

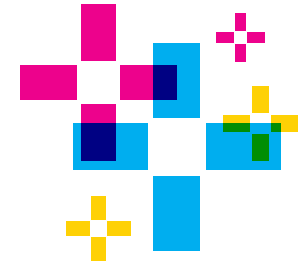


# 2013 **NRG** Sustainability Report

**The Road to Sustainability**



June 2014



# TABLE OF CONTENTS

Letter from David Crane	2
Letter from Leah Seligmann	5
Part 1 – Our Vision: A Sustainable Energy Future	5
Part 2 – NRG Sustainability Analysis & Structure	6
Creating a New Corporate Sustainability Governance Structure	6
Learning What Matters to Our Stakeholders	6
Better Understanding the Impacts of Our Actions	6
Part 3 – NRG's Sustainability Strategy	9
Go Green	10
Expand Retail	14
Enhance Generation	16
Strengthen Our Foundation	19
Notes	29

# 2013 NRG SUSTAINABILITY REPORT

## THE ROAD TO SUSTAINABILITY



**David Crane**  
President and Chief Executive Officer

### Letter from David Crane, NRG Energy CEO

Occasionally I make reference to the “four companies that will inherit the Earth,” by which I mean Amazon, Apple, Facebook and Google. While there is a hint of facetiousness in my designation — who can predict the future in the ever-changing business world — I do have infinite respect for them, their innovativeness, the quality of the service that each provides and, most of all, the comfortable ubiquity they have achieved in the hearts and minds and everyday lives of the vast majority of people, both at home and abroad.

What do these four very successful, but very distinct, companies have in common? They all provide products or services, directly to the consumer, which are deemed essential to the enrichment of their life experience, day in and day out. What causes these four

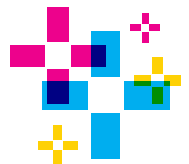
companies to rise well above others that have similar offerings? The “Big Four” offer their own product or service in a manner that is more comprehensive, seamless, intuitive and, in the case of Apple, visually elegant, than their respective competitors. They enable, they connect, they relate, they empower.

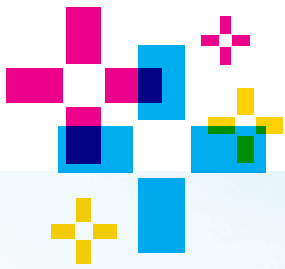
There is no Amazon, Apple, Facebook or Google in the American energy industry today.

There is no energy company that relates to the American energy consumer by offering a comprehensive or seamless solution to the individual's energy needs.

There is no energy company that connects the consumer with their own energy generating potential.

There is no energy company that enables the consumer to make their own energy choices.





There is no energy company that empowers the individual wherever they are, whatever they are doing, for however long they are doing it.

And there is no energy company that the consumer can partner with to combat global warming without compromising the prosperous “plugged-in” modern lifestyle that we all aspire to — not just for us who are so blessed to live a prosperous life in the United States, but for the billions of people who live in the developing world and aspire to what we already have.

NRG is not that energy company either, but we are doing everything in our power to head in that direction...as fast as we can. But we need to pick up the pace further, and that is what we intend to do.

The good news is that we have been working hard over the past few years to put the pieces in place and, therefore, aren't starting from scratch.

### **Preparing to Win the Short, Medium and Long Term**

So far in this letter, I have told you why we want to transform our company, our industry and our society. Now I am going to give you a glimpse of how we intend to do it, before ending with my vision of the outcome we hope to achieve. This is a bit of a broader and longer vision than you are used to, but as the owners of the company, you deserve to know where we are headed.

Just a few years ago, the prevailing wisdom was that the path to a clean energy economy depended on our collective willingness to build a nationwide, high-voltage transmission system in order to transport electricity in vast quantities from the relentlessly windy and brutally sunny parts of the country, where people generally don't live, to the more moderate places where Americans tend to congregate. The folly of that idea, thankfully, was realized before anyone actually began to build such an expensive and pointless white elephant. Now we are headed for the same goal BUT in the opposite direction: down the path towards a distributed generation-centric, clean energy future featuring individual choice and the empowerment of the American energy consumer.

### **The only real question is how quickly will this future occur?**

Even if you believe, as we do, that this future world will be upon us with lightning-like quickness in electricity industry terms, in real time the distributed future is going to take a while to get here. In the meantime, the lights need to be kept on, homes heated and chilled and appliances powered up. So at NRG we are positioning ourselves to succeed during a prolonged period through which the traditional centralized grid-based power system co-exists with the fast-emerging high-growth distributed generation sector — much like fixed-line telephony has co-existed with the wireless world for a couple of decades.

So we are in the process of reorganizing ourselves from the customer's perspective. Our conventional generation business will be not only focused on maintaining our existing 50,000 MW fleet in top operating condition, but also on repowering select plants with flexible fast start units located in advantageous positions on the grid. Furthermore, in response to the increasing realization in the business community that no serious industry or commercial enterprise can prudently run their business based on 100% dependence on the grid, we see a growing B2B opportunity for our wholesale business in “on-site” generation for industry and large-scale commercial customers. The cost to our business customer of maintaining localized generation will be defrayed by our ability to sell excess capacity and generation, on behalf of that customer, into the traditional grid.

As lack of confidence in the grid coincides with the introduction of new technologies, businesses and homeowners will realize that there is a better way. And, for them, that means generating most of the electricity they consume on the premises, from their own resources. In this new reality, our “mass” retail electricity franchise, consisting of Reliant, Green Mountain and NRG becomes ever more important.

Our retail focus is on ensuring that we remain a first mover in bringing technological innovation aimed at the home energy consumer to our customers, on terms that they find attractive. Our marketing relationship with Nest, and their award-winning



learning thermostat, is a case in point. But it is only the beginning. We expect to be soon-to-market with a robust platform offering rooftop solar to homes and businesses and other forms of sustainable and clean generation that will offer our customers the ability to dramatically reduce their dependence on system power from the centralized grid.

And for the customer, business or individual, who simply wants nothing to do with the grid, the centralized control it represents and the inhibition of individual choice and restriction of personal freedom that is implicit in being “intertied” to the grid, there is the post-grid future — a future that is driven by renewables, incorporating both energy storage and sophisticated, localized automation to balance production and load. There will be systems that harness thermal and electric synergies and across not only clean energy, but also fresh water production, waste disposal and electrified transportation to create a virtuous circle of civil sustainability. We are just getting started in this area with, among other projects, our ground-breaking Necker Island announcement, but we expect to be a leader in the area of renewables-driven ecosystems. Our goal is to achieve the quality and ubiquity of energy outcomes on behalf of our customers that would one day cause us to be mentioned in the same breath as the “four companies that will inherit the Earth.” And in turn, our customers would have the same kind of experience with us that they have with the four of them and we can emulate the shareholder value creation of four companies which, at present, have an aggregate market capitalization of over \$1 trillion.

#### **They Will Hold Us Accountable**

As we forge ahead, I am mindful of the fact that the “next generation” of Americans — the generation around my soon-to-be-adult children — is different from you and I. Somehow, some way, the next generation of Americans became “all in” in their commitment to sustainability, in every sense of the word including clean energy. With them, it is built into their DNA, not just “learned behavior” as it is for us.

And make no mistake about our children. They will hold all of us accountable — true believers and climate deniers alike. The day is coming when our children sit us down in our dotage, look us straight in the eye, with an acute sense of betrayal and disappointment in theirs, and whisper to us, “You knew... and you didn’t do anything about it.

*\*from 2013 shareholder letter*

Why?” And for a long time, our string of excuses has run something like this: “We didn’t have the technology...it would have been ruinously expensive...the government didn’t make us do it...”

But now we have the technology — actually, the suite of technologies — and they are safe, reliable and affordable as well as sustainable. They do not represent a compromise to our ability to enjoy a modern lifestyle. They represent an opportunity for us to do the right thing while multiplying shareholder value through greater value-added services. And these technological solutions are focused on the individual consumer — both businesses and individuals — so the shameful passivity and failure to act of government is irrelevant.

The time for action is now; we have run out of time for more excuses. You should know that I get up each day animated and motivated to lead NRG into a transformational role in the clean energy economy by my intense desire to have a better answer to that question when it comes from our children, whether it comes from your children or mine:

“At NRG, we did all that we could, as fast as we could do it, and what we accomplished with our partners and customers turned out to be quite a lot. Enough, in fact, for you and your generation to finish the job...”

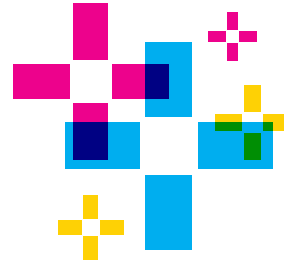
That would be a much better answer.

**So let’s make it happen.**

**David Crane**

*President and Chief Executive Officer*

## Letter from Leah Seligmann, Director of Sustainability



At NRG, sustainability isn't just a talking point. It's a driving force of our business and a defining feature of our corporate vision.

We are at an inflection point in the fight against climate change. Today's electricity model — fossil fuels, centralized generation, an aging grid — is going to undergo tremendous change over the next few decades, transforming how people will perceive, buy and use energy. NRG is committed to being a leader in this revolution and helping to shape a better energy future for all of us.

As you read more fully in the annual shareholder letter from our CEO David Crane, the future we envision and are working toward is bold, but wholly attainable: clean energy, distributed generation, empowered consumers and new technologies to make our energy cleaner, and our use more efficient and less costly.

This report reflects a snapshot of our 2013 efforts to move this vision forward. I hope you find it as informative and inspiring as I do.

Since joining NRG in 2013, I've been amazed at the level of commitment of our company and employees to sustainability, and proud of the tremendous strides we have already taken to focus our people on creating a more sustainable and resilient company. In 2013 alone we invested \$1.2 billion in solar energy; since 2000, we have invested more than \$3 billion in environmental fleet improvements.

But there is more work to do, and NRG is already laying the groundwork for a number of significant — even transformative — changes to how we approach our business and sustainability in the months and years ahead.

Today, we are striving to integrate sustainability principles into all our existing operations, shaping and expanding our measurement, and creating structures to ensure we deliver maximum benefit to our stakeholders. In the coming months and years, we will continue this work, strengthening and implementing our vision with additional concrete goals, path-breaking initiatives and transformative strategies.

Sustainability is a journey. Despite all of our previous efforts, there is still much more to be done to prepare our company for the future. NRG is not afraid of the changing times ahead. We embrace them, and believe the good work we do today will enhance the lives and livelihoods of many generations to come.

I am proud to be part of these efforts and look forward to sharing our progress with you.

**Leah Seligmann**  
*Director, Sustainability*

# OUR VISION: A SUSTAINABLE ENERGY FUTURE

While NRG's vision is broad, bold and transformational, it is also quite simple — and, as you will see, fully embedded into our core business strategy. We will grow and diversify our businesses while dramatically reducing our carbon footprint.

