

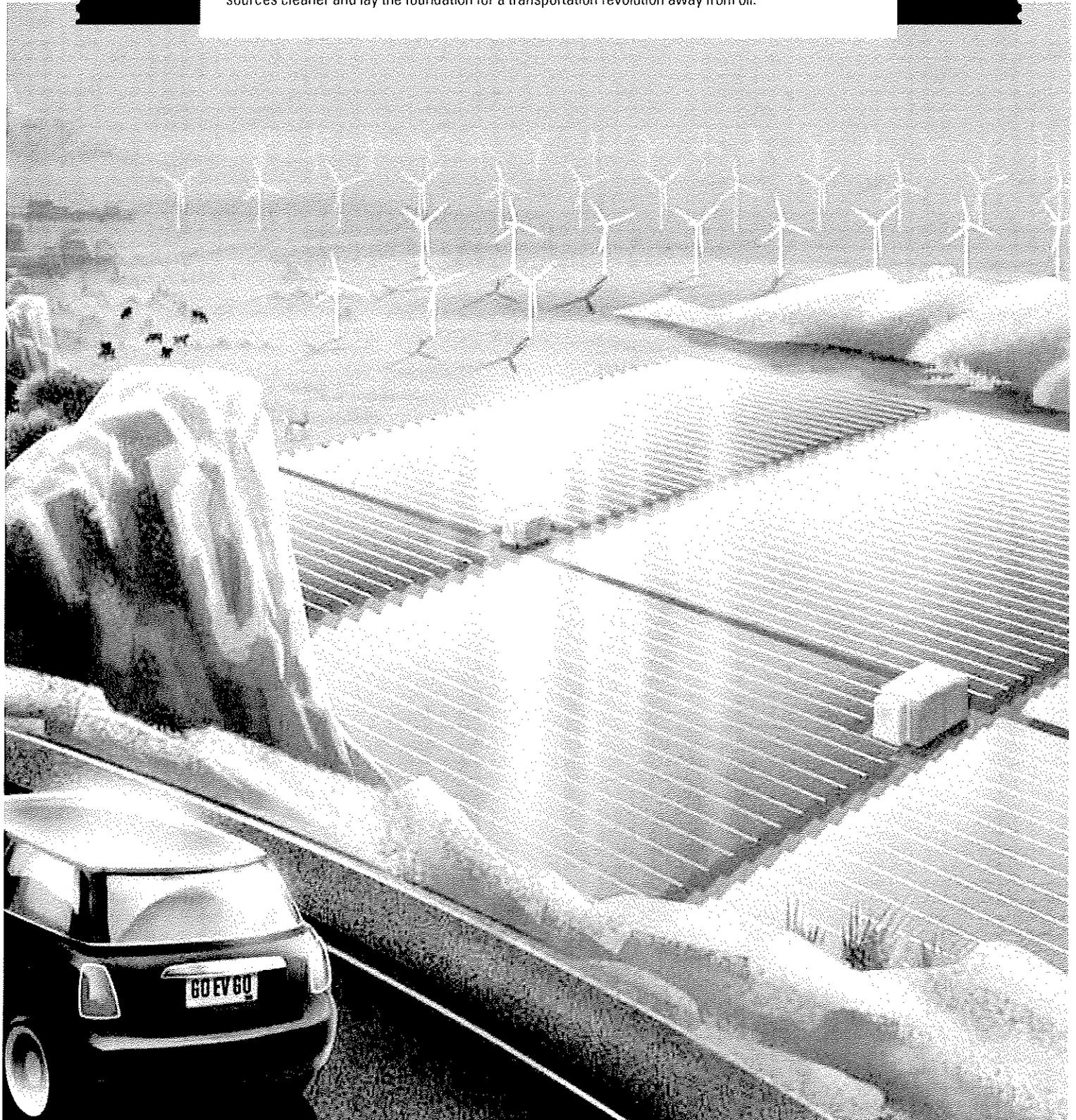
MOVING CLEAN ENERGY FORWARD

NRG 2010 ANNUAL REPORT



WE ARE MOVING CLEAN ENERGY FORWARD

We have developed a clear vision for NRG's and our country's clean energy future, and now we are moving with purpose to build this clean energy vision. We believe society's transition to sustainability is an irresistible and irreversible trend, and we have positioned our Company at the vanguard of this movement by working tirelessly to build renewable energy at record scale, make our traditional power sources cleaner and lay the foundation for a transportation revolution away from oil.



