on-site coordinators to monitor their safety performance. Additionally, we conduct field audits to ensure our contractors meet all safety expectations.

Just like employees, we require contractors to report all observed hazards and incidents. We believe the value of reporting and investigating all incidents outweighs simply tracking lost-time injury rates.

#### Wellness

To keep our employees healthy, happy and operating at their best, NRG provides several wellness benefits. We offer full and part-time employees scheduled to work 20 or more hours per week health, dental, vision and life insurance, mental health assistance, a non-tobacco user discount, adoption assistance, parental leave and tuition reimbursement, among other benefits.

#### Power up my life

Launched in January 2015, Power up my life is our flagship employee wellness program that focuses on three pillars: nutrition, physical activity and resilience. We designed it to build and sustain a culture that encourages, supports and celebrates physical and mental well-being. The online program and its incentives, which include mynrgRewards points and prizes, are available to all benefits-eligible employees and their spouses/domestic partners. And with a participation rate of more than 30 percent, it continues to be a resounding success.

First, employees complete a biometric health screening so they can "know their numbers," identify health risks and get educational material to help them address those risks. We also hosted screening events at most of our larger locations and gave all other employees access to free screenings at LabCorp locations.

Second, employees complete an online well-being assessment that helps them understand all aspects of their mental, physical and overall health. The assessment identifies wellness challenges and goals unique to each participant.

Finally, participants can take part in various challenges. Employees earn points by tracking their activities, reaching their goals and joining others in healthier behaviors. In May 2015, we launched our first-ever companywide wellness competition, the Get Moving Challenge. More than 1,600 employees and spouses/domestic partners formed teams to take steps toward a healthier lifestyle. Over the 100-day event, NRG participants logged more than 1.7 million total steps - the equivalent of nearly 700 miles.



Peter Johnson (left), vice president, Human Resources, and Elizabeth Korduba (right), senior director, Benefits, award Nalini Singh for being NRG's top individual stepper in the 2015 Get Moving Challenge.

#### Walking the walk(s)

NRG also sponsors and encourages employees to participate in a variety of runs, walks and bike rides to promote healthy behavior and fund research for serious illnesses. Local events we've sponsored include:

- HiTOPS Princeton Half Marathon
- Mercer County American Heart Association Heart Walk
- Carnegie Center 5K
- March of Dimes Walk for Babies
- **BP MS 150**
- Autism Speaks Walk
- American Cancer Society Walk
- Air & Waste Management Association Envirun 5K
- Leukemia & Lymphoma Society Light the Night Walk
- Juvenile Diabetes Research Foundation One Walk

Additionally, we hosted more than 25 employee health fairs in 2015 at NRG locations nationwide.

# Employee engagement and innovation

We understand creating a more sustainable energy future requires a talented workforce operating at a consistently high level. Calling upon the creativity and expertise of our approximately 10,500 employees, we power today while exploring the energy solutions of tomorrow.

We empower our employees to help protect and preserve the environment in their communities through regional programs and volunteer work. We're especially proud of the success of and employee participation in our annual NRG Global Giving® Day held each May. For more information on our Global Giving program, see Community.



An NRG employee crosses the finish line at the 2015 HiTOPS Princeton Half Marathon.

#### Innovation Co-Lab

Our Innovation Co-Lab competition gives employees the opportunity to compete in self-selected teams to come up with our next big idea. Teams are evaluated by a "Shark Tank"-style panel of NRG executive judges. Submissions in 2015 included waste reduction technologies, green finance products and streamlining internal databases. Winning teams are granted resources, including about 10 percent of their work time, to develop the project.



A member of the NRG cycling team competes in the 2015 BP MS 150 charity ride.

Employees Community Environmental



#### The Path to Luma

The Path to Luma is a mobile game born out of our 2014 Innovation Co-Lab competition. The adventure puzzle game follows a galaxy-traversing Sustainability Augmentation Model (SAM) on a mission to save a series of abandoned planets through the power of clean energy.

"Energy provider NRG has made a thoughtful puzzle game that will make its players more aware of clean energy alternatives." said Mashable Games Editor Chelsea Stark. "Mobile game 'The Path to Luma' puts you in charge of enabling clean energy solutions across a galaxy, though without the heavy-handedness of most edutainment games."

The game officially launched in the Apple App  $Store^{TM}$  and Google Play store on Aug. 13, 2015. It's free, has no in-app purchases and has been downloaded by more than two million people worldwide.

#### InspireMEnrg

In January 2015, we introduced a web-based platform that inspires and encourages employees to take steps toward a more sustainable lifestyle. To kick off the program, we gave employees a set of reusable bamboo utensils and a chance to win \$5,000 toward an eco-friendly vacation.

To date, we've taken 81,472 employee actions – everything from practicing "Meatless Monday" to getting a quote for residential solar. These actions' collective impact is equal to avoiding 286,000 pounds of CO<sub>2</sub>, which is like taking 27 cars off the road for a year.\*

<sup>\*</sup>Data produced by Quantis Environmental Consultants for WeSpire to analyze NRG employee actions is based on EPA and other government and university sources.

Employees Community Environmental

**Employee Engagement Survey** 

Following our 2014 Employee Engagement Survey, NRG leaders teamed with employee focus groups to identify 291 action items that will help us enhance our workplace environment, drive the growth and development of our workforce and achieve our mission. About half of those action items were completed by September 2015, with the rest either ongoing or near completion. Leaders and their staff tackled a wide range of employee concerns, including:

- Identifying the right amount of staff to do any particular job correctly
- · Access to relevant job training
- · Work organization within teams
- Proper resource allocation (e.g., materials, equipment, technology)

#### Microgrid Design Competition

In our 2014 Microgrid Design Competition, more than 4,000 plant operations employees on 13 teams proposed innovative energy solutions to their existing operations. Project design ideas included solar, small wind, energy efficiency, load control, thermal storage, battery storage, micro-hydro, fuel cells and distributed generator systems.

Participants trained on microgrid modeling and presented all aspects of their designs, including value proposition, project objectives, system architecture, technical design and project execution strategy. The winners, announced in 2015, hailed from our Astoria plant in Queens, New York, and began building out the designed microgrid at their facility.

#### **NRG Gigs**

In August 2015, we launched Gigs, a talent marketplace and career development resource hosted on our company intranet, the Insider. Employees can learn how to help the company meet its goals by exploring NRG's business units and departments, learning about project work, checking out internal job postings and getting career development tips. They also can celebrate professional milestones, achievements and success stories with the rest of their coworkers. One hundred percent of non-bargaining employees are included in the annual performance review process, which includes biannual check-ins on their development.

Gigs features original content updated every week, including:

- 5 Q's In short videos, NRG leaders answer five questions about a variety of topics, including their most pressing talent needs
- **Dig My Gig** These videos clips feature NRG employees expressing why they enjoy their jobs
- Power to Grow Employees share their interesting and successful career paths within the company
- Gigs Tales Topics include career development tips and employee milestones
- **Job Scroll** A place for up-to-the-minute job postings
- Project Special Gigs Where leaders can go to find employees with special skills to help consult or temporarily work on special projects

### Leadership programs

Throughout the performance management and succession planning processes, individuals are identified as strong performers capable of moving up and assuming more responsibility in the organization. These leaders have the opportunity to participate in one of two company-sponsored formal leadership development programs that are part of NRG's leadership curriculum.

In May and September 2015, about 50 leaders participated in The Leader's Edge, a program designed for midmanagement leaders to help them develop their leadership

point of view. Participants explored different leadership styles, learned about leading change initiatives and practiced their influence skills. Additionally, participants staged mock executive presentations where they defended their positions on a case-study business challenge.

In October and December 2015, we conducted two classes for the Leading for Success program that included almost 50 leaders. Leading for Success, aimed at NRG's frontline, emerging leaders, is a three-day program focused on deepening their understanding of their role and influence in the workplace and what it means to be a leader. Specific topics included goal setting, diagnosing individual needs, matching leadership style to those needs, leading a team and resolving performance issues. Participants reported that the class will improve their productivity.

#### **forNRG**

for NRG, our continuous business improvement initiative, aims to enhance each department's profit and loss reports through innovative employee ideas. Many for NRG projects have environmental focus on areas like energy efficiency, water conservation and recycling. for NRG 4.0, the initiative's latest iteration, has several objectives to capture value over its three-year span:

- Integrate our sustainability message and culture into the program
- Hit maintenance capital expenditure (CAPEX) targets for plant operations
- Engage in projects that pass savings on to our external customers

The forNRG 4.0 program was intended to capture \$150 million of recurring EBITDA-accretive savings over a three-year period ending in 2018. In February 2016, NRG accelerated the timing of the forNRG 4.0 program to achieve this goal by the end of 2017.

## **Workforce diversity**

Diversity in talent, gender, ethnicity, sexual orientation, cultural perspectives and experiences remains critical to achieving our vision to power customers with the energy of today and tomorrow. We aspire to create a culture that fosters inclusion, inspires innovation, encourages respect and promotes unlimited success for everyone as we create a sustainable energy future.

Each year, we analyze our diversity-focused recruiting efforts and internal activities to develop a more diverse workforce. We also pay careful attention to our termination data and hiring practices, documenting any impacts to diversity groups and implementing remediation plans as needed.

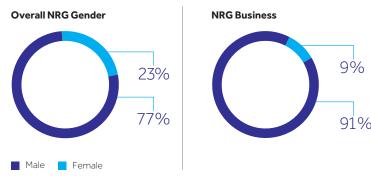
#### Employee and recruitment resources

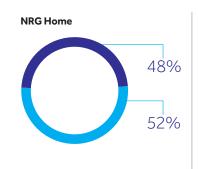
NRG employees have access to a number of groups and programs that provide support for diversity-related issues:

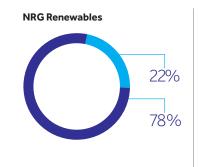
• Women in Power offers mentoring opportunities for women in leadership positions to encourage more female participation in the male-dominated operations environment

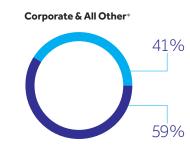


- · Diversity Inc, a leading benchmarking/consulting publication; our subscription allows us to access reports and best practices to use throughout the company
- IvyQ, a consortium of Ivy League schools, sponsors LGBT career development and recruiting events annually
- · We participate in the Historically Black Colleges and Universities (HCBU) Career Fair and conference each year
- We subscribe to the Professional Diversity Network, an online platform that helps employers specifically recruit diverse talent
- For veterans and other military recruitment, we work with world-class national veteran search firms and attend career fairs that target military personnel transitioning from active duty to the civilian workforce, particularly in Texas and the Northeast; our job postings are automatically promoted on state workforce commission and veteran outplacement websites



