

NRG ENERGY, INC.  
Form 10-K  
February 23, 2010

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**Form 10-K**

- þ** **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**For the Fiscal Year ended December 31, 2009.**
- o** **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**For the Transition period from        to        .**

**Commission file No. 001-15891**

**NRG Energy, Inc.**

*(Exact name of registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of incorporation or organization)*

**41-1724239**

*(I.R.S. Employer Identification No.)*

**211 Carnegie Center Princeton, New Jersey**

*(Address of principal executive offices)*

**08540**

*(Zip Code)*

**(609) 524-4500**

*(Registrant's telephone number, including area code:)*

**Securities registered pursuant to Section 12(b) of the Act:**

| <b>Title of Each Class</b>     | <b>Name of Exchange on Which Registered</b> |
|--------------------------------|---|
| Common Stock, par value \$0.01 | New York Stock Exchange                     |

**Securities registered pursuant to Section 12(g) of the Act:**

**Common Stock, par value \$0.01 per share**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐  
(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of the last business day of the most recently completed second fiscal quarter, the aggregate market value of the common stock of the registrant held by non-affiliates was approximately \$6,803,812,501 based on the closing sale price of \$25.96 as reported on the New York Stock Exchange.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date.

| Class                                    | Outstanding at February 17, 2010 |
|--|----------------------------------|
| Common Stock, par value \$0.01 per share | 261,898,178                      |

**Documents Incorporated by Reference:**

**Portions of the Proxy Statement for the 2010 Annual Meeting of Stockholders  
are incorporated by reference into Part III of this Form 10-K**

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## Glossary of Terms

When the following terms and abbreviations appear in the text of this report, they have the meanings indicated below:

|                            |  |
|----------------------------|--|
| AB32                       | Assembly Bill 32 California Global Warming Solutions Act of 2006   |
| APB                        | Accounting Principles Board  |
| ARO                        | Asset Retirement Obligation  |
| ASC                        | The FASB Accounting Standards Codification, which the FASB has established as the source of authoritative U.S. GAAP  |
| ASU                        | Accounting Standards Updates updates to the ASC  |
| Baseload capacity          | Electric power generation capacity normally expected to serve loads on an around-the-clock basis throughout the calendar year  |
| BACT                       | Best Available Control Technology  |
| BTU                        | British Thermal Unit   |
| CAA                        | Clean Air Act  |
| CAGR                       | Compound annual growth rate  |
| CAIR                       | Clean Air Interstate Rule  |
| CAISO                      | California Independent System Operator   |
| Capital Allocation Plan    | Share repurchase program   |
| Capital Allocation Program | NRG's plan of allocating capital between debt reduction, reinvestment in the business, and share repurchases through the Capital Allocation Plan   |
| CDWR                       | California Department of Water Resources   |
| C&I                        | Commercial, industrial and governmental/institutional  |
| CL&P                       | The Connecticut Light & Power Company  |
| CO <sub>2</sub>            | Carbon dioxide   |
| COLA                       | Combined Construction and Operating License Application  |
| CPS                        | CPS Energy   |
| CS                         | Credit Suisse Group  |
| CSF I                      | NRG Common Stock Finance I LLC   |
| CSF II                     | NRG Common Stock Finance II LLC  |
| CSF CAGRs                  | Embedded derivatives within the CSF Debt, individually referred to as CSF I CAGR and CSF II CAGR   |
| CSF Debt                   | CSF I and CSF II issued notes and preferred interest, individually referred to as CSF I Debt and CSF II Debt   |
| CSRA                       | Credit Sleeve Reimbursement Agreement with Merrill Lynch in connection with acquisition of Reliant Energy, as hereinafter defined  |
| CSRA Amendment             | Amendment of the existing CSRA with Merrill Lynch which became effective October 5, 2009   |
| DNREC                      | Delaware Department of Natural Resources and Environmental Control   |
| DOE                        | Department of Energy   |
| DPUC                       | Department of Public Utility Control   |
| EAF                        | Annual Equivalent Availability Factor, which measures the percentage of maximum generation available over time as the fraction of net maximum generation that could be provided over a defined period of time after all types of outages and deratings, including seasonal deratings, are taken into account |
| EITF                       | Emerging Issues Task Force   |

|                              |  |
|------------------------------|--|
| EPC                          | Engineering, Procurement and Construction  |
| ERCOT                        | Electric Reliability Council of Texas, the Independent System Operator and the regional reliability coordinator of the various electricity systems within Texas              |
| ESPP                         | Employee Stock Purchase Plan   |
| EWG                          | Exempt Wholesale Generator   |
| Exchange Act                 | The Securities Exchange Act of 1934, as amended  |
| Expected Baseload Generation | The net baseload generation limited by economic factors (relationship between cost of generation and market price) and reliability factors (scheduled and unplanned outages) |
| FASB                         | Financial Accounting Standards Board the designated organization for establishing standards for financial accounting and reporting   |
| FCM                          | Forward Capacity Market  |

|                       |  |
|-----------------------|--|
| FERC                  | Federal Energy Regulatory Commission   |
| FIN                   | FASB Interpretation  |
| FPA                   | Federal Power Act  |
| Fresh Start           | Reporting requirements as defined by ASC-852, <i>Reorganizations</i>   |
| FSP                   | FASB Staff Position  |
| GHG                   | Greenhouse Gases   |
| Heat Rate             | A measure of thermal efficiency computed by dividing the total BTU content of the fuel burned by the resulting kWh s generated. Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output measured is gross or net generation and is generally expressed as BTU per net kWh                          |
| Hedge Reset           | Net settlement of long-term power contracts and gas swaps by negotiating prices to current market completed in November 2006   |
| IGCC                  | Integrated Gasification Combined Cycle   |
| ISO                   | Independent System Operator, also referred to as Regional Transmission Organizations, or RTO   |
| ISO-NE                | ISO New England Inc.   |
| ITISA                 | Itiquira Energetica S.A.   |
| kV                    | Kilovolts  |
| kW                    | Kilowatts  |
| kWh                   | Kilowatt-hours   |
| LFRM                  | Locational Forward Reserve Market  |
| LIBOR                 | London Inter-Bank Offer Rate   |
| LMP                   | Locational Marginal Prices   |
| LTIP                  | Long-Term Incentive Plan   |
| MACT                  | Maximum Achievable Control Technology  |
| Mass                  | Residential and small business   |
| Merit Order           | A term used for the ranking of power stations in order of ascending marginal cost  |
| MIBRAG                | Mitteldeutsche Braunkohlengesellschaft mbH   |
| MMBtu                 | Million British Thermal Units  |
| MRTU                  | Market Redesign and Technology Upgrade   |
| MVA                   | Megavolt-ampere  |
| MW                    | Megawatts  |
| MWh                   | Saleable megawatt hours net of internal/parasitic load megawatt-hours  |
| MWt                   | Megawatts Thermal  |
| NAAQS                 | National Ambient Air Quality Standards   |
| NEPOOL                | New England Power Pool   |
| Net Baseload Capacity | Nominal summer net megawatt capacity of power generation adjusted for ownership and parasitic load, and excluding capacity from mothballed units as of December 31, 2009   |
| Net Capacity Factor   | The net amount of electricity that a generating unit produces over a period of time divided by the net amount of electricity it could have produced if it had run at full power over that time period. The net amount of electricity produced is the total amount of electricity generated minus the amount of electricity used during generation. |
| Net Exposure          | Counterparty credit exposure to NRG, net of collateral   |
| Net Generation        | The net amount of electricity produced, expressed in kWh s or MWh s, that is the total amount of electricity generated (gross) minus the amount of electricity used during generation.   |

|                 |   |
|-----------------|---|
| NINA            | Nuclear Innovation North America LLC              |
| NO <sub>x</sub> | Nitrogen oxide                                    |
| NOL             | Net Operating Loss                                |
| NOV             | Notice of Violation                               |
| NPNS            | Normal Purchase Normal Sale                       |
| NRC             | United States Nuclear Regulatory Commission       |
| NSR             | New Source Review                                 |
| NYISO           | New York Independent System Operator              |
| NYSDEC          | New York Department of Environmental Conservation |

|                           |  |
|---------------------------|--|
| OCI                       | Other Comprehensive Income   |
| Phase II 316(b) Rule      | A section of the Clean Water Act regulating cooling water intake structures  |
| PJM                       | PJM Interconnection, LLC   |
| PJM market                | The wholesale and retail electric market operated by PJM primarily in all or parts of Delaware, the District of Columbia, Illinois, Maryland, New Jersey, Ohio, Pennsylvania, Virginia and West Virginia   |
| PML                       | NRG Power Marketing, LLC, a wholly-owned subsidiary of NRG which procures transportation and fuel for the Company's generation facilities, sells the power from these facilities, and manages all commodity trading and hedging for NRG                                    |
| PPA                       | Power Purchase Agreement   |
| PPM                       | Parts per Million  |
| PSD                       | Prevention of Significant Deterioration  |
| PUCT                      | Public Utility Commission of Texas   |
| PUHCA of 2005             | Public Utility Holding Company Act of 2005   |
| PURPA                     | Public Utility Regulatory Policy Act of 2005   |
| QF                        | Qualifying Facility under PURPA  |
| Reliant Energy            | NRG's retail business in Texas purchased on May 1, 2009, from Reliant Energy, Inc. which is now known as RRI Energy, Inc., or RRI  |
| Repowering                | Technologies utilized to replace, rebuild, or redevelop major portions of an existing electrical generating facility, not only to achieve a substantial emissions reduction, but also to increase facility capacity, and improve system efficiency                         |
| <i>Repowering</i> NRG     | NRG's program designed to develop, finance, construct and operate new, highly efficient, environmentally responsible capacity  |
| REPS                      | Reliant Energy Power Supply, LLC   |
| RERH                      | RERH Holding, LLC and its subsidiaries   |
| Revolving Credit Facility | NRG's \$1 billion senior secured credit facility which matures on February 2, 2011   |
| RGGI                      | Regional Greenhouse Gas Initiative   |
| RMR                       | Reliability Must-Run   |
| ROIC                      | Return on invested capital   |
| RPM                       | Reliability Pricing Model term for capacity market in PJM market   |
| RRI                       | RRI Energy, Inc.   |
| RTO                       | Regional Transmission Organization, also referred to as an Independent System Operators, or ISO  |
| Sarbanes-Oxley            | Sarbanes-Oxley Act of 2002, as amended   |
| Schkopau                  | Kraftwerk Schkopau Betriebsgesellschaft mbH, an entity in which NRG has a 41.9% interest   |
| SCR                       | Selective Catalytic Reduction  |
| SEC                       | United States Securities and Exchange Commission   |
| Securities Act            | The Securities Act of 1933, as amended   |
| Senior Credit Facility    | NRG's senior secured facility, which is comprised of a Term Loan Facility and a \$1.3 billion Synthetic Letter of Credit Facility which matures on February 1, 2013, and a \$1 billion Revolving Credit Facility, which matures on February 2, 2011                        |
| SIFMA                     | Securities Industry and Financial Markets Association  |
| Senior Notes              | The Company's \$5.4 billion outstanding unsecured senior notes consisting of \$1.2 billion of 7.25% senior notes due 2014, \$2.4 billion of 7.375% senior notes due 2016 and \$1.1 billion of 7.375% senior notes due 2017 and \$700 million of 8.5% senior notes due 2019 |
| SERC                      | Southeastern Electric Reliability Council/Entergy  |



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|                 |   |
|-----------------|---|
| SFAS            | Statement of Financial Accounting Standards issued by the FASB  |
| SO <sub>2</sub> | Sulfur dioxide  |
| SOP             | Statement of Position issued by the American Institute of Certified Public Accountants                        |
| STP             | South Texas Project nuclear generating facility located near Bay City, Texas in which NRG owns a 44% Interest |
| STPNOC          | South Texas Project Nuclear Operating Company   |

|                                     |   |
|-------------------------------------|---|
| Synthetic Letter of Credit Facility | NRG's \$1.3 billion senior secured synthetic letter of credit facility which matures on February 1, 2013                              |
| TANE                                | Toshiba American Nuclear Operating Company  |
| TANE Facility                       | NINA's \$500 million credit facility with TANE which matures on February 24, 2012   |
| Term Loan Facility                  | A senior first priority secured term loan which matures on February 1, 2013, and is included as part of NRG's Senior Credit Facility. |
| Texas Genco                         | Texas Genco LLC, now referred to as the Company's Texas Region  |
| Tonnes                              | Metric tonnes, which are units of mass or weight in the metric system each equal to 2,205 lbs and are the global measurement for GHG  |
| TWh                                 | Terawatt hour   |
| U.S.                                | United States of America  |
| U.S. EPA                            | United States Environmental Protection Agency   |
| U.S. GAAP                           | Accounting principles generally accepted in the United States   |
| VaR                                 | Value at Risk   |
| WCP                                 | WCP (Generation) Holdings, Inc.   |

## ACCOUNTING PRONOUNCEMENTS

The following ASC topics are referenced in this report. In addition, certain U.S. GAAP standards and interpretations were adopted by the Company in 2009 prior to the July 1, 2009, effective date of the ASC, and were subsequently incorporated into one or more ASC topics. Further, certain U.S. GAAP standards were ratified by the FASB in 2009 prior to July 1, 2009, but are not yet effective and have therefore not yet been incorporated into the ASC. This glossary includes the definition of these legacy standards and interpretations under the ASC topic or topics in which they have been, or are expected to be, fully or partially incorporated.

|         |   |
|---------|---|
| ASC 105 | ASC-105, <i>Generally Accepted Accounting Principles</i> ; incorporates:<br>SFAS No. 168, <i>The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles</i>   |
| ASC 270 | ASC-270, <i>Interim Reporting</i> ; incorporates:<br>FSP FAS 107-1 and APB 28-1, <i>Interim Disclosures about Fair Value of Financial Instruments</i>   |
| ASC 275 | ASC-275, <i>Risks and Uncertainties</i> ; incorporates:<br>FSP FAS 142-3, <i>Determination of the Useful Life of Intangible Assets</i>  |
| ASC 320 | ASC-320, <i>Investments-Debt and Equity Securities</i> ; incorporates:<br>FSP FAS 115-2 and FAS 124-2, <i>Recognition and Presentation of Other-Than-Temporary Impairments</i>  |
| ASC 323 | ASC-323, <i>Investments-Equity Method and Joint Ventures</i> ; incorporates:<br>EITF 08-6, <i>Equity Method Investment Accounting Considerations</i><br>APB Opinion No. 18, <i>The Equity Method of Accounting for Investments in Common Stock</i>  |
| ASC 350 | ASC-350, <i>Intangibles-Goodwill and Others</i> ; incorporates:<br>FSP FAS 142-3, <i>Determination of the Useful Life of Intangible Assets</i><br>SFAS No. 142, <i>Goodwill and Other Intangible Assets</i>   |
| ASC 360 | ASC-360, <i>Property, Plant, and Equipment</i> ; incorporates:<br>SFAS No. 144, <i>Accounting for the Impairment or Disposal of Long-Lived Assets</i>   |
| ASC 410 | ASC-410, <i>Asset Retirement and Environmental Obligations</i> ; incorporates:<br>SFAS No. 143, <i>Accounting for Asset Retirement Obligations</i>  |
| ASC 450 | ASC-450, <i>Contingencies</i> ; incorporates:<br>SFAS No. 5, <i>Accounting for Contingencies</i>  |
| ASC 460 | ASC-460, <i>Guarantees</i> ; incorporates:<br>FIN No. 45, <i>Guarantors Accounting and Disclosure Requirements of Guarantees, Including Indirect Guarantees of Indebtedness of Others</i>   |
| ASC 470 | ASC-470, <i>Debt</i> ; incorporates:<br>FSP APB 14-1, <i>Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)</i>  |
| ASC 715 | ASC-715, <i>Compensation-Retirement Benefits</i> ; incorporates:<br>FSP FAS 132(R)-1, <i>Employers Disclosures about Postretirement Benefit Plan Assets</i><br>SFAS No. 158, <i>Employers Accounting for Defined Benefit Pension and Other Postretirement Plans</i> an amendment of FASB Statements No. 87, 88, 106 and 132 (R) |
| ASC 718 | ASC-718, <i>Compensation-Stock Compensation</i> ; incorporates:<br>EITF 07-5, <i>Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entitys Own Stock</i>   |
| ASC 740 | ASC-740, <i>Income Taxes</i> ; incorporates:<br>FIN No. 48, <i>Accounting for Uncertainty in Income Taxes</i><br>SFAS No. 109, <i>Accounting for Income Taxes</i><br>APB Opinion No. 23 <i>Accounting for Income Taxes Special Areas</i>  |



|             |  |
|-------------|--|
| ASC 805     | ASC-805, <i>Business Combinations</i> ; incorporates:<br>SFAS 141(R), <i>Business Combinations</i><br>FSP FAS 141(R)-1, <i>Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies</i>  |
| ASC 810     | ASC-810, <i>Consolidation</i> ; incorporates:<br>SFAS 160, <i>Noncontrolling Interests in Consolidated Financial Statements</i> an amendment of ARB No. 51, <i>Consolidated Financial Statements</i>   |
| ASC 815     | ASC-815, <i>Derivatives and Hedging</i> ; incorporates:<br>SFAS 161, <i>Disclosures About Derivative Instruments and Hedging Activities</i><br>EITF 07-5, <i>Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock</i><br>EITF 02-3, <i>Issues Involved in Accounting for Derivative Contracts Held for Trading Purposes and Contracts Involved in Energy Trading and Risk Management Activities</i>                     |
| ASC 820     | ASC-820, <i>Fair Value Measurements and Disclosures</i> ; incorporates:<br>FSP FAS 157-2, <i>Effective Date of FASB Statement No. 157</i><br>FSP FAS 157-4 <i>Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly</i><br>EITF 08-5, <i>Issuer's Accounting for Liabilities Measured at Fair Value with a Third-Party Credit Enhancement</i> |
| ASC 825     | ASC-825, <i>Financial Instruments</i> ; incorporates:<br>FSP APB 14-1, <i>Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)</i><br>FSP FAS 107-1 and APB 28-1, <i>Interim Disclosures about Fair Value of Financial Instruments</i>  |
| ASC 852     | ASC-852, <i>Reorganizations</i> ; incorporates:<br>Statement of Position 90-7, <i>Financial Reporting by Entities in Reorganization Under the Bankruptcy Code</i>  |
| ASC 855     | ASC-855, <i>Subsequent Events</i> ; incorporates:<br>SFAS 165, <i>Subsequent Events</i>  |
| ASC 980     | ASC-980, <i>Regulated Operations</i> ; incorporates:<br>SFAS No. 71, <i>Accounting for the Effects of Certain Types of Regulation</i>  |
| ASU 2009-5  | ASU 2009-5, <i>Fair Value Measurement and Disclosures: Measuring Liabilities at Fair Value</i>   |
| ASU 2009-15 | ASU 2009-15, <i>Accounting for Own-Share Lending Arrangements in Contemplation of Convertible Debt Issuance or Other Financing</i> ; incorporates:<br>EITF 09-1, <i>Accounting for Own-Share Lending Arrangements in Contemplation of Convertible Debt Issuance or Other Financing</i>   |
| ASU 2009-17 | ASU No. 2009-17, <i>Consolidations: Improvements to Financial Reporting by Enterprises Involved with Variable Interest Entities</i> ; incorporates:<br>SFAS 167, <i>Amendments to FASB Interpretations No. 46 (R)</i>  |
| ASU 2010-02 | ASU No. 2010-02, <i>Consolidation (Topic 810): Accounting and Reporting for Decreases in Ownership of a Subsidiary</i> a Scope Clarification   |
| ASU 2010-06 | ASU No. 2010-06, <i>Fair Value Measurement and Disclosures: Improving Disclosures about Fair Value Measurements</i>  |

## PART I

### Item 1 Business

#### General

NRG Energy, Inc., or NRG or the Company, is primarily a wholesale power generation company with a significant presence in major competitive power markets in the U.S., as well as a major retail electricity franchise in the Electric Reliability Council of Texas, or ERCOT, market. NRG is engaged in the ownership, development, construction and operation of power generation facilities, the transacting in and trading of fuel and transportation services, the trading of energy, capacity and related products in the U.S. and select international markets, and the supply of electricity and energy services to retail electricity customers in the Texas market.