NRG AT A GLANCE

A Fortune 500 company, NRG Energy, Inc. is a wholesale and retail energy provider that owns and operates one of the industry's largest and most diverse generation portfolios. Our fleet of more than 25,000 megawatts is able to power more than 20 million homes and our retail energy operations provide electricity to nearly two million customers. With plans to build new nuclear, solar, offshore wind and modern natural gas-powered generation, NRG has set the stage to become the premier company moving clean and affordable energy—what we call smart energy—forward. Our retail, electric vehicle services and distributed energy operations will allow us to bring smart energy directly to the doorstep of the American consumer and business owner and make the dream of a truly sustainable energy lifestyle come true.



OUR CORE VALUES

At NRG, our Core Values provide a framework for all strategies, decisions and behaviors. They are the standards by which we STRIVE to conduct our daily business, work with one another and interact within our communities.

SAFETY

We embrace safety with an ultimate goal of zero injuries and a focus on preventative safety practices.

TEAMWORK

It is essential that we work together as a team, harnessing the power of our combined skills, outlooks and efforts, to address business opportunities and solve problems.

RESPECT *for individuals, customers, communities and the environment*

We pay attention to and treat one another with respect, strive to be a good neighbor, respect our local communities, and respect the environment by working continuously to improve it.

INTEGRITY

Integrity is central to our open and honest communication with colleagues, investors, regulators, customers and the communities where we do business.

VALUE CREATION

Our goal is always to create value. Our capital resources, physical assets and professional expertise must be applied in the manner that creates maximum value.

EXEMPLARY LEADERSHIP

We demonstrate leadership by developing insightful plans, effectively communicating to relevant audiences and then acting decisively to effect positive changes.

OUR COMPANIES

Green Mountain Energy Company provides a choice of renewable energy products for customers who want to make a difference for the environment.

NRG Energy Services supplies parts and services for large energy equipment for municipalities, utilities, universities, offshore platforms and U.S. military bases.

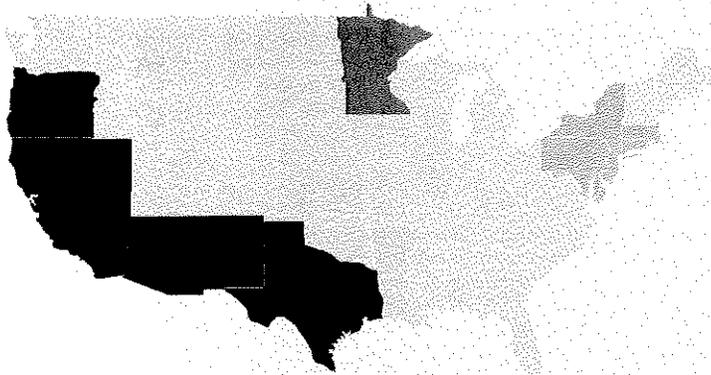
NRG EV Services through the eVgoSM network, is creating the nation's first comprehensive, privately funded electric vehicle infrastructure of home charging stations and public fast charging stations.

NRG Thermal operates downtown heating and cooling systems in cities such as Phoenix, Pittsburgh, San Diego and San Francisco, and is pioneering a Combined Heat and Power Plus program to integrate conventional energy sources with leading efficiency technologies.

Nuclear Innovation North America (NINA) is a partnership with Toshiba Corp. to develop new advanced nuclear power plants in America, including the South Texas Project 3&4 expansion.

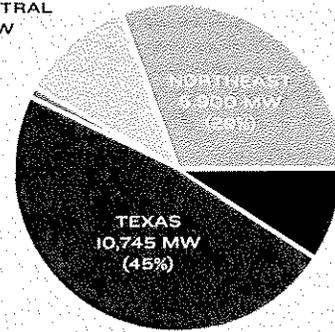
Reliant Energy provides a wide variety of innovative electricity and energy-related products to more than 15 million customers in Texas and the Northeast.

NRG A DIVERSIFIED GENERATION PORTFOLIO



SOUTH CENTRAL
4,125 MW
(17%)

OTHER
115 MW
($<1\%$)



WEST
2,150 MW
(9%)