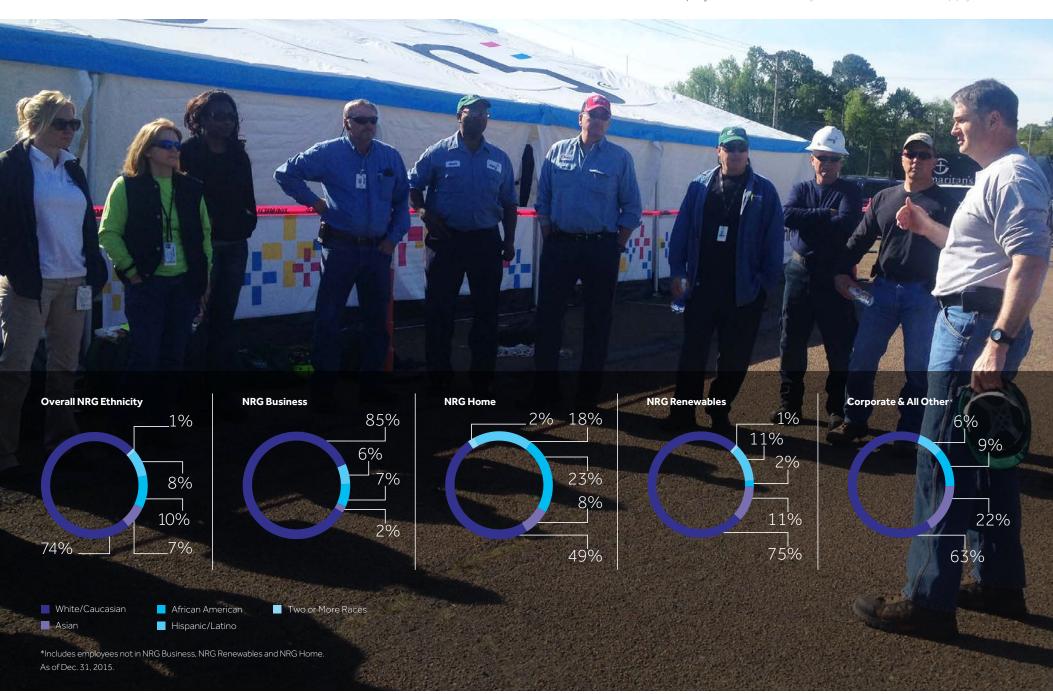






<sup>\*</sup>Includes employees not in NRG Business, NRG Renewables and NRG Home. As of Dec. 31, 2015.

Employees Community Environmental Supply chain



Community Environmental



## Community

Employee engagement drives our culture of giving. In offices and plants across the country, our employees invest time and energy into the many NRG charitable giving programs that support charities, bolster communities and help protect ecosystems.

## **NRG Global Giving**

The NRG Global Giving story is one of volunteerism, charitable giving and partnerships with organizations around the world. We're leaders in the communities we serve, enhancing lives by supporting nonprofit organizations, community programs and initiatives consistent with our four focus areas: education, human welfare, community and economic development and environment.

#### Education

We're providing young minds the opportunities and tools that allow them to flourish.

#### Scholarships

Students of NRG employees from across the country compete annually for scholarships (up to \$60,000 each), the recipients of which are selected by an independent committee. The committee includes teachers, educators and other academic professionals. Learn more about NRG scholarships here.

#### NFFD

We invest in future energy leaders through our sponsorship of the National Energy Education Development (NEED) Science of Energy workshops for educators. In 2015, NRG contributed more than \$75,000 for NEED programs nationwide. NEED students and teachers actively engage in discussing and studying new energy technologies.

Employees Community Environmental Supply chain

These invaluable workshops provide mind-opening energy curricula that encourage hands-on learning. They also create networks of students, educators and community leaders who help deliver effective energy education programs.

Hundreds of teachers have visited our Long Beach Generating Station in Long Beach, California, as part of NEED's annual National Energy Conference for Educators. The 260-MW natural gas plant, repowered in 2007, is a prime example of environmentally friendly generation. It features cutting-edge emission control technology and doesn't use ocean water for its cooling needs.

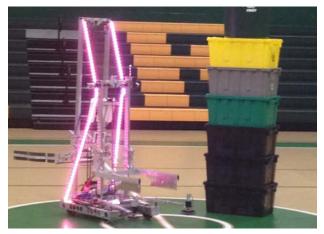
#### **FIRST**

We're proud to partner with FIRST (For Inspiration and Recognition of Science and Technology), a nonprofit organization founded in 1989 by Dean Kamen, to inspire young people's interest and participation in science, technology, engineering and math. Among other benefits, FIRST students are eligible for more than \$16 million in college scholarships from more than 150 colleges and universities.

Through an NRG mentoring program, employees across the country work with local student teams to design and build entries for regional FIRST competitions in hopes of qualifying for the FIRST Championship. We've been a major sponsor of the FIRST Robotics Competition for the past three years, helping to foster a future workforce that can support a highly technical and rapidly changing infrastructure.



Teachers visit our Long Beach Generating Station in California as part of NEED's annual National Energy Conference for Educators.



NRG mentors across the country work with local student teams to design and build robots for FIRST competitions.

#### Big Brothers Big Sisters

NRG employees volunteer to meet with high school students twice a month during the school year through a Big Brothers Big Sisters mentoring program. Students are bused from their school to our Princeton office to meet with NRG mentors. A featured speaker is usually part of the visit and often provides insight into the struggles of identifying and navigating a career path. Speakers and mentors emphasize the importance of setting goals and demonstrate what the students are capable of if they work hard. Last year, every student who participated in the program said they've set goals and now have a greater understanding of how to achieve them.

One NRG mentor went above and beyond in 2015. Commercial Operations Manager Raul Fuentes was named Big Brother of the Year by the Mercer County (N.J.) chapter for his dedication to his Little Brother. Fuentes has been mentoring his Little Brother for four years, teaching him valuable life skills, giving him guidance on all kinds of adolescent issues and helping him explore his own unique interests.



NRG's Raul Fuentes was named 2015 Big Brother of the Year by the Mercer County (N.J.) chapter of Big Brothers Big Sisters.

2015 NRG Sustainability Report

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# President's Volunteer Service Award

We received the 2014-2015 Bronze President's Volunteer Service Award for logging 5,000+ volunteer hours in the Junior Achievement Program. The award was created in 2003 by the President's Council on Service and Civic Participation to recognize community service leaders whose efforts inspire others to volunteer. In 2006, Junior Achievement (JA) became an official certifying organization for the award. This allows JA to recognize corporations with a U.S. presence whose employee volunteers help teach JA programs around the world.

#### Human welfare

Supporting key groups and initiatives designed to help those in need improves the quality of life for all in the communities we serve.

#### NRG and HomeFront.

Our support for nonprofit HomeFront reached new heights in 2015. The organization, which fights to end the cycle of poverty and homelessness in Mercer County, New Jersey, opened its new Family Campus in Ewing in September. A 275-panel, 84-kW solar array tops the facility and generates about half of HomeFront's electricity usage with clean, renewable energy.

The array – donated by NRG Global Giving, designed by NRG Home Solar and installed by NRG volunteers during NRG Global Giving Week – helps HomeFront reinvest its energy savings into family-oriented programs and initiatives. It also showcases the power of renewable energy and its potential application for homes, businesses and other nonprofits. Our partnership with HomeFront is just one example of how the private sector can work together with nongovernment organizations to achieve a common goal: making our world a better place.



Members of the NRG cycling team gear up for the 2015 BP MS 150 charity ride.

#### NRG in motion

Formed in 2005, the NRG cycling team combines its passion for riding with its enthusiasm for effecting positive change in the community. The flagship event for this all-region traveling cycling team is the National Multiple Sclerosis Society's BP MS 150 charity ride from Houston to Austin. The event set a new record in 2015, raising \$20.3 million to help find a cure for MS. NRG participants cycled more than 150 miles each to participate in this event, which also attracted dozens of NRG volunteers to help out along the way. To date, NRG has had more than 850 cyclists complete the BP MS 150 and has raised nearly \$848,000 for the National MS Society. The team trains throughout the year and also participates in regional events.



NRG volunteers pack boxes of meals to help the Houston Food Bank fight hunger.

#### The Houston Food Bank

NRG is a longtime supporter of community food banks. The Houston Food Bank was named Feeding America's 2015 Food Bank of the Year for its commitment to fighting hunger. Since 2008, NRG, Reliant, Green Mountain Energy and Green Mountain Energy Sun Club® have donated more than \$500,000 and countless volunteer hours to support the Houston Food Bank's mission. That includes a \$200,000 solar array that will help the organization spend less on electricity and more on meals for hungry kids, seniors and others for decades to come.

In New Jersey, NRG donated a cargo van and supplies to the Mercer Street Friends Food Bank to deliver food to communities in need. Additionally, through a miniature golf competition, NRG employees set a new internal record by donating 5,568 pounds of food to the food bank. That topped the 2014 mark by more than 1,100 pounds.

#### Power2Serve

In May 2015, thousands of lives were affected by flooding when Texas was hit with enough rainfall to cover the entire state in 8 inches of water. We sent our mobile power support vehicle, Power2Serve, to the Central Texas town of Wimberley to provide hands-on support in the face of widespread devastation. Equipped with solar and diesel generators and a custom canopy, the 26-foot truck provided power and connectivity support to disaster relief nonprofit Team Rubicon. The organization of veterans, first responders, employees and civilians coordinated cleanup, debris removal and volunteer management in Hays and Caldwell counties.

#### Community and economic development

We support innovative ideas that solve real-life problems and address vital community needs.

#### Department of Energy Solar Decathlon

Every other year, collegiate teams from across the country take part in the U.S. Department of Energy Solar Decathlon. The challenge: Design a fully solar-powered home that fuses style, efficiency and affordability. In 2015, NRG Home Solar partnered with a team of 38 students from Stevens Institute of Technology in Hoboken, New Jersey, who decided to up the ante.

The Stevens team set out to design a home that's not only sustainable, attractive and cost-effective, but also is strong enough to endure severe weather conditions. The result is SURE (sustainable + resilient) HOUSE, which can resist 5 feet. of floodwater, survive a two-week blackout and withstand hurricane-strength winds – all while maintaining its attractive. contemporary design.

SURE HOUSE was inspired by the aftermath of 2012's Superstorm Sandy, which affected many on the team. NRG Home Solar supported the project's solar array, which meets all the home's energy needs through 32 solar panels on the rooftop (9 kW) and storm shutters (1.8 kW). On a sunny day, the storm shutter panels alone send enough clean solar energy directly to SURE HOUSE's hot water tank to generate 70 percent of the home's water heating needs.