We are deeply committed to helping create a truly sustainable energy future without sacrificing consumer satisfaction or shareholder value. This means providing affordable, safe, clean and reliable energy that is produced in ways that liberate, not limit, our options as businesses, consumers and citizens.

### **At NRG, we believe sustainable energy:**

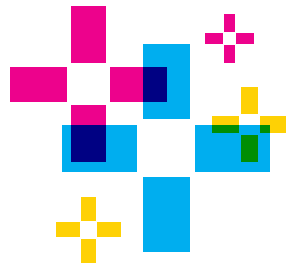
- ✦ Is produced and consumed with the lowest possible social and environmental impact.
- ✦ Delivers a net positive impact for NRG stakeholders and the planet.
- ✦ Can be made affordable, reliable and safe for our customers.
- ✦ Produces the highest rate of return with the least amount of impact on the well-being of our customers, shareholders, employees, suppliers and communities.

Together, we are building a sustainable energy future — not just for ourselves, but for our children, grandchildren, and their children and grandchildren.

To make this future a reality, we will leverage an increasingly diverse suite of energy sources, empower consumers with real choices and value, and develop and implement cutting-edge efficiency and demand-response initiatives.

In the pages below, we outline how we are striving to reach this sustainable energy future, and how far we've come to date.



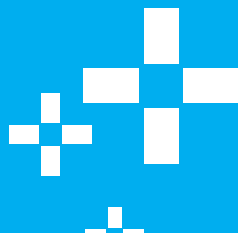


# NRG SUSTAINABILITY ANALYSIS & STRUCTURE

## Creating a New Corporate Sustainability Governance Structure

For sustainability to be truly embedded into our organizational strategy, it needed to be championed by our business leaders and better integrated into our core operations. To ensure executive and operational buy-in, NRG assembled a CEO-led executive steering committee to guide the development, integration and implementation of our strategy, and created a robust sustainability team to manage our day-to-day sustainability efforts. This executive steering committee includes the following members:

- David Crane, President & CEO
- Robyn Beavers, SVP, Innovation & Implementation
- Steve Corneli, SVP, Sustainability Strategy & Policy
- Tanuja Dehne, SVP & Chief of Staff
- Sicily Dickenson, SVP & Chief Marketing Officer
- Mauricio Gutierrez, EVP & Chief Operating Officer
- Patti Helfer, EVP & Chief Administrative Officer
- Elizabeth Killinger, SVP, Regional Retail President – Texas
- Chad Plotkin, VP, Investor Relations
- Leah Seligmann, Director, Sustainability
- Jim Steffes, SVP, Regional Retail President – Northeast
- Walter Stone, VP, Environmental & Assistant General Counsel



In 2013, NRG launched a company-wide initiative to re-evaluate and refocus our sustainability strategy. We concentrated our efforts on three major areas: creating a new corporate governance structure, learning what matters to our stakeholders and better understanding the impacts of our actions.

### Learning What Matters to Our Stakeholders

Going forward, as we shift our operations to increase our renewables and reduce our environmental footprint, we must remain profitable, as well as sensitive to the needs and concerns of our stakeholders.

While we are confident that sustainability initiatives lead to long-term financial benefits that will ultimately reward the capital investment needed in our efforts to repower and build, we believe it is vital that our stakeholders are educated regarding — and comfortable with — the details of this strategy.

We continually communicate with our investors, as well as with our broader stakeholder network, to showcase our initiatives along with our actual and projected financial position. We will continue these communications and stakeholder outreach efforts as our sustainability strategy is refined and implemented over time.

### Better Understanding the Impacts of Our Actions

Before we could effectively improve our corporate sustainability performance, we needed to gain a more comprehensive understanding of what environmental, social and economic impacts we were having in the first place. To achieve this level of understanding and ensure impartiality, we contracted with a respected third party to administer a materiality assessment, one that would identify NRG's material sustainability issues. We also undertook an analysis of life cycle assessment data to determine where we have the greatest environmental impact.



# Materiality Assessment & Matrix

We define materiality based on the [Global Reporting Initiative](#): "Material topics for a reporting organization should include those topics that have a direct or indirect impact on an organization's ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at-large."

As noted previously, NRG engaged a third party to conduct a preliminary formal materiality assessment with internal stakeholders, who represented diverse divisions within our organization. Their input was solicited through surveys and an in-person workshop. In parallel, we prioritized NRG's material sustainability issues based on a high-level, qualitative rating by utilizing existing NRG data and industry and external stakeholder resources.

The resulting Materiality Matrix (see chart below) illustrates what sustainability issues in social, environmental and economic areas may have the greatest impact with regard to NRG's business and stakeholders.

Today, we are using this independent analysis to better inform business decisions and shape our voluntary reporting process. We will continue to develop and refine this materiality assessment on an annual basis, engaging a broader universe of internal and external stakeholders.

## Key findings from the initial materiality analysis include the following:

### + Economic Findings:

Energy reliability, availability and power quality are the top 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 the local, national and global levels.

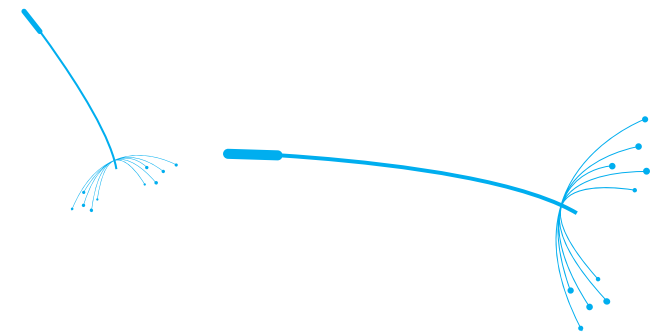
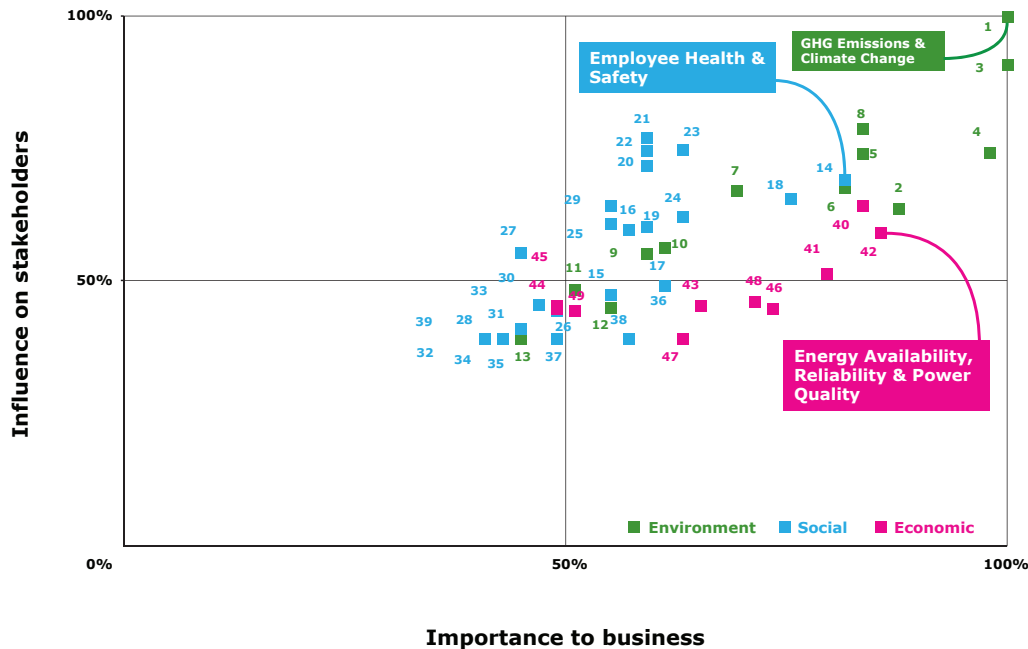
### + Environmental Findings:

As a large power producer in the United States, NRG needs 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.

**Materiality Matrix**





# Life Cycle Assessment

In 2013, NRG developed a life cycle assessment of our environmental footprint to pinpoint our impacts both internally and across our full value chain. This life cycle assessment confirmed NRG's generation business created the vast majority of such impacts (75 percent) across the life cycle of our product — from extraction to use — via the combustion of fuels to produce energy. This footprint analysis is being used to focus our strategy on the areas of our biggest impacts, guiding our corporate goal-setting and supporting 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 with non-energy retailers and those 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 percentage of NRG's impacts are scope 1, we have the opportunity to use sustainability initiatives to make a real difference with respect to our carbon footprint. We will do so through strategic updates to our fleet:

- ✦ Repowering traditional power generation assets at our plants for lower-carbon fuels like 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):

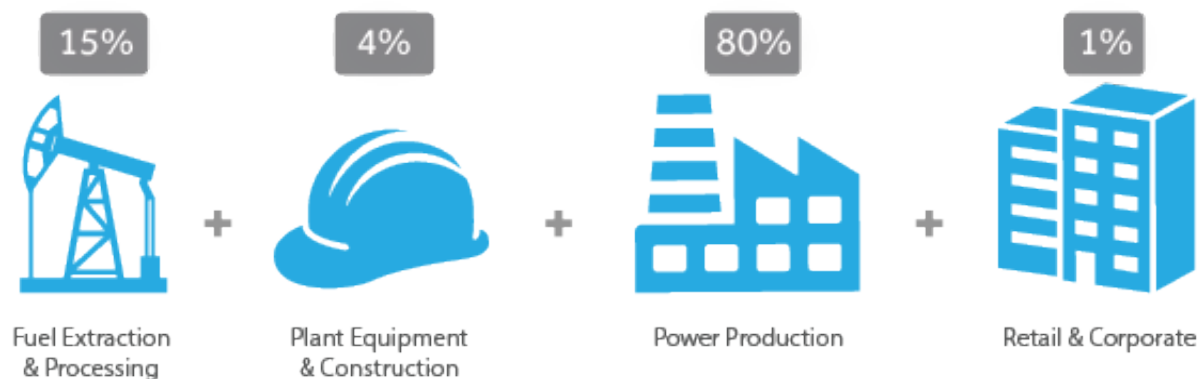
Purchased electricity accounts for 1 percent of NRG's environmental impact. While this doesn't sound like much — NRG's retail and corporate business is just a fraction of our overall footprint — reducing our purchased energy footprint is a key element in NRG reducing the company's overall environmental impact.

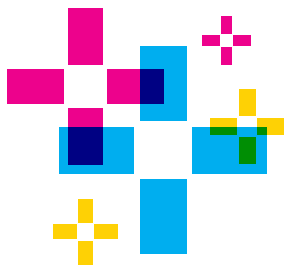
NRG has taken a number of steps to help mitigate our purchased electricity footprint, including implementing energy efficiency initiatives throughout our own facilities (for example, our corporate headquarters switched to 100 percent renewable energy to source our electricity needs) and providing our consumers with more options for increasing energy efficiency and using renewable energy power.