U.S. GENERATION ASSETS AS OF JANUARY 31, 2011

TEXAS	LOCATION	% OWNERSHIP	NRG OWNED (NET MW)	PRIMARY FUEL
Cedar Bayou	Chambers County, TX	100.00	1,495	Natural Gas
Cedar Bayou 4	Chambers County, TX	50.00	260	Natural Gas
Elbow Creek	Howard County, TX	100.00	125	Wind
Greens Bayou	Houston, TX	100.00	355	Natural Gas
Langford	Christoval, TX	100.00	150	Wind
Limestone	Limestone County, TX	100.00	1,690	Coal
San Jacinto	LaPorte, TX	100.00	160	Natural Gas
Sherbino	Pecos County, TX	50.00	75	Wind
South Texas Project	Bay City, TX	44.00	1,175	Nuclear
South Trent	Sweetwater, TX	100.00	100	Wind
SR Bertron	Deer Park, TX	100.00	470	Natural Gas
TH Wharton	Houston, TX	100.00	1,025	Natural Gas
WA Parish (coal)	Fort Bend County, TX	100.00	2,490	Coal
WA Parish (natural gas)	Fort Bend County, TX	100.00	1,175	Natural Gas
NORTHEAST	LOCATION	% OWNERSHIP	NRG OWNED (NET MW)	PRIMARY FUEL
Arthur Kill	Staten Island, NY	100.00	865	Natural Gas
Astoria Gas Turbines	Queens, NY	100.00	550	Natural Gas
Conemaugh	New Florence, PA	3.70	65	Coal
Connecticut Remote Turbines	Various CT (4 sites)	100.00	140	Jet Fuel/Natural Gas
Devon	Milford, CT	100.00	135	Oil
GenConn Devon	Milford, CT	100.00	95	Oil
Dunkirk	Dunkirk, NY	100.00	530	Coal
Huntley	Tonawanda, NY	100.00	380	Coal
Indian River	Millsboro, DE	100.00	660	Coal
Keystone	Shelocka, PA	3.70	65	Coal
Middletown	Middletown, CT	100.00	770	Oil
Montville	Uncasville, CT	100.00	500	Oil
Norwalk Harbor	South Norwalk, CT	100.00	340	Oil
Oswego	Oswego, NY	100.00	1,635	Oil
Vienna	Vienna, MD	100.00	170	Oil
SOUTH CENTRAL	LOCATION	% OWNERSHIP	NRG OWNED (NET MW)	PRIMARY FUEL
Bayou Cove	Jennings, LA	100.00	300	Natural Gas
Big Cajun I	New Roads, LA	100.00	430	Natural Gas/Oil
Big Cajun II	New Roads, LA	85.80	1,495	Coal
Cottonwood	Newton County, TX	100.00	1,265	Natural Gas
Rockford I	Rockford, IL	100.00	305	Natural Gas
Rockford II	Rockford, IL	100.00	155	Natural Gas
Sterlington	Sterlington, LA	100.00	175	Natural Gas
WESTERN	LOCATION	% OWNERSHIP	NRG OWNED (NET MW)	PRIMARY FUEL
Blythe	Blythe, CA	100.00	20	Solar
El Segundo	El Segundo, CA	100.00	670	Natural Gas
Encina (Cabrillo I)	Carlsbad, CA	100.00	965	Natural Gas
Long Beach	Long Beach, CA	100.00	260	Natural Gas
Saguaro	Henderson, NV	50.00	45	Natural Gas
San Diego Turbines (Cabrillo II)	San Diego, CA (3 sites)	100.00	190	Natural Gas
OTHER NORTH AMERICA	LOCATION	% OWNERSHIP	NRG OWNED (NET MW)	PRIMARY FUEL
Dover Energy	Dover, DE	100.00	103	Natural Gas/Coal
Paxton Creek	Paxton Creek, PA	100.00	12	Natural Gas
Total North America Net MW:		24,035 approximately		
Total Generation Net MW:		25,040 approximately		

CEO LETTER

DEAR FELLOW STOCKHOLDERS:

When we emerged in summer 2009 from one of the greatest challenges we have faced to the fundamental value of our Company, thanks in no small part to the support of our stockholders, I plainly told you all it was time for us to reward your confidence by demonstrating our ability to enhance shareholder value. To this point, insofar as the performance of our shares in 2010 reflects, we have not.

The massive gravitational force of relentlessly low natural gas prices on independent power producers like NRG has left our share price languishing well below levels we find acceptable. A flood of cheaply accessed natural gas from unconventional shale formations has driven down gas prices, particularly near-term gas prices. Since the price of our core product, wholesale electricity, is fundamentally tied to natural gas, the forward price of electricity has dropped and, with it, our share price.

The good news, and indeed it is news that you should take significant comfort in, is that although natural gas prices have been in decline since mid-2008, that decline has not stopped us from posting another year of exceptional financial results. Adjusted EBITDA of more than \$2 billion for the fourth straight year and adjusted free cash flow before growth investments of \$1.4 billion highlight our continuing financial strength and the business logic of both our forward hedging program and our unique combination of wholesale generation and retail energy services, delivered principally through our highly successful subsidiary, Reliant Energy.

Our robust financial performance also underpins our ability to seize the extraordinary opportunities that have arisen in the rapidly changing power industry landscape. Coming out of the Great Recession, an ever increasing number of Americans are more aware of their energy usage. They don't want to waste energy; they want to promote energy sources that are sustainable and do not pollute our air and water supply so that they can be equally enjoyed by their children and grandchildren. The American people want to make energy choices that rely on domestic resources and sustain American jobs, rather than increase dependence on foreign fuels. The phenomena I am describing tend to be collectively characterized as a trend towards a green or sustainable lifestyle, but I think of it more as a desire to be smart in our energy choices.