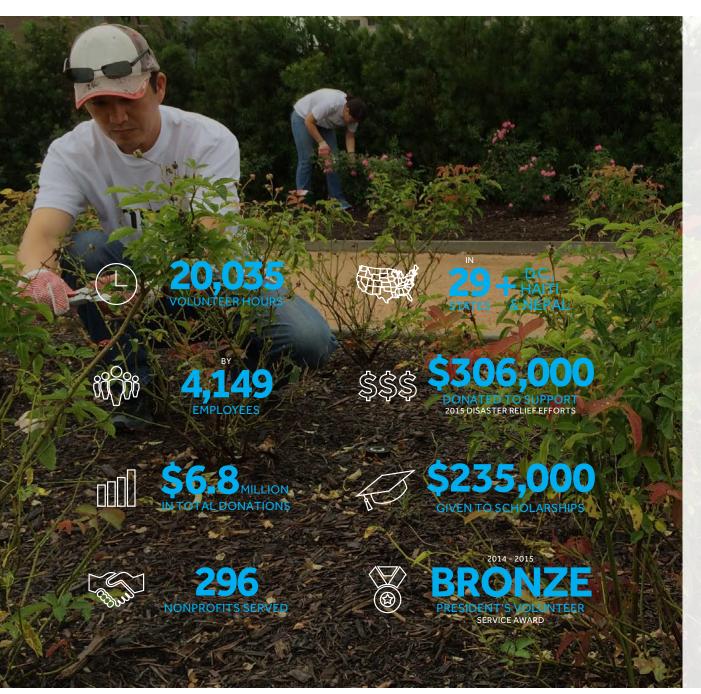


Our mobile power support vehicle, Power2Serve, provides power and connectivity support for disaster relief efforts.



NRG Home Solar helped a team of college students build a sustainable home that can endure severe weather conditions.

Community Environmental



#### Employee giving programs

We're proud of our employees who serve as outstanding leaders and ambassadors in the communities where we live and work. At our offices and power plants across the country, NRG employees dedicate time, expertise and financial support to help those in need. NRG initiatives facilitate staff volunteer time for community projects and also seek to connect people with the events we sponsor, such as the Houston Livestock Show and Rodeo. To encourage and reinforce these contributions, NRG supports a variety of giving programs year-round:

NRG Matching Gifts – We match each employee's donations to qualifying organizations dollar for dollar, up to \$1,400 annually per employee.

NRG Dollars for Hours – To supplement employee volunteerism at qualifying organizations, we contribute \$2 for every hour of volunteer service, up to 50 hours annually.

NRG Volunteer Days – Teams of employees are encouraged to volunteer during work hours for nonprofit organizations supported by the company.

**TEAM NRG** – NRG makes a \$2,000 grant to any qualifying organization for which an employee team of six or more participates in a volunteer activity outside their normal workday.

## Global Giving Week

For the eighth straight year, NRG employees spent a week making a positive impact in their communities. During Global Giving Week in 2015, more than 1,500 employees across the country volunteered with more than 70 nonprofit organizations.

Employees Community Environmental Supply chain

### Global outreach

The global community faces issues that are indifferent to market boundaries. NRG has been active in our global philanthropy outreach for more than a decade, contributing millions of dollars in disaster relief donations and providing innovative energy solutions to aid in recovery and building a sustainable community.

### Nepal

Nepal was shaken by two massive earthquakes in April and May 2015, affecting hundreds of thousands of lives. NRG and Goal Zero, an NRG company that specializes in portable solar-powered products, responded immediately.

Since the disasters, we've given \$25,000 each to the Direct Relief organization, which deployed emergency medical response personnel and health essentials; the Global Giving organization, which works to meet survivors' immediate needs for food, fuel, water, hygiene and shelter; and UNICEF, which focuses on the humanitarian needs of children. NRG employees in Princeton and Houston also held fundraisers, the proceeds of which NRG matched 4:1.

The May earthquake's epicenter was close to Mount Everest. Goal Zero, with its strong ties to the outdoor climbing community, eagerly delivered essential disaster recovery equipment to the two mountain areas of Dhading and Sindhupalchok. The donated products provided light and power for maternal health clinics, helping 270 women receive much-needed care. Additionally, 23 babies were delivered in clean, safe donated tents.

In Dhading, the earthquakes left only one building standing at the Nobese Health Post, which serves about 20 pregnant women a month and 60 outpatients a day. Our volunteers helped set up transitional birthing centers next to the destroyed health facilities, ensuring a safe environment for giving birth and receiving care.

All told, Goal Zero donated more than 1,000 assorted lighting products, such as flashlights and lanterns, to Nepal, as well as several Yeti and Sherpa solar kits. We accomplished this through charitable donations and "buy one, give one" promotions with employees and customers.







In 2015, NRG's global philanthropy outreach included earthquake recovery efforts in Nepal.

#### **Africa**

In April 2015, Goal Zero partnered with nonprofit Tifie Humanitarian and Point Innovate to deliver solar panels, lights and chargers to power a small technology center in the village of Kushea, Ghana. The project hopes to provide schoolchildren and villagers access to a better, brighter future.

In June 2015, Goal Zero teamed up with nonprofit Human Outreach Project to install solar lighting at a small orphanage in Tanzania, the Kilimanjaro Kids' Community. In addition to outfitting the orphanage, Goal Zero donated and installed solar kits at the local church and two public school buildings. Each location was provided a solar panel, battery and two lights.

#### Haiti

In March 2015, NRG partnered with Haitian solar company DigitalKap to design and install 20-kW solar arrays in three locations. Additionally, 14 NRG employees made the trip to Haiti to aid the installations.

Marmot Maternity Center's solar installation allows the facility to stay open 24 hours a day and provide crucial care in a country where one in 37 female deaths is linked to high-risk pregnancy. The clinic is centrally located and equipped with a full laboratory, incubators and examination and observation rooms.

Kay St. Helene Orphanage is a place for orphaned, abandoned and other at-risk children to call home. The orphanage, which relied on costly generators for its electricity prior to receiving a solar installation, can now run more consistently and use the cost savings for education, food and other resources.

Simbi, which makes and sells handcrafted jewelry and accessories, was founded by two women to create jobs, empower Haitian women and fund clean-water projects across the country. A solar installation atop Simbi's manufacturing facility decreases fuels costs, allowing the company to expand its programs and employ more Haitians.



Goal Zero worked with nonprofit organizations to bring solar power to a pair of African communities.







2015 NRG Sustainability Report

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# **Public partnerships**

We tackle projects and programs specific to the communities we serve. These initiatives, which include everything from nature preservation to increasing energy efficiency, help us become better stewards of the ecosystems closest to our hearts and homes.

#### **East**

Since 2004, teams from our Middletown Generating Station in Connecticut have helped pull a junkyard's worth of trash from the Connecticut River its shoreline and Dart Island as part of the annual Source to Sea Cleanup project. In 2015, in addition to being a lead sponsor, we took to the airwaves to help promote the event. NRG Environmental Compliance Specialist Keith Shortsleeve joined a representative from the Connecticut River Watershed Council to plug the project, which deploys cleanup crews along nearly the entire 400-mile length of the river, on a local radio station.

Since the early 1980s, the Chalk Point Generating Station Aquaculture Center has demonstrated NRG's environmental stewardship by helping the Maryland Department of Natural Resources (DNR) restore threatened fish species in the Chesapeake Bay. The aquaculture center raises Atlantic sturgeon, which the DNR and the University of Maryland use to research for restoration purposes. In addition, the program has raised and released hundreds of thousands of fish. including shad, striped bass and largemouth bass. The DNR's Power Plant Research Program recognizes and supports Chalk Point for its restoration efforts and work with the state. The Aquaculture Center's many outreach initiatives include environmental education programs where local and regional students learn about endangered species, fisheries restoration and fish identification and anatomy.



For more than a decade, teams from our Middletown plant have participated in the Source to Sea Cleanup project along the Connecticut River.



The NRG EcoCenter donated 10,500 wetland plants to the Galveston Bay Foundation's 2015 March Mania event.

#### **Gulf Coast**

Through the NRG Retail Charitable Foundation, we support local communities through volunteerism, charitable giving and partnerships with a variety of organizations. We're proud of our employees' efforts and the deserving organizations where we invest our time and energy.

Over the course of 2015, the NRG Retail Charitable Foundation donated nearly \$1.21 million to more than 80 organizations, including the Houston Food Bank, American Heart Association, March of Dimes and The Salvation Army.

Company employees across NRG logged more than 8,170 volunteer hours in 2015 through charitable activities such as Global Giving Day and Random Acts of Kindness at the Houston Livestock Show and Rodeo. Additionally, employee blood drives helped 661 people in need.

In efforts to support disaster relief, Reliant also donated \$100,000 to the American Red Cross and deployed NRG's mobile power vehicle. Power2Serve, for more than five weeks in affected areas across Texas and Illinois.

In August 2015, we unveiled a solar-powered energy solution at the Lamar Dixon Expo Center near Gonzales, Louisiana, in Ascension Parish, that will help the publicly funded facility cut its annual electricity costs by up to \$50,000. The NRG project features 1,056 rooftop solar panels and 2,056 energyefficient LED lights to illuminate the multiuse event center's pavilions and lakeside pathway. It allows Ascension Parish to use the energy cost savings to fund numerous other programs that benefit the local community. The project is estimated to avoid approximately 400,000 pounds of CO2, 600 pounds of sulfur emissions and 400 pounds of nitrogen oxide emissions every year, making it an economical and environmental victory for the parish.

Employees Community Environmental

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NRG volunteers teamed up with the American Heart Association to make heart-shaped pillows for heart surgery patients.

In September 2015, the Green Mountain Energy Sun Club® donated \$50,000 to Texas Discovery Gardens in Dallas. The grant will go toward installing a 24-panel solar array atop an 800-square-foot pavilion that will become an outdoor classroom. The array will power the organization's 416-square-foot Natural Learning Center, a structure built entirely out of reclaimed materials. Additionally, September 2015 saw the Green Mountain Energy Sun Club designated a 501(c)(3) nonprofit.

NRG wholly owned subsidiary Louisiana Generating LLC (LaGen) funded new energy-efficient outdoor lighting at Pointe Coupee Parish's community park in New Roads, Louisiana, as well as the purchase and installation of new solar-powered scoreboards. We expect the project to reduce energy usage by about 45,000 kWh a year. LaGen also provided \$1 million to the False River Nitrogen Mitigation

Project to make modifications to the oxbow lake's primary drainage pathways to address nitrogen in the lake and help improve water quality and fish habitat.

NRG also has an agreement with the U.S. Fish and Wildlife Service to help establish a forest in the bottomland hardwood area of our Oxbow property in north Louisiana. We recently worked with Louisiana Tech University and a planting graduate student to evaluate the afforestation projects as part of his master's degree.

We also have partnered with the Galveston Bay Foundation for all 17 years of its Marsh Mania event, which has gathered more than 7,650 community volunteers to restore 200+ acres of vital saltmarsh habitat at 84 sites around Galveston Bay. The NRG EcoCenter donated 10,500 wetland plants to Marsh Mania 2015 alone.



NRG volunteers install solar panels atop the HomeFront Family Campus in Ewing, New Jersey.

In addition to Marsh Mania, NRG-grown plants support the Galveston Bay Foundation's efforts to decrease shoreline erosion for Galveston Bay landowners through the strategic placement of plants, stone, sand fill and other structural and organic materials. These structures act as wave breaks, support plant growth and encourage marsh creation. In 2015, we provided 1,500 wetland plants to be used for these "living shorelines," including smooth cordgrass and salt meadow cordgrass.