## Scope 3 (Supply Chain):

Our supply chain accounts for 20 percent of our environmental impacts. While 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 is critical to transforming our industry. At NRG, we see the first step to improving our supply chain as transparency; we are 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





# NRG'S SUSTAINABILITY STRATEGY

NRG's vision to catalyze the shift to a sustainable energy future is bold and will require the focus of the entire company to achieve. For this reason, our sustainability strategy and our business strategy are one in the same: Go Green, Expand Retail and Enhance Generation. To do this in the time frame necessary requires a strong foundation of empowered employees, strong relationships with our communities, a laser-like focus on waste reduction in our operations and real transparency so all our stakeholders can measure our progress.

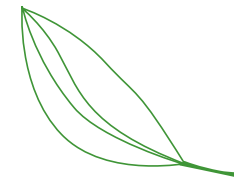
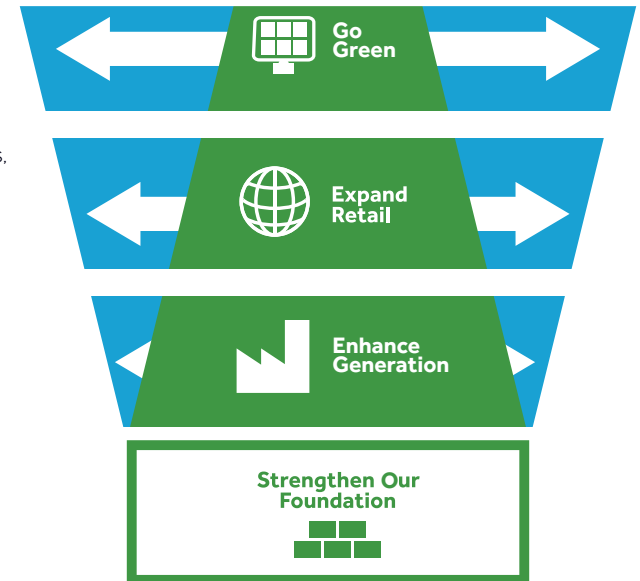
**+ Go Green:** Lead the transformation to sustainable energy systems by becoming the largest provider of distributed and renewable power. We will develop new forms of renewable generation systems and the underlying infrastructure to support the transition to a low-carbon economy.

**+ Expand Retail:** Provide compelling products and services that empower customers to lead sustainable lifestyles while meeting their energy and resource needs. We will engage our customers and make them part of the movement to clean energy, expanding their access to new clean energy sources like solar and wind, and driving them to adopt renewable power and efficiency in retail electricity products.

**+ Enhance Generation:** Repower and clean our fleet to reduce our environmental footprint. We will repower to cleaner, more efficient technologies like combined-cycle gas turbines and use cleaner fuels when available.

**+ Strengthen Our Foundation:** Be an exceptionally ethical company and have a positive impact on the lives of our employees, customers, suppliers and communities. We will continue to invest in a diverse and robust workforce that is prepared for the new energy future, support our communities, eliminate waste from our operations and share our journey toward sustainability with the public.

In the following pages, we have outlined each of these strategic initiatives in greater detail.



# Go Green

The next generation of energy consumers will demand the ability to tailor their energy usage to their respective lifestyles and to have more sustainable options. Our early adoption of new energy technologies on a large scale will allow us to meet this growing demand and lead the transformation to a new energy economy.

## Solar

In 2013, NRG had a banner year in terms of solar development, growth, and implementation of and planning for new initiatives. In addition to 30 MW of solar PV generation currently under construction in Guam and Southern California, NRG's solar portfolio now includes 11 utility-scale solar PV facilities that produce clean solar power for nearly a million homes and businesses.

✦ **Arizona:** Agua Caliente, Avra Valley

✦ **New Mexico:** Roadrunner

✦ **California:** Avenal, Alpine, Blythe, Borrego, California Valley Solar Ranch, Kansas South, Ivanpah, TA High Desert

During their first year of operation, the four largest of the utility-scale solar projects that came online in 2013 are expected to generate enough clean solar power at peak capacity to offset the electricity use of over 793,000 average U.S. homes.

### Highlights of NRG's solar milestones in 2013 include:

✦ **Ivanpah:** Located in California's Mojave Desert, Ivanpah is the largest solar thermal plant in the world, spanning 3,500 acres of public land. The 392 MW

(378 MW net) plant will generate enough electricity to power 140,000 homes annually. Ivanpah's three power tower units will also nearly double the amount of commercial solar thermal energy capacity now available in the United States.

✦ **The Alpine Project:** Located near Lancaster, California, Alpine is a 66 MW facility that delivers power to the Southern California Edison system.

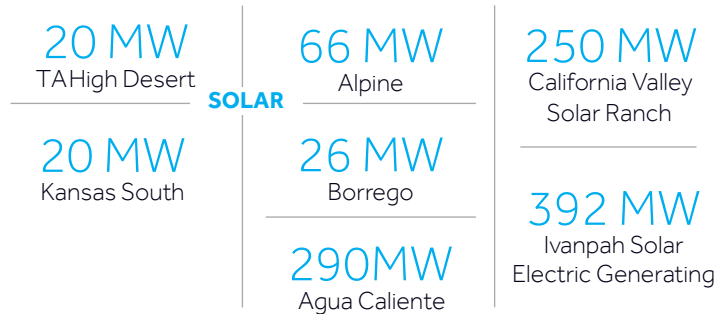
✦ **Borrego:** Located in eastern San Diego County, Borrego is a 26 MW facility delivering power to the SDG&E system.

✦ **Agua Caliente:** NRG's power plant near Yuma, Arizona, reached its full 290 MW of contracted capacity in 2013, with the last blocks of power brought online late in the year.

✦ **New Plant Acquisitions:** In 2013, NRG announced the acquisition of two newly constructed 20 MW solar plants in California.



Borrego Solar Generating Station, CA





# A Powerful Story

## CALIFORNIA VALLEY SOLAR RANCH

California has established a mandate for utilities to provide 33 percent of their energy utilizing renewable sources by the close of 2020. To meet this mandate, NRG partnered with SunPower in 2011 to begin construction of a solar photovoltaic power plant named the California Valley Solar Ranch (CVSR).

At its inception, this was one of the largest solar tracking projects in the world and involved complex environmental considerations, particularly the challenge of preserving surrounding wildlife habitats and migration pathways.

Throughout the design and construction of the project, wildlife habitats and migration pathways were preserved, vegetation recovery was addressed, and an abandoned gypsum mine on the site was cleaned and restored.

Completed by October 2013, with a total electric generating capacity of 250 MW, CVSR has enough energy to power approximately 100,000 homes — or the equivalent of nearly every home in San Luis Obispo, California.

As a result of team efforts to meet conservation objectives for a range of species, more than 12,000 additional acres of land are now preserved in perpetuity.



NRG Haven™ Solar Canopy

## Other Solar Initiatives

In addition to our utility-scale projects, we are showcasing the use of solar power in high-profile locations where millions can see that renewable energy is a solution that is available today. NRG has championed flagship [solar power projects](#) at several prominent locations, including:

- ✦ Arizona State University
- ✦ FedEx Field (Washington Redskins)
- ✦ Patriots Place/Gillette Stadium (New England Patriots)
- ✦ Lincoln Financial Field (Philadelphia Eagles)
- ✦ MetLife Stadium (New York Jets/Giants)
- ✦ Levi's® Stadium (San Francisco 49ers)

In 2013, NRG also implemented partnerships with sustainability leaders in other industry sectors to forward our transition to a green-energy economy. For example, Starwood Hotels and NRG are working together to expand the use of renewable energy systems at Starwood properties.

The alliance will begin with three properties, including the installation of a 1.3 megawatt solar array with

expected completion in 2015 at the Westin St. John in the U.S. Virgin Islands, where we will build, own and operate the project. This array will provide clean, efficient power to the resort, helping to reduce local air emissions — and the resort's impact on fragile Caribbean ecosystems — by directly reducing demand for diesel fuel imports. Not only will Starwood reduce its electricity costs, it will also lock in predictable energy costs at an affordable level for years to come.

In addition, NRG Solar brought to market the models of what would later be named the NRG Haven™ Solar Canopy, a fully customizable, freestanding structure that generates solar power and can be used in a variety of locations, blending in with the surrounding aesthetic. These units supplement the power that customers get from the grid, and can be set up to operate as a backup power source if a storm or other event knocks out electricity.

The inspiration for the new unit came in the wake of Hurricane Sandy, which left thousands without electricity for an extended period. NRG and its family of companies set out to develop a truly versatile solar solution that would work even when the grid was down. We are proud to have delivered on this important initiative.

## Wind

As of December 31, 2013, NRG had ownership in four wind farms in Texas:

- ✦ **Green Mountain Wind–Elbow Creek:** Located in Howard County near Big Spring, this 122 MW project consists of 53 Siemens wind turbine generators, each able to generate up to 2.3 MW of power.
- ✦ **Green Mountain Wind–Langford Wind Farm:** This 150 MW project is located 25 miles south of San Angelo; it uses 100 General Electric 1.5 MW wind turbine generators on approximately 35,000 acres of land.
- ✦ **South Trent:** This 101 MW wind farm located near Sweetwater consists of 44 Siemens 2.3-megawatt wind turbines capable of powering more than 80,000 homes at maximum capacity.
- ✦ **Sherbino I Wind Farm:** Located in Pecos County, this project (an NRG/BP Wind Energy partnership) can generate 150 MW of power and consists of 50 Vestas wind turbine generators, each capable of generating up to 3 MW of power. The wind farm, which BP operates and dispatches, is located approximately 40 miles east of Fort Stockton on approximately 10,000 acres.

With the finalization of the acquisition of Edison Mission Energy in April 2014, NRG's number of wind farms will increase substantially to 33, making our company the nation's third-largest U.S.-based renewable energy generator. The Edison Mission Energy deal has substantially increased both the

scale and geographic diversity of our renewable generation portfolio, and has almost quadrupled NRG's existing wind generation capacity (an additional 1,374 net MW of wind capacity, including 1,065 net MW of wind outside of NRG's existing renewable footprint in Texas).

## Micro-Grid

NRG is at the forefront of piloting programs that create micro-grids — networks of distributed energy resources that can either be tied to or independent of the conventional grid. Micro-grids allow a home, building, municipality, or any other small grouping or geographic area to leverage optimized fuels and technologies to provide clean, reliable and high-quality power. NRG's micro-grid solutions are fully replicable and provide long-term cost certainty for electric power.

One example of this is NRG's recent announcement to provide renewable power to Richard Branson's Necker Island. We will develop a renewables-driven micro-grid for the entire island, supplying high-quality, reliable electricity. At least 75 percent of the power will be from renewable sources via an integrated array of solar, wind and energy storage technologies.

This system will be supported by new energy efficiency and control automation technologies designed to reduce and synchronize overall usage with renewable energy production on the island. The agreement was signed and announced at the "Creating Climate Wealth Summit" by Sir Richard Branson, founder of the Virgin Group, and NRG CEO David Crane.