The operative word is "choice," and that's what has changed in our industry. The consumer trend toward sustainability has been in progress for at least two decades, but has been focused on areas outside of energy, such as organic food, recycling and paperless offices. The sustainability trend has



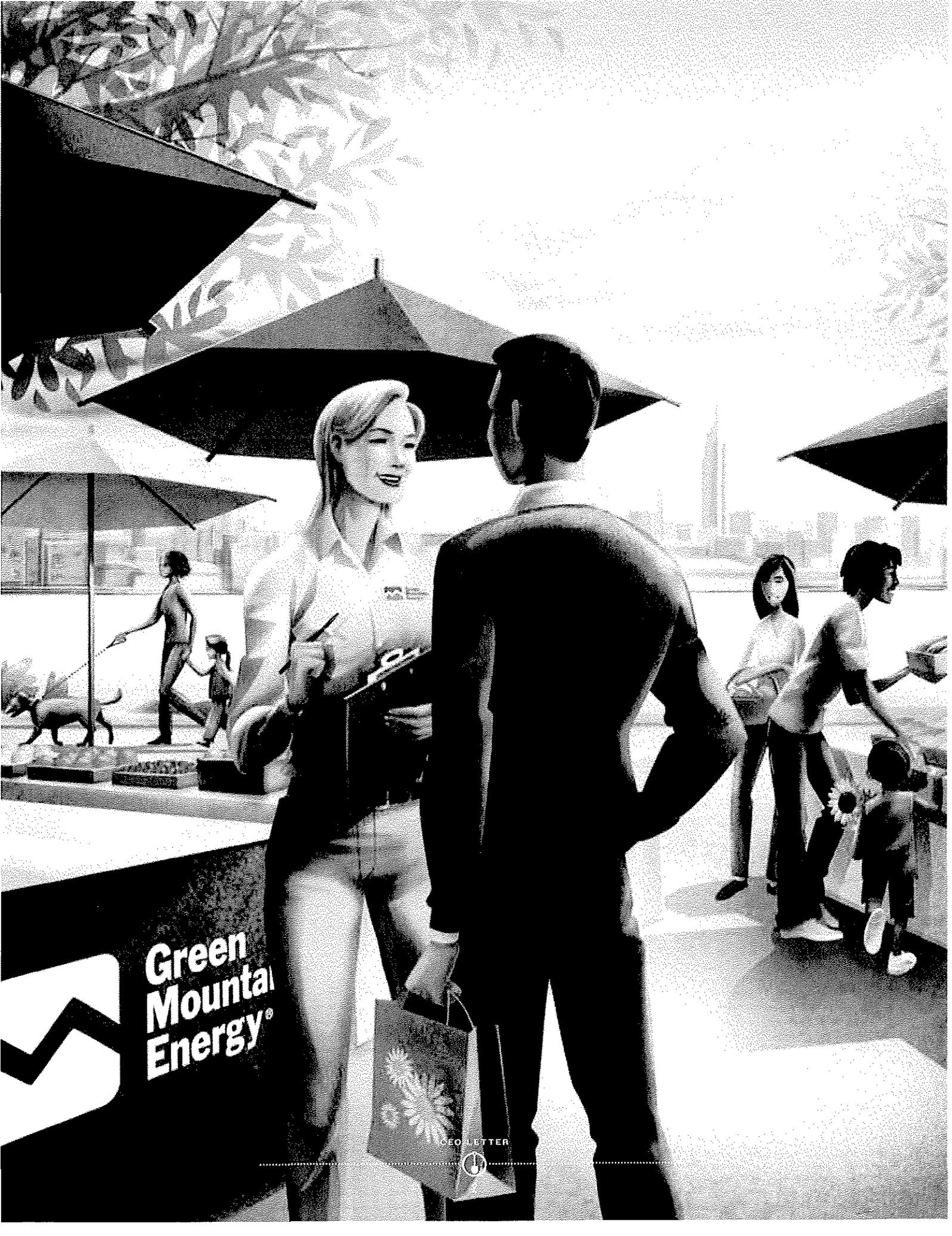
always been predicated on the simple fact that the well-intentioned but supremely pragmatic American consumer will make the smart choice—the green choice—when there is a legitimate choice to be made.

Traditionally, Americans have had little or no choice about the energy flowing into their homes and the energy pouring into their gas tanks. But times are finally changing. Smart and sustainable energy choices are increasingly available to the American public. Reliant Energy offers *e-Sense*™ smart energy solutions, which allow customers to receive detailed information about how they use electricity at home and gather timely insights about their power use and cost. Green Mountain Energy Company, which sells renewable power to consumers, experienced its 10th successive year of double-digit growth in green customers who want to make a difference for the environment.