As of December 31, 2009, NRG had a total global generation portfolio of 187 active operating fossil fuel and nuclear generation units, at 44 power generation plants, with an aggregate generation capacity of approximately 24,115 MW, and approximately 400 MW under construction which includes partner interests of 200 MW. In addition to its fossil fuel plant ownership, NRG has ownership interests in operating renewable facilities with an aggregate generation capacity of 365 MW, consisting of three wind farms representing an aggregate generation capacity of 345 MW (which includes partner interest of 75 MW) and a solar facility with an aggregate generation capacity of 20 MW. Within the U.S., NRG has large and diversified power generation portfolios in terms of geography, fuel-type and dispatch levels, with approximately 23,110 MW of fossil fuel and nuclear generation capacity in 179 active generating units at 42 plants. The Company's power generation facilities are most heavily concentrated in Texas (approximately 11,340 MW, including 345 MW from three wind farms), the Northeast (approximately 7,015 MW), South Central (approximately 2,855 MW), and West (approximately 2,150 MW, including 20 MW from a solar farm) regions of the U.S., with approximately 115 MW of additional generation capacity from the Company's thermal assets. In addition, through certain foreign subsidiaries, NRG has investments in power generation projects located in Australia and Germany with approximately 1,005 MW of generation capacity.

NRG's principal domestic power plants consist of a mix of natural gas-, coal-, oil-fired, nuclear and renewable facilities, representing approximately 46%, 32%, 16%, 5% and 1% of the Company's total domestic generation capacity, respectively. In addition, 9% of NRG's domestic generating facilities have dual or multiple fuel capacity, which allows plants to dispatch with the lowest cost fuel option.

NRG's domestic generation facilities consist of intermittent, baseload, intermediate and peaking power generation facilities, the ranking of which is referred to as the Merit Order, and include thermal energy production plants. The sale of capacity and power from baseload generation facilities accounts for the majority of the Company's revenues and provides a stable source of cash flow. In addition, NRG's generation portfolio provides the Company with opportunities to capture additional revenues by selling power during periods of peak demand, offering capacity or similar products to retail electric providers and others, and providing ancillary services to support system reliability.

On May 1, 2009, NRG acquired Reliant Energy, which is the second largest electricity provider to residential and small business, or Mass, customers in Texas. Reliant Energy is also the largest electricity and energy services provider, based on load, to commercial, industrial and governmental/institutions, or C&I, customers in Texas. Based on metered locations, as of December 31, 2009, Reliant Energy had approximately 1.5 million Mass customers and approximately 0.1 million C&I customers. Reliant Energy arranges for the transmission and delivery of electricity to customers, bills customers, collects payments for electricity sold and maintains call centers to provide customer service.

Furthermore, NRG is focused on the development and investment in energy-related new businesses and new technologies where the benefits of such investments represent significant commercial opportunities and create a comparative advantage for the Company. These investments include low or no Greenhouse Gas, or GHG, emitting energy generating sources, such as nuclear, wind, solar thermal, photovoltaic, clean coal and gasification, and the retrofit of post-combustion carbon capture technologies.

## NRG's Business Strategy

NRG's business strategy is intended to maximize shareholder value through production and the sale of safe, reliable and affordable power to its customers and in the markets served by the Company, while aggressively positioning the Company to meet the market's increasing demand for sustainable and low carbon energy solutions, such as nuclear, renewable, electric vehicle and smart grid services. The Company believes that success in providing energy solutions that address sustainability and climate change concerns will not only reduce the carbon and capital intensity of the Company's financial performance in the future, it also will reduce the real and perceived linkage between the Company's financial performance and prospects, and volatile commodity prices particularly natural gas.

In support of this strategy and NRG's core business strengths, the Company will continue to maintain its focus and execution on: (i) top decile operating performance of its existing operating assets and enhanced operating performance of the Company's commercial operations and hedging program; (ii) repowering of power generation assets at existing sites and development of new power generation projects; (iii) empowering retail customers with distinctive products and services that transform how they use, manage and value energy; (iv) engaging in a proactive capital allocation plan focused on achieving the regular return of capital to stockholders within the dictates of prudent balance sheet management; and (v) pursuit of selective acquisitions, joint ventures, divestitures and investments in energy-related new businesses and new technologies in order to enhance the Company's asset mix and competitive position in its core markets, both with respect to its traditional core business and in respect of opportunities associated with the new energy economy.

This strategy is supported by the Company's five major initiatives (*FORNRG*, *RepoweringNRG*, *econrg*, *Future NRG* and *NRG Global Giving*) which are designed to enhance the Company's competitive advantages in these strategic areas and enable the Company to convert the challenges faced by the power industry in the coming years into opportunities for financial growth. This strategy is being implemented by focusing on the following principles:

**Operational Performance** The Company is focused on increasing value from its existing assets. Through the *FORNRG* 2.0 initiative, NRG will continue its companywide effort to focus on extracting value from its portfolio by improving plant performance, reducing costs and harnessing the Company's advantages of scale in the procurement of fuels and other commodities, parts and services, and in doing so improving the Company's return on invested capital, or ROIC.

In addition to the *FORNRG* initiative, the Company seeks to maximize profitability and manage cash flow volatility through the Company's commercial operations strategy by leveraging its: (i) expertise in marketing power and ancillary services; (ii) its knowledge of markets; (iii) its balanced financial structure; and (iv) its diverse portfolio of power generation assets in the execution of asset-based risk management, hedging, marketing and trading strategies within well-defined risk and liquidity guidelines. The Company's marketing and hedging philosophy is centered on generating stable returns from its portfolio of baseload power generation assets while preserving an ability to capitalize on strong spot market conditions and to capture the extrinsic value of the Company's intermediate and peaking facilities and portions of its baseload fleet.

The Company also seeks to achieve synergies between the Company's retail and wholesale business in Texas through its complementary generation portfolio in the Texas region, thereby creating the potential for a more stable, reliable and competitive business that benefits Texas consumers. By backing Reliant Energy's load-serving requirements with NRG's generation and risk management practices, the need to sell and buy power from other financial institutions and intermediaries that trade in the ERCOT market may be reduced, resulting in reduced transaction costs, credit exposures, and collateral postings. In addition, with Reliant Energy's base of retail customers, NRG now has a customer interface with the scale that is important to the successful deployment of consumer-facing energy technologies and services.



Finally, NRG remains focused on cash flow and maintaining appropriate levels of liquidity, debt and equity in order to ensure continued access, through all economic and financial cycles, to capital for investment, to enhance risk-adjusted returns and to provide flexibility in executing NRG's business strategy, including a regular return of capital to its debt and equity holders.

**Development** NRG is favorably positioned to pursue growth opportunities through expansion of its existing generating capacity and development of new generating capacity at its existing facilities, as well as clean coal and the retrofit of post-combustion carbon capture technologies. Primarily through the *Repowering* NRG and econrg initiatives, NRG intends to invest in its existing assets through plant improvements, repowerings, brownfield development and site expansions to meet anticipated requirements for additional capacity in NRG's core markets, with an emphasis on new capacity that is supported by long-term power sales agreements and financed with limited or non-recourse project financing, and the demonstration and deployment of green technologies. *Repowering* NRG is a comprehensive portfolio redevelopment program designed to develop, construct and operate new multi-fuel, multi-technology, highly efficient and environmentally responsible generation capacity in locations where the Company anticipates retiring certain existing units and adding new generation to meet growing demand in the Company's core markets. econrg represents NRG's commitment to environmentally responsible power generation by addressing the challenges of climate change, clean air and water, and conservation of natural resources while taking advantage of business opportunities that may inure to NRG. NRG expects that these efforts will provide some or all of the following benefits: improved heat rates; lower delivered costs; expanded electricity production capability; improved ability to dispatch economically across the regional general portfolio; increased technological and fuel diversity; and reduced environmental impacts, including facilities that either have near zero GHG emissions or can be equipped to capture and sequester GHG emissions. In addition, several of the Company's original *Repowering* NRG projects or projects commenced under that initiative since its inception may qualify for financial support under the infrastructure financing component of the American Recovery and Reinvestment Act as well as other government incentive packages. NRG has several applications pending or contemplated.

**New Businesses and New Technology** NRG is focused on the development and investment in energy-related new businesses and new technologies, including low or no GHG emitting energy generating sources, such as nuclear, wind, solar thermal, and photovoltaic, as well as other endeavors where the benefits of such investments represent significant commercial opportunities and create a comparative advantage for the Company, such as smart meters, electric vehicle ecosystems, and distributed clean solutions. The Company has made a series of recent advancements in these initiatives, including: (i) the acquisition of Bluewater Wind, an offshore wind development company; (ii) the acquisition of Blythe Solar, the largest photovoltaic solar power facility in California; (iii) the commercial operation of the Langford Wind Farm, the Company's third wind farm to be brought online; (iv) a partnership between Reliant Energy and the City of Houston and a partnership between Reliant Energy and Nissan to make Houston, Texas a launch city for the use of electric vehicles; and (v) the use of smart meters for Reliant Energy customers. Furthermore, the Company, supported by the econrg initiative, intends to capitalize on the high growth opportunities presented by government-mandated renewable portfolio standards, tax incentives and loan guaranties for renewable energy projects, and new technologies and expected future carbon regulation.

**Company-Wide Initiatives** In addition, the Company's overall strategy is also supported by Future NRG and NRG Global Giving initiatives. Future NRG is the Company's workforce planning and development initiative and represents NRG's strong commitment to planning for future staffing requirements to meet the on-going needs of the Company's current operations and initiatives. NRG Global Giving is designed to enhance respect for the community, which is one of NRG's core values. The Global Giving Program invests NRG's resources to strengthen the communities where NRG does business and seeks to make community investments in four focus areas: community and economic development, education, environment and human welfare.

## Competition

Wholesale power generation is a capital-intensive, commodity-driven business with numerous industry participants. NRG competes on the basis of the location of its plants and ownership of multiple plants in various regions, which increases the stability and reliability of its energy supply. Wholesale power generation is basically a local business that is currently highly fragmented relative to other commodity industries and diverse in terms of industry structure.

As such, there is a wide variation in terms of the capabilities, resources, nature and identity of the companies NRG competes with depending on the market.

The deregulated retail energy business in ERCOT is a competitive business. In general, competition in the retail energy business is on the basis of price, service, brand image, product offerings and market perceptions of

creditworthiness. Reliant Energy sells electricity pursuant to fixed price or indexed products, and customers elect terms of service typically ranging from one month to five years. Reliant Energy's rates are market-based rates, and not subject to traditional cost-of-service regulation by the Public Utility Commission of Texas, or PUCT. Non-affiliated transmission and distribution service companies provide, on a non-discriminatory basis, the wires and metering services necessary to access customers.

## Competitive Strengths

*Scale and diversity of assets* NRG has one of the largest and most diversified power generation portfolios in the U.S., with approximately 23,110 MW of fossil fuel and nuclear generation capacity in 179 active generating units at 42 plants and 365 MW renewable generation capacity which consists of ownership interests in three wind farms and a solar facility as of December 31, 2009. The Company's power generation assets are diversified by fuel-type, dispatch level and region, which help mitigate the risks associated with fuel price volatility and market demand cycles. As of December 31, 2009, the Company's power generation assets consisted of approximately 10,660 MW of gas-fired; 7,560 MW of coal-fired; 3,715 MW of oil-fired; 1,175 MW of nuclear and 365 MW of renewable generating capacity in the U.S.

NRG has a significant power generation presence in major competitive power markets of the U.S. as set forth in the map below:

- (1) Includes 115 MW as part of NRG's Thermal assets. For combined scale, approximately 2,095 MW is dual-fuel capable. Reflects only domestic generation capacity as of December 31, 2009.

The Company's U.S. power generation portfolio by dispatch level is comprised of approximately 37% baseload, 37% intermediate, 25% peaking and 1% intermittent units. NRG's U.S. baseload facilities, which consist of approximately 8,735 MW of generation capacity measured as of December 31, 2009, provide the Company with a significant source of stable cash flow, while its intermediate and peaking facilities, with approximately 14,375 MW of generation capacity as of December 31, 2009, provide NRG with opportunities to capture the significant upside potential that can arise from time to time during periods of high demand. In addition, approximately 9% of the Company's domestic generation facilities have dual or multiple fuel capability,

which allows most of these plants to dispatch with the lowest cost fuel option. In 2009, NRG completed the construction of the Cedar Bayou Generating Station (520 MW including partner interests of 260 MW) and the Langford wind farm (150 MW), which provide electricity to the Company's core region. In addition, the Company acquired Blythe Solar (20 MW) in November 2009, which provides electricity to the Company's West region.

The following chart demonstrates the diversification of NRG's domestic power generation assets as of December 31, 2009:

| <b>Approximate North America<br/>Portfolio Net Capacity by Fuel<br/>Type</b> | <b>Approximate North America<br/>Portfolio Net Capacity by<br/>Dispatch<br/>Level</b> | <b>Approximate North<br/>America<br/>Portfolio Net Capacity by<br/>Region</b> |
|--|---|---|
|--|---|---|

*Reliability of future cash flows* NRG has hedged a significant portion of its expected baseload generation capacity with decreasing hedged levels through 2014. NRG also has cooperative load contract obligations in South Central region which expire over various dates through 2026. The Company has the capacity and intent to enter into additional hedges when market conditions are favorable. In addition, as of December 31, 2009, the Company had purchased fuel forward under fixed price contracts, with contractually-specified price escalators, for approximately 47% of its expected baseload coal requirement from 2010 to 2014. The hedge percentage is reflective of the current agreement of the Jewett mine in which NRG has the contractual ability to adjust volumes in future years. These forward positions provide a stable and reliable source of future cash flow for NRG's investors, while preserving a portion of its generation portfolio for opportunistic sales to take advantage of market dynamics.

With its complementary generation portfolio, the Texas region is a supplier of power to Reliant Energy, thereby creating the potential for more stable, reliable cash flows. By backing Reliant Energy's load-serving requirements with NRG's generation and risk management practices, the need to sell and buy power from other financial institutions and intermediaries that trade in the ERCOT market may be reduced, resulting in lower transaction costs and credit exposures. This combination of generation and retail allows for a reduction in actual and contingent collateral, initially through offsetting transactions and over time by reducing the need to hedge the retail power supply through third parties.

*Favorable cost dynamics for baseload power plants* In 2009, approximately 87% of the Company's domestic generation output was from plants fueled by coal or nuclear fuel. In many of the competitive markets where NRG operates, the price of power is typically set by the marginal costs of natural gas-fired and oil-fired power plants that historically have higher variable costs than solid-fuel baseload power plants. As a result of NRG's lower marginal cost for baseload coal and nuclear generation assets, the Company expects the baseload assets in ERCOT to generate power the majority of the time they are available.

*Locational advantages* Many of NRG's generation assets are located within densely populated areas that are characterized by significant constraints on the transmission of power from generators outside the particular region. Consequently, these assets are able to benefit from the higher prices that prevail for energy in these markets during periods of transmission constraints. NRG has generation assets located within Houston, New York City, southwestern Connecticut and the Los Angeles and San Diego load basins; all areas which experience, from time-to-time and to varying degrees, of constraints on the transmission of electricity. This gives the Company the opportunity to capture additional revenues by offering capacity to retail electric providers and others, selling power at prevailing market prices during periods of peak demand and providing ancillary services in support of system



reliability. Also, these facilities are often ideally situated for repowering or the addition of new capacity, because their location and existing infrastructure give them significant advantages over developed sites in their regions that do not have process infrastructure.

### Performance Metrics

The following table contains a summary of NRG's operating revenues by segment for the years ended December 31, 2009, 2008 and 2007, as discussed in Item 14 Note 18, *Segment Reporting*, to the Consolidated Financial Statements.

| Region                        | Year Ended December 31, 2009 |                   |                 |                       |                       |                  |                |                          |
|-------------------------------|------------------------------|-------------------|-----------------|-----------------------|-----------------------|------------------|----------------|--------------------------|
|                               | Energy Revenues              | Capacity Revenues | Risk            |                       |                       |                  | Other Revenues | Total Operating Revenues |
|                               |                              |                   | Retail Revenues | Management Activities | Contract Amortization | Thermal Revenues |                |                          |
|                               |                              |                   | (In millions)   |                       |                       |                  |                |                          |
| Reliant Energy <sup>(a)</sup> | \$                           | \$                | \$ 4,440        | \$                    | \$ (258)              | \$               | \$             | \$ 4,182                 |
| Texas                         | 2,439                        | 193               |                 | 229                   | 57                    |                  | 28             | 2,946                    |
| Northeast                     | 489                          | 407               |                 | 277                   |                       |                  | 28             | 1,201                    |
| South Central                 | 360                          | 269               |                 | (71)                  | 22                    |                  | 1              | 581                      |
| West                          | 34                           | 122               |                 | (8)                   |                       |                  | 2              | 150                      |
| International                 | 52                           | 79                |                 |                       |                       |                  | 13             | 144                      |
| Thermal                       | 7                            | 7                 |                 | 4                     |                       | 100              | 17             | 135                      |
| Corporate and Eliminations    | (350)                        | (47)              |                 | (13)                  |                       |                  | 23             | (387)                    |
| Total                         | \$ 3,031                     | \$ 1,030          | \$ 4,440        | \$ 418                | \$ (179)              | \$ 100           | \$ 112         | \$ 8,952                 |

(a) For the period May 1, 2009 to December 31, 2009.

| Region                        | Year Ended December 31, 2008 |                      |                          |                          |                     |                   |               | Total<br>Operating<br>Revenues |
|-------------------------------|------------------------------|----------------------|--------------------------|--------------------------|---------------------|-------------------|---------------|--------------------------------|
|                               | Energy<br>Revenues           | Capacity<br>Revenues | Risk                     |                          | Thermal<br>Revenues | Other<br>Revenues |               |                                |
|                               |                              |                      | Management<br>Activities | Contract<br>Amortization |                     |                   |               |                                |
|                               |                              |                      |                          |                          |                     |                   | (In millions) |                                |
| Texas                         | \$ 2,870                     | \$ 493               | \$ 318                   | \$ 255                   | \$                  | \$ 90             | \$ 4,026      |                                |
| Northeast                     | 1,064                        | 415                  | 85                       |                          |                     | 66                | 1,630         |                                |
| South Central                 | 478                          | 233                  | 10                       | 23                       |                     | 2                 | 746           |                                |
| West                          | 39                           | 125                  |                          |                          |                     | 7                 | 171           |                                |
| International                 | 56                           | 86                   |                          |                          |                     | 16                | 158           |                                |
| Thermal                       | 12                           | 7                    | 5                        |                          | 114                 | 16                | 154           |                                |
| Corporate and<br>Eliminations |                              |                      |                          |                          |                     |                   |               |                                |
| Total                         | \$ 4,519                     | \$ 1,359             | \$ 418                   | \$ 278                   | \$ 114              | \$ 197            | \$ 6,885      |                                |

| Region                        | Year Ended December 31, 2007 |                      |            |              |          |                   |                                |
|-------------------------------|------------------------------|----------------------|------------|--------------|----------|-------------------|--------------------------------|
|                               | Energy<br>Revenues           | Capacity<br>Revenues | Risk       |              |          | Other<br>Revenues | Total<br>Operating<br>Revenues |
|                               |                              |                      | Management | Contract     | Thermal  |                   |                                |
|                               |                              |                      | Activities | Amortization | Revenues |                   |                                |
| (In millions)                 |                              |                      |            |              |          |                   |                                |
| Texas                         | \$ 2,698                     | \$ 363               | \$ (33)    | \$ 219       | \$       | \$ 40             | \$ 3,287                       |
| Northeast                     | 1,104                        | 402                  | 27         |              |          | 72                | 1,605                          |
| South Central                 | 404                          | 221                  | 10         | 23           |          |                   | 658                            |
| West                          | 4                            | 122                  |            |              |          | 1                 | 127                            |
| International                 | 42                           | 83                   |            |              |          | 15                | 140                            |
| Thermal                       | 13                           | 5                    |            |              | 125      | 16                | 159                            |
| Corporate and<br>Eliminations |                              |                      |            |              |          | 13                | 13                             |
| Total                         | \$ 4,265                     | \$ 1,196             | \$ 4       | \$ 242       | \$ 125   | \$ 157            | \$ 5,989                       |



In understanding NRG's wholesale generation business, the Company believes that certain performance metrics are particularly important. These are industry statistics defined by the North American Electric Reliability Council, or NERC, and are more fully described below:

*Annual Equivalent Availability Factor, or EAF* Measures the percentage of maximum generation available over time as the fraction of net maximum generation that could be provided over a defined period of time after all types of outages and deratings, including seasonal deratings, are taken into account.

*Net heat rate* The net heat rate for the Company's fossil-fired power plants represents the total amount of fuel in BTU required to generate one net kWh provided.

*Net Capacity Factor* The net amount of electricity that a generating unit produces over a period of time divided by the net amount of electricity it could have produced if it had run at full power over that time period. The net amount of electricity produced is the total amount of electricity generated minus the amount of electricity used during generation.