Through a partnership with the Galveston Bay Foundation's Get Hip to Habitat program, area schools participate in a hands-on science module that includes wetland education. plant harvests from nursery ponds at the NRG-owned and operated Cedar Bayou EcoCenter and plant growth on school campuses. At the end of the school year, the plants are used in coastal restoration. Additionally, we donated

2,700 plants to two Eagle Scout projects to help restore 4.22 acres of wetlands

In March, our employees joined more than 4,300 volunteers for the Rivers, Lakes, Bays 'N Bayous Trash Bash, participating on foot and by boat to help clean up Armand Bayou in Pasadena, Texas.

Additionally, we've partnered with the Gulf Coast Bird Observatory in a host of habitat restoration, preservation and education projects for 11 years. NRG helps to preserve and restore essential migratory bird habitats as an observatory site partner for Big Cajun II Generating Station in Louisiana and Cottonwood Generating Station in Texas.

In June, the NRG Eco-eagles won the Great Texas Birding Classic, recording an all-time-high sighting of 358 species in the statewide six-day tournament. Team members Bill Baker (manager, environmental outreach), Andy Dietrich (retired) and Thomas Roberts (engineering manager) took home a trophy and a \$10,000 grant, which they awarded to a project for prairie brush management and control at the Virginia Point Peninsula Preserve near Galveston Island.

Employees grew about 500 Texas native milkweed plants for placement at protected sites to provide nursery habitat for monarch butterflies. Milkweed is crucial to the survival of the species during a 2,000-mile migration from its winter home in Mexico to its summer breeding sites in the northern U.S. and Canada.

To give new and existing customers an opportunity to support the environment, NRG retail giant Reliant offers the Reliant EcoShare program. Through the program, retail electricity customers can purchase carbon offsets and make an ongoing contribution to EarthShare of Texas, a nonprofit organization that funds more than 30 local and state environmental organizations. Reliant EcoShare can be combined with any Reliant electricity plan, and the carbon offsets meet the standards established by organizations respected for their environmental integrity to ensure that they represent real, verifiable reductions in greenhouse gases. In its first four years, the Reliant EcoShare program has donated \$450,000 to EarthShare of Texas.

#### West

In March 2015, the nonprofit Green Mountain Energy Sun Club® continued its support of renewable energy projects with a \$50,000 donation to Pittsburg's Animal Rescue League Wildlife Center. The funds will help build a 14-kW solar array on the roof of one of the organization's clinics that will offset some of its electricity costs with free, clean sunshine while freeing up money to support its mission.

For 15 years, NRG and its predecessor companies have proudly supported the Channel Islands Marine & Wildlife Institute (CIMWI) in California. Our most recent efforts with the organization include dune and oyster reef restoration, exotic vegetation removal, school science partnerships and environmental education. CIMWI acts as a key partner for Earth Day events, which include helping schoolchildren plant native vegetation in biodegradable pots.

To help create a new source of drinking water in a state battling drought, our Encina Power Station in Carlsbad, California, provides ocean water for the Carlsbad Desalination Plant. The plant, which began operations in late 2015, converts 50 million gallons of ocean water into drinking water every day. The project sits on NRG land and was developed by Poseidon Water in alliance with the San Diego County Water Authority.

Also at Encina Power Station, NRG hosts the Leon Raymond Hubbard Jr. Marine Fish Hatchery on the banks of the Agua Hedionda Lagoon. Hubbs-SeaWorld Research Institute

operates the 22,000-square-foot facility, which currently restores the California white seabass population through innovative aquaculture and fishery enhancement techniques. The hatchery can produce more than 350,000 juvenile white seabass every year.





The Leon Raymond Hubbard Jr. Marine Fish Hatchery at our Encina Power Station helps restore the California white seabass population through innovative aquaculture and fishery enhancement techniques.



# **Environmental**

NRG is an environmental leader in our industry. That means minimizing the impact of conventional generation by repowering our fleet with cleaner technologies and operating our existing plants in a way that meets or exceeds environmental requirements.

## **NRG Environmental Policy** Statement

We're committed to creating value for our owners by managing our business in economically and environmentally responsible ways that focus on continual improvement. To succeed we must:

- Meet or exceed applicable environmental laws and instill environmental responsibility in our employees
- Reduce our environmental impacts (including impacts on the climate) by integrating environmental considerations into business operations and strategy, operating more efficiently and using cleaner, cost-effective technologies
- Promote stewardship and conserve biodiversity at our facilities and in our communities
- Seek constructive engagement in the legislative and regulatory process, as well as with environmental stakeholders, through honest, respectful and responsible dialogue
- Measure the effectiveness of our environmental program by tracking environmental performance and communicating our performance internally and externally

We've invested more than \$100 million in environmental controls at our Waukegan Generating Station in Illinois.

# Management

Our environmental management program provides the foundation for us to take NRG beyond just compliance with environmental requirements.

We assess our operations each month through our environmental key performance indicator (EKPI), which measures a number of leading and lagging parameters such as notices of violation (NOVs), reportable spills and compliance with laws.

In 2015, we continued our trend of improved environmental performance. Our goal for the year was to have all of our plants meet their plant-specific targets, and we achieved a 92 percent success result.

Site-specific EKPI performance is tied directly to the compensation of all employees at a given location, fostering collective accountability and environmental commitment within the workforce. Before a plant can receive credit for its performance, it must pass through the environmental "gate," which requires completion of one or more proactive initiatives to minimize the environmental footprint of the site.

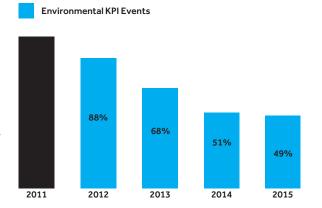
In addition, a portion of each employee's compensation was tied to the combined environmental performance of their region; this incentivizes all locations to work together to collectively minimize our impact on the environment.

The NRG Environmental Policy & Procedures Manual directs personnel at all NRG facilities to maintain environmental compliance in all activities and processes. An independent third party routinely audits each major facility, and we require prompt completion of both corrective and preventive actions for any negative findings or observations.

NRG's Environmental Bingo Box is a tool that communicates and tracks each power generation facility's completion of mandatory environmental initiatives. These initiatives are developed based on our performance and used as a proactive measure to improve environmental performance. Examples include developing site-specific environmental personnel transition plans (should key personnel be away unexpectedly), site-specific environmental operator boxes (an abbreviated list of permit limits, notification requirements, etc., for operators) and site-specific chemicals/fuel receiving and unloading procedures.

#### **Environmental KPIs**

% of baseline (lower is better)



As of Dec. 31, 2015.

**Note:** In 2014, NRG reported EKPIs and NOVs without adjusting the 2011 baseline based on the 2014 Edison Mission Energy (EME) merger because the merger was not complete until partially into the reporting year. The baseline now reflects historical EME events.

#### Notices of violation\*

A notice of violation (NOV) is a formal written notification from an environmental regulatory agency that a noncompliance event by the company has been identified. It can be issued for any violation of law, regardless of significance. An NOV may or may not result in a fine; historically, the vast majority of NOVs issued to NRG have not included a fine.

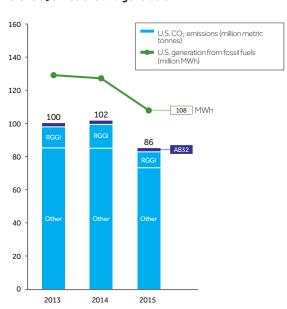
- 16 NOVs received during 2015; 11 included no penalty, four included fines totaling \$26,350 and one was a mutual settlement agreement with a \$200,000 penalty from an alleged 2012 issue
- Three reportable oil spills releasing approximately half a barrel into water and 16 barrels onto land; one reportable chemical spill of approximately 14 barrels of sodium hypochlorite solution
- Nine reported minor unauthorized discharges of water from various systems, including small amounts of ash, coal dust, sludge or sewage; these are not categorized as significant spills

<sup>\*</sup>Correction: Per the GRI guidelines, NRG strives to report errors in prior reporting periods. A typo was found in the 2013 Sustainability Report. On page 26 of the NRG Sustainability Report in the summary of 2013 notices and spills, it states there were "Three sodium hypochlorite solution (bleach) spills, totaling 61 gallons." This should have been 61 barrels.

## **Emissions**

We continue to monitor our environmental impact as we pursue a more sustainable energy future. The graph below illustrates our CO<sub>2</sub> emissions from electricity generation (scope 1) for 2013, 2014 and 2015. We're pleased to announce a 15 percent reduction in CO<sub>2</sub> emissions from 2014 to 2015. Our emissions decreased from 102 million metric tons to approximately 86 million metric tons. Factors leading to the decreased emissions include reductions in fleet-wide annual net generation due to a decrease in market demand and a market-driven shift toward increased generation from natural gas over coal. We anticipate further reducing CO<sub>2</sub> emissions as we add renewable sources such as wind and solar, modernize our fleet through repowering, improve generation efficiencies and explore methods to capture CO<sub>2</sub>. At the same time, we're shrinking our

#### U.S. CO<sub>2</sub> emissions and generation



As of Dec. 31, 2015. (Source: 2015 NRG Form 10-K)

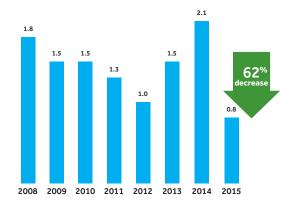
environmental footprint by concentrating on areas where we have direct control over our emissions – from large-scale repowering projects to renewable energy and innovative carbon capture techniques.

The effects from federal, regional or state regulation of greenhouse gases (GHGs) on our financial performance will depend on a number of factors, including the outcome of the legal challenges, regulatory design, level of GHG reductions, the availability of offsets and the extent to which we would be entitled to receive CO<sub>2</sub> emissions credits without having to purchase them in an auction or on the open market. Thereafter, under any such legislation or regulation, the impact on NRG would depend on our level of success in developing and deploying low and no-carbon technologies.

## Mercury and other emissions

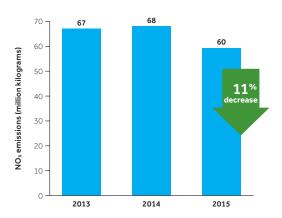
The charts below include emissions from NRG owned and operated generating stations. In 2015, NRG's mercury emissions decreased 62 percent based on emissions

Mercury emissions (U.S. tons)

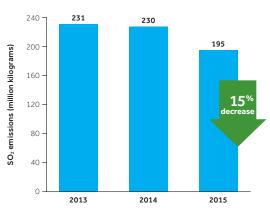


controls installed on coal units. Our SO<sub>x</sub> and NO<sub>x</sub> emissions declined 15 percent and 11 percent, respectively. Factors leading to the decreases include reductions in fleet-wide annual net generation and improved environmental controls.