# A Powerful Story

## PRINCETON HEALTHCARE CENTER

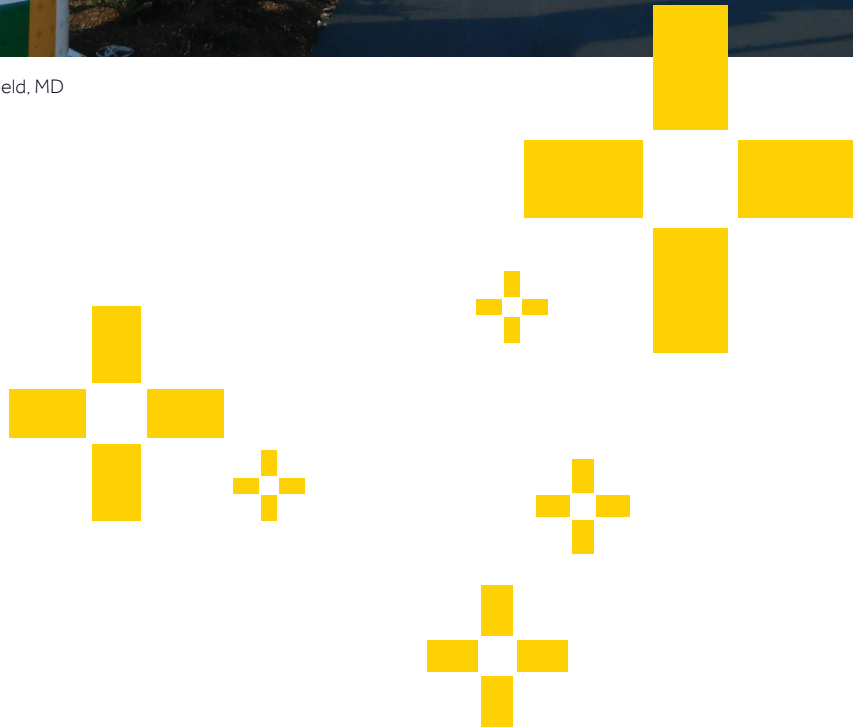
When you're building a state-of-the-art medical center, reliable electricity, heating and cooling are essential to running high-tech equipment and keeping patients healthy and comfortable.

Princeton HealthCare System selected NRG Distributed Generation to provide the continuous energy supply it needed to ensure uninterrupted, high-quality medical care at its new University Medical Center of Princeton. NRG Energy Center Princeton designed, built, owns, operates and maintains a micro-grid on the medical center's campus to supply electricity, steam and chilled water.

The system delivers significant economic and environmental benefits to one of the most advanced healthcare facilities in the nation, helping to ensure the medical center's sustainability and reduce its carbon footprint. The plant is expected to reduce the medical center's carbon emissions in an amount equivalent to removing 1,900 cars from the road each year.



eVgo Charging Stations, FedEx Field, MD



The Necker Island project will demonstrate how NRG's highly distributed and locally automated and controlled micro-grid system can help reduce (and ultimately eliminate) many Caribbean and other island nations' dependence on high-cost oil for electricity. By leveraging each island's specific, readily available renewable energy resources, NRG can help provide long-term cost certainty and reduce carbon and other emissions in this sensitive eco-geographical area.

### NRG eVgo®

[The NRG eVgo network](#) of fast-charging, conveniently located stations gives electric vehicle (EV) owners new freedom and range confidence. Service plans provide EV owners with at-home or workplace chargers and use of eVgo's Freedom Station® sites, located along major transportation corridors within eVgo cities, and other public charging stations. Through the eVgo network, NRG will provide access to hundreds of public charging sites across the United States.



## Expand Retail

Providing compelling products and services that empower customers to lead sustainable lifestyles while meeting their energy and resource needs is an integral part of NRG's sustainability strategy. In order to accomplish this, we are working hard to expand our existing multi-brand retail offerings to attract, retain and increase the value of NRG's residential, small-business, commercial and industrial customer relationships.

In 2013, NRG served approximately 60 terawatt-hours (TWh) (or 6 trillion kilowatt-hours) through our retail electricity business, and at the end of 2013 had approximately 2.3 million customers. We are the largest electricity retailer in Texas, and one of the largest retail energy providers in the entire United States. Highlights of our retail business in 2013 include the following:

- ✦ **NRG Residential Solutions:** It was a new day for residents in Philadelphia and surrounding areas when NRG Residential Solutions officially launched during the early part of September. Customers were given the power of choosing the energy-efficient Learn & Conserve™ Plan featuring the Nest Learning Thermostat™, selecting a sports-centric plan featuring team collectibles, or designing their own plans by choosing their term length, amount of green power and reward method.
- ✦ **ERCOT Leadership:** NRG's Texas-based companies have the largest retail market share in the Electric Reliability Council of Texas (ERCOT), which operates the electric grid and deregulated market for 75 percent of the state (based on volume of sales). [Reliant](#), an NRG company, has been recognized for its exemplary customer service as well as its innovative smart energy product offerings and home energy services.
- ✦ **Green Mountain Energy:** NRG's [Green Mountain Energy](#) is the nation's longest-serving renewable energy retailer, offering consumers and businesses the choice of cleaner electricity products from renewable sources, as well as carbon offsets and sustainable business solutions. Green Mountain Energy made waves in 2013 by bringing Texans the first 100 percent solar electricity plan: Solar SPARC™ (Smart People Accelerating Renewable Change). This program is an excellent example of a consumer-centric approach to residential solar adoption. Solar SPARC enables customers to power their homes with 100 percent solar power while also supporting the local development of new solar and receiving credit for the facilities built through this program. Solar SPARC aims to build new solar facilities funded by monthly per-customer contributions from the company. This offer will expand to additional states in 2014.



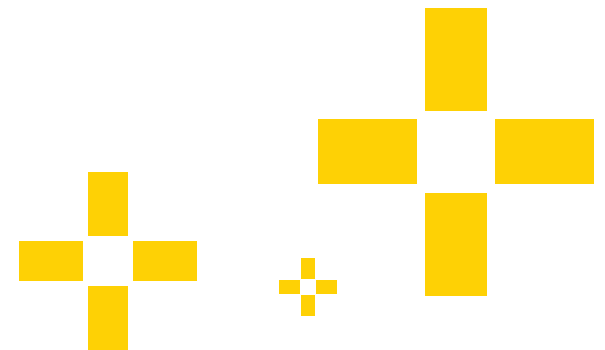
Nest Learning  
Thermostat®

+ **Expanded Offerings:** NRG continues to expand our product and service offerings, selling renewables, home services, portable power and customized energy solutions to customers in chosen markets. Through our multi-brand retail business, we are able to provide our customers with a broad range of energy services and products, including system power, smart energy and energy-efficiency services, electric vehicle services, protection products, distributed generation, solar and wind products, carbon management and specialty services.

+ **Nest Labs Partnership:** In 2013, our alliance with Nest Labs, Inc., expanded into competitive markets nationally through both regions of our retail markets. Nest Lab's technology — more specifically, their Nest Learning Thermostat®, which learns your schedule, programs itself and can be controlled from your phone — played a vital role over the course of the year in allowing us to provide our customers with better ways to understand their usage and save on their electricity.

The breadth and scope of the NRG retail business also creates opportunities for delivering value-enhancing energy solutions to customers on a national level. In an industry that is subject to commodity price volatility, we expect that an expanded core generation fleet will enable the combined company to replicate the successful integrated wholesale retail business model that we currently operate in the Texas region in multiple markets, principally in the East.

Providing customers with access to compelling, sustainable energy choices is a strategic focus for NRG. This is not just in response to consumer demand — it's also about creating opportunities for consumer partnership, helping our customers understand and create their own power choices for the future. As we move forward with new retail initiatives and offerings, we are guided by a company-wide mandate to provide access to renewable energy in all the markets we serve, to become the leader of sustainable energy solutions in all our markets, and to clearly demonstrate to consumers that sustainable energy is accessible, affordable and reliable.





# Enhance Generation

Enhancing generation at NRG means repowering and cleaning our fleet and reducing our carbon footprint — all while growing the number of people we serve. We have already significantly reduced emissions from our existing power-generating facilities via the installation of environmental controls and by adding natural gas capability to existing plants.

## Natural Gas

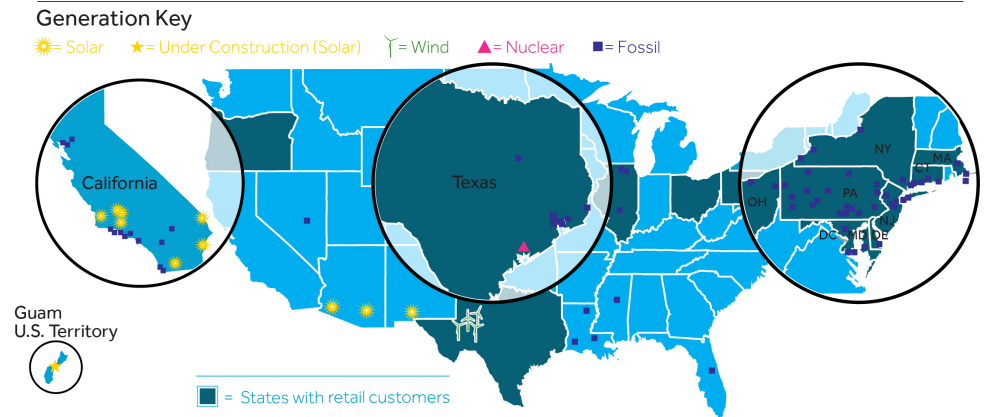
Natural gas has roughly half the carbon dioxide (CO2) emissions of coal. This fuel source will play a critical part in the transition to a renewable-based energy system in the United States, and therefore plays a prominent role as part of NRG's sustainability strategy and vision.

## El Segundo Energy Center

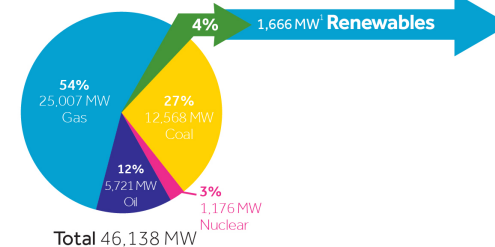
In August 2013, El Segundo Energy Center, a natural gas-fueled, combined-cycle generating facility located near Los Angeles, California, went into commercial operation. The plant produces 550 MW of efficient, flexible electricity to the California grid — enough to supply power to nearly 450,000 homes. The site's fast-start, rapid-response power generation delivers more than half of our generating capacity in less than 10 minutes and the balance in less than 1 hour, allowing it to back up and enable greater use of intermittent renewable technology.

The El Segundo Energy Center project also contributed to other significant environmental efforts, including the retirement of a less efficient, 335 megawatt steam boiler unit constructed in 1964 that relied on ocean water for cooling. The new Energy Center relies on reclaimed water for its innovative, air-cooled, combined-cycle generation. It also uses 30 percent less natural gas per megawatt produced than the previous steam boiler, supporting California's objective to meet 1990 greenhouse gas levels by 2020.