In addition, the Company believes that retail customer counts and weighted average retail customer counts are particularly important performance metrics when evaluating this segment. For further results of Reliant Energy's business metrics see Item 6 *Management's Discussion and Analysis of Financial Conditions and Results of Operation*.

The tables below present the North American power generation performance metrics for the Company's power plants discussed above for the years ended December 31, 2009, and 2008:

| Region                   | Year Ended December 31, 2009 |                      |                                |                                 |                     |
|--------------------------|------------------------------|----------------------|--------------------------------|---------------------------------|---------------------|
|                          | Net Owned Capacity (MW)      | Net Generation (MWh) | Annual                         | Average Net Heat Rate (Btu/kWh) | Net Capacity Factor |
|                          |                              |                      | Equivalent Availability Factor |                                 |                     |
|                          |                              |                      | (In thousands of MWh)          |                                 |                     |
|                          |                              |                      |                                |                                 |                     |
| Texas <sup>(a)</sup>     | 11,340                       | 44,993               | 88.2%                          | 10,200                          | 38.4%               |
| Northeast <sup>(b)</sup> | 7,015                        | 9,220                | 89.2                           | 10,900                          | 13.5                |
| South Central            | 2,855                        | 10,398               | 89.6                           | 10,500                          | 41.1                |
| West                     | 2,150                        | 1,279                | 86.5%                          | 12,300                          | 8.2%                |

| Region                   | Year Ended December 31, 2008 |                      |                                |                                 |                     |
|--------------------------|------------------------------|----------------------|--------------------------------|---------------------------------|---------------------|
|                          | Net Owned Capacity (MW)      | Net Generation (MWh) | Annual                         | Average Net Heat Rate (Btu/kWh) | Net Capacity Factor |
|                          |                              |                      | Equivalent Availability Factor |                                 |                     |
|                          |                              |                      | (In thousands of MWh)          |                                 |                     |
|                          |                              |                      |                                |                                 |                     |
| Texas <sup>(a)</sup>     | 11,010                       | 46,937               | 88.1%                          | 10,300                          | 49.6%               |
| Northeast <sup>(b)</sup> | 7,202                        | 13,349               | 88.8                           | 10,800                          | 19.9                |

|               |       |        |       |        |       |
|---------------|-------|--------|-------|--------|-------|
| South Central | 2,845 | 11,148 | 93.4  | 10,300 | 47.6  |
| West          | 2,130 | 1,532  | 91.5% | 11,800 | 10.2% |

- (a) Net generation (MWh) does not include Sherbino I Wind Farm LLC, which is accounted for under the equity method.
- (b) Factor data and heat rate do not include the Keystone and Conemaugh facilities.

## Employees

As of December 31, 2009, NRG had 4,607 employees, approximately 1,640 of whom were covered by U.S. bargaining agreements. During 2009, the Company did not experience any labor stoppages or labor disputes at any of its facilities. The increase in the number of employees is primarily due to the Company's acquisition of Reliant Energy in May 2009.

## Commercial Operations Overview

NRG seeks to maximize profitability and manage cash flow volatility through the marketing, trading and sale of energy, capacity and ancillary services into spot, intermediate and long-term markets and through the active management and trading of emissions allowances, fuel supplies and transportation-related services. The Company's

principal objectives are the realization of the full market value of its asset base, including the capture of its extrinsic value, the management and mitigation of commodity market risk and the reduction of cash flow volatility over time.

NRG enters into power sales and hedging arrangements via a wide range of products and contracts, including power purchase agreements, fuel supply contracts, capacity auctions, natural gas swap agreements and other financial instruments. The PPAs that NRG enters into require the Company to deliver MWh of power to its counterparties. In addition, because changes in power prices in the markets where NRG operates are generally correlated to changes in natural gas prices, NRG uses hedging strategies which may include power and natural gas forward sales contracts to manage the commodity price risk primarily associated with the Company's baseload generation assets. The objective of these hedging strategies is to stabilize the cash flow generated by NRG's portfolio of assets.

The following table summarizes NRG's U.S. baseload capacity and the corresponding revenues and average natural gas prices resulting from baseload hedge agreements extending beyond December 31, 2010, and through 2014:

|  | 2010  | 2011     | 2012     | 2013    | 2014    | Annual<br>Average for<br>2010-2014 |
|--|---|----------|----------|---------|---------|------------------------------------|
|  | (Dollars in millions unless otherwise stated) |          |          |         |         |                                    |
| Net Baseload Capacity (MW) <sup>(a)</sup>  | 8,557   | 8,477    | 8,450    | 8,450   | 8,295   | 8,446                              |
| Forecasted Baseload Capacity (MW) <sup>(b)</sup>   | 7,217   | 7,065    | 7,272    | 7,268   | 7,138   | 7,192                              |
| Total Baseload Sales (MW) <sup>(c)(h)</sup>  | 7,175   | 4,882    | 3,229    | 1,951   | 797     | 3,607                              |
| Percentage Baseload Capacity Sold Forward <sup>(d)</sup>                                 | 99%   | 69%      | 44%      | 27%     | 11%     | 50%                                |
| Total Forward Hedged Revenues <sup>(e)(f)(g)</sup>                                       | \$ 3,535                                      | \$ 2,246 | \$ 1,688 | \$ 944  | \$ 345  | \$ 1,752                           |
| Weighted Average Hedged Price (\$ per MWh) <sup>(e)</sup>                                | \$ 56   | \$ 53    | \$ 60    | \$ 55   | \$ 49   | \$ 55                              |
| Weighted Average Hedged Price (\$ per MWh) excluding South Central region <sup>(f)</sup> | \$ 59   | \$ 55    | \$ 68    | \$ 71   | \$      | \$ 60                              |
| Average Equivalent Natural Gas Price (\$ per MMBtu)                                      | \$ 7.57                                       | \$ 7.15  | \$ 7.91  | \$ 7.44 | \$ 7.18 | \$ 7.49                            |
| Average Equivalent Natural Gas Price (\$ per MMBtu) excluding South Central region       | \$ 7.67                                       | \$ 7.18  | \$ 8.51  | \$ 8.71 | \$      | \$ 7.73                            |

(a) Nameplate capacity net of station services reflecting unit retirement schedule.

(b) Expected generation dispatch output (MWh) based on budget forward price curve, which is then divided by 8,760 hours (8,784 hours in 2012) to arrive at MW capacity. The dispatch takes into account planned and unplanned outage assumptions.

(c) Includes amounts under power sales contracts and natural gas hedges. The forward natural gas quantities are reflected in equivalent MWh based on forward market implied heat rate as of December 31, 2009 and then combined with power sales to arrive at equivalent MWh hedged which is then divided by 8,760 hours (8,784 hours in 2012) to arrive at MW hedged.

(d) Percentage hedged is based on total MW sold as power and natural gas converted using the method as described in (c) above divided by the forecasted baseload capacity.

- (e) Represents all North American baseload sales, including energy revenue and demand charges.
- (f) The South Central region's weighted average hedged prices ranges from \$43/MWh to \$50/MWh. These prices include demand charges and an estimated energy charge.
- (g) Include frozen OCI primarily from Merrill Lynch CSRA sleeve unwind.
- (h) Include the inter-company sales from wholesale business to Reliant Energy's retail business.

Reliant Energy sells electricity on fixed price or indexed products, and these contracts have terms typically ranging from one month to five years. In a typical year, the Company sells approximately 50 TWh of load (comprised of approximately 40% to Mass customers and approximately 60% to C&I customers), but this amount can be affected by weather, economic conditions and competition. The wholesale supply is typically purchased as the load is contracted in order to secure profit margin. The wholesale supply is purchased from a combination of NRG's wholesale portfolio and other third parties, depending on the existing hedge position for the NRG wholesale portfolio at the time.

### ***Capacity Revenue Sources***

NRG revenues and free cash flows benefit from capacity/demand payments originating from either market clearing capacity prices, Reliability Must-Run, or RMR, Resource Adequacy, or RA, contracts and tolling arrangements as many of NRG's plants are well situated within load pockets and make critical contributions to system stability. Specifically, in the Northeast, the Company's largest sources for capacity revenues are derived

either from market capacity auctions including New York, PJM Interconnection LLC, or PJM and New England auctions and/or RMRs. In South Central, NRG earns significant capacity revenue from its long-term full-requirements load contracts with 10 Louisiana distribution cooperatives, which are not unit specific. Of the ten contracts, seven expire in 2025 and account for 50% of the contract load, while the remaining three expire in 2014 and comprise 40% of contract load. Capacity revenues from these long terms contracts are tied to summer peak demand as well as provide a mechanism for recovering a portion of the costs for mandated environmental projects over the remaining life of the contract. In West, most of the Company's sites benefit from either tolling agreements and/or RA contracts. Texas, does not have a capacity market; Texas capacity revenues reflect bilateral transactions. Prior to NRG's acquisition of Texas Genco, the PUCT regulations required that Texas generators sell 15% of their capacity by auction at reduced rates. The Company was subsequently released from this obligation and the legacy capacity contracts expired in 2009. See each of the *Regional Business Descriptions Market Framework* below for further discussion of the plants and relevant capacity revenue eligibility.

### ***Fuel Supply and Transportation***

NRG's fuel requirements consist primarily of nuclear fuel and various forms of fossil fuel including oil, natural gas and coal, including lignite. The prices of oil, natural gas and coal are subject to macro- and micro-economic forces that can change dramatically in both the short- and long-term. The Company obtains its oil, natural gas and coal from multiple suppliers and transportation sources. Although availability is generally not an issue, localized shortages, transportation availability and supplier financial stability issues can and do occur. The preceding factors related to the sources and availability of raw materials are fairly uniform across the Company's business segments.

**Coal** The Company is largely hedged for its domestic coal consumption over the next few years. Coal hedging is dynamic and is based on forecasted generation and market volatility. As of December 31, 2009, NRG had purchased forward contracts to provide fuel for approximately 47% of the Company's requirements from 2010 through 2014. NRG arranges for the purchase, transportation and delivery of coal for the Company's baseload coal plants via a variety of coal purchase agreements, rail/barge transportation agreements and rail car lease arrangements. The Company purchased approximately 34 million tons of coal in 2009, of which 96% is Powder River Basin coal and lignite. The Company is one of the largest coal purchasers in the U.S.

The following table shows the percentage of the Company's coal and lignite requirements from 2010 through 2014 that have been purchased forward:

|      | <b>Percentage of<br/>Company's<br/>Requirement<sup>(a)(b)</sup></b> |
|------|---|
| 2010 | 93%   |
| 2011 | 60%   |
| 2012 | 51%   |
| 2013 | 15%   |
| 2014 | 16%   |

- (a) The hedge percentages reflect the current plan for the Jewett mine. NRG has the contractual ability to change volumes and may do so in the future.
- (b) Does not include coal inventory.

As of December 31, 2009, NRG had approximately 6,280 privately leased or owned rail cars in the Company's transportation fleet. NRG has entered into rail transportation agreements with varying tenures that provide for substantially all of the Company's rail transportation requirements up to the next five years.

**Natural Gas** NRG operates a fleet of natural gas plants in the Texas, Northeast, South Central and West regions which are primarily comprised of peaking assets that run in times of high power demand. Due to the uncertainty of their dispatch, the fuel needs are managed on a spot basis as it is not prudent to forward purchase fixed price natural gas for units that may not run. The Company contracts for natural gas storage services as well as natural gas transportation services to ensure delivery of natural gas when needed.

**Nuclear Fuel** South Texas Project's, or STP's, owners satisfy STP's fuel supply requirements by: (i) acquiring uranium concentrates and contracting for conversion of the uranium concentrates into uranium

hexafluoride; (ii) contracting for enrichment of uranium hexafluoride; and (iii) contracting for fabrication of nuclear fuel assemblies. NRG is party to a number of long-term forward purchase contracts with many of the world's largest suppliers covering STP requirements for uranium and conversion services for the next five years, and with substantial portions of STP's requirements procured thereafter. NRG is party to long-term contracts to procure STP's requirements for enrichment services and fuel fabrication for the life of the operating license.

### ***Seasonality and Price Volatility***

Annual and quarterly operating results of the Company's wholesale power generation segments can be significantly affected by weather and energy commodity price volatility. Significant other events, such as the demand for natural gas, interruptions in fuel supply infrastructure and relative levels of hydroelectric capacity can increase seasonal fuel and power price volatility. NRG derives a majority of its annual revenues in the months of May through October, when demand for electricity is at its highest in the Company's core domestic markets. Further, power price volatility is generally higher in the summer months, traditionally NRG's most important season. The Company's second most important season is the winter months of December through March when volatility and price spikes in underlying delivered fuel prices have tended to drive seasonal electricity prices. The preceding factors related to seasonality and price volatility are fairly uniform across the Company's wholesale generation business segments.

The sale of electric power to retail customers is also a seasonal business with the demand for power peaking during the summer months. Weather may impact operating results and extreme weather conditions could materially affect results of operations. The rates charged to retail customers may be impacted by fluctuations in the price of natural gas, transmission constraints, competition, and changes in market heat rates.

### **Regional Business Descriptions**

NRG is organized into business segments, with each of the Company's core regions operating as a separate business segment as discussed below.

#### ***RELIANT ENERGY***

##### **Operating Strategy**

Reliant Energy's business is to earn a margin by selling electricity to end-use customers, providing innovative and value-enhancing services to such customers, and acquiring supply for the estimated demand. As a retail energy provider, Reliant Energy arranges for the transmission and delivery of electricity to customers, bills customers, collects payment for electricity sold, and maintains call centers to provide customer service. In addition, Reliant Energy is focused on developing innovative energy solutions including the infrastructure for electric vehicles and energy efficiency tools and services for consumers to manage their energy usage. NRG presently purchases a substantial portion of Reliant Energy's supply requirements from third parties such as generation companies and power marketers and has begun the process of becoming the primary provider for their supply requirements. Transmission and distribution services are purchased from entities regulated by the PUCT and subject to ERCOT protocols.

The energy usage of Reliant Energy's retail customers varies by season, with generally higher usage during the summer period. As a result, Reliant Energy's net working capital requirements generally increase during summer months along with the higher revenues, and then decline during off-peak months.

##### **Customer Segments**

The following is a description of Reliant Energy's significant customer segments in Texas.

*Mass* Reliant Energy's Mass customer base is made up of approximately 1.5 million residential and small business customers in the ERCOT market with more than half located in the Houston area. Reliant Energy also serves customers in other competitive markets in ERCOT including the Dallas, Fort Worth, and Corpus Christi areas.

*C&I* Reliant Energy markets electricity and energy services to approximately 0.1 million C&I customers in Texas. These customers include refineries, chemical plants, manufacturing facilities, hospitals, universities, commercial real estate, government agencies, restaurants and other commercial facilities.



## Market Framework

In the ERCOT market, Reliant Energy is certified by the PUCT as a retail energy provider, or REP, to contract with end-users to sell electricity and provide other value enhancing services. In addition, Reliant Energy contracts with transmission and distribution service providers, or TDSPs, to arrange for transportation to the customer. Reliant Energy activities in Texas are subject to standards and regulations adopted by the PUCT and ERCOT. Reliant Energy operates within the same ERCOT market as the Company's Texas region. For further discussion of the Texas market framework, which includes overall market structure in addition to items specific to the generation business, see Texas region Market Framework discussion, below.

For further discussion of the Company's Reliant Energy operations, see Item 14 Note 3, *Business Acquisitions*, to the Consolidated Financial Statements.

## TEXAS

NRG's largest business segment is located in Texas and is comprised of investments in generation facilities located in the physical control areas of the ERCOT market. As of December 31, 2009, NRG's generation assets in the Texas region consisted of approximately 5,355 MW of baseload generation assets, approximately 345 MW of intermittent wind generation assets, excluding partner interests of 75 MW, in addition to approximately 5,640 MW of intermediate and peaking natural gas-fired assets. NRG realizes a substantial portion of its revenue and cash flow from the sale of power from the Company's three baseload power plants located in the ERCOT market that use solid-fuel: W.A. Parish which uses coal, Limestone which use lignite and coal, and an undivided 44% interest in two nuclear generating units at STP. In addition, in June 2009, NRG completed construction and began commercial operations of the 520 MW Cedar Bayou 4 natural gas-fueled combined cycle generating plant at NRG's Cedar Bayou Generating Station in Chambers County, Texas, of which NRG holds a 50% undivided interest. Also in 2009, NRG completed construction and began commercial operations of the 150 MW Langford wind farm located in west Texas. Both Cedar Bayou 4 and Langford are located in the ERCOT market. Power plants are generally dispatched in order of lowest operating cost and as of December 2009, approximately 59% of the net generation capacity in the ERCOT market was natural gas-fired. Generally, NRG's three solid-fuel baseload facilities and three wind farms have significantly lower operating costs than natural gas plants. NRG expects these three solid-fuel facilities to operate the majority of the time when available, subject to planned and forced outages.

## Operating Strategy

NRG's operating strategy to maximize value and opportunity across these assets is to (i) ensure the availability of the baseload plants to fulfill their commercial obligations under long-term forward sales contracts already in place; (ii) manage the natural gas assets for profitability while ensuring the reliability and flexibility of power supply to the Houston market; (iii) take advantage of the skill sets and market or regulatory knowledge to grow the business through incremental capacity uprates and repowering development of solid-fuel baseload and gas-fired units; and (iv) play a leading role in the development of the ERCOT market by active membership and participation in market and regulatory issues.

NRG's strategy is to sell forward a majority of its solid-fuel baseload capacity in the ERCOT market under long-term contracts or to enter into hedges by using natural gas as a proxy for power prices. Accordingly, the Company's primary focus will be to keep these solid-fuel baseload units running efficiently. With respect to gas-fired assets, NRG will continue contracting forward a significant portion of gas-fired capacity one to two years out while holding a portion for back-up in case there is an operational issue with one of the baseload units and to provide upside for expanding heat rates. For the gas-fired capacity sold forward, the Company will offer a range of products specific to customers

needs. For the gas-fired capacity that NRG will continue to sell commercially into the market, the Company will focus on making this capacity available to the market whenever it is economical to run.

The generation performance by fuel-type for the recent three-year period is as shown below:

|                        | Net Generation        |        |        |
|------------------------|-----------------------|--------|--------|
|                        | 2009                  | 2008   | 2007   |
|                        | (In thousands of MWh) |        |        |
| Coal                   | 30,023                | 32,825 | 32,648 |
| Gas <sup>(a)</sup>     | 5,224                 | 4,647  | 5,407  |
| Nuclear <sup>(b)</sup> | 9,396                 | 9,456  | 9,724  |
| Wind                   | 350                   | 9      |        |
| Total                  | 44,993                | 46,937 | 47,779 |

(a) MWh information reflects the undivided interest in total MWh generation from Cedar Bayou 4 beginning June 2009.

(b) MWh information reflects the undivided interest in total MWh generated by STP.

### Generation Facilities

As of December 31, 2009, NRG's generation facilities in Texas consisted of approximately 11,340 MW of generation capacity. The following table describes NRG's electric power generation plants and generation capacity as of December 31, 2009:

| Plant                                     | Location          | % Owned | Net Generation Capacity (MW) <sup>(c)</sup> | Primary Fuel-type |
|---|-------------------|---------|---|-------------------|
| <b>Solid-Fuel Baseload Units:</b>         |                   |         |   |                   |
| W. A. Parish <sup>(a)</sup>               | Thompsons, TX     | 100.0   | 2,490                                       | Coal              |
| Limestone                                 | Jewett, TX        | 100.0   | 1,690                                       | Lignite/Coal      |
| South Texas Project <sup>(b)</sup>        | Bay City, TX      | 44.0    | 1,175                                       | Nuclear           |
| Total Solid-Fuel Baseload                 |                   |         | 5,355                                       |                   |
| <b>Intermittent Units:</b>                |                   |         |   |                   |
| Elbow Creek                               | Howard County, TX | 100.0   | 120   | Wind              |
| Sherbino                                  | Pecos County, TX  | 50.0    | 75  | Wind              |
| Langford                                  | Christoval, TX    | 100.0   | 150   | Wind              |
| Total Intermittent Baseload               |                   |         | 345   |                   |
| <b>Operating Natural Gas-Fired Units:</b> |                   |         |   |                   |
| Cedar Bayou                               | Baytown, TX       | 100.0   | 1,495                                       | Natural Gas       |
| Cedar Bayou 4                             | Baytown, TX       | 50.0    | 260   | Natural Gas       |
| T. H. Wharton                             | Houston, TX       | 100.0   | 1,025                                       | Natural Gas       |
| W. A. Parish <sup>(a)</sup>               | Thompsons, TX     | 100.0   | 1,175                                       | Natural Gas       |
| S. R. Bertron                             | Deer Park, TX     | 100.0   | 765   | Natural Gas       |

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|                                   |             |       |        |             |
|-----------------------------------|-------------|-------|--------|-------------|
| Greens Bayou                      | Houston, TX | 100.0 | 760    | Natural Gas |
| San Jacinto                       | LaPorte, TX | 100.0 | 160    | Natural Gas |
| Total Operating Natural Gas-Fired |             |       | 5,640  |             |
| <b>Total Operating Capacity</b>   |             |       | 11,340 |             |

- (a) W. A. Parish has nine units, four of which are baseload coal-fired units and five of which are natural gas-fired units.
- (b) Generation capacity figure consists of the Company's 44.0% undivided interest in the two units at STP.
- (c) Actual capacity can vary depending on factors including weather conditions, operational conditions and other factors. The ERCOT requires periodic demonstration of capability, and the capacity may vary individually and in the aggregate from time to time.