#### Annual U.S. NO<sub>X</sub> emissions



#### Annual U.S. SO<sub>2</sub> emissions

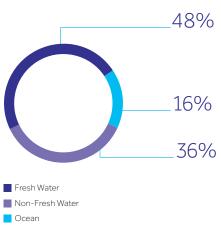


## Water

Water availability and quality are important to us, the communities in which we operate and the environment. We've designed our approach to water management with the understanding that water issues (usage, scarcity, etc.) generally originate locally. In some regions, drought conditions can threaten electricity production. In others, such as the Great Lakes and Ohio River Basin, fresh water is highly available. We're reducing the water required to produce electricity in the following ways:

- Increasing investment and production from renewable sources such as solar and wind
- Using non-potable water such as brackish ocean water or grey water from sewage treatment plants
- Investing in new cooling technologies that require less water
- Reuse of water in cooling and boiler systems in our generating stations

#### 2015 NRG water withdrawal by source



#### Performance and management

In 2015, we reduced water withdrawal by 646 billion gallons through plant efficiencies, water management strategies and a net decrease in generation at coal plants due to market conditions. We've reduced our water usage by 705 million gallons over the past four years through water-savings programs at each facility. All NRG operating facilities have a written water management plan, as well as established water management best practices. Some of those best practices include:

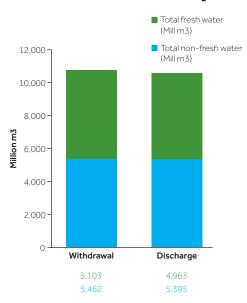
- · Creating a plant or multi-plant water management team to evaluate conservation ideas, monitor and optimize water use, develop and review procedures and provide employee training
- Developing a water management plan that documents water sources, wastewater, optimal water use and water conservation and reuse/recycling goals
- Establishing a drought contingency plan in conjunction with local water authority recommendations
- Applying standard operating procedures to ensure consistent application of water management goals, annual review of documents and review of new technologies. ideas and best practices; they include written procedures to stay current with water supplier and water authority actions and requirements
- · Training employees on standard operating procedures and communicating water management plans and drought contingency plans annually

For example, units 1 and 2 at our El Segundo Energy Center used to rely on ocean water for cooling. We demolished these units in 2013 and constructed two new combinedcycle generators with dry-air cooling technology, thus eliminating the need for condenser-cooling water. Additionally, the waste heat is recovered and used to generate even more energy.

Our 2015 water data includes water withdrawal and discharge for all NRG generating stations and offices (see chart). Our plants produced 123 million TWh of electricity and withdrew about 11 billion cubic meters of water. More than 98 percent of this water is discharged to the same body of water from which it was drawn.

In accordance with the federal Clean Water Act, we obtain all required permits and report results of water discharges to state agencies monthly. We have 78 wastewater discharge permits and ran more than 100,000 tests in 2015 of which five exceedances were found and promptly recorded. Exceedance information is entered in our incident management system, which notifies NRG operations management so we can identify the root cause and implement corrective and preventive actions.

#### 2015 NRG water withdrawal and discharge





and identify recycling opportunities. Facilities worked with business partners to create a waste reduction recycling plan. Should a wastewater permit exceedance occur, NRG conducts a risk review on each event to determine the root cause and implement corrective actions. The incident and corrective actions are shared across the fleet during biweekly conference calls with management.

We're committed to reporting waste, recycling and effluent results annually for every generating facility. Each facility uses the waste, recycling and effluent information to ensure each component is managed properly. NRG facilities track waste and materials recycled in the NRG Environmental Management Information System. In 2015, we reduced mercury emissions by 62 percent. The reduction is attributed to the addition of mercury controls to comply with mercury and air toxics regulations and a reduction in coal-generated electricity.

### Waste

We work to reduce, reuse and recycle any material used in our daily operations. These efforts help preserve natural resources. They also affect our bottom line and operational efficiency. The scope of our waste management programs includes both corporate offices and generation facilities; however, the information below focuses on municipal solid waste, e-waste and nonhazardous and hazardous waste from our generation facilities. More information about municipal solid waste and e-waste management at our corporate offices can be found in **Employee engagement and innovation**.

#### Waste management

We have a recycling/waste team that includes a representative from each plant location who reviews waste issues specific to his or her facility and a regional

sustainability lead who helps share waste management best practices. NRG has waste subject-matter experts who work with state and local governments, as well as other industrial waste generators, to ensure waste generation and disposal concerns are understood and addressed. We meet with stakeholders to address concerns about effluents and waste. The effluent and waste issues are local and vary by operating region. Stakeholder feedback is important and is used to meet present needs and plan for the future.

## Effluents and waste

Effluents and waste are important to us as stewards of the environment. We use tools, such as state water quality studies and designations, the World Business Council for Sustainable Development water tool and CDP Aqueduct, to evaluate water effluent impacts. In 2015, we continued to enhance the current waste diversion program requiring NRG generating facilities to evaluate waste generated

#### Waste reduction

We have waste and recycling data for our fleet beginning in 2010. The data is being used to identify waste and recycling management opportunities and best practices across the fleet. We review and track regulations that will affect coal combustion residuals and effluents.

The NRG recycling initiative at our generation assets is a team effort. Each plant has a program manager who works with others from the company. The team helps to identify programs, implement processes, review data and communicate the recycling initiative and its progress. Each location's plant manager assigns a facility champion who is responsible for tracking recycling, leading a green team in identifying recycling opportunities and training employees on the recycling program. The champion reports progress each year.

Our strategic sourcing team supports the program by creating partnerships with recyclers and waste management companies, as well as ensuring the suppliers have the resources to support the facilities and provide regular updates on the recycling program.

The NRG Sustainability team and other functional groups support the recycling initiative by providing resources to collect and manage the materials being recycled. These resources include strategically placed bins at facilities to make proper collection of recyclable materials easier.

## Goals and targets

In 2013, NRG reviewed the amount of recycled materials at its facilities and found opportunities to reduce waste. For example, in 2014, the Pittsburg Generating Station in Northern California recycled 90 percent of its waste and generated revenue from recycling that offset most of the disposal costs. NRG generation facilities were trained on the Pittsburgh program in 2014 and implemented new recycling practices at their locations. NRG set a goal to recycle 15 percent of the general waste generated in 2014. We recycled 17 percent of general waste generated, exceeding expectations and prompting a 20 percent recycling goal for 2015. However, in 2015, NRG recycling rates remained flat at 17 percent, not meeting our target. This was partially due to the challenge of finding local recycling programs where our plants are located across the U.S. In fact, 37 percent of the facilities reported recycling of general waste greater than 20 percent. Local personal and corporate environmental teams continue to identify opportunities to reduce waste going to landfills and partner with recycling management companies.

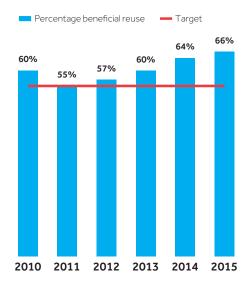
#### Coal combustion residuals

In 2015, NRG owned and operated facilities generated 5.3 million tons of coal combustion residuals, 3.5 million tons of which were designated as beneficial reuse as defined by the states. This represents a reduction from 2014 coal combustion residuals production of approximately 35 percent. We set a goal of 55 percent of coal combustion residuals for beneficial use and exceeded that goal again in 2015, repurposing 66 percent. That's an increase from 64 percent repurposed in 2014.

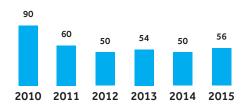
On April 17, 2015, the Environmental Protection Agency enacted 40 CFR Section 257, entitled "Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals (CCRs) from Electric Utilities" and amended 40 CFR Section 261.4(b) effective on Oct. 14, 2015. This rule regulates the disposal of CCRs. We maintain a CCR Rule Compliance Data and Information page on nrg.com in accordance with 40 CFR Subpart D, Part 257, Section 257.107.

In 2015, about one-third of NRG facilities reported that they recycled more than 20 percent of the general waste generated.

# Coal combustion residual percent beneficial reuse



#### E-waste recycled (U.S. tons)







Encina Power Station staff and family members took part in 10 environmentally focused projects in 2015, earning the facility the econrg® Green Glass Award.

## econrq

Our econrg® program is designed to make our existing fleet cleaner and help ensure that future power generation is smarter and more affordable. Through the program, NRG promotes ecological stewardship among our plant employees with initiatives aimed at improving environmental awareness and education. More information about this year's initiatives can be found in Public partnerships.

In 2015, NRG plant employees participated in 219 voluntary econrg projects and NRG facilities donated \$49,000 to benefit the environment. These projects and initiatives focused on the following areas:

• **Biodiversity:** 41 projects included constructing bat roost boxes; building wild turkey, bluebird, wood duck, kestrel, osprey and peregrine falcon nest boxes; planting milkweed and native flowers for butterflies; planting native trees and grass for habitat improvement; stocking native fish in local rivers; and conducting migratory bird and reptile surveys

- Water use: 21 projects will save approximately 572 million gallons annually by reclaiming water, making chemical treatment improvements, educating employees on water-saving practices and collecting rainwater
- Climate change: 94 projects were aimed at reducing the consumption of natural resources and included installing electric vehicle charging stations, purchasing/ leasing electric vehicles, recycling electronic waste, installing solar lighting and replacing lamps with highefficiency lighting
- Community: 65 projects included beach cleanups, equipment donations, science fairs, in-kind technical support, fundraisers for college scholarships and donations to nonprofit environmental organizations

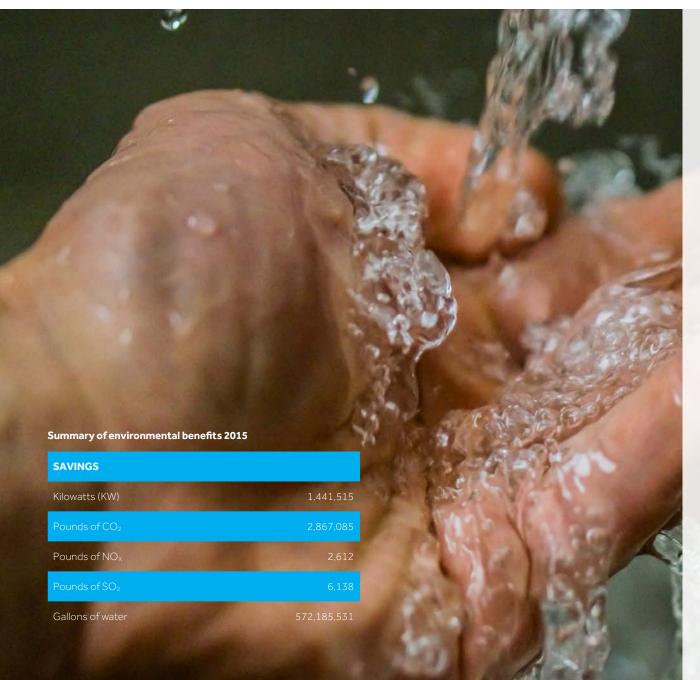
### 2015 econrg Environmental Stewardship Award

Our Encina Power Station was the recipient of the 2015 econrg Green Glass Award for demonstrating an exemplary commitment to sustainability. The Encina staff, along with

many of its family members, took on 10 environmentally focused projects throughout the year. Among other things, these projects:

- Reduced water use for landscaping, which is crucial to Encina's home state of California
- · Taught students of all ages about clean energy and environmental stewardship
- Installed four electric vehicle charging stations at the plant to help employees make a carbon-free commute

Encina's top project, in terms of scale and local impact, was the restoration of the bluffs at Tamarack Beach and Aqua Hedionda Lagoon. The project, led by the city of Carlsbad and the Agua Hedionda Lagoon Foundation, promotes biodiversity and improved water quality. Encina employees and family members removed non-native plants from the dense sandstone bluffs, replaced them with native plants and rebuilt storm water drainage channels to prevent erosion.