We also want to expand and increase the speed at which these smart choices reach consumers, which is why NRG has joined GE and ConocoPhillips to form Energy Technology Ventures—a fund created by the three partners to collectively invest an initial \$300 million in potentially revolutionary clean energy technologies.

While Green Mountain and Reliant are offering American consumers the choice to be sustainable in the energy they use in the home, an even bigger revolution is in the offing for Americans as they take to the roads. In 2011, for the first time, American consumers will have a credible choice to reduce dramatically or even eliminate their personal dependence on





**Green
Mountain
Energy®**

CEO LETTER



foreign oil by buying any one of a number of plug-in hybrid or pure electric vehicles being brought to market by a wide range of auto manufacturers. We at NRG expect to play a significant role by ensuring that plug-in car owners, as a result of their car choice, do not feel constrained in terms of their driving range.

If the American public responds positively, the electric vehicle will have a transformational impact on both our conventional and emerging green businesses. Electric vehicles, adopted en masse, will increase electricity demand and flatten out daily consumption in a manner that, when combined with smart grid technology, will favor the baseload generation that is the heart of NRG. Further, the emergence of electric vehicles should accelerate the shift from conventional power to sustainable power in the home as many EV owners will not want to simply trade tailpipe emissions for smokestack emissions. Most EV owners, we believe, will naturally be drawn to the likes of Green Mountain or Reliant's smart energy products, creating what we call the virtuous green circle of energy usage in the home and on the roads. Finally, the emerging EV market presents NRG with a tremendous opportunity to develop fueling products and services for EV owners and the businesses that want to cater to them.

In November, NRG launched eVgo in Houston, the first privately funded, comprehensive electric vehicle charging ecosystem in America. The eVgo package, which I like to characterize as a "miles" contract similar to the "minutes" contract on your mobile phone, consists of the purchase and installation of the fast charger at the EV owner's home, free access to the network of fast chargers that we intend to install around the Houston area and unlimited electricity to fuel the EV itself. The package is designed to bring enormous operating convenience to EV owners, substantially reduce EV operating costs and create certainty around those costs. Most importantly, eVgo will convert the range anxiety that is currently associated with electric car ownership to range certainty. We are the perfect Company to lead in this area because our unique combination of power generation facilities and retail energy services in Houston better enable us to service EV owners with such comprehensive fueling service packages.

The EV revolution is only going to test further an already aging U.S. baseload power generation fleet. And probably the most critical strategic decision our industry needs to make over the next decade, in consultation with federal and state public policy makers, is how to replace the baseload capacity that will power Americans in their homes and on the roads for the better part of the remainder of this century.

Certainly, our industry will build a lot of natural gas-fueled plants and that is a good thing. Natural gas is a highly flexible, very efficient, reassuringly domestic and relatively clean fuel by fossil fuel standards. But natural gas always has been, and will likely continue to be, a highly cyclical commodity with very significant price volatility over the business cycle. An American power industry that relied

BUILDING A GREENER FUTURE

GREEN MOUNTAIN ENERGY JOINS THE FAMILY

NRG welcomed the nation's leading retail provider of clean energy products and services, Green Mountain Energy Company, into the family in 2010.

We believe that the American population is seeking to live more sustainably across all phases of their lifestyle. Working through Green Mountain, in combination with our growing portfolio of renewable initiatives, NRG plans to become the clean energy provider of choice for Americans who want to make a difference for the environment.

Green Mountain is working to expand its base of commercial customers in Texas and New York, where it now provides 100% renewable energy to the iconic Empire State Building. We believe Green Mountain's clean energy offerings will become increasingly in demand, and NRG plans to meet this demand by expanding through Green Mountain into a growing number of America's competitive electricity markets.

almost exclusively on natural gas for its baseload generation would consume an enormous amount of natural gas. Like many in the power industry, we believe as a matter of prudent public policy and industry practice, the trend towards *increased reliance* on natural gas for power generation purposes should not be allowed to become *total dependence* on natural gas.

That presents two alternatives for new baseload power—new advanced nuclear power and clean coal. Four years ago, in response to the passage of the Energy Policy Act of 2005, we started development of two new nuclear units at South Texas Project (STP). While the STP project has achieved immense progress and is, as I write this, one of very few nuclear development projects in contention for the all-critical federal loan guarantee, the loan guarantee and the project's combined operating license application remain pending.

While this project remains hugely important and has enormous potential for commercial success as the future zero-emission cornerstone of our baseload fleet in Texas, we remain acutely focused on achieving favorable terms and conditions with respect to financing; engineering, procurement and construction arrangements; and offtake contracts. We will be intensely disciplined about our decision whether or not to go forward into construction. The stakes



eVgo™ ELECTRIFIES HOUSTON WITH CHARGING INFRASTRUCTURE

NEW EV ECOSYSTEMS HEAD TO TEXAS

At the confluence of two of the Company's most important strategies for the future—becoming more customer-focused and offering truly green services and products, NRG in November launched the nation's first privately funded, comprehensive electric vehicle ecosystem in Houston. The launch event marked the start of a rollout of EV ecosystems across Texas planned for 2011.