The following is a description of NRG's most significant revenue generating plants in the Texas region:

*W.A. Parish* NRG's W.A. Parish plant is one of the largest fossil-fired plants in the U.S. based on total MWs of generation capacity. This plant's power generation units include four coal-fired steam generation units with an aggregate generation capacity of 2,490 MW as of December 31, 2009. Two of these units are 650 MW and 655 MW steam units that were placed in commercial service in December 1977 and December 1978, respectively. The other two units are 575 MW and 610 MW steam units that were placed in commercial service in June 1980 and December 1982, respectively. Each of the four coal-fired units have low-NO<sub>x</sub> burners and Selective Catalytic Reduction

systems, or SCRs, installed to reduce NO<sub>x</sub> emissions and baghouses to reduce particulates. In addition, W.A. Parish Unit 8 has a scrubber installed to reduce SO<sub>2</sub> emissions.

*Limestone* NRG's Limestone plant is a lignite and coal-fired plant located approximately 140 miles northwest of Houston. This plant includes two steam generation units with an aggregate generation capacity of 1,690 MW as of December 31, 2009. The first unit is an 830 MW steam unit that was placed in commercial service in 1985. The second unit is an 860 MW steam unit that was placed in commercial service in December 1986. Limestone burns lignite from an adjacent mine, but also burns low sulfur coal and petroleum coke. This serves to lower average fuel costs by eliminating fuel transportation costs, which can represent up to two-thirds of delivered fuel costs for plants of this type. Both units have installed low-NO<sub>x</sub> burners to reduce NO<sub>x</sub> emissions and scrubbers to reduce SO<sub>2</sub> emissions.

The lignite used to fuel the Texas region's Limestone facility is obtained from a surface mine, or the Jewett mine, adjacent to the Limestone facility under a long-term contract with Texas Westmoreland Coal Co., or TWCC. The contract is based on a cost-plus arrangement with incentives and penalties to ensure proper management of the mine. NRG has the flexibility to increase or decrease lignite purchases with adequate notice. The mining period was extended through 2018 with an option to extend the mining period by two five-year intervals. The agreement ensures lignite supply to NRG and confirms NRG's responsibility for the final reclamation at the mine. Subject to the terms of the contract, NRG has the ability to step in and operate the mine under certain circumstances.

*STP Electric Generating Station* STP is one of the newest and largest nuclear-powered generation plants in the U.S. based on total megawatts of generation capacity. This plant is located approximately 90 miles south of downtown Houston, near Bay City, Texas and consists of two generation units each representing approximately 1,335 MW of generation capacity. STP's two generation units commenced operations in August 1988 and June 1989, respectively. For the year ended December 31, 2009, STP had a zero percent forced outage rate and a 98% net capacity factor.

STP is currently owned as a tenancy in common between NRG and two other co-owners. NRG owns a 44%, or approximately 1,175 MW, interest in STP, the City of San Antonio owns a 40% interest and the City of Austin owns the remaining 16% interest. Each co-owner retains its undivided ownership interest in the two nuclear-fueled generation units and the electrical output from those units. Except for certain plant shutdown and decommissioning costs and United States Nuclear Regulatory Commission, or NRC, licensing liabilities, NRG is severally liable, but not jointly liable, for the expenses and liabilities of STP. The four original co-owners of STP organized STPNOC to operate and maintain STP. STPNOC is managed by a board of directors composed of one director appointed by each of the three co-owners, along with the chief executive officer of STPNOC. STPNOC is the NRC-licensed operator of STP. No single owner controls STPNOC and most significant commercial as well as asset investment decisions for the existing units must be approved by two or more owners who collectively control more than 60% of the interests.

The two STP generation units operate under licenses granted by the NRC that expire in 2027 and 2028, respectively. These licenses may be extended for additional 20-year terms if the project satisfies NRC requirements. Adequate provisions exist for long-term on-site storage of spent nuclear fuel throughout the remaining life of the existing STP plant licenses.

## Market Framework

The ERCOT market is one of the nation's largest and historically fastest growing power markets. It represents approximately 85% of the demand for power in Texas and covers the entire state, with the exception of the far west (El Paso), a large part of the Texas Panhandle, and two small areas in the eastern part of the state. For 2009, hourly demand ranged from a low of 21,350 MW to a high of 63,534 MW. The ERCOT market has limited interconnections compared to other markets in the U.S. currently limited to 1,086 MW of generation capacity, and wholesale transactions within the ERCOT market are not subject to regulation by the Federal Energy Regulatory Commission, or

FERC. Any wholesale producer of power that qualifies as a power generation company under the Texas electric restructuring law and that accesses the ERCOT electric power grid is allowed to sell power in the ERCOT market at unregulated rates.

As of December 2009, installed generation capacity of approximately 84,000 MW existed in the ERCOT market, including 3,000 MW of generation that has suspended operations, or been mothballed. Natural gas-fired generation represents approximately 50,000 MW, or 59%. Approximately 24,000 MW, or 29%, was lower marginal cost generation capacity such as coal, lignite and nuclear plants. NRG's coal and nuclear fuel baseload plants represent approximately 5,355 MW net, or 22%, of the total solid-fuel baseload net generation capacity in the ERCOT market. Additionally, NRG commenced commercial operations of the 520 MW Cedar Bayou 4 natural gas-fueled combined cycle generating plant at NRG's Cedar Bayou Generating Station in Chambers County, Texas, of which NRG holds a 50% undivided interest. Also in 2009, NRG commenced commercial operations of the 150 MW Langford wind farm located in west Texas. Both Cedar Bayou 4 and Langford are located in the ERCOT market.

The ERCOT market has established a target equilibrium reserve margin level of approximately 12.5%. The reserve margin for 2009 was 16.8% forecast to increase to 21.8% for 2010 per ERCOT's latest Capacity Demand and Reserve Report. There are currently plans being considered by the PUCT to build a significant amount of transmission from west Texas and continuing across the state to enable wind generation to reach load. The ultimate impact on the reserve margin and wholesale dynamics from these plans are unknown.

In the ERCOT market, buyers and sellers enter into bilateral wholesale capacity, power and ancillary services contracts or may participate in the centralized ancillary services market, including balancing energy, with the ERCOT administrators. Published in August 2009, the 2008 State of the Market Report for the ERCOT Wholesale Electricity Markets from the Independent Market Monitor indicated that natural gas is typically the marginal fuel in the ERCOT market. As a result of NRG's lower marginal cost for baseload coal and nuclear generation assets, the Company expects these ERCOT assets to generate power the majority of the time they are available.

The ERCOT market is currently divided into four regions or congestion zones, namely: North, Houston, South and West, which reflect transmission constraints that are commercially significant and which have limits as to the amount of power that can flow across zones. NRG's W.A. Parish plant, STP and all its natural gas-fired plants are located in the Houston zone. NRG's Limestone plant is located in the North zone while the Elbow Creek, Langford, and Sherbino wind farms are located in the West Zone.

The ERCOT market operates under the reliability standards set by the North American Electric Reliability Council. The PUCT has primary jurisdiction over the ERCOT market to ensure the adequacy and reliability of power supply across Texas's main interconnected power transmission grid. The ERCOT is responsible for facilitating reliable operations of the bulk electric power supply system in the ERCOT market. Its responsibilities include ensuring that power production and delivery are accurately accounted for among the generation resources and wholesale buyers and sellers. Unlike power pools with independent operators in other regions of the country, the ERCOT market is not a centrally dispatched power pool and the ERCOT does not procure power on behalf of its members other than to maintain the reliable operations of the transmission system. The ERCOT also serves as an agent for procuring ancillary services for those who elect not to provide their own ancillary services.

Power sales or purchases from one location to another may be constrained by the power transfer capability between locations. Under the current ERCOT protocol, the commercially significant constraints and the transfer capabilities along these paths are reassessed every year and congestion costs are directly assigned to those parties causing the congestion. This has the potential to increase power generators' exposure to the congestion costs associated with transferring power between zones.

The PUCT has adopted a rule directing the ERCOT to develop and to implement a wholesale market design that, among other things, includes a day-ahead energy market and replaces the existing zonal wholesale market design with a nodal market design that is based on Locational Marginal Prices, or LMP, for power. See also Regional Regulatory Developments - Texas Region. One of the stated purposes of the proposed market restructuring is to reduce local

(intra-zonal) transmission congestion costs. The market redesign project is now proposed to take effect in December 2010. NRG expects that implementation of any new market design will require modifications to its existing procedures and systems.



**NORTHEAST**

NRG's second largest asset base is located in the Northeast region of the U.S. with generation assets within the control areas of the New York Independent System Operator, or NYISO, the Independent System Operator - New England, or ISO-NE, and the PJM. As of December 31, 2009, NRG's generation assets in the Northeast region consisted of approximately 1,870 MW of baseload generation assets and approximately 5,145 MW of intermediate and peaking assets.

**Operating Strategy**

The Northeast region's strategy is focused on optimizing the value of NRG's broad and varied generation portfolio in the three interconnected and actively traded competitive markets: the NYISO, the ISO-NE and the PJM. In the Northeast markets, load-serving entities generally lack their own generation capacity, with much of the generation base aging and the current ownership of the generation highly disaggregated. Thus, commodity prices are more volatile on an as-delivered basis than in other NRG regions due to the distance and occasional physical constraints that impact the delivery of fuel into the region. In this environment, NRG seeks both to enhance its ability to be the low cost wholesale generator capable of delivering wholesale power to load centers within the region from multiple locations using multiple fuel sources, and to be properly compensated for delivering such wholesale power and related services.

The generation performance by fuel-type for the recent three-year period is as shown below:

|       | <b>Net Generation</b>        |             |             |
|-------|------------------------------|-------------|-------------|
|       | <b>2009</b>                  | <b>2008</b> | <b>2007</b> |
|       | <b>(In thousands of MWh)</b> |             |             |
| Coal  | 7,945                        | 11,506      | 11,527      |
| Oil   | 134                          | 349         | 1,169       |
| Gas   | 1,141                        | 1,494       | 1,467       |
| Total | 9,220                        | 13,349      | 14,163      |

Certain of the Northeast region assets are located in or near load centers and inside transmission constraints such as New York City, southwestern Connecticut and the Delmarva Peninsula. Assets in these areas tend to attract higher capacity revenues and higher energy revenues and thus present opportunities for repowering these sites. The Company has benefited from the introduction of capacity market reforms in both the New England Power Pool, or NEPOOL, and PJM. The Locational Forward Reserve Markets, or LFRM, in the NEPOOL, became effective October 1, 2006, and the transition capacity payments preceding the Forward Capacity Market, or FCM, were effective December 1, 2006. In all seven LFRM auctions to date, the market has cleared at the administratively set price of \$14/kw month reflecting the shortage of peaking generation especially in the Connecticut zone. The LFRM and interim capacity payments serve as a prelude to the full implementation of the FCM which begins June 1, 2010. PJM's Reliability Pricing Model, or RPM, became effective June 1, 2007, and the Company has participated in auctions providing capacity price certainty through May 2012.

**RMR Agreements** Certain of the Northeast region's Connecticut assets have been designated as required to be available to ensure reliability to ISO-NE. These assets are subject to RMR agreements, which are contracts under which NRG agrees to maintain its facilities to be available to run when needed, and are paid to provide these

capability services based on the Company's costs. During 2009, Middletown, Montville and Norwalk Power (Units 1 and 2) were covered by RMR agreements. Unless terminated earlier, these agreements will terminate on June 1, 2010, which coincides with the commencement of the FCM in NEPOOL.

**Generation Facilities**

As of December 31, 2009, NRG's generation facilities in the Northeast region consisted of approximately 7,015 MW of generation capacity and are summarized in the table below:

| <b>Plant</b>                  | <b>Location</b>      | <b>% Owned</b> | <b>Net<br/>Generation<br/>Capacity<br/>(MW) <sup>(c)</sup></b> | <b>Primary<br/>Fuel-type</b> |
|-------------------------------|----------------------|----------------|--|------------------------------|
| Oswego                        | Oswego, NY           | 100.0          | 1,635  | Oil                          |
| Arthur Kill                   | Staten Island, NY    | 100.0          | 865  | Natural Gas                  |
| Middletown                    | Middletown, CT       | 100.0          | 770  | Oil                          |
| Indian River <sup>(b)</sup>   | Millsboro, DE        | 100.0          | 740  | Coal                         |
| Astoria Gas Turbines          | Queens, NY           | 100.0          | 550  | Natural Gas                  |
| Huntley                       | Tonawanda, NY        | 100.0          | 380  | Coal                         |
| Dunkirk                       | Dunkirk, NY          | 100.0          | 530  | Coal                         |
| Montville                     | Uncasville, CT       | 100.0          | 500  | Oil                          |
| Norwalk Harbor                | So. Norwalk, CT      | 100.0          | 340  | Oil                          |
| Devon                         | Milford, CT          | 100.0          | 135  | Natural Gas                  |
| Vienna                        | Vienna, MD           | 100.0          | 170  | Oil                          |
| Somerset Power <sup>(a)</sup> | Somerset, MA         | 100.0          | 125  | Coal                         |
| Connecticut Remote Turbines   | Four locations in CT | 100.0          | 145  | Oil/Natural Gas              |
| Conemaugh                     | New Florence, PA     | 3.7            | 65   | Coal                         |
| Keystone                      | Shelockta, PA        | 3.7            | 65   | Coal                         |
| <b>Total Northeast Region</b> |                      |                | <b>7,015</b>   |                              |

- (a) In 2003, Somerset entered into an agreement with the Massachusetts Department of Environmental Protection, or MADEP, to retire or repower 100MW Unit 6, the remaining coal-fired unit at Somerset, by the end of 2009. In connection with a repowering proposal approved by the MADEP, the date for the shut-down of the unit was extended to September 30, 2010. Subsequently, NRG requested of ISO-NE that it be allowed to place Unit 6 on deactivated reserve effective January 2, 2010, in advance of the required shut-down date. On December 21, 2009, ISO-NE granted NRG's request.
- (b) Indian River Unit 2 will be retired May 1, 2010 and Indian River Unit 1 will be retired May 1, 2011. In addition, NRG and DNREC announced a proposed plan, subject to definitive documentation, that would shut down Indian River Unit 3 by December 31, 2013.
- (c) Actual capacity can vary depending on factors including weather conditions, operational conditions and other factors.

The table below reflects the plants and relevant capacity revenue sources for the Northeast region:

**Sources of  
Capacity Revenue:  
Market Capacity,  
RMR and Tolling**

| <b>Region, Market and Facility</b> | <b>Zone</b> | <b><u>Arrangements</u></b> |
|------------------------------------|-------------|----------------------------|
| <b>Northeast Region:</b>           |             |                            |
| NEPOOL (ISO-NE):                   |             |                            |
| Devon                              | SWCT        | LFRM/FCM                   |
| Connecticut Jet Power              | SWCT        | LFRM/FCM                   |
| Montville                          | CT ROS      | RMR <sup>(a)</sup> /FCM    |
| Somerset                           | SE MASS     | LFRM/FCM                   |
| Middletown                         | CT ROS      | RMR <sup>(a)</sup> /FCM    |
| Norwalk Harbor                     | SWCT        | RMR <sup>(a)</sup> /FCM    |
| PJM:                               |             |                            |
| Indian River                       | PJM East    | DPL South                  |
| Vienna                             | PJM East    | DPL South                  |
| Conemaugh                          | PJM West    | PJM MAAC                   |
| Keystone                           | PJM West    | PJM MAAC                   |
| New York (NYISO):                  |             |                            |
| Oswego                             | Zone C      | UCAP ROS                   |
| Huntley                            | Zone A      | UCAP ROS                   |
| Dunkirk                            | Zone A      | UCAP ROS                   |
| Astoria Gas Turbines               | Zone J      | UCAP NYC                   |
| Arthur Kill                        | Zone J      | UCAP NYC                   |

- (a) Per the terms of the RMR agreement, any FCM transition capacity payments are offset against approved RMR payment. RMR agreements will expire June 1, 2010, the first day of the First Installed Capacity Commitment Period of the FCM.

The following is a description of NRG's most significant revenue generating plants in the Northeast region:

*Arthur Kill* NRG's Arthur Kill plant is a natural gas-fired power plant consisting of three units and is located on the west side of Staten Island, New York. The plant produces an aggregate generation capacity of 865 MW from two intermediate load units (Units 20 and 30) and one peak load unit (Unit GT-1). Unit 20 produces an aggregate generation capacity of 350 MW and was installed in 1959. Unit 30 produces an aggregate generation capacity of 505 MW and was installed in 1969. Both Unit 20 and Unit 30 were converted from coal-fired to natural gas-fired facilities in the early 1990s. Unit GT-1 produces an aggregate generation capacity of 10 MW and is activated when Consolidated Edison issues a maximum generation alarm on hot days and during thunderstorms.

*Astoria Gas Turbine* Located in Astoria, Queens, New York, the NRG Astoria Gas Turbine facility occupies approximately 15 acres within the greater Astoria Generating complex which includes several competing generating facilities. NRG's Astoria Gas Turbine facility has an aggregate generation capacity of approximately 550 MW from 19 operational combustion turbine generators classified into three types of turbines. The first group consists of 12 gas-fired Pratt & Whitney GG-4 Twin Packs in Buildings 2, 3 and 4, which have a net generation capacity of 145 MW per building. The second group consists of Westinghouse Industrial Combustion Turbines #191A in Buildings 5, 7 and 8 that fire on liquid distillate with a net generation capacity of approximately 12 MW per building. The third group consists of Westinghouse Industrial Gas Turbines #251GG located in Buildings 10, 11, 12 and 13 and fire on liquid distillate with a net generation capacity of 20 MW per building. The Astoria units also supply Black Start Service to the NYISO. The site also contains tankage for distillate fuel with a capacity of 86,000 barrels.

*Dunkirk* The Dunkirk plant is a coal-fired plant located on Lake Erie in Dunkirk, New York. This plant produces an aggregate generation capacity of 530 MW from four baseload units. Units 1 and 2 produce up to 75 MW each and were put in service in 1950, and Units 3 and 4 produce approximately 190 MW each and were put in service in 1959 and 1960, respectively. In a settlement agreement reached with the New York Department of Environmental Conservation, or NYSDEC, in January 2005, NRG committed to reducing SO<sub>2</sub> emissions from Dunkirk and Huntley stations by 86.8% below baseline emissions of 107,144 by 2013 and NO<sub>x</sub> emissions by 80.9% below baseline emission of 17,005 by 2012. In order to comply with the NYSDEC settlement agreement, as well as with various federal and state emissions standards, the Company installed back-end control facilities at Dunkirk in 2009. All units have returned to service and the fabric filters are functioning as designed.

*Huntley* The Huntley plant is a coal-fired plant consisting of six units and is located in Tonawanda, New York, approximately three miles north of Buffalo. The plant has a net generation capacity of 380 MW from two baseload units (Units 67 and 68). Units 67 and 68 generate a net capacity of approximately 190 MW each, and were put in service in 1957 and 1958, respectively. Units 63 and 64 are inactive and were officially retired in May 2006. To comply with the January 2005 NYSDEC settlement agreement referenced above, NRG retired Units 65 and 66 effective June 3, 2007, and in January 2009, Huntley Units 67 and 68 fabric filters were placed in service and they are functioning as designed.