# Power plant eco-efficiency

To further challenge ourselves to achieve greater environmental efficiencies in our operations, we launched a targeted eco-efficiency program for our generation assets. Eco-efficiency refers to the identification of innovative cost-reduction opportunities – through a sustainability lens – by reducing consumption, increasing usage efficiency and discovering incentives and rebates.

Each of our plant managers is responsible for developing and implementing a plan to enhance eco-efficiency in our operations. Plant managers report to operational leadership on a quarterly basis to ensure progress and share best practices across the fleet. A few examples of the benefits this program uncovered include:

**Energy:** At our Bowline Generating Station in New York, 112 metal halide light fixtures were replaced with LED fixtures. The new fixtures will save 587,059 kWh a year and reduce lighting costs by \$70,000 annually.

**Water:** NRG Energy Center Phoenix installed a water softener for cooling tower water makeup to reuse water for cooling. This has reduced water purchased from the city of Phoenix by 13 million gallons annually.

**Recycling:** NRG Engineering and Construction Services recycles materials generated from construction projects at all locations. Construction projects recycled 64,600 tons of materials, keeping them out of municipal solid waste landfills.

In March 2015, our Hunterstown Generating Station received the 2015 Environmental Stewardship Award from the Gettysburg Adams Chamber of Commerce in Pennsylvania. Hunterstown's green efforts included eliminating extra steam and conserving water via an air-cooled condenser, recycling 90 percent of its waste, installing energy-efficient LED lighting and upgrading the plant's turbines to reduce emissions by about 64 percent.

Galveston Bay, Texas

# Biodiversity and environmental conservation

We recognize that one of our most treasured natural resources is biodiversity. That's why we designed our environmental policy to foster the protection of the natural habitats surrounding our generation sites. Protecting and promoting biodiversity ensures that living resources will remain in stable quantities in perpetuity. The air we breathe, leaves on trees and even a spider's web serve important biodiversity functions. It's our obligation as a company and as employees to effectively use and protect all natural resources in a sustainable way.

#### Wetland conservation

We operate the Cedar Bayou EcoCenter on Galveston Bay in Texas to increase public awareness of the needs of the ecosystem, offer wetland education and develop solutions for coastal issues and restoration

The EcoCenter also is a resource for unique partnerships with coastal restoration organizations, educators who support No Child Left Inside and groups creating public awareness of coastal issues. The EcoCenter plant nursery grows the majority of wetland plants used for estuarine restoration in Galveston Bay and sits on 14 acres of land consisting of 24 earthen ponds, six above-ground constructed ponds, a greenhouse, a classroom and a laboratory.

In addition to operating the EcoCenter, we donate plants for wetland restoration. Each year, the EcoCenter donates roughly 60,000 plants for use in restoration projects to many organizations. Our donations are critical to the restoration efforts of several conservation organizations:

- U.S. Fish and Wildlife Service
- Texas General Land Office
- Texas Parks & Wildlife Department
- National Marine Fisheries Service
- The Galveston Bay Foundation
- Natural Resource Conservation Service
- Audubon Texas
- Ducks Unlimited
- · Galveston Bay Estuary Program
- Boy Scouts of America
- · Artist Boat
- Gulf of Mexico Foundation

In 2015, we donated 63,600 plugs of smooth cordgrass, which restored approximately 13 acres of intertidal wetlands. Additionally, we donated 12,500 culms of bitter panicum grown at the EcoCenter to restore dune habitat lost in 2008 during Hurricane Ike.

Wetland education is an important component of the EcoCenter. Through a partnership with the Galveston Bay Foundation's Get Hip to Habitat program, 22 area schools and about 1,200 students participate in a hands-on science module that includes wetland education, plant harvests and plant growth on school campuses. At the end of the school year, the plants are used in coastal restoration. Additionally, the EcoCenter is available to the public for environmental education and has hosted school groups, public and private conservation organizations and public interest groups.

### Wildlife diversity at NRG sites

We're committed to attracting and maintaining biodiversity at our power plants by building nesting and resting structures for native wildlife. Examples of employee-driven projects at our generation stations include:

• At our Aurora Generating Station in Illinois, three American kestrel nesting platforms were built and installed around the property; they'll create a habitat for the dwindling raptor population, which will help keep pigeons from roosting in our cooling towers

- At our Brunot Island and Keystone facilities in Pennsylvania, 15 bat boxes were constructed in undeveloped areas to help conserve bat population and control mosquitoes in the summer
- At Maryland's Chalk Point Generating Station, wild turkey dusting boxes were built for the site's resident population; wild turkeys use sand from the boxes to aid in digestion and dust themselves of lice
- Our Seward, Homer City and Limestone facilities installed bluebird houses and duck boxes to benefit resident nesting populations
- At our Huntley Generating Station in New York, about 2,000 milkweed seeds were planted around the north and south ponds to create a place for monarch butterflies to lay their eggs

The NRG EcoCenter partners with the Galveston Bay Foundation's Get Hip to Habitat program to provide students hands-on wetland education.





Employees Community Environmental Supply chain





We're working with biologists and the Bureau of Land Management to relocate desert tortoises at Ivanpah Solar Electric Generating System.

# Ivanpah

Our Ivanpah Solar Electric Generating System required moving desert tortoises. As a part of the project's extensive desert tortoise protection program, we've helped establish a head start program at the Ivanpah project site. Head start programs are a critical avenue for enhancing repopulation of the desert tortoise, a federally listed threatened species. In their natural environment, fewer than 10 percent of juvenile desert tortoises survive beyond five years of age due to factors such as predation, drought and disease. The head start program significantly increases their survival rate.

Biologists engaged by the facility are involved in preparing for each tortoise's eventual move back into the wild. They identify an ideal habitat near where the tortoise was originally found on the project site. When the time of year and temperatures are appropriate for the move, the



In 2015, osprey nesting platforms were constructed at two of our Northeast facilities.

biologists begin by conducting a medical assessment of the tortoises to ensure they're healthy and ready to move. Next, with oversight from the Bureau of Land Management, two tortoises at a time are taken from the tortoise nursery to their new predetermined location. Ivanpah biologists are doing all they can to ensure the tortoises have a safe transition back into their natural habitat.

Many regulatory agencies were involved in the nearly four-year permitting process of the Ivanpah solar project, including those that specialize in the protection of birds and other species. Ivanpah was reviewed and approved by the California Energy Commission and Bureau of Land Management with significant input and guidance from the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.

For more information, visit **ivanpah.nrg.com**.

### Osprey

In the Northeast, employees at NRG facilities are helping support the resurgence of osprey through the construction of osprey nesting platforms.

At Chalk Point Station in Aquasco, Maryland, approximately 1,028 acres of undeveloped land is set aside in a conservation agreement with Prince George's County. The agreement stipulates that no logging will occur and the land will be managed for wildlife benefit. Management is ongoing through the NRG econrg stewardship program, which included installing four osprey nesting platforms along the Patuxent River.

In 2015, an osprey nesting platform overlooking Lake Erie was constructed at our Dunkirk Generating Station in New York.



A small nesting area for the federally endangered California least tern is protected and monitored at our Pittsburg Generating Station.

## California least tern

For more than 15 years, we've diligently monitored the nesting activity of the federally endangered California least tern at our Pittsburg Generating Station property near San Francisco Bay. The small nesting area is protected from human intrusion each year during the nesting season and cleared of tall vegetation that may interfere with nesting or provide cover for predators. Data collected from our surveys is compiled and sent to the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife for addition to their annual least tern nesting reports.

#### Raptor management

Employees at our Devon Station in Connecticut work with state wildlife agencies to conduct winter bald eagle surveys and monitor NRG-maintained peregrine falcon nest boxes. After the falcon eggs hatch, we help wildlife officials band the birds before they leave the nest.

#### **Fisheries**

Our Vienna plant in Maryland participates in an annual shadraising program to enhance native stocks of shad in the Nanticoke River. The shad population is well below historic levels of the early 20th century as a result of overfishing and habitat destruction. Shad are raised in a pond at the plant and then released into the Nanticoke River

Since 1997, our Chalk Point Station has hosted middle and high school students who have raised shad fry to release into the Patuxent River at Chalk Point. Their efforts, part of a regional living classroom program, contribute to helping the threatened American shad regain its numbers in waters around the nation's capital.

Since 2010, we've helped fund and provide volunteers to reestablish a sustainable brown trout population in the west branch of the Susquehannah River with the Old Town Sportsman Association of Clearfield, Pennsylvania. During this effort, healthy brown trout fingerlings were stocked in the Clearfield and Curwensville areas. Our 572-MW Shawville Generating Station is located on this section of the river, and plant employees volunteered for the project.

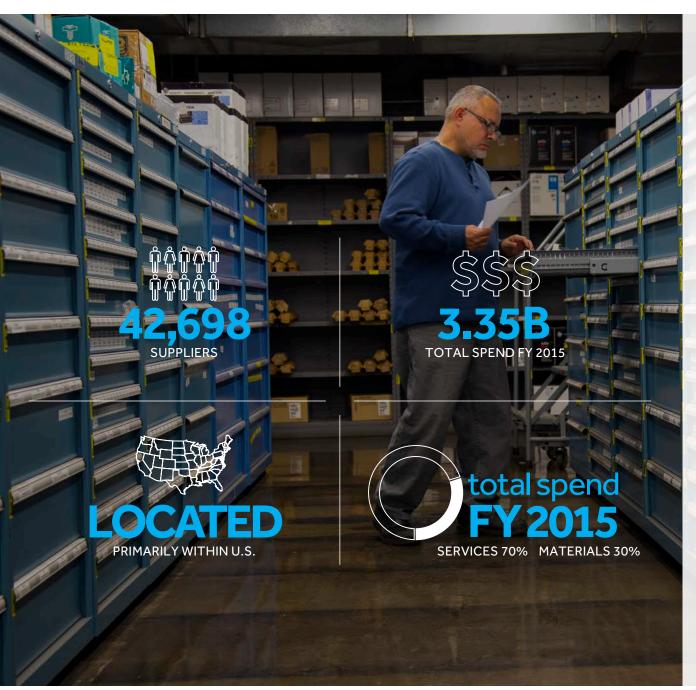
## Endangered or threatened species

We've identified areas of operation that have documented endangered or threatened species of wildlife, according to the IUCN Red List species and national conservation list species:

- California Valley Solar Ranch has one critically endangered, two endangered and three least concern species
- Ivanpah Concentrated Solar Power Project has one vulnerable species
- Powerton Station has one endangered species
- Ormond, Mandalay and Pittsburg stations share similar beach habitats where one threatened species can appear

All species and respective habitats are addressed and mitigated through site permits, monitoring plans and conservation easements.