This figure shows our U.S. power generation facility locations (both operating and under construction, excluding distributed solar) as of December 31, 2013, as well as the states where we operate our business.

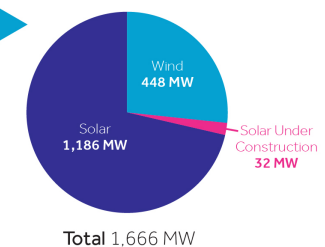


**Net Capacity by Fuel Type**  
North America Portfolio



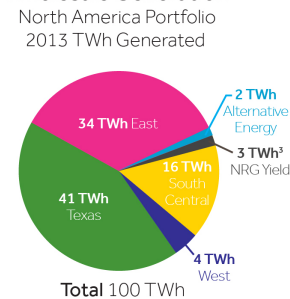
<sup>1</sup> Includes 32 MW under construction

**Renewable Facilities<sup>2</sup>**



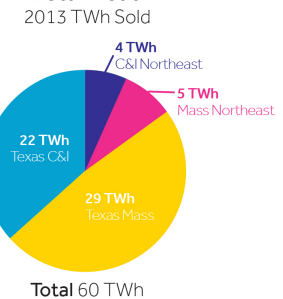
<sup>2</sup> Includes 53 MW Distributed Solar, including 6 MW under construction

**Wholesale Generation**



<sup>3</sup> Includes 2 TWh for NRG Yield's thermal steam and chilled water facilities

**Retail Load**





Marsh Landing Generating Station, CA

### Marsh Landing Generating Station

Marsh Landing Generating Station is a natural gas generation facility brought online near the San Francisco Bay area. At peak, the facility provides 720 megawatts of flexible electrical generation to the California grid that can supply power for up to 650,000 homes. Like the El Segundo Energy Center, the Marsh Landing Generating Station's fast-start technology supports the integration of increasing amounts of new renewable energy sources that are expected to come online in the next decade.

Bringing this new facility online allowed NRG to retire two less-efficient, 1960s-era units at our adjacent Contra Costa Generating Station, with a gain in power at a fraction of the environmental cost. During construction, the station followed the highly respected Leadership in Energy and Environmental Design (LEED) building standards, which serve as the U.S. Green Building Council's nationally recognized model for environmentally friendly construction.

The Marsh Landing Station also employs technologies that meet or exceed the state of California's strict standards for emissions control and air quality. The turbines operate with ultra-low nitrogen oxide (NOx) combustors, a selective catalytic reduction system that further reduces the NOx emissions, and an oxidation catalyst system that reduces carbon monoxide and other organic compound emissions.

Additionally, Marsh Landing's state-of-the-art air cooling system uses a minuscule amount of water compared to other facilities relying on water-cooled systems. This advances California's policy of reducing the use of water associated with the generation of electricity. In fact, Marsh Landing's maximum use of 50 acre-feet of water per year represents a 99.99 percent decrease.

### Coal

Emission reductions and increased fuel diversity are central to our vision for a sustainable future and are critical to our national security. Over the course of the next decade, new power generation in the United States will be primarily renewables and natural gas, but it is our firm belief that coal should and will remain part of the mix.

We have already made significant progress in cleaning up our existing power-generating facilities; we will further reduce overall emissions and enhance shareholder value by:

- + Taking carbon out of key existing coal plants post combustion.
- + Continuing to install environmental controls at our plants.
- + Repowering inefficient older plants with gas.
- + Investing in renewables, distributed energy resources and storage.

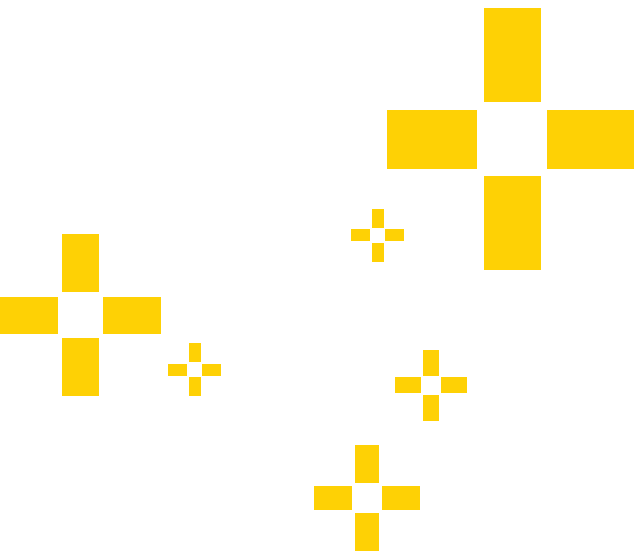
Of all of these, post-combustion carbon capture is most critical to the continued use of coal. This is a technology that awaits demonstration at power plants that meet the necessary criteria, but we believe that early innovation and investment can broaden the applicability of carbon capture technologies.

One example of how NRG is supporting advancements in this area is through our Petra Nova carbon capture to enhanced oil recovery project at our WA Parish coal plant outside Houston. The Petra Nova project, currently scheduled to break ground at the end of 2014, is projected to effectively sequester 1.6 million tons per year of carbon in a nearby oil field, increasing the field's oil production and providing additional oil revenue, even without a price on carbon.



Princeton Healthcare System, NJ

Recovered thermal energy is used to heat and cool the medical center, while the steam is used for sterilization. Solar panels over the parking lot produce energy equivalent to what 30 average-sized single-family homes would use.



We recognize the need to decouple our growth from emissions and the urgent need to take action on climate change, but reliability and fuel diversity are also critical to our national security. In an increasingly carbon-constrained world, we think taking carbon out of existing coal plants is the best way to maintain base load fuel diversity over the long term and across all markets.

We're proud of what we've done with our coal fleet so far and are excited about what we're going to do with it in the future.

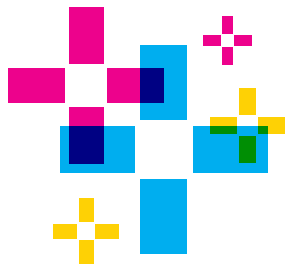
## NRG Distributed Generation (dGen)

NRG dGen owns and operates [NRG Energy Centers](#)— district energy systems and combined-heat and power plants located nationwide that leverage energy that is typically wasted to create steam. All have a strong track record of success, yet each is unique in its configuration and services offered. Some heat, some cool, 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 major U.S. cities.

District energy systems are energy-efficient, highly reliable and environmentally sound methods of heating and cooling buildings. These systems employ emission controls that help improve air quality; and, with no need to store fuels, chemicals or refrigerants on-site, buildings on district energy systems are safer for the environment as well.

- ✦ Energy centers in [Harrisburg](#), [Minneapolis](#), [Phoenix](#), [Pittsburgh](#), [San Diego](#), [San Francisco](#) and [Tucson](#) together provide district heating and/or cooling to nearly 115 million square feet of building space, including hospitals, hotels, commercial office buildings and sports arenas.
- ✦ Our [Princeton](#), [Dover](#) and [Paxton Creek](#) plants further demonstrate our ability to effectively manage complex fuel supplies, acquisitions, ownership and outsourcing strategies. They help showcase our experience in using alternative fuels — such as biomass — and provide reliable service 24 hours a day, seven days a week.
- ✦ NRG Distributed Generation is one of the largest third-party steam providers in the United States. For over 30 years, the company has continued to grow, proving time and again to be a [safe, high-quality and environmentally sound](#) service provider.

And more is in store for these [energy centers](#). Each year, we add new customers, often laying new pipe to expand their service territories. We're seeking new opportunities to expand as well, by acquiring and operating other district energy systems and plants that serve major manufacturers and industrial parks. Our mission is to free even more customers from the burdens of energy operations so that they can focus on their core businesses.



# Strengthen Our Foundation

Sustainability is about more than the environment — it's a complex matrix of priorities that work in tandem to not only protect air, water and ecosystems, but also to support an economically vibrant, culturally diverse and healthy society, and promote the highest ethical standards in business.

NRG is wholly committed to this kind of broad-spectrum sustainability. Below, we outline the full range of our sustainability efforts, including:

- + Employee safety, empowerment and diversity
- + Community support
- + Reducing our impact on natural resources



## Employees

At NRG, every one of our more than 8,000 employees\* is both valued and valuable — we all have a role to play in creating a different kind of energy company. Making sure that each of these employees has a safe workplace and an empowering, diverse work experience is an important element of our corporate philosophy and our sustainability efforts.

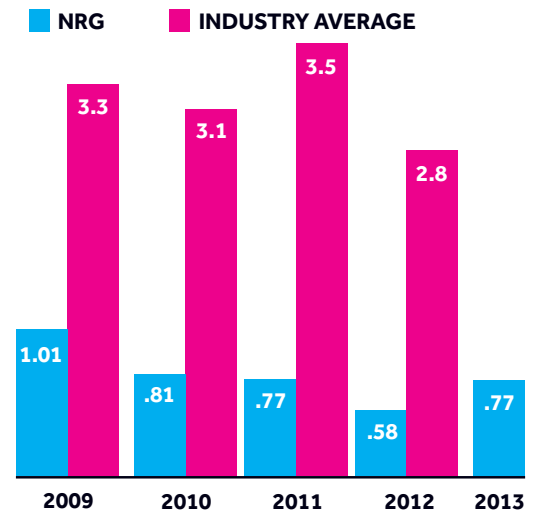
Everyone at NRG is treated with dignity and respect. Our employees are guided by [NRG's Code of Conduct](#), which outlines the fundamental business principles employees are expected to follow. The Code translates our STRIVE (Safety, Teamwork, Respect, Integrity, Value creation and Exemplary leadership) values into standards of expected behavior and compliance that provide our employees with a workplace free from harassment and discrimination.

\*8,000 employees as of 12/31/2013

## Safety

Safety is paramount at NRG — it is the first of our core values. Our goal is to attain a record of zero injuries in any given year and achieve top-decile performance for OSHA recordable injuries. We consistently update, implement and enforce robust preventive safety practices and programs to make sure our employees remain healthy and happy on the job.

### NRG AND INDUSTRY RECORDABLE INCIDENT RATES





We are proud of our 2013 safety record, which matched our second-best year-end incidence rate. Even in the midst of our successful GenOn integration, NRG held true to our safety commitment to remain below the industry average incidence rate.

And this hard work is paying off: OSHA's Voluntary Protection Program "Star" status is the highest level of recognition a facility can acquire for exemplary workplace health and safety. A dozen of NRG's fleet facilities were recognized with this honor in 2013, including:

- Big Cajun II
- Cedar Bayou
- Central Repair Shop
- Encina
- Greens Bayou
- Limestone
- Ormond Beach
- S R Bertron
- San Jacinto
- Seward
- T H Wharton
- W A Parish

## Employee Empowerment

NRG is recognized as a leading employer in our business sector; attracting and retaining the best talent to help transform the energy industry is among our top priorities. We engage the creativity and expertise of our more than 8,000 employees, and apply their considerable knowledge and talent to empowering work and activities.