Under the brand name eVgo, NRG will provide EV owners throughout the greater Houston area, at first, and then throughout all of Texas' major metropolitan areas with an affordable "home-and-away" fueling package, as well as access to conveniently located public fast charging stations, for a flat monthly fee. NRG will not go it alone in making the eVgo network a success, as the Company brought together one of the broadest coalitions of partners in our history to support our EV ecosystems. Partners like Best Buy and Walgreens will host charging stations in Houston; AeroVironment, GE, Reliant, Green Mountain Energy, TXU and Direct Energy will provide charging technologies, network services and retail electricity; while Nissan North America, Hertz, and other auto sales and rental companies have joined to support eVgo.

The Houston eVgo network rollout is only the start of the Company's efforts to help Americans stem the massive transfer of wealth to oil-producing nations.

are high, but the potential competitive benefits to us are enormous. Nonetheless, we will not bet the bright future of our Company on this one project.

Exceptional Financial Performance in a Challenging Environment

In my mind, the attractive investment proposition that we offer our shareholders is that we have demonstrably proven that we can effectively make substantial investments in the future of the Company while delivering exemplary financial and operating results in the present. Last year was no exception. In the face of many external challenges, most notably the sharply declining natural gas commodity price

environment, NRG's 4,964 employees delivered another year of exceptional financial and operational performance:

2010 results

- \$2,514 million in adjusted EBITDA, just shy of our record EBITDA of \$2,618 million in 2009
- Compound annual adjusted EBITDA growth of 4.8% from 2008 to 2010, compared to a 29.6% compound annual decrease in the average per MMBtu Henry Hub natural gas price during the same period
- \$1,760 million of adjusted cash flow from operations, the second highest total in Company history
- \$180 million of common stock, or 8.5 million shares repurchased
- \$758 million debt paid down, including \$453 million of term loan and \$190 million of Common Stock Finance
- Record liquidity of \$4,252 million, excluding collateral deposits, up 12.1% from 2009
- Safest year in our history with a 0.75 OSHA incident rate across the organization, in the top decile of industry safety results.

This strong financial and operational performance did not come at the expense of investing in NRG's substantial growth opportunities as the Company made \$309 million of equity investments on *Repowering* NRG projects and STP 3&4 in 2010.

Clearly, while we continue to scan the horizon to best position our Company to capitalize on fundamental trends molding our industry's future, NRG is executing at the highest level today.

A Banner Year for Value-Enhancing Transactions

The Company took advantage during 2010 of opportunities to strengthen key elements of both its conventional business and its growing sustainable energy business.

We added the modern Cottonwood combined-cycle plant to allow us to more efficiently follow load in the Entergy zone from our own portfolio, which, in turn, will better enable us to serve our growing customer obligations in the South Central region as well as to become a stronger competitor for new business. The 1,265 megawatt (MW) natural gas-fueled Cottonwood plant is one of the newest and most efficient in the region, with a dedicated and highly capable workforce that we are pleased to welcome to the NRG family.

NRG acquired Green Mountain during 2010, which for 10 years has been the nation's leading retail provider of clean energy products and services. Green Mountain sells renewable power to more than 300,000 commercial and residential customers, with the majority in Texas and a small but fast-growing number in the Northeast, particularly New York City. We intend to focus Green Mountain on what it does best—selling green energy and services—