Supply chain



# Supply chain

The NRG industrial supply chain is a network of more than 40,000 suppliers located primarily in the United States. It includes the acquisition of materials and services for the execution of our retail and traditional wholesale businesses but doesn't include fuel purchasing. Our supply chain is designed to ensure all NRG business operations have the materials and services needed to operate daily.

# Management

Safety drives our supply chain management approach. All suppliers providing on-site services must be prescreened for safety through our supplier registration portal. That's the first step in doing business with NRG, and failure to meet our safety standards can result in disqualification. Other factors considered when evaluating a supplier's fit for NRG include but are not limited to diversity certification/registration, audited financial statements, D&B reports, performance, quality programs and insurance. Access the supplier portal here.

Additionally, the NRG Standard Terms and Conditions and Supplier Code of Conduct govern the relationship between NRG and our suppliers. We have the ability to terminate contracts and relations with suppliers under these Standard Terms and Conditions should we view the performance of the supplier as unacceptable or outside of agreed-upon performance. Both documents can be found here. These policies apply to all suppliers and were last updated in May 2015 (Standard Terms and Conditions) and June 2014 (Supplier Code of Conduct). Our Operational Excellence team within the supply chain is responsible for a yearly review of policies in conjunction with a committee consisting of supply chain management.

All our suppliers must also adhere to our STRIVE values, which are detailed in the Supplier Code of Conduct. These values, while not a policy, are a longstanding philosophy at NRG, and we expect employees and suppliers alike to follow them. Find our STRIVE values **here**.

## **Priorities**

In 2015, our supply chain focused on developing a supply chain sustainability action plan to provide a platform that supports our sustainability and corporate responsibility program and reporting requirements. As reported last year, this will be an ongoing effort lasting 1-2 years and requiring subsequent revisions. To aid in this effort, the supply chain finance supervisor and environmental category manager attended corporate sustainability reporting (CSR) training to become certified CSR practitioners.

# **Supplier selection**

Supplier selection is a multilayered process. We first identify suppliers through various methods, including but not limited to existing relationships, referrals, matchmaking events, trade shows and conferences. As part of this effort, our supply chain diversity coordinator leads a program dedicated to identifying small and women-owned businesses to partner with us across all functional groups. Suppliers are required to register in our third-party supplier management portal, and suppliers providing on-site services are evaluated for safety. Failure to meet applicable safety requirements will result in disqualification or conditional qualification, which requires additional documentation and an improvement plan. Suppliers of environmental services, such as handling of hazardous or non-hazardous waste, are audited to determine eligibility. Suppliers are also required to submit certificates of insurance to ensure compliance with our minimum insurance requirements.

Although suppliers must successfully submit their profiles and complete the evaluation process to perform services at NRG, the evaluation process may be conducted before, after or simultaneous to a bid event. Bid events are generally required for purchases greater than \$50,000. In a bid event, suppliers are invited to bid for a specific product or service. Suppliers are provided a timeline and asked to submit a detailed proposal based on the statement of work or requirements provided by NRG. These bid events are managed within a third-party portal through a top supplier to the utility industry. In addition to managing bid events, the portal provides spend analysis based on historic NRG supply chain data and cost analysis based on market data. A bid event may last days, weeks or months depending on the complexity of the product or service being sourced. The events are managed by supply chain professionals who work with departmental or operational subject-matter experts to select suppliers based on various factors, including but not limited to quality, reputation, proposal, price, environmental, social, and governance (ESG) objectives, time restrictions and scarcity of product/service.

Once a supplier is selected, the supplier is engaged throughout the completion of the project awarded or the delivery of services/materials. Sourcing specialists are responsible for maintaining relationships with suppliers within their assigned categories or plant location.

#### Strategic sourcing

In addition to general bid events, our strategic sourcing team is responsible for identifying opportunities for strategic agreements across our fleet of generation stations. We invite national and regional suppliers to participate in strategic bid events that result in long-term contracts (2-3 years) for national or regional services to our fleet. Strategic suppliers are assigned to category managers on our strategic sourcing team. The category managers are responsible for

maintaining relationships with strategic suppliers within their categories and scheduling quarterly or biannual business reviews to discuss various topics, including but not limited to safety, value creation, ESG initiatives, market outlook, KPI performance, spend and areas for improvement.

To achieve economies of scale in our purchasing, we will enter into contracts with national suppliers that provide miscellaneous office and administrative goods and services (e.g., travel-related products, office supplies, IT software or hardware). Also, due to the nature of our business, specialized goods and services needed for the operations and maintenance of NRG generation assets are obtained from a limited number of domestic and international manufacturers. Under certain circumstances, we may elect to use a local sourcing strategy rather than a regional/national approach. We have a supplier diversity program that works to achieve established goals with the Small Business Administration for the utilization of diverse businesses across a variety of different categories, including but not limited to women, minority, veteran and HUB zone-owned businesses.

In addition to leveraging spend, strategic sourcing allows us to guard against the largest threat to our supply chain: a shortage of skilled labor. We mitigate this risk through long-term contracts and strong supplier relationships. Prenegotiated terms allow for better lead times, and suppliers are motivated to devote resources to NRG by knowing we're a committed strategic partner. Several of our strategic suppliers consider NRG a key account, thereby increasing the likelihood that our needs will be met.

REPORTING

Employees Community Environmental Supply chain

# Supplier policy and environmental oversight

The NRG Standard Terms and Conditions require that suppliers comply with all applicable laws. Section 11 is specific to environmental protection and requires that suppliers comply with all federal, state and local laws pertaining to the protection of the environment associated with the work being completed. The terms also include specific warranties that suppliers must adhere to, such as a warranty that they do not manufacture or subcontract for the manufacture of any products for which conflict minerals are necessary to the functionality or production of that product. The NRG Standard Terms and Conditions can be found here.

We conduct audits of all treatment, storage and disposal (TSD) facilities where our hazardous, industrial and universal waste streams are disposed. We work closely with our waste suppliers to identify and audit their TSD facilities before commencing services. The focus of the audit is primarily environmental compliance, ensuring that both the supplier and TSD facility are compliant with all applicable laws and regulations. We have strategic relationships with a limited number of waste suppliers whose TSD facilities are audited every five years to maintain compliance. Because of the environmental sensitivity of waste hauling, we maintain strategic relationships with key waste suppliers and do not regularly add new waste suppliers to our supply chain. During 2015, NRG did not source for new suppliers subject to environmental assessment.

We currently collect supplier data regarding water consumption and greenhouse gas emissions (GHG). In 2013, we contracted a globally recognized supplier to conduct a GHG lifecycle assessment. The results indicated that the supply chain impact for NRG is not material and our efforts should be focused on reducing the effect of our generation assets (i.e., acquisition and consumption of fuel). Furthermore, we participated in a power industry study supporting these results and affirming that supply chain is not a material sustainability concern. Nonetheless, the NRG supply chain focuses on proactive measures that include assessing our current processes and procedures and modifying them as needed.

Most high-volume materials are purchased by various units of measure with no direct correlation to weight or volume. With the exception of 26 miles of transmission from our wind farms, NRG does not own or operate distribution. Materials used in the generation of electricity include fuel, chemicals for wastewater treatment and air quality control equipment and maintenance. We have a chemical management plan in place that covers reviewing all chemicals before they can be used on-site; managing the handling and delivery of chemicals to ensure best practices and avoid the need for disposing of chemicals past their shelf life; secondary containment; and emergency response. Any transformers or PCB-containing equipment on our property were converted to non-PCB materials a number of years ago.



# Our governance



To realize our sustainability goals, we've set up a robust system of governance and information gathering to help us determine where to make changes, how to manage those changes and how to inform our investors and stakeholders.

# Corporate sustainability governance structure

For sustainability to be embedded into our organizational strategy, it needs to be championed by our business leaders and integrated into our core operations. To ensure executive and operational buy-in, we've created a sustainability team to manage our day-to-day sustainability efforts. These individuals work in the Corporate Sustainability department but also act as ambassadors and change agents in other departments.

In 2012, we also assembled a CEO-led executive steering committee to guide the development, integration and implementation of our strategy. This committee meets quarterly and communicates throughout the year for specific implementation needs. In 2015, the committee's structure adjusted to position leadership in strategic priority areas and will continue to evolve in 2016.

As of Dec. 31, 2015, the executive steering committee included the following members:

- Mauricio Gutierrez, President and CEO
- Kirk Andrews Executive Vice President and Chief Financial Officer
- Craig Cornelius, Senior Vice President, Renewables
- · Rob Gaudette. Senior Vice President. NRG Business Solutions
- David Hill Executive Vice President and General Counsel
- Elizabeth Killinger, Executive Vice President and President NRG Retail
- · John Chillemi, Executive Vice President, Development
- · Christopher Sotos, Executive Vice President, Strategy and Mergers & Acquisitions
- Fran Sullivan, Senior Vice President, Plant Operations
- Walter Stone, Senior Vice President, Environmental and Assistant General Counsel
- Jennifer Wallace Senior Vice President Administration

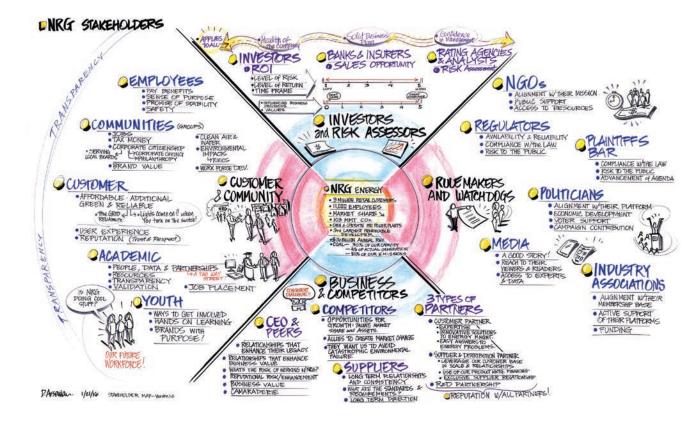
# Stakeholder priorities

As the nation's leading integrated power company, NRG's stakeholder network is vast and complex. Going forward, as we evolve our operations to pragmatically increase renewables and reduce our environmental footprint, we must focus on disciplined strategies and smart capital allocation while adhering to the needs and concerns of our stakeholders

Although we're confident that sustainability initiatives and the trend toward clean energy will lead to long-term financial benefits that will ultimately reward the capital investment needed in our efforts to repower and build, it's vital that we ensure our stakeholders understand and are comfortable with the details of this near and long-term strategy.