Within a rapidly changing industry, we are also committed to giving our employees the tools they need to thrive during the transition to a green-energy economy. This includes providing high-level training, innovation challenges and employee engagement efforts that explore new techniques and investment in systems to achieve new success. Our Innovation "Co-Lab" competition, for example, gives employees the opportunity to compete in self-selected teams to come up with our next "Big Idea."

NRG employees also engage in activities that protect and preserve the environment — aligning our daily business actions with

our sustainability goals and values — and participate in volunteer work, with each region implementing programs to encourage [employee empowerment](#) in our communities. We are especially proud of the success of and employee participation in our annual NRG Global Giving® Day, held each May.

## Workforce Diversity

At NRG, we believe that diversity provides a competitive advantage and is key to fostering innovation. We are committed to fostering a culture of diversity and inclusion by placing value on individual differences, experiences, knowledge, skills, talents and capabilities. Our company and industry have historically faced challenges attracting a diverse talent base. To counteract this trend we have put in place a number of practices and policies to help recruit and retain a more diverse workforce.

### Our diversity initiatives include, but are by no means limited to:

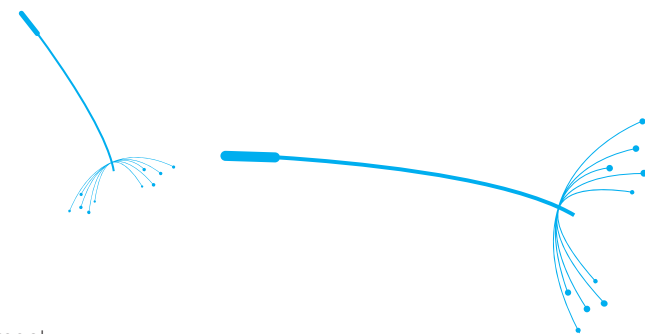
- ✦ Recruitment and selection
- ✦ Compensation
- ✦ Benefits
- ✦ Professional development
- ✦ Training
- ✦ Promotions
- ✦ Transfers
- ✦ Social programs

In addition, NRG maintains an Equal Employment Opportunity Commitment Policy, which prohibits any instances of discrimination. All employees and contractors

are expected to exhibit conduct that reflects inclusion during work, at work functions (on-site and off-site) and at all other company-sponsored events.

Though rare, if an employee or contractor is found to have exhibited any inappropriate conduct or behavior, they are subject to disciplinary action. Employees and contractors who believe they have been subjected to any kind of discrimination that conflicts with our policy are explicitly encouraged to seek assistance from a supervisor or a human resources representative.

We're proud to report that after an analysis of NRG's 2013 personnel records, we are aware of no unlawful discrimination at our company.



# Community Support

NRG actively promotes a culture of giving that creates a positive impact, enhancing the lives of not only our communities, but NRG employees, customers and suppliers as well. Whether it's our dedicated corporate NRG [Global Giving](#) umbrella program or individual offices supporting their communities based on need, we are proud to be a caring neighbor.



Community outreach and support are encouraged and evident in all of NRG's operations: every office and facility has an outreach program; we incorporate community service into every new generation project; and we strongly encourage our employees to volunteer for community projects and support major initiatives that benefit their local areas.

## Examples of our ongoing and 2013 community support initiatives include:

- ✦ **Community-focused efforts by the California Valley Solar Ranch**, which resulted in the improvement and cleanup of seven miles of public roads, numerous educational site tours for local schoolchildren, and nearly \$72,000 of charitable donations to local chapters of the Make-A-Wish Foundation, Disabled American Veterans and 4-H Club.
- ✦ **The donation of a solar power system** to the San Luis Obispo Botanical Garden.

- ✦ **Contribution of half the funding** for the Cuesta College Renewable Energy Education Center, which opened in 2013.
- ✦ **The in-kind donation of photovoltaic (PV) panels** — valued at approximately \$63,000 — for a Watershed Environmental Center in Princeton, New Jersey. This project encouraged renewable energy while contributing to conservation advocacy and education for the facility's volunteers and visitors.
- ✦ **The installation of solar panels on low-income homes** on both the East and West Coasts — including some damaged by Hurricane Sandy — with an NRG monetary donation of \$50,000 and approximately 100 corporate volunteers.
- ✦ **Charitable donations by the Green Mountain Energy Sun Club®** to support the installation of solar energy for nonprofit organizations around the country, helping to reduce both emissions and utility bills. Roy Miller High School in Corpus Christi, Texas, was the most recent facility to receive a solar array through the Sun Club, which has done similar work with art museums, nature centers and other public facilities.

### 2013 STATS

**3-to-1** matching of employee donations for Sandy Relief efforts, **totaling**  
 **\$438,000**

**\$340,000 raised**  
to benefit STEM educational programs



**12,700 hours**  
volunteered

by over  
**2,172**  
employees



  
**3** countries  
supporting local charities  
and projects in Haiti



## Education

At NRG, we believe in investing in future generations. We also believe that, if we want to build a new green-energy economy, we will need highly trained engineers and scientists, both for our company and for the industry and society as a whole.

## Scholarships

NRG provides increased educational opportunities to students in communities across the nation through scholarships (up to \$50,000 each), sponsorships and mentoring programs. Participating students are children of employees from our divisions and locations across the country and are selected by an independent committee.

## NRG University

NRG's skills and development strategy is implemented through a formal program called NRG University. Training and the education offered are aligned with the company strategy for growth and expanding green energy production. NRG University contains colleges for Customer Care, Leadership Development, Professional Development and Technical Training. Thousands of courses are organized by these major job groups to provide a simple way for employees to

locate the materials related to their position or development planning to support their career goals. For technical training, courses are grouped by curriculum required for employees to perform their jobs. Courses include on-site training as well as web-based modules to build competencies and skills.

NRG also conducts a six-month Leadership Development Program for senior leaders, including classroom instruction on innovation, people leadership, leading change and strategic thinking, where concepts are put into action in team projects that are implemented at the end of the program. A similar program for midlevel managers is being developed and conducted in 2014.

Additionally, an InfoShare program held throughout the year also provides employees with an overview of the latest developments across the company and within specific departments. Other programs, such as the Corporate/Field Exchange, provide opportunities for employees to learn about new green technologies at power plants and gain exposure to corporate functions. As part of skills re-training, employees have completed education and development programs to be transferred from coal plants that are deactivating to solar and wind facilities supporting a more sustainable workforce.

Finally, starting in 2013, we began an engineering mentoring program through an NRG nonprofit sponsorship. Through the generosity of NRG employees and matched funds, we have provided \$186,000 in funding for this program. We've also partnered with a local college for a high school student training program that allowed participants to earn a Power Plant Operations and Maintenance Certificate.

## Charitable Giving

NRG has consistently demonstrated a high level of commitment to charitable giving in terms of cash contributions, resource reduction efforts and volunteerism. At the end of 2013, NRG was recognized for these efforts by Civic 50, an annual initiative that identifies the top 50 S&P 500 companies for their commitment to improving quality of life in the communities where they do business.

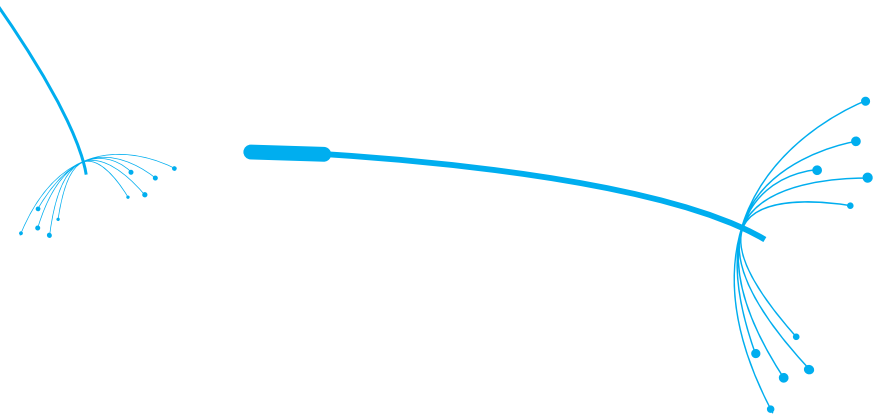
In addition to facilitating staff volunteer time for community projects, NRG's initiatives also seek to connect people with the events we sponsor, such as the Houston Rodeo and NFL football games, in the most environmentally responsible way possible. By giving mass transit rides to participants, we are helping to take thousands of cars off the roads.

## Global Outreach

In 2013, NRG reached beyond our market boundaries to assist with the needs of our global community. We completed the first project of a new partnership with the Clinton Foundation to continue bringing the benefits of solar power to Haiti. An advanced solar panel power system was installed at Hospital Bernard Mevs, one of the only trauma, critical care and rehabilitation hospitals in Haiti, with contributions from leading solar technology manufacturers SMA, Unirac, Trina and Sunora Energy (an NRG subsidiary).

This solar power initiative will help improve the quality and reliability of healthcare delivery to the more than 10,000 patients that the hospital treats every year by significantly reducing its dependence on an unreliable grid power system. The 100-kilowatt solar array and battery storage system enable the hospital to enhance its lifesaving services and equipment.





When completed, the hospital will benefit from solar power in three main ways:

- ✦ The solar power system will significantly offset the need for diesel-fueled electricity.
- ✦ This reliable energy source will provide the “always on” power needed to protect sensitive medical equipment from regular power surges or outages, which can be damaging.
- ✦ This emissions-free energy source will reduce pollution.

Our partnership with the Clinton Foundation follows the 2012 completion of NRG’s \$1 million commitment (made through the Clinton Global Initiative) to bring the benefits of clean, safe solar power in Haiti to a fish farm, a farm drip irrigation system and 20 schools.

While NRG’s overall in-kind or pro bono engagement metrics for the project have not yet been compiled, NRG employee volunteers have spent weeks at a time in Haiti, volunteering alongside community members to assist with the development and maintenance of our investments in Haitian infrastructure. Our continued commitment to developing solar in Haiti will ultimately empower more Haitians to benefit from successful and sustainable economic development opportunities.



## Facilitating Exercise and Education

In February 2013, NRG dedicated the NRG Playground at the Dr. Martin Luther King, Jr., Charter School for Science and Technology in New Orleans by contributing our solar technology. The installation provides sun-powered energy and opportunities for education to enhance the student experience and demonstrate how solar is a viable energy option for a new generation of accessible, sustainable projects.

The NRG installation at the school comprises 397 solar panels, which will provide 112 kW of power — enough to handle one-third of the school’s peak electricity demand with renewable solar energy. The installation also features playground upgrades and components such as fans, drinking fountains, a garden irrigation system, prisms and inspirational quotes intended to improve the educational experience for student and teacher alike.