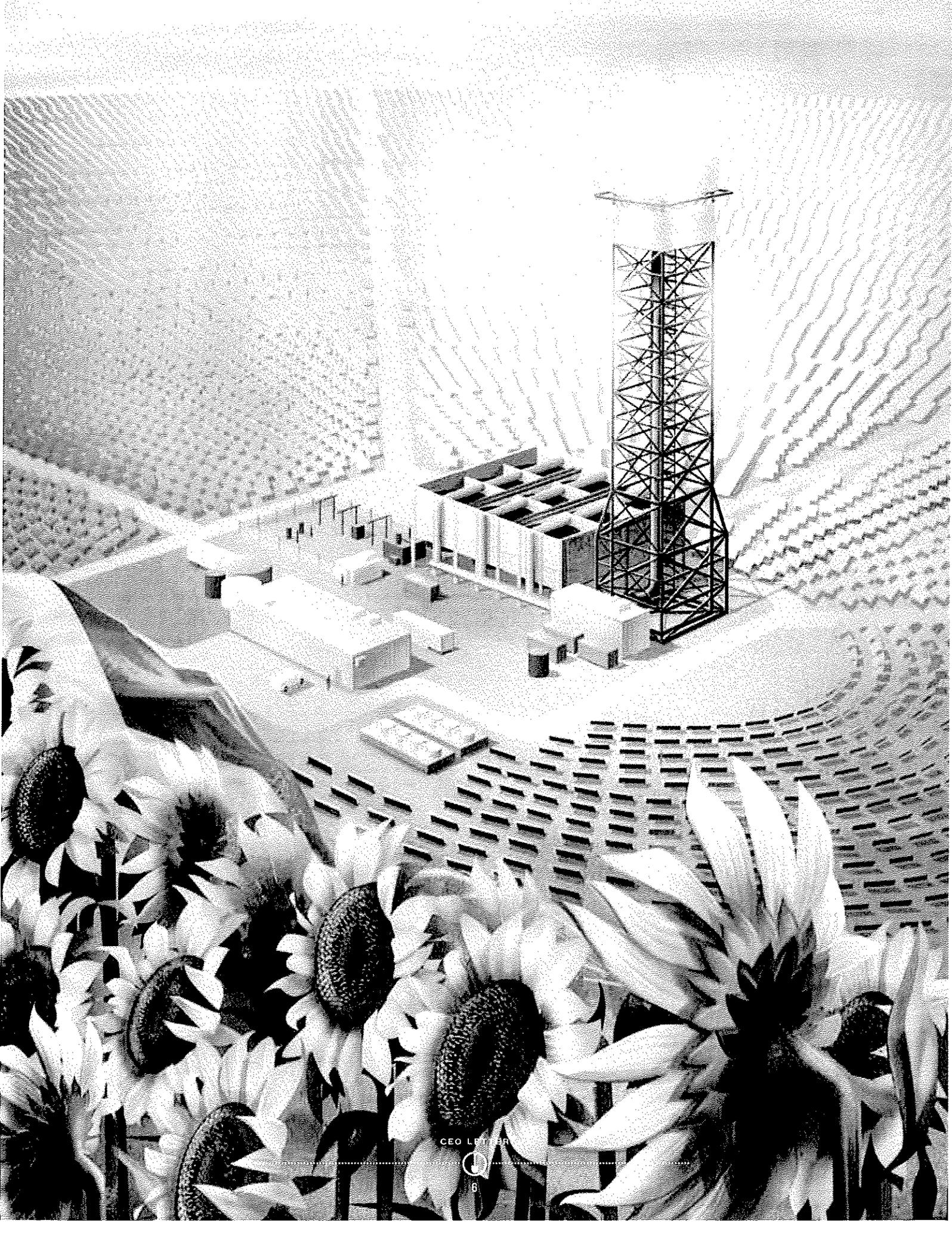
**BEST
BUY**

Hertz Car Rental

Walgreens

CEO LETTER





CEO LETTER



but our ownership will enable Green Mountain to expand more forcefully into attractive markets and into customer segments that they previously have not targeted. You also can expect to see Green Mountain offering more physical green energy products as part of its product menu as we anticipate an increasing demand among consumers and businesses for "distributed green" energy generation.

Over time, we will increasingly align Green Mountain's retail expertise with our fast-growing, large-scale renewable generation. We are increasingly leveraging our retail businesses, Green Mountain and Reliant, to sell the renewable energy credits generated by our 450 MW of wind farms.

Further west, we struck numerous deals to acquire thermal projects and photovoltaic solar projects under development in California, Arizona and New Mexico. These projects, in our opinion, represent very attractive investments of our shareholders' capital thanks to long-term offtake agreements, minimal construction risk, proven technology and very long-term warranties from the key equipment

manufacturers. By the end of 2011, we expect to be on our way to being the largest solar generator in the U.S., with three of the largest photovoltaic and solar thermal projects in the world (Agua Caliente in Arizona, California Valley Solar Ranch and Ivanpah in California) well into construction.

We think our Company is uniquely well-suited to realize the opportunities associated with solar power, and we like that solar power has been consistently encouraged by public policy at the federal and state levels and across the political spectrum. When you consider the inexhaustibility of the solar resource in the U.S., the zero marginal cost of production and the potential for continued technological innovation that will bring the total cost of solar power down to grid parity, we think the political consensus supporting solar power is well-placed.

Taken together, our solar and wind projects and Green Mountain will play a major role in helping us achieve our target of having roughly a quarter of our EBITDA come from cleaner energy sources by the middle part of this decade.

HARNESSING THE POWER OF THE SUN

BUILDING ON THE BLYTHE SOLAR PROJECT

NRG sees solar power as a national development opportunity and is building a robust multi-technology portfolio to lead the industry in delivering the benefits of this zero-emission renewable power source. Through our subsidiary NRG Solar, the Company has made great strides in the past year in both expanding and deepening the solar portfolio.