*Indian River* The Indian River Power plant is a coal-fired plant located in southern Delaware on a 1,170 acre site. The plant consists of four coal-fired electric steam units (Units 1 through 4) and one 15 MW combustion turbine, bringing total plant capacity to approximately 740 MW. Units 1 and 2 are each 80 MW of capacity and were placed in service in 1957 and 1959, respectively. Unit 3 is 155 MW of capacity and was placed in service in 1970, while Unit 4 is 410 MW of capacity and was placed in service in 1980. Units 1, 2, 3 and 4 are equipped with selective non-catalytic reduction systems, for the reduction of NO<sub>x</sub> emissions. All four units are equipped with electrostatic precipitators to remove fly ash from the flue gases as well as low NO<sub>x</sub> burners with over fired air to control NO<sub>x</sub> emissions and activated carbon injection systems to control mercury. Units 1, 2 and 3 are fueled with eastern bituminous coal, while Unit 4 is fueled with low sulfur compliance coal. Pursuant to a consent order dated September 25, 2007, between

NRG and the Delaware Department of Natural Resources and Environmental Control, or DNREC, NRG agreed to operate the units in a manner that would limit the emissions of NO<sub>x</sub>, SO<sub>2</sub> and mercury. Further, the Company agreed to mothball unit 2 by May 1, 2010, and unit 1 by May 1, 2011, and has notified PJM of the plan to mothball these units. In the absence of the appropriate control technology installed at this facility, Units 3 and 4 totaling approximately 565 MW, could not operate beyond December 31, 2011, per terms of the consent order. On February 3, 2010, the Company together with DNREC announced a proposed plan to retire the

155 MW unit 3 by December 31, 2013. The plan, subject to definitive documentation, extends the operable period of the plant two years beyond the December 31, 2011 date and avoids the incremental cost of control technology. The 410 MW unit 4 is not affected by this proposal, and in 2009, the Company began construction to install selective catalytic reduction systems, scrubbers and fabric filters on this unit. These controls are scheduled to be operational at the end of 2011.

## **Market Framework**

Although each of the three Northeast Independent Systems Operators, or ISOs, and their respective energy markets are functionally, administratively and operationally independent, they all follow, to a certain extent, similar market designs. Each ISO dispatches power plants to meet system energy and reliability needs, and settles physical power deliveries at LMPs which reflect the value of energy at a specific location at the specific time it is delivered. This value is determined by an ISO-administered auction process, which evaluates and selects the least costly supplier offers or bids to create a reliable and least-cost dispatch. The ISO-sponsored LMP energy markets consist of two separate and characteristically distinct settlement time-frames. The first time-frame is a financially firm, day-ahead unit commitment market. The second time-frame is a financially settled, real-time dispatch and balancing market. Prices paid in these LMP energy markets, however, are affected by, among other things, market mitigation measures, which can result in lower prices associated with certain generating units that are mitigated because they are deemed to have locational market power.

## ***SOUTH CENTRAL***

NRG is the third largest generator in the South Central region of the U.S. with generation assets within the control areas of the Southeastern Electric Reliability Council/Entergy, or SERC-Entergy, region. As of December 31, 2009, the Company's generation assets in Louisiana consist of its primary asset, Big Cajun II, a coal-fired plant located near Baton Rouge, Louisiana which has approximately 1,495 MW of baseload capacity and 905 MW of intermediate and peaking assets. A significant portion of the region's generation capacity has been sold to ten cooperatives within the region through 2026. From time to time, the Company may contract for intermediate generation capacity to support its load obligations. In addition, the region also operates 455 MW of peaking generation in Rockford, Illinois under the PJM region.

The South Central region lacks a regional transmission organization, or RTO, and, therefore, remains a bilateral market, which is not able to take advantage of the large scale economic dispatch of an ISO-administered energy market. NRG operates the LaGen Control Area which encompasses the generating facilities and the Company's cooperative load. As a result, the LaGen control area is capable of providing control area services, in addition to wholesale power, that allows NRG to provide full requirement services to load-serving entities, thus making the LaGen Control Area a competitive alternative to the integrated utilities operating in the region.

## **Operating Strategy**

The South Central region maximizes its strategic position as a significant coal-fired generator in a market that is highly dependent on natural gas for power generation. South Central also has long-term full service contracts with ten rural cooperatives serving load across Louisiana and makes incremental wholesale energy sales when its coal-fired capacity exceeds the cooperative contract requirements. The South Central region works to expand its customer base within and beyond Louisiana and works within the confines of the Entergy Transmission System to obtain paths for incremental sales as well as secure transmission service for long-term sales or expansions.

The generation performance by fuel-type for the recent three-year period is as shown below:

|       | <b>Net Generation</b>        |             |             |
|-------|------------------------------|-------------|-------------|
|       | <b>2009</b>                  | <b>2008</b> | <b>2007</b> |
|       | <b>(In thousands of MWh)</b> |             |             |
| Coal  | 10,235                       | 10,912      | 10,812      |
| Gas   | 163                          | 236         | 118         |
| Total | 10,398                       | 11,148      | 10,930      |



## Generation Facilities

NRG's generating assets in the South Central region consist primarily of its net ownership of power generation facilities in New Roads, Louisiana, which is referred to as Big Cajun II, and also includes the Sterlington, Rockford, Bayou Cove and Big Cajun peaking facilities.

NRG's power generation assets in the South Central region as of December 31, 2009, are summarized in the table below:

| Plant                               | Location        | % Owned | Net Generation Capacity (MW) <sup>(b)</sup> | Primary Fuel type |
|-------------------------------------|-----------------|---------|---|-------------------|
| Big Cajun II <sup>(a)</sup>         | New Roads, LA   | 86.0    | 1,495                                       | Coal              |
| Bayou Cove                          | Jennings, LA    | 100.0   | 300   | Natural Gas       |
| Big Cajun I (Peakers) Units 3 and 4 | Jarreau, LA     | 100.0   | 210   | Natural Gas       |
| Big Cajun I Units 1 and 2           | Jarreau, LA     | 100.0   | 220   | Natural Gas/Oil   |
| Rockford I                          | Rockford, IL    | 100.0   | 300   | Natural Gas       |
| Rockford II                         | Rockford, IL    | 100.0   | 155   | Natural Gas       |
| Sterlington                         | Sterlington, LA | 100.0   | 175   | Natural Gas       |
| <b>Total South Central</b>          |                 |         | <b>2,855</b>                                |                   |

(a) NRG owns 100% of Units 1 & 2; 58% of Unit 3.

(b) Actual capacity can vary depending on factors including weather conditions, operational conditions and other factors.

*Big Cajun II* NRG's Big Cajun II plant is a coal-fired, sub-critical baseload plant located along the banks of the Mississippi River, near Baton Rouge, Louisiana. This plant includes three coal-fired generation units (Units 1, 2 and 3) with an aggregate generation capacity of 1,745 MW. The plant uses coal supplied from the Powder River Basin and was commissioned between 1981 and 1983. NRG owns 100% of Units 1 and 2 and a 58% undivided interest in Unit 3 for an aggregate owned capacity of 1,495 MW of the plant. All three units have been upgraded with advanced low-NO<sub>x</sub> burners and overfire air systems.

## Market Framework

NRG's assets in the South Central region are located within the franchise territories of vertically integrated utilities, primarily Entergy Corp., or Entergy. In the South Central region, all power sales and purchases are consummated bilaterally between individual counterparties. Transacting counterparties are required to procure transmission service from the relevant transmission owners at their FERC-approved tariff rates.

As of December 31, 2009, NRG had long-term all-requirements contracts with ten Louisiana distribution cooperatives with initial terms ranging from ten to twenty-five years. Of the ten contracts, seven expire in 2025 and account for 50% of the contract load, while the remaining three expire in 2014 and comprise 40% of contract load. In addition to earning energy revenues from these cooperative agreements, NRG also earns capacity revenues which are tied to summer peak demand as well as provide a mechanism for recovering a portion of the costs for mandated environmental projects over the remaining life of the contract. During 2009, NRG successfully executed

all-requirements contracts with three Arkansas municipalities with service start dates as early as mid-year 2010. These new contracts account for over 500 MW of total load obligations for NRG and the South Central region, more than offsetting the South Central region's reduction in load in 2009 due to the expiration of a Louisiana distribution cooperative contract. In addition, NRG also has certain long-term contracts with the Municipal Energy Agency of Mississippi, Mississippi Delta Energy Agency, South Mississippi Electric Power Association, and Southwestern Electric Power Company, which collectively comprised an additional 10% of the region's contract load requirement.

During limited peak demand periods, the load requirements of these contract customers exceed the baseload capacity of NRG's coal-fired Big Cajun II plant. During such peak demand periods, NRG either employs its owned or leased gas-fired assets or purchases power from external sources, depending upon the then-current gas commodity pricing, and these purchases can be at higher prices than can be recovered under the Company's contracts. NRG has to date successfully mitigated the risk of these peak contract load requirements by contracting for new large industrial or municipal loads outside contract pricing at market rates. Also, to minimize this risk during the peak summer and winter seasons, the Company has been successful in entering into structured agreements to reduce or eliminate the need for spot market purchases.

## **WEST**

NRG's generation assets in the West region of the U.S. are primarily located in the California Independent System Operator, or CAISO, control area. The West region's generation assets currently consists of the Long Beach Generating Station, the El Segundo Generating Station, the Encina Generating Station and Cabrillo II, which consists of 12 combustion turbines located in San Diego County. The Company's generation assets in the West region are predominately intermediate and peaking duty natural gas-fired plants located in southern California. In addition, the region owns a 50% interest in the Saguaro power plant which is a 90 MW baseload, gas-fired plant located in Nevada and a 20 MW photovoltaic solar facility located in southern California.

### **Operating Strategy**

NRG's West region strategy is focused on maximizing the cash flow and value associated with its generating plants and the development of renewable and repowering projects that leverage off of existing capabilities, assets and sites, as well as the preservation and ultimate realization of the commercial value of the underlying real estate. There are four principal components to this strategy: (i) capturing the value of the portfolio's generation assets through a combination of forward contracts and market sales of capacity, energy, and ancillary services; (ii) leveraging existing site control and emission allowances to permit new, more efficient generating units at existing sites; (iii) developing renewable project opportunities that are positioned to compete for long-term contracts offered by load serving entities; and (iv) optimizing the value of the region's coastal property for other purposes.

The Company's Encina Generating Station has sold all energy and capacity, 965 MW in the aggregate, to a load-serving entity through 2010, on a tolling basis, and recovers its operating costs plus a capacity payment. For calendar year 2009, El Segundo station entered into 548 MWs of RA capacity contracts and placed the capacity in the market through a portfolio of forward contracts. For calendar year 2010, El Segundo station entered into 335 MWs of RA capacity contracts and retained its rights to sell energy and ancillary services into the market. Cabrillo II sold 188 MW of RA capacity for calendar year 2009 and 2010, and 88 MW for the period January 1, 2011 through November 30, 2013. Units with RA contracts also sell into energy and ancillary services markets consistent with unit availability.

The Saguaro power plant is located in Henderson, Nevada, and is contracted to NV Energy (formerly Nevada Power) and two steam hosts. The Saguaro plant is contracted to NV Energy through 2022, one steam host, Olin (formerly known as Pioneer), whose contract was extended in 2009 for an additional two years, and a steam off-taker, Ocean Spray, whose contract runs through 2015. Saguaro Power Company, LP, the project company, procures fuel in the open market. NRG manages its share of any fuel price risk through NRG's commodity price risk strategy.

On November 20, 2009, NRG, through its wholly owned subsidiary NRG Solar LLC, acquired Blythe Solar from First Solar, Inc. On December 18, 2009, construction was completed and commercial operation began for the 20 MW utility-scale photovoltaic, or PV, solar facility located in Riverside County in southeastern California. The Blythe Solar PV field will provide electricity to Southern California Edison, or SCE, under a 20-year Power Purchase Agreement, or PPA. First Solar will operate and maintain the solar facility under contract.

### **Generation Facilities**

NRG's power generation assets in the West region as of December 31, 2009, are summarized in the table below:

**Net**

| <b>Plant</b>             | <b>Location</b> | <b>% Owned</b> | <b>Generation Capacity (MW) <sup>(a)</sup></b> | <b>Primary Fuel-type</b> |
|--------------------------|-----------------|----------------|--|--------------------------|
| Encina                   | Carlsbad, CA    | 100.0          | 965  | Natural Gas              |
| El Segundo               | El Segundo, CA  | 100.0          | 670  | Natural Gas              |
| Long Beach               | Long Beach, CA  | 100.0          | 260  | Natural Gas              |
| Cabrillo II              | San Diego, CA   | 100.0          | 190  | Natural Gas              |
| Saguaro                  | Henderson, NV   | 50.0           | 45   | Natural Gas              |
| Blythe Solar             | Blythe, CA      | 100.0          | 20   | Solar                    |
| <b>Total West Region</b> |                 |                | 2,150  |                          |

(a) Actual capacity can vary depending on factors including weather conditions, operational conditions and other factors.

The table below reflects the plants and relevant capacity revenue sources for the West region:

| Region, Market and Facility | Zone  | Sources of Capacity Revenue: Market Capacity, RMR and Tolling Arrangements |
|-----------------------------|-------|--|
| <b>West Region:</b>         |       |  |
| California (CAISO):         |       |  |
| Encina                      | CAISO | Toll (a)   |
| Cabrillo II                 | CAISO | RA Capacity (b)  |
| El Segundo Power            | CAISO | RA Capacity (c)  |
| Long Beach                  | CAISO | Toll(d)  |
| Blythe                      | CAISO | Toll (e)   |

(a) Toll expires December 31, 2010.

(b) The RMR agreement covering 160 MW expired on 12/31/2008 and was replaced by RA contracts covering the entire Cabrillo II portfolio during 2009 (RA contracts for 88 MW run through November 30, 2013).

(c) El Segundo includes approximately 670MW economic call option and 548 MW of RA contracts for 2009.

(d) NRG has purchased back energy and ancillary service value of the toll through July 31, 2011. Toll expires August 1, 2017.

(e) Blythe reached commercial operations on December 18, 2009 and sells all its energy under a 20-year PPA.

The following are descriptions of the Company's most significant revenue generating plants in the West region:

**Encina** The Encina Station is located in Carlsbad, California and has a combined generating capacity of 965 MW from five fossil-fuel steam-electric generating units and one combustion turbine. The five fossil-fuel steam-electric units provide intermediate load services and use natural gas. Also located at the Encina Station is a combustion turbine that provides peaking and black-start services of 15 MW. Units 1, 2 and 3 each have a generation capacity of approximately 107 MW and were installed in 1954, 1956 and 1958, respectively. Units 4 and 5 have a generation capacity of approximately 300 MW and 330 MW respectively, and were installed in 1973 and 1978. The combustion turbine was installed in 1966. Low NO<sub>x</sub> burner modifications and Selective Catalytic Reduction, or SCR, equipment have been installed on all the steam units.

**El Segundo** The El Segundo plant is located in El Segundo, California and produces an aggregate generation capacity of 670 MW from two gas-fired intermediate load units (Units 3 and 4). These units, which have a generation capacity of 335 MW each, were installed in 1964 and 1965, respectively. SCR equipment has been installed on Units 3 and 4.

**Long Beach** On August 1, 2007, the Company successfully completed and commissioned the repowering of 260 MW of gas-fired generating capacity at its Long Beach Generating Station. Generation from Long Beach provides needed support for the summer peak and during transmission contingencies to load serving entities and the CAISO. This project is backed by a 10-year PPA executed with SCE in November 2006 and effective through July 31, 2017. The new generation consists of refurbished gas turbines with SCR equipment.

**Cabrillo II** Cabrillo II consists of 12 combustion turbines located on 4 sites throughout San Diego County with an aggregate generating capacity of approximately 190 MW. The combustion turbines were installed between 1968 and 1972 and are operated under a license agreement with SDG&E through 2013. The combustion turbines provide

peaking services and serve a reliability function for the CAISO.

*Blythe Solar* Blythe Solar consists of a 20 MW utility-scale photovoltaic, or PV, solar facility located in Riverside County in southeastern California. The site uses approximately 350,000 photovoltaic solar modules that turn sunlight directly into electricity. The Blythe Solar site covers approximately 200 acres. The output of the facility is fully contracted to SCE under a 20-year PPA.

### **Market Framework**

Except for the Saguaro facility, NRG's generation assets in the West region operate within the balancing authority of CAISO. CAISO's current market allows NRG's CAISO assets to serve multiple load serving entities, or LSEs, and operates a nodal balancing market and congestion clearing mechanism. CAISO also has a locational capacity requirement, which requires LSEs to procure a significant portion of load from defined local reliability areas. All of NRG's CAISO assets are in the Los Angeles or San Diego local reliability areas. CAISO's new market,

known as Market Redesign and Technology Upgrade, or MRTU, became operational on April 1, 2009. MRTU established a day-ahead market for energy and ancillary services and settles prices locationally. NRG's CAISO assets are all peaking and intermediate in nature and are well positioned to capitalize on the higher locational prices that may result from LMPs in location constrained areas and will continue to satisfy local distribution company capacity requirements. Longer term, NRG's California portfolio's locational advantage may be impacted by new transmission, which may affect load pocket procurement requirements. So far, however, the impacts of increasing demand and need for flexible cycling capability combined with delays in the online date of new transmission have muted the impact of this long-term threat.

California's resource mix will be significantly shaped in the years ahead by California's renewable portfolio standard and its greenhouse gas reduction rules promulgated pursuant to Assembly Bill 32 - California Global Warming Solutions Act of 2006, or AB32. In particular, the state's renewable portfolio standard is currently set at 20% for 2010 and the Governor, by Executive Order, has directed that the standard be increased to 33% by 2020. This increase is expected to create greater demand for low emission resources. The intermittent and remote nature of most renewable resources will create a strong demand for flexible load pocket resources. NRG's California portfolio may also be impacted by legislation and by any mechanism, such as cap-and-trade, that places a price on incremental carbon emissions. NRG's expectation is that the emission costs will be reflected in the market price of power and that the net cost to the Company's existing portfolio of intermediate and peaking resources will be manageable.

California's investor-owned utilities are sponsoring competitive solicitations for new fossil and renewable generating capacity. The El Segundo repowering project has been selected and contracted by a load-serving entity and is in the final stages of permitting. The project is planned to be in operation in the summer of 2013. A permit application for the Encina repowering project has been submitted and is under evaluation by the California Energy Commission. The Encina repowering project has cost and location advantages that enhance its competitive prospects. Both projects are supported by air emissions credits that have been banked after the retirement of older generating units.

## **INTERNATIONAL**

As of December 31, 2009, NRG, through certain foreign subsidiaries, had investments in power generation projects located in Australia and Germany with approximately 1,005 MW of generation capacity. The Company's strategy is to maximize its return on investment and concentrate on contract management; monitoring of its facility operators to ensure safe, profitable and sustainable operations; management of cash flow and finances; and growth of its businesses through investments in projects related to current businesses.

NRG's international power generation assets as of December 31, 2009, are summarized in the table below:

| <b>Plant</b>               | <b>Location</b> | <b>%<br/>Owned</b> | <b>Net<br/>Generation<br/>Capacity<br/>(MW)</b> | <b>Primary<br/>Fuel-type</b> |
|----------------------------|-----------------|--------------------|---|------------------------------|
| Gladstone                  | Australia       | 37.5               | 605   | Coal                         |
| Schkopau                   | Germany         | 41.9               | 400   | Lignite                      |
| <b>Total International</b> |                 |                    | <b>1,005</b>                                    |                              |

*Australia* Through a joint venture, NRG holds a 37.5% equity interest in the Gladstone power station, or Gladstone. A wholly owned subsidiary, NRG Gladstone Operating Services, serves as the station's sole operator. Because NRG is neither the majority owner nor the joint venture manager, NRG does not have unilateral control over the operation, maintenance, and management of this asset. Gladstone station's output is fully contracted through 2029 to Boyne Smelter Limited and Stanwell Corporation Limited. Boyne Smelter is owned by a consortium whose members include all the members of the Gladstone joint venture other than NRG. Its business is to refine alumina into aluminum. Stanwell is a state owned corporation that generates power, purchases power from other generators such as Gladstone, trades power in the Australian National Electricity Market and delivers power to retail customers.



*Germany* NRG, through its wholly-owned subsidiary Saale Energie GmbH, or SEG, owns 400 MW of the Schkopau plant's electric capacity which is sold under a long-term contract to Vattenfall Europe Generation, AG. The 900 MW Schkopau generating plant, in which the Company has a 41.9% equity interest, is fueled with lignite.

On June 10, 2009, NRG completed the sale of its 50% ownership interest in Mitteldeutsche Braunkohlengesellschaft mbH, or MIBRAG, to a consortium of Severočíeské doly Chomutov, a member of the CEZ Group, and J&T Group. Mibrag B.V.'s principal holding is MIBRAG, which is jointly owned by NRG and URS Corporation. For further discussion of MIBRAG disposition, see Item 14 Note 4, *Discontinued Operation and Dispositions*, to the Consolidated Financial Statements.