We partnered with several organizations to develop and deliver this project. It was designed and managed by Sunora Energy Solutions, which also fabricated and pre-assembled the solar arrays with panels donated by Trina Solar. DLR Design Group and Core Construction provided engineering and construction support, while Common Ground Relief provided the gardens and wetland plantings, as well as the educational components. The entire project was inspired by Global Green USA’s ongoing work in the lower Ninth Ward.



# Reducing NRG's Natural Resources Impact

## NRG Environmental Policy Statement:

At NRG, we are committed to creating value for our shareholders by managing our business in an environmentally responsible manner with a focus on continual improvement. To succeed in this mission, we strive to:

- ✦ Meet or exceed applicable environmental laws and instill environmental responsibility in our employees.
- ✦ Reduce our environmental impacts (including 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.

## Environmental Report Card

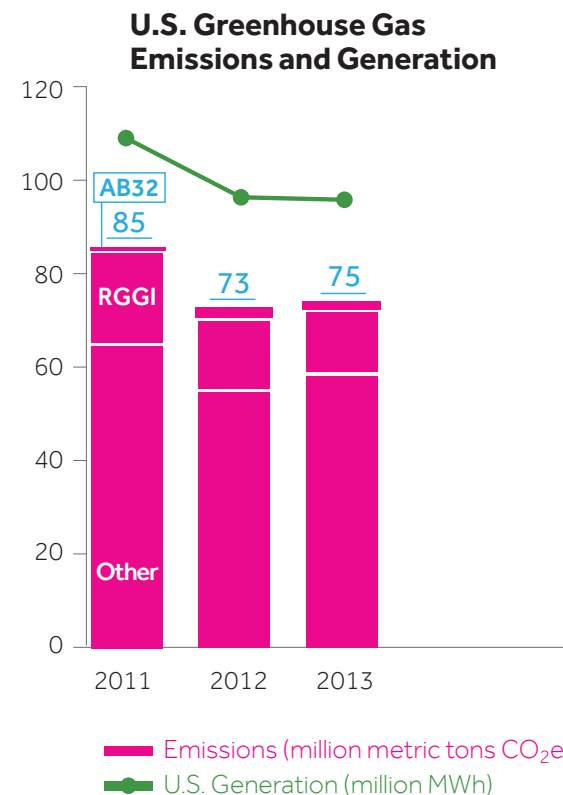
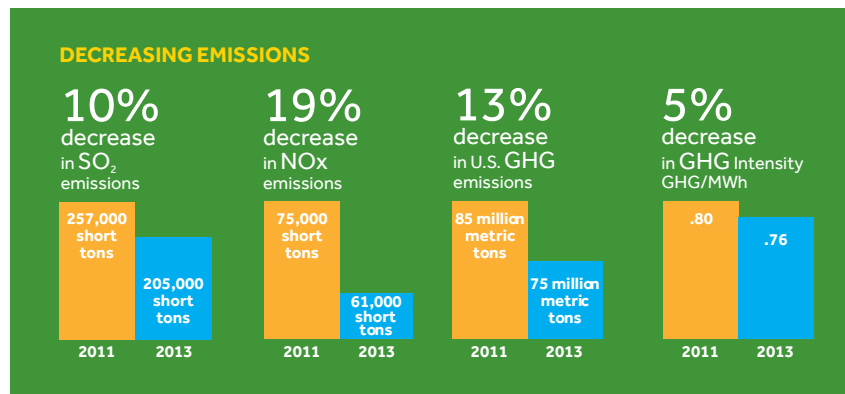
NRG continues to monitor our environmental impact as we pursue a sustainable energy future. As we grow our generation portfolio, our generation enhancement initiatives — including the conversion from coal to natural gas — must keep pace.

At the same time, we are shrinking our 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, with many exciting projects on the horizon.

To get the full picture of our environmental efforts and accomplishments, we must look back to December 2012. At that time, NRG acquired GenOn Energy, Inc., a wholesale generator comprised of base load, intermediate and peaking power generation facilities that used coal, natural gas and oil to produce approximately 21,440 MW.

The graph to the right illustrates our emissions for 2013 with a baseline of 2011. Note that 2013 is the first time we are reporting as a combined company with GenOn operations included, instead of reporting GenOn's numbers separately.

The merger effectively doubled the size of our fleet and subsequent CO<sub>2</sub> emissions. In order to illustrate an accurate representation of CO<sub>2</sub> emissions, we created a new, post-merger baseline. The CO<sub>2</sub> numbers reflect what the combined company would have looked like if we had combined the CO<sub>2</sub> emissions (from generation) historically. This allowed us to more effectively set goals and manage our progress across all operations.

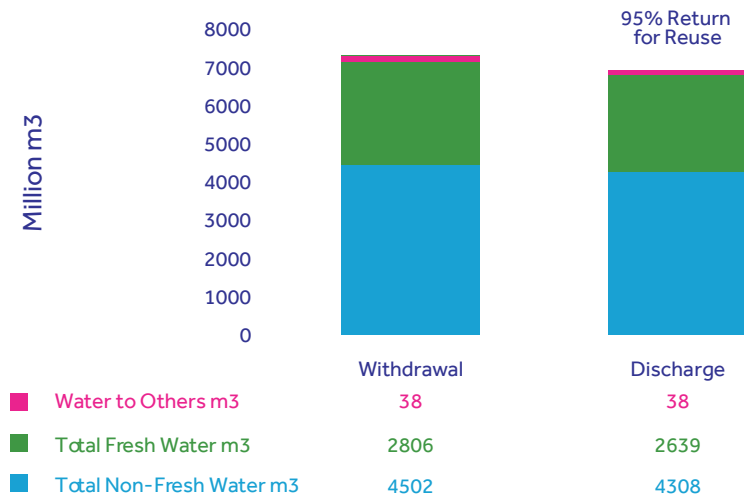


## Water

Water issues (usage, scarcity, etc.) are generally local in nature, and NRG has designed our approach to water management with this understanding in mind. We are determined to continuously improve our data gathering and management techniques.

2013 was the second year that NRG was able to report on total water withdrawal and discharge. Our plants, while producing 100 million TWh of electricity, withdrew about 7,400 million cubic meters of water, 95 percent of which was returned to the environment. In fact, 99 percent of the water that is discharged is returned to the same body of water from which it was drawn.

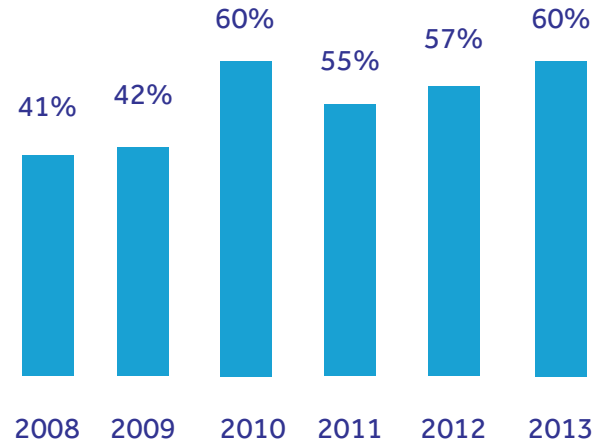
### 2013 Water Use



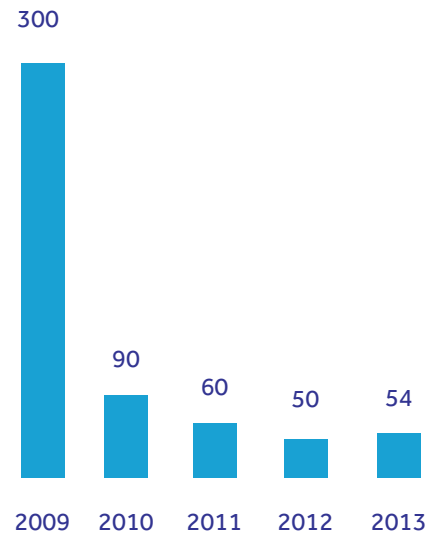
## Byproduct Management

We strive to reduce, reuse and recycle any material used in our daily operations. These efforts not only help to preserve scarce natural resources, but also impact our bottom line and operational efficiency.

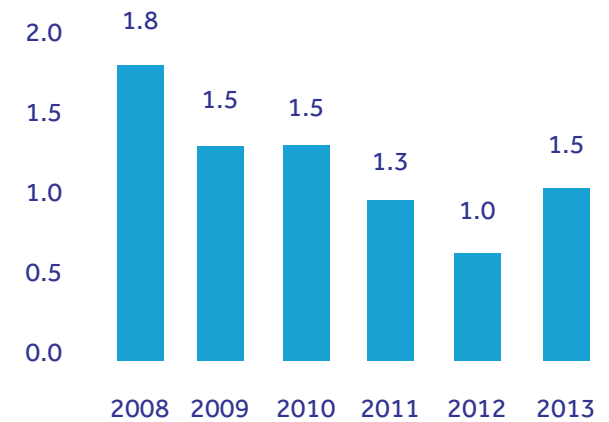
### Coal Ash Reused (%)



### E-Waste Recycled (U.S. Tons)



### Mercury (U.S. Tons)



## Environmental Management Systems

Our environmental management program provides the foundation for us to be able to take NRG beyond simple compliance with government environmental standards.

Our operations are exactly measured on a monthly basis through our environmental key performance indicator (EKPI), which measures a number of leading and lagging parameters.

### 2013 was NRG's best year\* for EKPI performance:

- ✦ EKPI measures include Notices of Violation (NOVs), reportable spill and compliance with all environmental requirements.
- ✦ 2013 was the first year the former GenOn plants were included in the NRG EKPI program.
- ✦ We set a 2013 goal that 100 percent of operations facilities meet their plant-specific targets — we achieved an impressive 89 percent result.

At NRG, site-specific EKPI performance is tied directly to the compensation of all employees at a given location, fostering a 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.

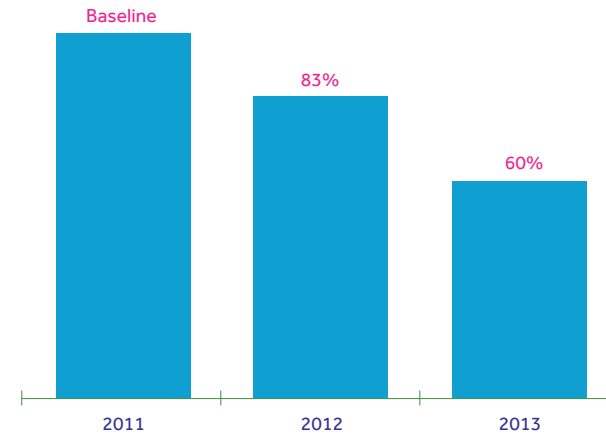
In addition, a portion of each facility employee's compensation is tied to the combined environmental performance of all NRG facilities; this incentivizes all locations to work together to collectively minimize our impact on the environment. All environmental professionals across NRG join weekly calls to share best practices and lessons learned, and to discuss additional topics of interest.