Each business unit engages with a different set of stakeholders. These engagements are identified by key issues and conversations needed for conducting business operations and complying with regulations. We will continually communicate with our broader stakeholder network to showcase our initiatives along with our actual and projected

financial position toward creating a sustainable energy future. In fact, to increase dialogue and transparency, we formally engaged internal and external stakeholders to get a better sense of the issues that matter most and how they could play a role in our sustainability strategy. The chart below illustrates our diverse system of stakeholders as well as some feedback we received during the engagement process. This feedback informed – and will continue to inform – our sustainability strategy priorities. This also is raised in identifying **key** sustainability issues. We'll continue these communications and stakeholder outreach efforts as our sustainability strategy is refined and implemented over time.



# Impact analysis

Before a company can effectively improve its corporate sustainability performance, it needs a thorough understanding of how the business affects the environment, society and the economy. To achieve this level of understanding and ensure impartiality, we contracted with a respected third party to administer an assessment that would identify our most significant sustainability issues. We also analyzed lifecycle data to determine where we have the greatest environmental impact.

# Lifecycle assessment

In 2013, we assessed the lifecycle of our environmental footprint to pinpoint our impacts both internally and across our full value chain. This assessment confirmed that our generation business created the vast majority of such impacts (75 percent) across the lifecycle of our product - from extraction to use - via the combustion of fuels to produce energy.

We've used this footprint analysis to focus our strategy on the areas of our biggest impacts, guide our corporate goal-setting and support initiatives. Please see below for a more detailed summary of our findings, broken down as scope 1, 2 and 3 emissions in accordance with the typical way companies talk about their environmental impacts.

#### Scope 1: Emissions

Unlike non-energy retailers and companies offering consumer packaged goods (where the majority of impacts come from the supply chain, i.e., scope 3 emissions), more than 90 percent of our carbon and almost 80 percent of our total environmental impacts are within our direct control (scope 1 emissions). Carbon is the largest driver of our environmental footprint, followed by air emissions and resource extraction. Because such a large percent of our impacts are scope 1, we have the opportunity to use sustainability initiatives to make a real difference with respect to our carbon footprint. We'll do so through strategic updates to our fleet:

- · Repowering traditional power generation assets at our plants for lower-carbon fuels, such as natural gas
- Investing in and deploying alternative and renewable energy technologies for generation
- Reducing emissions from coal through carbon capture for use in enhanced oil recovery

## Scope 2: Purchased electricity

Purchased electricity accounts for 1 percent of our environmental impacts. Although this doesn't sound like much – NRG retail and corporate business is just a fraction of our overall footprint - reducing our purchased energy footprint can help reduce our overall environmental impact. We've taken a number of steps to help mitigate our purchased electricity footprint, including implementing energy efficiency initiatives throughout our own facilities. For example, our corporate headquarters will utilize 100 percent renewable energy to source our electricity needs when it opens in 2016. We also provide our consumers with more options for increasing energy efficiency and using renewable energy.

## Scope 3: Supply chain

Our supply chain accounts for 20 percent of our environmental impacts. Although this is relatively small compared to our generation footprint, tackling the social and environmental impacts of our supply chain is an important part of our strategy and critical to transforming our industry. We believe the first step to improving our supply chain is transparency; we're working with our supply chain partners to better understand their respective impacts and how we can collaborate to improve the overall system.

Environmental impact across our value chain





Plant Equipment & Construction



**Power Production** 



# Key issues assessment

To formally establish the process of defining key issues for sustainability, in 2013, NRG engaged a third party to conduct a preliminary formal assessment of key issues with internal stakeholders who represented diverse divisions in our organization. Their input was solicited through surveys and an in-person workshop. In parallel, we prioritized our key issues according to a high-level, qualitative rating using existing NRG data and industry and external stakeholder resources.

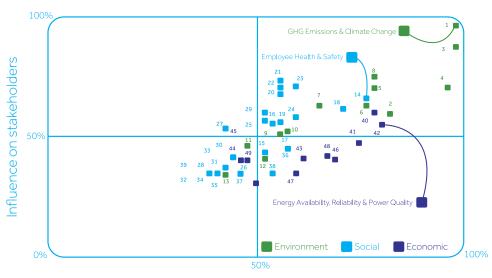
The resulting matrix (see chart) illustrates what issues in social, environmental and economic areas may have the greatest impact with regard to our business and stakeholders.

Today, we use this independent analysis to better inform business decisions and shape our voluntary reporting process. We'll continue to develop and refine this assessment on an annual basis, engaging a broader audience of internal and external stakeholders. For more information, see About this report.

Key findings from the initial analysis include the following:

- Economic findings: Energy reliability, availability and power quality top our economic issues. The economic category includes issues that relate to the organization's impacts on the economic conditions of its internal and external stakeholders and on economic systems at local, national and global levels.
- Environmental findings: As a large power producer in the U.S., we need to be conscious of greenhouse gas emissions and climate change. The environmental category includes issues that address the organization's impact on living and non-living natural systems, including land, air, water and ecosystems.
- **Social findings:** With thousands of employees working at various types of facilities, employee health and safety are the most material non-environmental issues. The social category encompasses issues concerning the impacts the organization has on the social systems within which it operates.

#### **Key issues matrix**



Importance to business

About this report Key issues U.N. Sustainable Development Goals

Third-party verification Feedback Forward-looking statements

# Our reporting



We work to achieve transparency as we create opportunities for progress. This sustainability report is based on NRG corporate performance for all operations in calendar year 2015 and, where stated, "NRG" refers to NRG Energy, Inc.

# **About this report**

This, our sixth annual sustainability report, was developed with the Global Reporting Initiative (GRI) 4 Core framework, as well as the GRI Electric Utilities Sector Supplement. The report includes aspects of the GRI index for our sector that are deemed priority issues for the company. The scope of this report is primarily contained within the calendar year 2015, but some long-term projects and goals are discussed. NRG publishes a corporate sustainability report annually in both static and interactive PDF format. The sustainability portion of the NRG website provides visitors the latest news and events around the company's social, economic and environmental initiatives.

Voluntary reporting at NRG is a dynamic and comprehensive effort involving more than 60 internal subject-matter experts who are called upon to provide verified information for each of the disclosures within the priority aspects. The entire report is reviewed by an executive communications board before final vetting by general counsel. The sustainability department is responsible for managing the process and has been through a certified GRI G4 course. NRG also responds to the CDP climate change and water questionnaires, as well as the RobecoSAM Corporate Sustainability Assessment.

# **Key issues**

NRG follows the GRI Framework to report on issues of importance to the company and its stakeholders. As part of a re-evaluation of our sustainability strategy, in 2013, we engaged a third party to facilitate a formal assessment to determine these key issues. Our initial assessment identified 49 issues as important to stakeholders and the NRG business. Selecting which of these issues to report on then involved a series of internal workshops and fed into the process for feedback received from regular engagement with our external stakeholders (see key issues matrix). We revisit this assessment annually to determine the content for the Sustainability Report. Key issues for NRG as delineated by the GRI G4 for 2015 include:

- Biodiversity
- Compliance
- Effluents and waste
- Emissions
- Employment
- Energy
- Local communities
- · Occupational health and safety
- Procurement practices (supply chain)
- Water

We believe these aspects accurately represent the organization's significant economic, environmental and social issues at this time. They also align with the key themes of the NRG corporate strategy and are the focus of our efforts to create robust targets and goals. These topics aim to cover all NRG brands and businesses. We do recognize, however, that some of these topics are more relevant to certain parts of the organization than others. For example,

most of the environmental disclosure is focused on our power-generating fleet since that is where we have the ability to make the most impact, with respect to climate change, through carbon-emission reduction (see Lifecycle **assessment**). Relevant financial implications, as well as a discussion of risks and opportunities associated with some of these issues, can be found in Part 1, Item 1A in our 2015 Form 10-K. Additional financial statements or equivalent documents can be found here.

# **U.N. Sustainable Development Goals**

Sustainable Development Goals (SDGs) are a universal set of goals, targets and indicators that United Nations member states will be expected to use to frame agendas and political polices surrounding development. Our sustainability strategy aligns with Goal 7: ensure access to affordable, reliable, sustainable and modern energy for all.

We're proud to be already taking steps toward this goal through growing our renewable business, investing in environmental controls for our fleet and establishing creative partnerships to meet energy needs. In 2016, we'll continue to evaluate how to integrate and report against the remaining 16 SDGs that are key issues for NRG and imperative to our commitment to creating a clean energy future.

# **Third-party** verification

NRG has chosen to voluntarily report on its corporate responsibility performance and has designed processes to collect and/or estimate, assess and report on this data. NRG management is responsible for the completeness,

accuracy and validity of the information contained in this report. We've engaged a nationally recognized and registered public accounting firm to provide a limited assurance of our emissions inventory and water. Details of the statement of assurance can be found here

# **Feedback**

If you have any comments or questions about this report or would like more information on our sustainability efforts, please visit nrg.com or email sustainability@nrg.com.



The United Nations office in Vienna.

About this report Key issues U.N. Sustainable Development Goals

Third-party verification Feedback Forward-looking statements

# Forward-looking statements

In addition to historical information, the information presented in this report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. These statements involve estimates, expectations, projections, goals, assumptions, known and unknown risks and uncertainties and can typically be identified by terminology such as "may," "should," "could," "objective," "projection," "forecast," "goal," "quidance," "outlook," "expect," "intend," "seek," "plan," "think," "anticipate," "estimate," "predict," "target," "potential" or "continue," or the negative of these terms or other comparable terminology. Such forward-looking statements include, but are not limited to, statements about the Company's future revenues, income, indebtedness, capital structure, plans, expectations, objectives, projected financial performance and/or business results and other future events, and views of economic and market conditions. Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, weather conditions, including wind and solar performance, competition in wholesale power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale power markets, changes in government regulation of markets

and of environmental emissions, the condition of capital markets generally, our ability to access capital markets, unanticipated outages at our generation facilities, adverse results in current and future litigation, failure to identify or successfully implement acquisitions and repowerings, our ability to implement value enhancing improvements to plant operations and companywide processes, our ability to obtain federal loan guarantees, the inability to maintain or create successful partnering relationships with NRG Yield and other third parties, our ability to operate our businesses efficiently including NRG Yield, our ability to retain retail customers, our ability to realize value through our commercial operations strategy and the creation of NRG Yield, the ability to successfully integrate the businesses of acquired companies, the ability to realize anticipated benefits of acquisitions (including expected cost savings and other synergies) and the ability to sell assets to NRG Yield, Inc. or the risk that anticipated benefits may take longer to realize than expected and our ability to pay dividends and initiate share or debt repurchases under our capital allocation plan, which may be made from time to time subject to market conditions and other factors, including as permitted by United States securities laws. Furthermore, any common stock dividend or debt repurchases are subject to available capital and market conditions. NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. Additional factors that could cause results to differ materially from those described in the forwardlooking statements can be found in NRG's 2015 Annual Report on Form 10-K and the Company's other filings with the Securities and Exchange Commission (SEC) available at www.sec.gov.