## **THERMAL**

Through its wholly-owned subsidiary, NRG Thermal LLC, or NRG Thermal, the Company owns thermal and chilled water businesses that have a steam and chilled water capacity of approximately 1,020 megawatts thermal equivalent, or MWt. As of December 31, 2009, NRG Thermal provided steam heating to approximately 495 customers and chilled water to 100 customers in five different cities in the U.S. The Company's thermal businesses in Pittsburgh, Harrisburg and San Francisco are regulated by their respective state's Public Utility Commission. The other thermal businesses are subject to contract terms with their customers. In addition, NRG Thermal owns and operates a thermal project that serves two industrial customers with high-pressure steam. NRG Thermal also owns an 88 MW combustion turbine peaking generation facility and a 16 MW coal-fired cogeneration facility in Dover, Delaware as well as a 12 MW gas-fired project in Harrisburg, Pennsylvania. Approximately 37% of NRG Thermal's revenues are derived from its district heating and chilled water business in Minneapolis, Minnesota.

The table below reflects relevant electric capacity revenue sources for the Thermal region:

| Region and Facility | Zone     | Sources of Capacity Revenue: Market Capacity, RMR and Tolling Arrangements |
|---------------------|----------|--|
| <b>Thermal:</b>     |          |  |
| Dover               | PJM East | DPL South  |
| Paxon Creek         | PJM West | PJM MAAC   |

## **New and On-going Company Initiatives and Development Projects**

NRG has a comprehensive set of initiatives and development projects that supports its strategy focused on: (i) top decile and enhanced operating performance; (ii) repowering of power generation assets at existing sites and development of new power generation projects; (iii) empowering retail customers with distinctive products and services; (iv) engaging in a proactive capital allocation plan; and (v) pursuing selective acquisitions, joint ventures, divestitures and investment in new energy-related businesses and new technologies in order to enhance the Company's asset mix and combat climate change.

## **FORNRG Update**

Beginning in January 2009, the Company transitioned to *FORNRG 2.0* to target an incremental 100 basis point improvement to the Company's ROIC by 2012. The initial targets for *FORNRG 2.0* were based upon improvements in the Company's ROIC as measured by increased cash flow. The economic goals of *FORNRG 2.0* will focus on:

(i) revenue enhancement; (ii) cost savings; and (iii) asset optimization, including reducing excess working capital and other assets. The *FORNRG* 2.0 program will measure its progress towards the *FORNRG* 2.0 goals by using the Company's 2008 financial results as a baseline, while plant performance calculations will be based upon the appropriate historic baselines.

The 2009 *FORNRG* goal was a 20 basis point improvement in ROIC which corresponds to approximately \$30 million in cash flow. As of December 31, 2009, the Company exceeded its 2009 goal with a 50.37 basis point improvement in ROIC, which is equivalent to approximately \$76 million in cash flows. The performance of the plants coupled with strategic projects undertaken by corporate functions is evidenced in the overall corporate

performance. During 2010, the Company expects to progress further toward the program goal of 100 basis point ROIC improvement by 2012.

### ***RepoweringNRG Update***

NRG has several projects in varying stages of development that include the following: a new generating unit at the Limestone power station and the repowering of Encina and El Segundo sites. In addition, on December 22, 2009, NRG entered into a 13-year agreement with University Medical Center of Princeton to provide comprehensive high efficiency energy to this 237 room hospital. The hospital, which is currently under construction, will use electricity from an NRG owned combined heat and power system that includes the production of steam for heating and chilled water for air conditioning, achieved by means of a thermal energy storage system. Construction of the facility will commence in early 2010 with expected commercial operation by the first quarter 2012. The development of these projects is subject to certain conditions and milestones which may effect the Company's decision to pursue further development of these projects. The Company's development projects are generally subject to certain conditions, milestones, or other factors that may result in the Company's decision to no longer pursue development of these projects.

The following is a summary of the 2009 repowering projects that have been completed and operating as well as those still under construction. In addition, NRG continues to participate in active bids in response to requests for proposals in markets in which it operates.

### ***Plants Completed and Operating***

***Cedar Bayou Generating Station*** On June 24, 2009, NRG and Optim Energy, LLC, or Optim Energy, completed construction and began commercial operation of a new natural gas-fueled combined cycle generating plant at NRG's Cedar Bayou Generating Station in Chambers County, Texas. NRG and Optim Energy have a 50/50 undivided interest basis in the 520 MW generating plant. NRG is the operator of the plant and Optim Energy is acting as energy manager for Cedar Bayou unit 4. Cedar Bayou unit 4 is providing the Company a net capacity of 260 MW given NRG's 50% ownership.

### ***Plants under Construction***

***GenConn Energy LLC*** In a procurement process conducted by the Department of Public Utility Control, or DPUC, and finalized in 2008, GenConn Energy, or GenConn, a 50/50 joint venture of NRG and The United Illuminating Company, secured contracts in 2008 with Connecticut Light & Power, or CL&P, for the construction and operation of two 200 MW peaking facilities, at NRG's Devon and Middletown sites in Connecticut. The contracts, which are structured as contracts for differences for the operation of the new power plants, have a 30-year term and call for commercial operation of the Devon project by June 1, 2010, and the Middletown project by June 1, 2011. GenConn has secured all state permits required for the projects and has entered into contracts for engineering, construction and procurement of the eight GE LM6000 combustion turbines required for the projects. Construction has begun at the Devon facility while site demolition and excavation has begun at the Middletown location.

On April 27, 2009, GenConn closed on \$534 million of project financing related to these projects. The project financing includes a seven-year project backed term loan and a five-year working capital facility which together total \$291 million. In addition, NRG and United Illuminating have each closed an equity bridge loan of \$121.5 million, which together total \$243 million. NRG is funding its share of costs related to these projects via year to date draw downs on the equity bridge loan of \$108 million as of December 31, 2009. In August 2009, GenConn began to draw on the project financing facility to cover costs related to the Devon project.

## Retail Development

***Electric Vehicle Services*** In 2009, NRG began development of a service business to support the mass deployment of electric vehicles through its subsidiary Reliant Energy. In 2010, Reliant Energy plans to begin selling new products and services that enable both public and home charging of electric vehicles. In conjunction with this effort, Reliant Energy announced in November 2009 that it will work with Nissan Motor Co. to make the City of Houston a launch city for the broader use of electric vehicles. Also in November 2009, Reliant Energy announced a

joint project with the City of Houston to add plug-in fleet vehicles as well as public charging stations to support them.

**Smart Energy** In 2009, Reliant Energy submitted an application to the Department of Energy, or DOE, requesting \$20 million in the Smart Grid Investment Grant funds for a three-year project to bring a suite of Smart Grid enabled products to residential customers. Reliant Energy's project was selected by the DOE in October 2009. The Company is now in the process of negotiating a definitive agreement with the DOE and expects to begin the project in the first quarter 2010. Reliant Energy's share of the project costs are expected to be \$45.5 million over a three-year period.

### **Capital Allocation Program**

NRG's capital allocation philosophy includes reinvestment in its core facilities, maintenance of prudent debt levels and interest coverage, the regular return of capital to shareholders and investment in repowering opportunities. Each of these components are described further as follows:

**Reinvestment in existing assets** Opportunities to invest in the existing business, including maintenance and environmental capital expenditures that improve operational performance, ensure compliance with environmental laws and regulations, and expansion projects.

**Management of debt levels** The Company uses several metrics to measure the efficiency of its capital structure and debt balances, including the Company's targeted net debt to total capital ratio range of 45% to 60% and certain cash flow and interest coverage ratios. The Company intends in the normal course of business to continue to manage its debt levels towards the lower end of the range and may, from time to time, pay down its debt balances for a variety of reasons.

**Return of capital to shareholders** The Company's debt instruments include restrictions on the amount of capital that can be returned to shareholders. The Company has in the past returned capital to shareholders while maintaining compliance with existing debt agreements and indentures. The Company expects to regularly return capital to shareholders through opportunistic share repurchases, while exploring other prospects to increase its flexibility under restrictive debt covenants.

**Repowering, econrg and new build opportunities** The Company intends to pursue repowering initiatives that enhance and diversify its portfolio and provide a targeted economic return to the Company.

### **Nuclear Development**

**Nuclear Innovation North America** In 2008, NRG formed Nuclear Innovation North America LLC, or NINA, an NRG subsidiary focused on marketing, siting, developing, financing and investing in new advanced design nuclear projects in select markets across North America, including the planned South Texas Projects Units 3 and 4, or STP Units 3 and 4. NINA is currently owned 88% by NRG and 12% by Toshiba American Nuclear Energy Corporation, or TANE, a wholly owned subsidiary of Toshiba Corporation.

Based on its current NRC schedule, the Company expects to achieve commercial operation for Unit 3 in 2016 and commercial operation for Unit 4 approximately 12 months thereafter. The total rated capacity of the new units, STP Units 3 and 4, is expected to equal or exceed 2,700 MW. NINA is in the process of assessing the potential for increasing the gross output of the units through an uprate amendment, shortly after receipt of the Combined Operating License, or COL. This would increase the rated gross output of the units to approximately 3,000 MWs. The NRC licensing process also provides an opportunity for individuals to intervene in the COL application as an ordinary part of the COL application process. At this time, several individuals have elected to intervene in the COL proceedings and NINA is currently in the process of defending, addressing or eliminating, as appropriate, all open contentions by the

interveners.

The DOE has confirmed that the STP Units 3 and 4 project is one of four projects selected for further due diligence and negotiation leading to a conditional commitment under the DOE loan guarantee program. NINA is currently in discussions with the DOE on the specific terms and amount to be loaned for the project. NRG believes DOE loan guarantee support is critical to new nuclear development projects. In addition to U.S. loan guarantees,

NINA is seeking to augment potential financial support from the DOE by actively pursuing additional loan guarantees through the Japanese government. The project is expected to have significant Japanese content.

In 2009, NINA executed an EPC agreement with TANE to build STP Units 3 and 4. The EPC agreement is structured so as to assure that the new plant is constructed on time, on budget and to exacting standards. There are three primary cost elements that make up the total cost of the STP Units 3 and 4. The largest is the EPC Cost, which is the cost the prime contractor will charge for the engineering, construction, procurement, and material/equipment of the STP Units 3 and 4. The second cost is what is referred to as Owners' Cost, comprised of licensing fees, contingency, internal and agent resource costs, operations training, owner's engineers and other third party support costs. The final cost component is the Financing Cost, which includes subsidy costs of the DOE loan guarantee, interest during construction, and support services associated with putting the financing in place.

On December 30, 2009, NINA had received an estimate from TANE, the prime contractor, containing the overnight estimate of the EPC Cost. The estimate was approximately \$11.5 billion for STP Units 3 and 4 with an opportunity to reduce cost subject to certain specification changes. Based on the estimate provided by TANE and the Company's internal assessments, NINA continues to believe that its stated target of \$9.8 billion, or \$3,229/kW based on 3,000 MW gross output is achievable. Cost reductions will be achieved through a combination of specification changes and the re-alignment of risks and responsibilities among key project stakeholders.

Owners' Costs for the project, on an escalated basis, are estimated to total approximately \$2.1 billion during the construction period. This is primarily comprised of the costs for NRG's agent STPNOC, owners' contingency and the initial fuel load. Financing Costs are estimated to be approximately \$1.5 billion during the construction period, and are comprised of the variables described above.

On February 17, 2010, an agreement in principle was reached with CPS for NINA to acquire a controlling interest in the project to construct STP Units 3 and 4 through a settlement of the litigation between the parties. As part of the agreement, NINA would increase its ownership in the STP Units 3 and 4 project from 50% to 92.375% and would assume full management control of the project. NINA would also pay \$80 million to CPS, subject to receipt of a conditional DOE loan guarantee. The first \$40 million would be promptly paid after receipt of the guarantee and the other half six months later. An additional \$10 million would be donated by NRG over four years in annual payments of \$2.5 million to the Residential Energy Assistance Partnership in San Antonio. As part of the agreement with CPS, all litigation would be dismissed with prejudice. The parties continue to negotiate terms regarding final documentation of the agreement in principle.

The agreement would enable the STP Unit 3 and 4 project expansion to move forward and allow NINA to continuing pursuing its application for a conditional loan guarantee from the DOE. If NINA is not successful in reaching a final settlement with CPS, obtaining a conditional loan guarantee or selling down its interest in STP Units 3 and 4, there could be negative implications for the project that may result in a reassessment of the probability of success of the project and an impairment of the value of the capitalized assets for STP Units 3 and 4. An impairment would result in a permanent write-down of the \$299 million of construction-in-progress capitalized through December 31, 2009, plus any amounts capitalized through the impairment date.

## **Renewable Development**

NRG has routinely invested in the development of renewable energy projects such as wind, solar and biomass, to support the Company's econrg initiative. NRG's renewable strategy is to capitalize on both first mover advantages and the Company's inherent regional presence. The following are the renewable development projects that Company is actively engaged in:

## **Solar Development**

NRG intends to leverage its market knowledge, functional expertise, cash position and tax appetite to be the leading developer and owner of assets in the high growth solar power industry. The Company intends to align itself with technology providers who it believes are or will be the leading technologies in the industry. These strategic relationships will exist with photovoltaic, or PV, concentrated solar power, or CSP, Sterling Dish, and storage technologies. NRG will focus on projects that are supported by long term off-take agreements and have the ability to



secure either commercial bank or DOE funding to maximize equity returns. In 2009, NRG completed the following activities:

***Acquisition and completion of Blythe Solar*** On November 20, 2009, NRG, through its wholly-owned subsidiary NRG Solar LLC, acquired FSE Blythe 1, LLC, or Blythe Solar, from First Solar, Inc. On December 18, 2009, construction was completed and commercial operation began for the 20 MW utility-scale PV solar facility located in Riverside County in southeastern California. The Blythe Solar PV field provides electricity to Southern California Edison, or SCE, under a 20-year PPA. The site uses approximately 350,000 photovoltaic solar modules that turn sunlight directly into electricity. The Blythe Solar site covers approximately 200 acres of held land which is fully permitted and is connected to SCE's electrical distribution grid. The project is eligible for a cash grant from the Department of Treasury and NRG will file an application for an \$18 million grant.

***Agreement with eSolar*** On June 1, 2009, NRG completed an agreement with eSolar, a leading provider of modular, scalable solar thermal power technology, to acquire the development rights for up to 465 MW of solar thermal power plants at sites in California and the Southwest. The first plant is anticipated to begin producing electricity as early as 2011, subject to certain technology demonstration milestones being pursued by eSolar and a successful financial closing in 2010. At the closing with eSolar, NRG invested \$5 million for an equity interest in eSolar and \$5 million for deposits and land purchase options associated with development rights for three projects on sites in south central California and the Southwest U.S. as well as a portfolio of PPAs to develop, build, own and operate up to 10 eSolar modular solar generating units at these sites. These development assets will use eSolar's CSP, technology to sell renewable electricity under contracted PPAs with local utilities.

NRG has three projects in various stages of development: NRG New Mexico SunTower, Alpine SunTower and Desert View SunTower. While each of these projects has an anticipated commercial operation date, the development of these projects are subject to certain conditions and milestones which may effect the Company's decision to pursue further development of these projects.

## **Wind Development**

NRG is an active participant in both onshore and offshore wind energy across its core regions. As part of this strategy, the Company actively engages in the development, acquisition, divestiture and establishment of joint ventures of wind projects. In the Northeast, there are strong offshore wind resources located near major load centers which can support projects of a size and scale larger than most on land wind and other renewable projects in the region. NRG looks to achieve a first-mover advantage in the U.S. offshore wind market through the development, construction and operation of projects in the region, as evidenced by the NRG's acquisition of Bluewater Wind in the fourth quarter 2009. In 2009, NRG completed the following activities:

***Bluewater Wind Acquisition*** On November 9, 2009, NRG through its wholly-owned subsidiary, NRG Bluewater Holdings LLC, completed the acquisition of a 100% interest in all the subsidiaries of Bluewater Wind LLC (such subsidiaries, with NRG Bluewater Holdings LLC, or NRG Bluewater) as part of the Company's strategy to promote development of renewable energy projects in its core regions. NRG Bluewater currently has a number of offshore wind energy projects that are in various stages of development along the eastern seaboard and the Great Lakes region of the U.S. In Delaware, NRG Bluewater has a 25-year, 200 MW PPA with Delmarva Power & Light Company that has been approved by the Delaware Public Service Commission and other state agencies. On December 8, 2009, NRG Bluewater was also selected to finalize a power purchase agreement from the State of Maryland to provide up to 55 MW of wind generation from the Delaware project. In 2009, NRG Bluewater was awarded a \$4 million rebate from the state of New Jersey to build a meteorological tower, which would collect wind and other data from a site off the coast of New Jersey.

**Langford Wind Project** On December 8, 2009, NRG announced the completion of its Langford project, a wholly-owned 150 MW wind farm located in Tom Green, Irion, and Schleicher Counties, Texas. The Company funded and developed this wind farm which consists of 100 General Electric 1.5 MW wind turbines. The project is eligible for a cash grant from the Department of Treasury and NRG has filed an application for an \$84 million grant.

**Padoma Wind** On January 11, 2010, NRG sold its terrestrial wind development company, Padoma Wind Power LLC, or Padoma, to Enel North America, Inc., or Enel. NRG acquired Padoma in 2006 to develop terrestrial

wind projects. NRG is maintaining its existing ownership interest in its three Texas wind farms – Sherbino, Elbow Creek and Langford. In addition, NRG will maintain a strategic partnership with Enel to evaluate potential opportunities in renewable energy. NRG will retain a Right of First Offer should Enel seek an equity partner in Padoma projects.

### **Biomass Development**

NRG has several biomass projects in varying stages of development, including a pilot project at the Big Cajun II facility to be renewably fueled with switchgrass and high-biomass sorghum, as well as the retrofit a steam unit at Montville Station to enable the unit to use clean wood biomass to produce up to 40 MW of renewable energy.

### **Regulatory Matters**

As operators of power plants and participants in wholesale energy markets, certain NRG entities are subject to regulation by various federal and state government agencies. These include the CFTC, FERC, NRC, PUCT and other public utility commissions in certain states where NRG's generating or thermal assets are located. In addition, NRG is subject to the market rules, procedures and protocols of the various ISO markets in which it participates. Certain of the Reliant Energy entities are competitive Retail Electric Providers, or REPs, and as such are subject to the rules and regulations of the PUCT governing REPs. NRG must also comply with the mandatory reliability requirements imposed by the North American Electric Reliability Corporation, or NERC, and the regional reliability councils in the regions where the Company operates.

The operations of, and wholesale electric sales from, NRG's Texas region are not subject to rate regulation by the FERC, as they are deemed to operate solely within the ERCOT market and not in interstate commerce. As discussed below, these operations are subject to regulation by PUCT, as well as to regulation by the NRC with respect to the Company's ownership interest in STP.

### ***Commodities Futures Trading Commission, or CFTC***

The CFTC, among other things, has regulatory oversight authority over the trading of electricity and gas commodities, including financial products and derivatives, under the Commodity Exchange Act, or CEA. Specifically, under existing statutory authority, CFTC has the authority to commence enforcement actions and seek injunctive relief against any person, whenever that person appears to be engaged in the communication of false or misleading or knowingly inaccurate reports concerning market information or conditions that affected or tended to affect the price of natural gas, a commodity in interstate commerce, or actions intended to or attempting to manipulate commodity markets. The CFTC also has the authority to seek civil monetary penalties, as well as the ability to make referrals to the Department of Justice for criminal prosecution, in connection with any conduct that violates the CEA. Proposals are pending in Congress to expand CFTC oversight of the over-the-counter markets and bilateral financial transactions.

### ***Federal Energy Regulatory Commission***

The FERC, among other things, regulates the transmission and the wholesale sale of electricity in interstate commerce under the authority of the Federal Power Act, or FPA. In addition, under existing regulations, the FERC determines whether an entity owning a generation facility is an Exempt Wholesale Generator, or EWG, as defined in the Public Utility Holding Company Act of 2005, or PUHCA of 2005. The FERC also determines whether a generation facility meets the ownership and technical criteria of a Qualifying Facility, or QF, under Public Utility Regulatory Policies Act of 1978, or PURPA. Each of NRG's U.S. generating facilities has either been determined by the FERC to qualify as a QF, or the subsidiary owning the facility has been determined to be an EWG.