NRG's Environmental Policy & Procedures Manual directs and compels all NRG facilities to maintain environmental compliance in all activities and processes. Each major facility is audited annually by an independent third party, and we require prompt completion of corrective and preventive actions for any negative findings or observations.

### A summary of NRG's 2013 notices and spills includes the following:

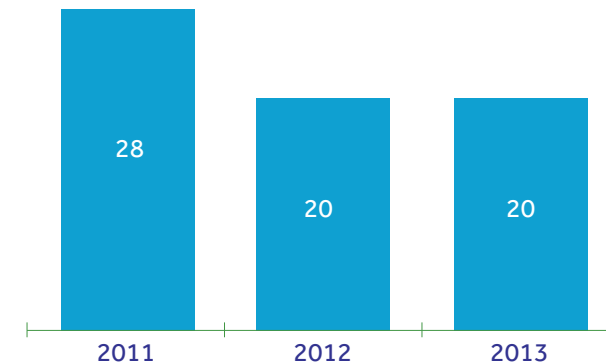
- ✦ 20 NOVs received during 2013, totaling \$6,568 paid in fines (seven of these 20 NOVs date back to issues alleged to have occurred during 2012 or earlier).
- ✦ In addition, NRG agreed to pay \$7.147 million in penalties related to NOVs issued or suits initiated prior to 2013. (Please see [NRG's 2013 10-K](#), pages 187 to 190), for further discussion of these items).
- ✦ Nine reportable oil spills in 2013, totaling 47 barrels.
- ✦ Three sodium hypochlorite solution (bleach) spills, totaling 61 gallons.

## Environmental KPIs % of Baseline (Lower is Better)



\* Note: In past years, this information was provided using 2007 as a baseline. Based on the 2012 merger with GenOn, we have moved the baseline year to 2011. The information for all years listed, including 2011 and 2012, includes data from former GenOn facilities.

## Notices of Violation (NOVs)





## econrg

econrg® is our flagship program designed to move clean energy forward, make NRG's existing fleet cleaner, and help ensure that future power generation is smarter, greener and more affordable. Through econrg, employees become engaged in focus areas such as climate change, resource conservation and community involvement — all outside of their regular work functions.

Through these efforts, NRG benefits from resource savings, motivated employees and cost-effective promotion of our green initiatives.

In 2013, NRG employees were engaged in over 200 separate econrg projects. Workers at the Indian River Station, for example, reuse up to 90 million gallons of process water per year in lieu of pumping groundwater.

## Biodiversity

At NRG, we recognize that one of our most treasured natural resources is biodiversity, so we designed our environmental policy to foster the protection of the natural habitats surrounding our generation sites.

## People Need Nature

Protecting and promoting biodiversity ensures that living resources will remain in stable quantities in perpetuity. The air we breathe, leaves on trees, even a spider's web serve important functions of biodiversity. It is our obligation as a company and

as employees to effectively use and protect all natural resources in a sustainable way.

We're putting our energy into reforesting large tracts of land, restoring Texas wetlands, protecting threatened or endangered species, reducing and recycling waste, conserving energy and decreasing chemical use on our sites. For example, each year NRG employees at the Devon Station work with state wildlife agencies to host peregrine falcon nest boxes on our property to help increase the resident populations of the birds and help wildlife officials better understand this once-endangered species.

## Eco-Efficiency at Our Generating Stations

In an effort to further challenge ourselves to achieve greater environmental efficiencies in our operations, NRG has 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 unlocking incentives and rebates. NRG Operations specifically identified three focus areas for eco-efficiency in the first year of the program:

- + Energy efficiency
- + Water conservation
- + Recycling



# A Powerful Story

## PITTSBURG PLANT CREATES A MODEL FOR RECYCLING SUCCESS

Leadership at the Pittsburg, California, generating facility had a dream: to eliminate waste going to landfills.

Today the Pittsburg plant separates 23 recycling streams from glass to plastic to e-waste. In the first nine months of program operation, the NRG Pittsburg facility reduced our landfill amount from 33.56 tons at a cost of \$19,314 in 2012 to 14.44 tons at a cost of \$13,179 in 2013.

We also generated significant revenue through our California Electronic Asset Recovery (CEAR) partnership, receiving \$11,014 from the items sent for recycling. Even more savings are realized when we take into account the avoidance cost for the items that are no longer going to landfill. Economic benefits also included a reduction in trash removal via dumpsters.

Our success at Pittsburg is just the beginning. Starting in 2014, recycling champions at every one of our plants across the fleet are working together to share best practices and implement significant waste diversion methods in their own facilities.



Each of our plant managers is responsible for developing and implementing a plan to remove wasted resources from our operations. Plant managers report to operational leadership on a quarterly basis to ensure they are making progress and sharing best practices across the fleet. A few examples of the benefits this program has uncovered include:

- ✦ **Energy:** At the Energy Center San Francisco, the exhaust duct from boilers three and four was insulated to reduce heat loss. The duct extends from the boiler outlet to an economizer that recovers most of the waste heat from the boilers and returns it back to the process. The project yields an estimated energy savings of 88,967 therms per year, saving NRG approximately \$87,000 annually.
- ✦ **Water:** The NRG Dickerson facility undertook water conservation to reuse treated wastewater in the site's flue-gas desulfurization system that resulted in total water reductions of 162,425,000 gallons per year.
- ✦ **Recycling:** As previously highlighted, our Pittsburg Generating Station in California has implemented a best-in-class recycling program, where they have managed to reduce our landfill amount 44 percent in just one year, turning the facility's waste from a cost to a new revenue stream.

## The Road Ahead

We see sustainability as a journey. The work we have shared with you from 2013 has played an important role in strengthening and expanding our foundation — but we recognize that we must do more.

Climate change is the greatest challenge of our time, and experts tell us that today's energy system is one of the causes. We see a critical role for ourselves in shifting our course. In 2014, NRG will "double-down" on these efforts, setting new targets, announcing new partnerships and pushing ourselves even harder to catalyze the shift to a sustainable energy future.

# NOTES

NRG has issued reports regarding the company's sustainability efforts and progress for each of the last three years. Please visit our "[Sustainability Reports](#)" website page to view our report archive and to learn more about NRG's sustainability and corporate responsibility initiatives.

## Just the Facts

We strive to achieve transparency as we create opportunities for progress. This sustainability report is based on NRG's corporate performance for all operations in calendar year 2013 and, where stated, "NRG" refers to NRG Energy, Inc., as well as its affiliates. This, our fourth annual sustainability report, was developed in accordance with the Global Reporting Initiative (GRI) 3.1, as well as the GRI Electric Utilities Sector Supplement. The report includes indicators of the [GRI index](#) for our sector.

## Third Party Verification

NRG has chosen to voluntarily report on our 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.

However, we have engaged a nationally recognized and registered public accounting firm to review and report on certain performance metrics set forth in this report. This verification is in progress, and a copy of the firm's findings will be posted to our sustainability website page upon completion.

## Measuring Progress

Our Executive Steering Committee is currently developing new, long-term sustainability milestones to track our progress on an ongoing basis. We will use these milestones as a benchmark to manage our priorities and initiatives. NRG will formally announce the company's new sustainability goals and targets later in 2014.

## Questions and Contact

If you have any comments or questions about this report, or would like more information on NRG, our sustainability efforts, or any other aspect of our work or corporate vision, please feel free to visit our [website](#).



# NRG by the Numbers as of Dec. 31, 2013

## RETAIL CUSTOMERS



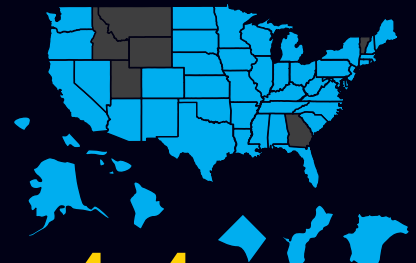
## CUSTOMER REACH



## 2013 TOTAL REVENUES



## WHERE WE DO BUSINESS



## GENERATION CAPACITY



## JOB CREATION



## GENERATING & THERMAL





NRG Energy, Inc.  
211 Carnegie Center  
Princeton, NJ 08540

## NRG Energy's Greenhouse Gas Emissions Report

For the year ended December 31, 2013

During the 12 month period ending December 31, 2013, NRG Energy emitted 75 million metric tons of greenhouse gas (GHG) emissions (carbon dioxide equivalents) from US based fossil fuel-fired combustion units it owned, and in use for production of electricity measured as an equity share of ownership at the plant level. These emissions include only direct GHG emissions associated with fuel combustion in boilers and turbines. It does not include other GHG emissions from other activities or equipment, such as auxiliary boilers and starter engines, used to support the generating facility site operations or emissions that occur at Company sites not directly involved in the production of electricity.

The GHG emissions were determined using methods specified within *Title 40, Chapter I, Subchapter C, Part 98, Subpart D of the Code of Federal Regulations* for fossil fired combustion units covered by the United States Environmental Protection Agency's (US EPA) Acid Rain Program. For smaller fossil fired combustion units not covered by the Acid Rain Program, GHG emissions were estimated using a fuel analysis approach. The fuel analysis approach is detailed in the US EPA's publication *Direct Emissions from Stationary Combustion Sources, Climate Leaders GHG Inventory Protocol Core Module Guidance, May 2008*. The determination of the equity share of GHG emissions used the equity share methodologies for equity share accounting for greenhouse gas emissions as described in *GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition*.



KPMG LLP  
1601 Market Street  
Philadelphia, PA 19103-2499

## Independent Accountants' Report

NRG Energy, Inc. Board of Directors and Management

We have reviewed the accompanying Greenhouse Gas Emissions Report of NRG Energy, Inc. (the Company) for the year ended December 31, 2013. NRG Energy, Inc.'s management is responsible for the Greenhouse Gas Emissions Report.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. A review is substantially less in scope than an examination, the objective of which is the expression of an opinion on the Company's Greenhouse Gas Emission Report. Accordingly, we do not express such an opinion.

Environmental and energy use data are subject to measurement uncertainties resulting from limitations inherent in the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

NRG Energy has disclosed, within its Greenhouse Gas Emissions Report, the data associated only with fossil fuel-fired combustion units owned by the Company, located in the United States, and in use for production of electricity measured as an equity share of ownership at the plant level. The Greenhouse Gas Emissions Report includes only direct greenhouse gas (GHG) emissions associated with fuel combustion in boilers and turbines and does not include GHG emissions from other activities or equipment, such as auxiliary boilers and starter engines, used to support the generating facility site operations or emissions that occur at Company sites not directly involved in the production of electricity.

Based on our review, nothing came to our attention that caused us to believe that NRG Energy's Greenhouse Gas Emissions Report, is not presented, in all material respects, in conformity with applicable methods specified within *Title 40, Chapter I, Subchapter C, Part 98, Subpart D of the Code of Federal Regulations* or *Direct Emissions from Stationery Combustion Sources, Climate Leaders GHG Inventory Protocol Core Module Guidance, May 2008*.

**KPMG LLP**

October 15, 2014