NRG began implementing its solar strategy in late 2009 by purchasing the Blythe Solar Project, the largest solar photovoltaic facility in California. Since then, 2010 has seen a steady stream of larger and more sophisticated projects announced across the Southwest. With the extension of the federal cash grant program for shovel-ready renewable projects through 2011, the coming year is sure to be another active one for NRG in solar development.

The Company made a big splash in its first move into solar thermal technology, announcing our intention to take a lead investment role in BrightSource Energy's 392 megawatt (MW) Ivanpah project in California's Mojave Desert. At peak, Ivanpah is expected to generate enough renewable power to supply more than 140,000 homes when the project comes fully online in 2013.

Also in California, we are a partner in the construction of Avenal, a solar facility that will be more than twice the size of Blythe. Through

a partnership with SunPower Corp., the Company plans to develop the 250 MW California Valley Solar Ranch project, expected to be one of the largest solar PV projects in the world.

In June, NRG acquired a 720 MW portfolio of projects at sites in California and Arizona and broke ground on two smaller PV projects—a 25 MW project for Tucson Electric Power and a 20 MW project in New Mexico. In December, the Company announced the planned acquisition of the 290 MW Agua Caliente Project in Yuma County, Arizona, which will be one of the world's largest PV projects when it comes online in 2014.

In addition to large commercial-scale projects, NRG has also started developing distributed solar arrays, or "solar pavilions," for select school districts in Arizona. These solar pavilions and their panels are being developed as carports adjacent to school buildings. Future installations could also supply shade for playgrounds, sidewalks or whatever best fits the needs of the individual school.

Through this busy year, NRG has shown it is committed to taking a leadership role in developing this bountiful zero-emission energy resource in the Southwest and beyond through a variety of innovative technological applications, brightening the future for hundreds of thousands of Americans.



HOME OF THE FUTURE READY TODAY

RELIANT POWERING SMART HOMES

Take today's networked TVs, Blu-ray players and smart appliances, add in electric vehicle chargers and rooftop solar panels, then mix them with a smart meter and an electricity provider like Reliant Energy—what do you get? The long anticipated "home of the future." For the 2.5 million homes in Texas equipped with smart meters, the home of the future is possible today.

Slicing open a theoretical home complete with grid-aware electronic devices like thermostats and dishwashers, Reliant showed 2011 Consumer Electronics Show attendees how an entire home could be managed right from their iPad or smart phone. While the home at CES was just a display, this holistic home management is possible today in Texas. Whether you forgot to set your DVR or you want the dishwasher to run before you get home for dinner, consumers with smart devices can now manage it all with the press of a few buttons.

And when customers sign up to use Reliant *e-Sense*™ smart energy solutions, they will receive detailed information about how they use electricity so that they can tell their smart devices to run when electricity is most affordable. With that amount of knowledge, Reliant customers will have all the tools they need to truly manage their electricity bills. Reliant leads Texas in bringing the benefits of smart energy technology to consumers with more than 175,000 customers already using *e-Sense*™.



Finally, in 2010, we expanded our business into Arizona through the acquisition of Northwind Phoenix, a very highly regarded district cooling business active in and around Phoenix. We see a bright future, literally, there as NRG Energy Center Phoenix, as it is now named, expands its cooling business and as we get more active in tapping Arizona's immense solar resources.

Shovels in the Ground

Despite Congress' inability to pass comprehensive climate and energy legislation in the previous session, public policy more generally continues to favor solar and other forms of zero-emission power generation across the country. There are 35 states with clean alternative energy standards or goals. We believe energy will be the focus of considerable attention in the new Congress; and we believe the various initiatives that our Company has under way put us in a unique position to move quickly to capture any opportunity that arises as a result of government action or, for that matter, inaction.

While the previous year was not kind to our stockholders, I believe the evidence is clear that we are well-positioned for better years to come. Companies that resist the tide of history and societal change tend to get swamped. Your Company, on the other hand, has paddled hard during the year to get out on the front edge of the wave. The four cornerstones of America's energy future are clean baseload power; renewables backed by fast-start, high efficiency gas-fueled combined-cycle plants; the smart grid; and electric vehicles. NRG holds a leading position as a first mover on all of these elements and is poised to capture the immense benefits inherent in the opportunities they present.

To my fellow stockholders, thank you for your patience with and recognition of the transformation that is now well under way at NRG. The preparation is over and, in many respects, the shovel is in the ground. But we aren't done, and we're getting more shovels ready. The future is very bright, and if you believe as I do that our society is trending green, I welcome you to come along for the ride as we continue to move clean energy forward.

Sincerely yours,

David Crane
President & Chief Executive Officer
January 31, 2011