*Federal Power Act* The FPA gives the FERC exclusive rate-making jurisdiction over the wholesale sale of electricity and transmission of electricity in interstate commerce. Under the FPA, the FERC, with certain exceptions, regulates the owners of facilities used for the wholesale sale of electricity or transmission in interstate commerce as public utilities. The FPA also gives the FERC jurisdiction to review certain transactions and numerous other activities of public utilities. NRG's QFs are currently exempt from the FERC's rate regulation

under Sections 205 and 206 of the FPA to the extent that sales are made pursuant to a state regulatory authority's implementation of PURPA.

Public utilities under the FPA are required to obtain the FERC's acceptance, pursuant to Section 205 of the FPA, of their rate schedules for the wholesale sale of electricity. All of NRG's non-QF generating and power marketing companies in the U.S. make sales of electricity pursuant to market-based rates authorized by the FERC. The FERC's orders that grant NRG's generating and power marketing companies market-based rate authority reserve the right to revoke or revise that authority if the FERC subsequently determines that NRG can exercise market power, create barriers to entry, or engage in abusive affiliate transactions. In addition, NRG's market-based sales are subject to certain market behavior rules and, if any of its generating or power marketing companies were deemed to have violated any one of those rules, they would be subject to potential disgorgement of profits associated with the violation and/or suspension or revocation of their market-based rate authority, as well as criminal and civil penalties. As a condition of the orders granting NRG market-based rate authority, NRG is required to file regional market updates demonstrating that it continues to meet the FERC's standards with respect to generating market power and other criteria used to evaluate whether its entities qualify for market-based rates. NRG is also required to report to the FERC any material changes in status that would reflect a departure from the characteristics that the FERC relied upon when granting NRG's various generating and power marketing companies market-based rates. If NRG's generating and power marketing companies were to lose their market-based rate authority, such companies would be required to obtain the FERC's acceptance of a cost-of-service rate schedule and could become subject to the accounting, record-keeping, and reporting requirements that are imposed on utilities with cost-based rate schedules.

On April 27, 2009 and July 21, 2009, FERC accepted the Company's updated market power analyses for its Northeast and South Central assets, respectively. NRG's next such market power update filing is due June 30, 2010, for its CAISO and southwest assets.

Section 203 of the FPA requires the FERC's prior approval for the transfer of control of assets subject to the FERC's jurisdiction. Section 204 of the FPA gives the FERC jurisdiction over a public utility's issuance of securities or assumption of liabilities. However, the FERC typically grants blanket approval for future securities issuances and the assumption of liabilities to entities with market-based rate authority. In the event that one of NRG's generating and power marketing companies were to lose its market-based rate authority, such company's future securities issuances or assumption of liabilities could require prior approval from the FERC.

In compliance with Section 215 of the Energy Policy Act of 2005, or EPCA of 2005, the FERC has approved the NERC as the national Energy Reliability Organization, or ERO. As the ERO, NERC is responsible for the development and enforcement of mandatory reliability standards for the wholesale electric power system. NRG is responsible for complying with the standards in the regions in which it operates. As the ERO, NERC has the ability to assess financial penalties for non-compliance. In addition to complying with NERC requirements, each NRG entity must comply with the requirements of the regional reliability entity for the region in which it is located.

*Public Utility Holding Company Act of 2005* PUHCA of 2005 provides the FERC with certain authority over and access to books and records of public utility holding companies not otherwise exempt by virtue of their ownership of EWGs, QFs, and Foreign Utility Companies, or FUCOs. NRG is a public utility holding company, but because all of the Company's generating facilities have QF status or are owned through EWGs, it is exempt from the accounting, record retention, and reporting requirements of the PUHCA of 2005.

*Public Utility Regulatory Policies Act* PURPA was passed in 1978 in large part to promote increased energy efficiency and development of independent power producers. PURPA created QFs to further both goals, and the FERC is primarily charged with administering PURPA as it applies to QFs. As discussed above, under current law, some categories of QFs may be exempt from regulation under the FPA as public utilities. PURPA incentives also

initially included a requirement that utilities must buy and sell power to QFs. Among other things, EPAct of 2005 provides for the elimination of the obligation imposed on certain utilities to purchase power from QFs at an avoided cost rate under certain conditions. However, the purchase obligation is only eliminated if the FERC first finds that a QF has non-discriminatory access to wholesale energy markets having certain characteristics, including nondiscriminatory transmission and interconnection services provided by a regional transmission entity in certain circumstances. Existing contracts entered into under PURPA are not expected to be impacted. NRG

currently owns only one QF, Saguaro Power Company, a Limited Partnership, which is interconnected to and has a contract with Nevada Power Company. Nevada Power Company is not located in a region with an ISO market.

### ***Nuclear Regulatory Commission, or NRC***

The NRC is authorized under the Atomic Energy Act of 1954, as amended, or the AEA, among other things, to grant licenses for, and regulate the operation of, commercial nuclear power reactors. As a holder of an ownership interest in STP, NRG is an NRC licensee and is subject to NRC regulation. The NRC license gives the Company the right to only possess an interest in STP but not to operate it. Operating authority under the NRC operating license for STP is held by STPNOC. NRC regulation involves licensing, inspection, enforcement, testing, evaluation, and modification of all aspects of plant design and operation including the right to order a plant shutdown, technical and financial qualifications, and decommissioning funding assurance in light of NRC safety and environmental requirements. In addition, NRC's written approval is required prior to a licensee transferring an interest in its license, either directly or indirectly. As a possession-only licensee, i.e., non-operating co-owner, the NRC's regulation of NRG is primarily focused on the Company's ability to meet its financial and decommissioning funding assurance obligations. In connection with the NRC license, the Company and its subsidiaries have a support agreement to provide up to \$120 million to support operations at STP.

***Decommissioning Trusts*** Upon expiration of the operation licenses for the two generating units at STP, currently scheduled for 2027 and 2028, the co-owners of STP are required under federal law to decontaminate and decommission the STP facility. Under NRC regulations, a power reactor licensee generally must pre-fund the full amount of its estimated NRC decommissioning obligations unless it is a rate-regulated utility, or a state or municipal entity that sets its own rates, or has the benefit of a state-mandated non-bypassable charge available to periodically fund the decommissioning trust such that the trust, plus allowable earnings, will equal the estimated decommissioning obligations by the time the decommissioning is expected to begin.

As a result of the acquisition of Texas Genco, NRG, through its 44% ownership interest, has become the beneficiary of decommissioning trusts that have been established to provide funding for decontamination and decommissioning of STP. CenterPoint Energy Houston Electric, LLC, or CenterPoint, and American Electric Power, or AEP, collect, through rates or other authorized charges to their electric utility customers, amounts designated for funding NRG's portion of the decommissioning of the facility. See also Item 14 Note 7, *Nuclear Decommissioning Trust Fund*, to the Consolidated Financial Statements for additional discussion.

In the event that the funds from the trusts are ultimately determined to be inadequate to decommission the STP facilities, the original owners of the Company's STP interests, CenterPoint and AEP, each will be required to collect, through their PUCT-authorized non-bypassable rates or other charges to customers, additional amounts required to fund NRG's obligations relating to the decommissioning of the facility. Following the completion of the decommissioning, if surplus funds remain in the decommissioning trusts, those excesses will be refunded to the respective rate payers of CenterPoint or AEP, or their successors.

### ***Public Utility Commission of Texas, or PUCT***

NRG's Texas generation subsidiaries are registered as power generation companies with the PUCT. The PUCT also has jurisdiction over power generation companies with regard to their sales in the wholesale markets, the implementation of measures to address undue market power or price volatility, and the administration of nuclear decommissioning trusts. The PUCT exercises its jurisdiction both directly, and indirectly, through its oversight of the ERCOT, the regional transmission organization. Certain of its subsidiaries within the Texas region are also subject to regulatory oversight as a power marketer or as a Qualified Scheduling Entity. NRG Power Marketing, LLC, or PMI, is registered as a power marketer with the PUCT and thus is also subject to the jurisdiction of the PUCT with respect to

its sales in the ERCOT. Certain of the Reliant Energy entities are competitive Retail Electric Providers, or REPs, and as such are subject to the rules and regulations of the PUCT governing REPs.

### **Regional Regulatory Developments**

In New England, New York, the Mid-Atlantic region, the Midwest and California, the FERC has approved regional transmission organizations, also commonly referred to as ISOs. Most of these ISOs administer a wholesale



centralized bid-based spot market in their regions pursuant to tariffs approved by the FERC and associated ISO market rules. These tariffs/market rules dictate how the capacity and energy markets operate, how market participants may make bilateral sales with one another, and how entities with market-based rates are compensated within those markets. The ISOs in these regions also control access to and the operation of the transmission grid within their regions. In Texas, pursuant to a 1999 restructuring statute, the PUCT granted similar responsibilities to the ERCOT.

NRG is affected by rule/tariff changes that occur in the ISO regions. The ISOs that oversee most of the wholesale power markets have in the past imposed, and may in the future continue to impose, price limitations and other mechanisms to address market power or volatility in these markets. These types of price limitations and other regulatory mechanisms may adversely affect the profitability of NRG's generation facilities that sell capacity and energy into the wholesale power markets. In addition, new approaches to the sale of electric power are being implemented, and it is not clear whether they will operate effectively or whether they will provide adequate compensation to generators over the long-term.

For further discussion on regulatory developments see Item 14 Note 23, *Regulatory Matters*, to the Consolidated Financial Statements.

### ***Texas Region***

The ERCOT has adopted Texas Nodal Protocols that will revise the wholesale market design to incorporate locational marginal pricing (in place of the current ERCOT zonal market). Major elements of the Texas Nodal Protocols include the continued capability for bilateral contracting of energy and ancillary services, a financially binding day-ahead market, resource-specific energy and ancillary service offer curves, the direct assignment of all congestion rents, nodal energy prices for resources, aggregation of nodal to zonal energy prices for loads, congestion revenue rights (including pre-assignment for public power entities), and pricing safeguards. The PUCT approved the Texas Nodal Protocols on April 5, 2006, and full implementation of the new market design was scheduled to begin in 2008. On May 20, 2008, the ERCOT announced that it would delay the implementation of the Texas Nodal Protocols, and is now targeting a December 2010 implementation.

On October 6, 2008, as part of its determination of Competitive Renewable Energy Zones, or CREZ, the PUCT issued its final order approving a significant transmission expansion plan to provide for the delivery of approximately 18,500 MW of energy from the western region of Texas, primarily wind generation. The transmission expansion plan is composed of approximately 2,300 miles of new 345 kV lines and 42 miles of new 138 kV lines. In January 2009, Texas Industrial Energy Consumers, a trade organization composed of large industrial customers, appealed the PUCT's CREZ plan in state district court, seeking reversal of the final order. On March 30, 2009, the PUCT issued a final order designating the transmission utilities that plan to construct the various CREZ transmission component projects. A large number of separate transmission licensing proceedings will be required prior to construction of the CREZ facilities. In July of 2009, the PUCT approved schedules for utilities to file applications to license several of the CREZ transmission projects (to obtain certificates of convenience and necessity, or CCNs). If the CREZ projects are completed as currently anticipated, the transmission upgrades and associated wind generation could impact wholesale energy and ancillary service prices in ERCOT. There are various appeals and other challenges to CREZ that could disrupt or delay the schedule. As part of the normal ERCOT five-year planning process, transmission utilities are also planning other system improvements, 2,800 circuit miles of transmission and more than 17,000 MVA of autotransformer capacity, intended to support increasing power demand and to address transmission congestion in the ERCOT Region.

### ***Northeast Region***

*New England* NRG's Middletown, Montville and Norwalk facilities continue to be operated pursuant to RMR agreements. Unless terminated earlier, these RMR agreements will terminate upon the commencement of the FCM on June 1, 2010.

*New York* The state-wide Installed Reserve Margin, or IRM, is set annually by the New York State Reliability Council, or NYSRC, and affects the overall demand for capacity in the New York market. The NYSRC approved a 2010 IRM of 18%, which is an increase of 1.5% from the 2009 requirement. This increase may be offset

by lower load forecasts for 2010. On January 29, 2008, the FERC accepted the NYISO's installed capacity demand curves for 2008/2009, 2009/2010, and 2010/2011. The demand curves are a critical determinant of capacity market prices. Of particular note to the New York City capacity market, New York Power Authority, or NYPA, retired its 885 MW Poletti facility on January 31, 2010.

### ***West Region***

***California*** The CAISO MRTU commenced April 1, 2009. Significant components of the MRTU include: (i) locational marginal pricing of energy; (ii) a more effective congestion management system; (iii) a day-ahead market; and (iv) an increase to the existing bid caps. NRG considers these market reforms to generally be a positive development for its assets in the region, but additional time is needed to assess the impact of MRTU.

### **Environmental Matters**

NRG is subject to a wide range of environmental regulations across a broad number of jurisdictions in the development, ownership, construction and operation of domestic and international projects. These laws and regulations generally require that governmental permits and approvals be obtained before construction and during operation of power plants. Environmental laws have become increasingly stringent in recent years, especially around the regulation of air emissions from power generators. Such laws generally require regular capital expenditures for power plant upgrades, modifications and the installation of certain pollution control equipment. In general, future laws and regulations are expected to require the addition of emission controls or other environmental quality equipment or the imposition of certain restrictions on the operations of the Company's facilities. NRG expects that future liability under, or compliance with, environmental requirements could have a material effect on the Company's operations or competitive position.

### ***Federal Environmental Initiatives***

***Climate Change*** The United States signed the Copenhagen Accord, or the Accord, which sets the stage for a worldwide approach to this global issue. Under the Accord, the U.S. has committed to a 17% reduction from 2005 emission levels of GHGs by 2020. While Congress was unable to come to agreement on climate legislation in 2009, the subject continues to be a topic for consideration in 2010. Lack of legislation will prolong the uncertainty associated with the nature and timing of GHG requirements, and therefore impact on NRG.

On December 15, 2009, the U.S. EPA issued a final rule finding that a mix of six key GHGs in the atmosphere, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride, threaten the public health and welfare. This action paves the way for finalization of the September 28, 2009, *Proposed GHG Emissions Standards for Motor Vehicles*. These actions are in response to the Supreme Court's decision in *Massachusetts v. U.S. EPA*, which requires the U.S. EPA to decide under the Clean Air Act, or CAA, mobile source title whether GHGs contribute to climate change, and if so, promulgate appropriate regulations. Under the CAA, these regulations would render GHGs regulated pollutants and subject them to other existing requirements that affect stationary sources, including power plants. The primary impact on NRG would be a statutory requirement to install Best Available Control Technology, or BACT, determined on a case-by-case basis, for major modifications or improvements at power plants if they cause GHG emissions to increase by the statutory Prevention of Significant Deterioration, or PSD limits of 100 tons per year. The U.S. EPA also released, on September 30, 2009, a draft PSD tailoring rule for GHGs that would increase the major stationary source threshold of 25,000 tons per year of carbon dioxide equivalents. This threshold level would be used to determine (i) if an existing source would be required to obtain a Title V operating permit and (ii) if a new facility or a major modification at an existing facility would trigger PSD permitting requirements. Existing major sources making modifications that result in an increase of emissions above the significance level would be required to obtain a PSD permit and install BACT. The timing and implementation of the

final motor vehicle rule, acceptance of the PSD tailoring rule and U.S. EPA's approach to BACT for GHGs could affect the level of impact to NRG's plants, and future repowering projects that have not completed their permitting process.

In 2009, in the course of producing approximately 71 million MWh of electricity, NRG's power plants emitted 59 million tonnes of CO<sub>2</sub>, of which 53 million tonnes were emitted in the U.S., 3 million tonnes in Germany and

3 million tonnes in Australia. The impact from legislation or federal, regional or state regulation of GHGs on the Company's financial performance will depend on a number of factors, including the overall level of GHG reductions required under any such regulations, the price and availability of offsets, and the extent to which NRG would be entitled to receive CO<sub>2</sub> emissions allowances without having to purchase them in an auction or on the open market. Thereafter, under any such legislation or regulation, the impact on NRG would depend on the Company's level of success in developing and deploying low and no carbon technologies such as those being pursued as part of *Repowering* NRG. Additionally, NRG's current contracts with its South Central region's cooperative customers allows for the recovery of emission-based costs.

**Regulations** A number of regulations are under review by U.S. EPA including CAIR, MACT, National Ambient Air Quality Standards, or NAAQS, for ozone, nitrogen dioxide, SO<sub>2</sub>, small particle matter or PM<sub>2.5</sub>, and the Phase II 316(b) Rule. These rules address air emissions and best practices for units with once-through-cooling. In addition, the U.S. EPA has announced that it is considering new rules regarding the handling and disposition of coal combustion byproducts. While the Company cannot predict the requirements in the final versions nor the ultimate effect that the changing regulations will have on NRG's business, NRG's planned environmental capital expenditures include installation of particulate, SO<sub>2</sub>, NO<sub>x</sub>, and mercury controls to comply with federal and state air quality rules and consent orders, as well as installation of Best Technology Available, or BTA, under Phase II 316(b) Rule. NRG continues to explore cost-effective alternatives that can achieve desired results. This planned investment reflects anticipated schedules and controls related to CAIR, MACT for mercury, and the Phase II 316(b) Rule which are under remand to the U.S. EPA and, as such, the full impact on the scope and timing of environmental retrofits from any new or revised regulations cannot be determined at this time.

**Air** On April 24, 2009, the U.S. EPA granted petitions to reconsider three NSR rules; Fugitive Emissions, PM<sub>2.5</sub> Implementation, and Reasonable Possibility. A notice for grant of reconsideration and administrative stay of the PM<sub>2.5</sub> Implementation Rule was published in the *Federal Register* on June 1, 2009. While none of these actions directly impact NRG at this point, it is unknown if any such final rules will impact future projects.

CAIR applies to 28 eastern states and Washington D.C., and caps both SO<sub>2</sub> and NO<sub>x</sub> emissions from power plants in two phases. CAIR applies to most of the Company's power plants in the states of New York, Massachusetts, Connecticut, Delaware, Louisiana, Illinois, Pennsylvania, Maryland and Texas. The CAIR NO<sub>x</sub> trading program went into effect on January 1, 2009 and remains in effect. Vintage 2010 and later SO<sub>2</sub> Acid Rain Program allowances in the CAIR region will be discounted on a 2:1 basis beginning January 1, 2010. The timing and substantive provisions of any ensuing revised or replacement regulations or legislation may alter the composition and/or rate of spending for environmental retrofits at the Company's facilities.

In a ruling on December 22, 2006, the U.S. Court of Appeals for the District of Columbia, or D.C. Circuit, overturned portions of the U.S. EPA's Phase I implementation rule for the new eight-hour ozone standard. Specifically, the D.C. Circuit ruled that the U.S. EPA could revoke the one-hour standard as long as there was no backsliding from more stringent control measures. This ruling could result in the imposition of fees under Section 185 of the CAA on volatile organic carbon, or VOC, and NO<sub>x</sub> emissions in severe non-attainment areas. The fees could be as high as \$7,700/ton for emissions above 80% of baseline emissions levels. Depending on the determination of baseline emission levels, this could materially impact NRG's operations in Los Angeles, New York City Area and Houston.

The U.S. EPA strengthened the primary and secondary ground level ozone NAAQS, (eight hour average) from 0.08 ppm to 0.075 ppm on March 12, 2008. The U.S. EPA plans to finalize ozone non-attainment regions by March 2010 and states would likely submit plans to come into attainment by 2013. The Company is unable to predict with certainty the impact of the states' future recommendations on NRG's operations.

In the 1990s, the U.S. EPA commenced an industry-wide investigation of coal-fired electric generators to determine compliance with environmental requirements under the CAA associated with repairs, maintenance, modifications and operational changes made to facilities over the years. As a result, the U.S. EPA and several states filed suits against a number of coal-fired power plants in mid-western and southern states alleging violations of the CAA, NSR, and, PSD requirements. The U.S. EPA previously issued two Notices of Violation, or NOV, against NRG's Big Cajun II plant alleging that NRG's predecessors had undertaken projects that triggered requirements under the PSD program, including the installation of emission controls. NRG has evaluated the claims and believes

they have no merit. Further discussion on this matter can be found in Item 14 Note 22, *Commitments and Contingencies, Louisiana Generating, LLC*, to the Consolidated Financial Statements.

**Water** In July 2004, the U.S. EPA published rules governing cooling water intake structures at existing power facilities commonly referred to as the Phase II 316(b) rules. These rules specify standards for cooling water intake structures at existing power plants using the largest amounts of cooling water. These rules will require implementation of the BTA for minimizing adverse environmental impacts unless a facility shows that such standards would result in very high costs or little environmental benefit. As a result of a decision by the Second Circuit Court of Appeals, the U.S. EPA suspended the rule in July 2007 while preparing a revised version. The U.S. Supreme Court released a decision on the challenge on April 1, 2009, in which it concluded that the U.S. EPA does have the authority to allow a cost-benefit analysis in the evaluation of BTA. This ruling is favorable for the industry and NRG as it improves the U.S. EPA's ability to include alternatives to closed-loop cooling in its redraft of the Phase II 316(b) Rules. In the absence of federal regulations, some states in which NRG operates, such as California, Connecticut, Delaware and New York, are moving ahead with guidance for more stringent requirements for once-through cooled units which may have an impact on future operations.

**Nuclear Waste** The Obama administration has determined that Yucca Mountain, Nevada is not a workable option for a nuclear waste repository and will discontinue its program to construct a repository at the mountain in 2010. In order to meet the federal government's obligations to safely manage used nuclear fuel and radioactive waste under the U.S. Nuclear Waste Policy Act of 1982, the Department of Energy has announced the establishment of a blue ribbon commission to explore alternatives. Consistent with the U.S. Nuclear Waste Policy Act of 1982, owners of nuclear plants, including the owners of STP, entered into contracts setting out the obligations of the owners and the DOE including the fees to be paid by the owners for DOE's services. Since 1998, the DOE has been in default on its obligations to begin removing spent nuclear fuel and high-level radioactive waste from reactors.

Under the federal Low-Level Radioactive Waste Policy Act of 1980, as amended, the state of Texas is required to provide, either on its own or jointly with other states in a compact, for the disposal of all low-level radioactive waste generated within the state. In 2003, the state of Texas enacted legislation allowing a private entity to be licensed to accept low-level radioactive waste for disposal. NRG intends to continue to ship low-level waste material from STP offsite for as long as an alternative disposal site is available. Should existing off-site disposal become unavailable, the low-level waste material will then be stored on-site. STP's on-site storage capacity is expected to be adequate for STP's needs until other off-site facilities become available.

### ***Regional U.S. Environmental Initiatives***

#### ***West Region***

Under AB32, which was enacted in 2007, the state of California will launch a multi sector climate change program which likely will include, among other things, a phased cap-and-trade approach starting in 2012 and an increased use of renewable energy. NRG does not expect any implementation of cap-and-trade under AB32 in California to have a significant adverse financial impact on the Company for a variety of reasons, including the fact that NRG's California portfolio consists of natural gas-fired peaking facilities and will likely be able to pass through any costs of purchasing allowances in power prices.

#### ***South Central Region***

On February 11, 2009, the U.S. Department of Justice acting at the request of the U.S. EPA commenced a lawsuit against Louisiana Generating, LLC in federal district court in the Middle District of Louisiana alleging violations of the CAA at the Big Cajun II power plant. This is the same matter for which NOV's were issued to Louisiana

Generating, LLC on February 15, 2005, and on December 8, 2006. Further discussion on this matter can be found in Item 3 Legal Proceedings, *United States of America v. Louisiana Generating, LLC*.

***Domestic Site Remediation Matters***

Under certain federal, state and local environmental laws and regulations, a current or previous owner or operator of any facility, including an electric generating facility, may be required to investigate and remediate



releases or threatened releases of hazardous or toxic substances or petroleum products at the facility. NRG may also be held liable to a governmental entity or to third parties for property damage, personal injury and investigation and remediation costs incurred by a party in connection with hazardous material releases or threatened releases. These laws, including the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986, or SARA, impose liability without regard to whether the owner knew of or caused the presence of the hazardous substances, and the courts have interpreted liability under such laws to be strict (without fault) and joint and several. Cleanup obligations can often be triggered during the closure or decommissioning of a facility, in addition to spills or other occurrences during its operations.

In January 2006, NRG's Indian River Operations, Inc. received a letter of informal notification from the DNREC stating that it may be a potentially responsible party with respect to Burton Island Old Ash Landfill, a historic captive landfill located at the Indian River facility. On October 1, 2007, NRG signed an agreement with the DNREC to investigate the site through the Voluntary Clean-up Program. On February 4, 2008, the DNREC issued findings that no further action is required in relation to surface water and that a previously planned shoreline stabilization project would adequately address shore line erosion. The landfill itself will require a further Remedial Investigation and Feasibility Study to determine the type and scope of any additional work required. Until the Remedial Investigation and Feasibility Study is completed, the Company is unable to predict the impact of any required remediation.

On May 29, 2008, the DNREC issued an invitation to NRG's Indian River Operations, Inc. to participate in the development and performance of a Natural Resource Damage Assessment, or NRDA, at the Burton Island Old Ash Landfill. NRG is currently working with the DNREC and other Trustees to close out the matter.

Further details regarding the Company's Domestic Site Remediation obligations can be found in Item 14 Note 24, *Environmental Matters*, to the Consolidated Financial Statements.

### ***International Environmental Matters***

Most of the foreign countries in which NRG owns, may acquire or develop independent power projects have environmental and safety laws or regulations relating to the ownership or operation of electric power generation facilities. These laws and regulations, like those in the U.S., are constantly evolving and have a significant impact on international wholesale power producers. In particular, NRG's international power generation facilities will likely be affected by emissions limitations and operational requirements imposed by the Kyoto Protocol, an international treaty related to greenhouse gas emissions enacted on February 16, 2005, as well as country-based restrictions pertaining to global climate change concerns.

NRG retains appropriate advisors in foreign countries and seeks to design its international asset management strategy to comply with each country's environmental and safety laws and regulations. There can be no assurance that changes in such laws or regulations will not adversely affect the Company's international operations.

***Schkopau, Germany*** The cost of compliance with the CO<sub>2</sub> regulation for NRG's Schkopau plant is passed through to its off-taker of energy under terms of its existing PPA.

***Gladstone, Australia*** On December 3, 2007, Australia ratified the Kyoto Protocol that commits to targets for GHG reductions. Australia also set a target to reduce greenhouse gas emissions to 60% of 2000 levels by 2050. The government established a single national system for reporting of GHG, abatement actions and energy consumption and generation on July 1, 2008. This will underpin the Australian Emissions Trading Scheme, currently being debated in the Parliament. If it is passed into law, it is not expected to be effective until 2012. NRG may be able to mitigate its exposure to such law by getting free credits and/or contractually passing the obligation to buy credits on to its counterparties.

### **Environmental Capital Expenditures**

Based on current rules, technology and plans, NRG has estimated that environmental capital expenditures to be incurred from 2010 through 2014 to meet NRG's environmental commitments will be approximately \$0.9 billion. These capital expenditures, in general, are related to installation of particulate, SO<sub>2</sub>, NO<sub>x</sub> and mercury controls to comply with federal and state air quality rules and consent orders, as well as installation of Best Technology

Available under the Phase II 316(b) rule. NRG continues to explore cost effective alternatives that can achieve desired results. While this estimate reflects schedules and controls to meet anticipated reduction requirements, the full impact on the scope and timing of environmental retrofits cannot be determined until issuance of final rules by the U.S. EPA.

The following table summarizes the estimated environmental capital expenditures for the referenced periods by region:

|       | Texas | Northeast | South<br>Central<br>(In millions) | Total  |
|-------|-------|-----------|-----------------------------------|--------|
| 2010  | \$    | \$ 230    | \$ 3                              | \$ 233 |
| 2011  |       | 179       | 52                                | 231    |
| 2012  | 6     | 45        | 108                               | 159    |
| 2013  | 39    | 9         | 109                               | 157    |
| 2014  | 50    | 4         | 68                                | 122    |
| Total | \$ 95 | \$ 467    | \$ 340                            | \$ 902 |

This estimate reflects the recent announcement to retrofit only Unit 4 at the Indian River Generating Station and shifts in the timing of other projects to reflect anticipated issuance dates for revised regulations.

NRG's current contracts with the Company's rural electrical customers in the South Central region allow for recovery of a significant portion of the regions capital costs, along with a capital return incurred by complying with new laws, including interest over the asset life of the required expenditures. Actual recoveries will depend, among other things, on the duration of the contracts.

### ***Available Information***

NRG's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or Exchange Act, are available free of charge through the Company's website, [www.nrgenergy.com](http://www.nrgenergy.com), as soon as reasonably practicable after they are electronically filed with, or furnished to the SEC. The Company also routinely posts press releases, presentations, webcasts, and other information regarding the Company on the Company's website.

### **Item 1A Risk Factors Related to NRG Energy, Inc.**

#### ***Many of NRG's power generation facilities operate, wholly or partially, without long-term power sale agreements.***

Many of NRG's facilities operate as merchant facilities without long-term power sales agreements for some or all of their generating capacity and output, and therefore are exposed to market fluctuations. Without the benefit of long-term power sales agreements for these assets, NRG cannot be sure that it will be able to sell any or all of the power generated by these facilities at commercially attractive rates or that these facilities will be able to operate profitably. This could lead to future impairments of the Company's property, plant and equipment or to the closing of certain of its facilities, resulting in economic losses and liabilities, which could have a material adverse effect on the Company's results of operations, financial condition or cash flows.

***NRG's financial performance may be impacted by changing natural gas prices, significant and unpredictable price fluctuations in the wholesale power markets and other market factors that are beyond the Company's control.***

A significant percentage of the Company's domestic revenues are derived from baseload power plants that are fueled by coal. In many of the competitive markets where NRG operates, the price of power typically is set by natural gas-fired power plants that currently have substantially higher variable costs than NRG's coal-fired baseload power plants. This allows the Company's baseload coal generation assets to earn attractive operating margins compared to plants fueled by natural gas. A decrease in natural gas prices could result in a corresponding decrease in

the market price of power that could significantly reduce the operating margins of the Company's baseload generation assets and materially and adversely impact its financial performance.

In addition, because changes in power prices in the markets where NRG operates are generally correlated with changes in natural gas prices, NRG's hedging portfolio includes natural gas derivative instruments to hedge power prices for its baseload generation. If this correlation between power prices and natural gas prices is not maintained and a change in gas prices is not proportionately offset by a change in power prices, the Company's natural gas hedges may not fully cover this differential. This could have a material adverse impact on the Company's cash flow and financial position.

Market prices for power, capacity and ancillary services tend to fluctuate substantially. Unlike most other commodities, electric power can only be stored on a very limited basis and generally must be produced concurrently with its use. As a result, power prices are subject to significant volatility from supply and demand imbalances, especially in the day-ahead and spot markets. Long- and short-term power prices may also fluctuate substantially due to other factors outside of the Company's control, including:

- changes in generation capacity in the Company's markets, including the addition of new supplies of power from existing competitors or new market entrants as a result of the development of new generation plants, expansion of existing plants or additional transmission capacity;

- electric supply disruptions, including plant outages and transmission disruptions;

- changes in power transmission infrastructure;

- fuel transportation capacity constraints;

- weather conditions;

- changes in the demand for power or in patterns of power usage, including the potential development of demand-side management tools and practices;

- development of new fuels and new technologies for the production of power;

- regulations and actions of the ISOs; and

- federal and state power market and environmental regulation and legislation.

These factors have caused the Company's operating results to fluctuate in the past and will continue to cause them to do so in the future.

***NRG's costs, results of operations, financial condition and cash flows could be adversely impacted by disruption of its fuel supplies.***

NRG relies on coal, oil and natural gas to fuel a majority of its power generation facilities. Delivery of these fuels to the facilities is dependent upon the continuing financial viability of contractual counterparties as well as upon the infrastructure (including rail lines, rail cars, barge facilities, roadways, and natural gas pipelines) available to serve each generation facility. As a result, the Company is subject to the risks of disruptions or curtailments in the production of power at its generation facilities if a counterparty fails to perform or if there is a disruption in the fuel delivery infrastructure.

NRG has sold forward a substantial portion of its baseload power in order to lock in long-term prices that it deemed to be favorable at the time it entered into the forward sale contracts. In order to hedge its obligations under these forward power sales contracts, the Company has entered into long-term and short-term contracts for the purchase and delivery of fuel. Many of the forward power sales contracts do not allow the Company to pass through changes in fuel costs or discharge the power sale obligations in the case of a disruption in fuel supply due to force majeure events or the default of a fuel supplier or transporter. Disruptions in the Company's fuel supplies may therefore require it to find alternative fuel sources at higher costs, to find other sources of power to deliver to counterparties at a higher cost, or to pay damages to counterparties for failure to deliver power as contracted. Any such event could have a material adverse effect on the Company's financial performance.

NRG also buys significant quantities of fuel on a short-term or spot market basis. Prices for all of the Company's fuels fluctuate, sometimes rising or falling significantly over a relatively short period of time. The price NRG can obtain for the sale of energy may not rise at the same rate, or may not rise at all, to match a rise in fuel or delivery costs. This may have a material adverse effect on the Company's financial performance. Changes in market prices for natural gas, coal and oil may result from the following:

weather conditions;

seasonality;

demand for energy commodities and general economic conditions;

disruption or other constraints or inefficiencies of electricity, gas or coal transmission or transportation;

additional generating capacity;

availability and levels of storage and inventory for fuel stocks;

natural gas, crude oil, refined products and coal production levels;

changes in market liquidity;

federal, state and foreign governmental regulation and legislation; and

the creditworthiness and liquidity and willingness of fuel suppliers/transporters to do business with the Company.

NRG's plant operating characteristics and equipment, particularly at its coal-fired plants, often dictate the specific fuel quality to be combusted. The availability and price of specific fuel qualities may vary due to supplier financial or operational disruptions, transportation disruptions and force majeure. At times, coal of specific quality may not be available at any price, or the Company may not be able to transport such coal to its facilities on a timely basis. In this case, the Company may not be able to run the coal facility even if it would be profitable. Operating a coal facility with different quality coal can lead to emission or operating problems. If the Company had sold forward the power from such a coal facility, it could be required to supply or purchase power from alternate sources, perhaps at a loss. This could have a material adverse impact on the financial results of specific plants and on the Company's results of operations.

***There may be periods when NRG will not be able to meet its commitments under forward sale obligations at a reasonable cost or at all.***

A substantial portion of the output from NRG's baseload facilities has been sold forward under fixed price power sales contracts through 2014, and the Company also sells forward the output from its intermediate and peaking facilities when it deems it commercially advantageous to do so. Because the obligations under most of these agreements are not contingent on a unit being available to generate power, NRG is generally required to deliver power to the buyer, even in the event of a plant outage, fuel supply disruption or a reduction in the available capacity of the unit. To the extent that the Company does not have sufficient lower cost capacity to meet its commitments under its forward sale obligations, the Company would be required to supply replacement power either by running its other, higher cost power plants or by obtaining power from third-party sources at market prices that could substantially exceed the contract price. If NRG fails to deliver the contracted power, it would be required to pay the difference between the

market price at the delivery point and the contract price, and the amount of such payments could be substantial.

In the South Central region, NRG has long-term contracts with rural cooperatives that require it to serve all of the cooperatives' requirements at prices that generally reflect the costs of coal-fired generation. During limited peak demand periods, the load requirements of these contract customers exceed the baseload capacity of NRG's coal-fired Big Cajun II plant. During such peak demand periods, NRG either employs its owned or leased gas-fired assets or purchases power from external sources and, depending upon the then-current gas commodity pricing, these purchases can be at higher prices than can be recovered under the Company's contracts. NRG's financial returns from its South Central region could be negatively impacted for a limited period if the rural cooperatives



significantly grow their customer base during the remaining terms of these contracts prior to the expiration of half of the cooperative contracts in 2014. In addition, NRG has other obligations to supply power to load serving entities and, at times, NRG's load obligations may exceed its available generation and long-term purchases thus requiring the Company to purchase energy at market prices.

***NRG's trading operations and the use of hedging agreements could result in financial losses that negatively impact its results of operations.***

The Company typically enters into hedging agreements, including contracts to purchase or sell commodities at future dates and at fixed prices, in order to manage the commodity price risks inherent in its power generation operations. These activities, although intended to mitigate price volatility, expose the Company to other risks. When the Company sells power forward, it gives up the opportunity to sell power at higher prices in the future, which not only may result in lost opportunity costs but also may require the Company to post significant amounts of cash collateral or other credit support to its counterparties. The Company also relies on counterparty performance under its hedging agreements and is exposed to the credit quality of its counterparties under those agreements. Further, if the values of the financial contracts change in a manner that the Company does not anticipate, or if a counterparty fails to perform under a contract, it could harm the Company's business, operating results or financial position.

NRG does not typically hedge the entire exposure of its operations against commodity price volatility. To the extent it does not hedge against commodity price volatility, the Company's results of operations and financial position may be improved or diminished based upon movement in commodity prices.

NRG may engage in trading activities, including the trading of power, fuel and emissions allowances that are not directly related to the operation of the Company's generation facilities or the management of related risks. These trading activities take place in volatile markets and some of these trades could be characterized as speculative. The Company would expect to settle these trades financially rather than through the production of power or the delivery of fuel. This trading activity may expose the Company to the risk of significant financial losses which could have a material adverse effect on its business and financial condition.

***NRG may not have sufficient liquidity to hedge market risks effectively.***

The Company is exposed to market risks through its power marketing business, which involves the sale of energy, capacity and related products and the purchase and sale of fuel, transmission services and emission allowances. These market risks include, among other risks, volatility arising from location and timing differences that may be associated with buying and transporting fuel, converting fuel into energy and delivering the energy to a buyer.

NRG undertakes these marketing activities through agreements with various counterparties. Many of the Company's agreements with counterparties include provisions that require the Company to provide guarantees, offset of netting arrangements, letters of credit, a first or second lien on assets and/or cash collateral to protect the counterparties against the risk of the Company's default or insolvency. The amount of such credit support that must be provided typically is based on the difference between the price of the commodity in a given contract and the market price of the commodity. Significant movements in market prices can result in the Company being required to provide cash collateral and letters of credit in very large amounts. The effectiveness of the Company's strategy may be dependent on the amount of collateral available to enter into or maintain these contracts, and liquidity requirements may be greater than the Company anticipates or will be able to meet. Without a sufficient amount of working capital to post as collateral in support of performance guarantees or as a cash margin, the Company may not be able to manage price volatility effectively or to implement its strategy. An increase in the amount of letters of credit or cash collateral required to be provided to the Company's counterparties may negatively affect the Company's liquidity and financial condition.

Further, if any of NRG's facilities experience unplanned outages, the Company may be required to procure replacement power at spot market prices in order to fulfill contractual commitments. Without adequate liquidity to meet margin and collateral requirements, the Company may be exposed to significant losses, may miss significant opportunities, and may have increased exposure to the volatility of spot markets.

***The accounting for NRG's hedging activities may increase the volatility in the Company's quarterly and annual financial results.***

NRG engages in commodity-related marketing and price-risk management activities in order to financially hedge its exposure to market risk with respect to electricity sales from its generation assets, fuel utilized by those assets and emission allowances.

NRG generally attempts to balance its fixed-price physical and financial purchases and sales commitments in terms of contract volumes and the timing of performance and delivery obligations through the use of financial and physical derivative contracts. These derivatives are accounted for in accordance with ASC-815, *Derivatives and Hedging*, or ASC 815, which requires the Company to record all derivatives on the balance sheet at fair value with changes in the fair value resulting from fluctuations in the underlying commodity prices immediately recognized in earnings, unless the derivative qualifies for cash flow hedge accounting treatment. Whether a derivative qualifies for cash flow hedge accounting treatment depends upon it meeting specific criteria used to determine if the cash flow hedge is and will remain appropriate for the term of the derivative. All economic hedges may not necessarily qualify for cash flow hedge accounting treatment. As a result, the Company's quarterly and annual results are subject to significant fluctuations caused by changes in market prices.

***Competition in wholesale power markets may have a material adverse effect on NRG's results of operations, cash flows and the market value of its assets.***

NRG has numerous competitors in all aspects of its business, and additional competitors may enter the industry. Because many of the Company's facilities are old, newer plants owned by the Company's competitors are often more efficient than NRG's aging plants, which may put some of these plants at a competitive disadvantage to the extent the Company's competitors are able to consume the same or less fuel as the Company's plants consume. Over time, the Company's plants may be squeezed out of their markets, or may be unable to compete with these more efficient plants.

In NRG's power marketing and commercial operations, it competes on the basis of its relative skills, financial position and access to capital with other providers of electric energy in the procurement of fuel and transportation services, and the sale of capacity, energy and related products. In order to compete successfully, the Company seeks to aggregate fuel supplies at competitive prices from different sources and locations and to efficiently utilize transportation services from third-party pipelines, railways and other fuel transporters and transmission services from electric utilities.

Other companies with which NRG competes with may have greater liquidity, greater access to credit and other financial resources, lower cost structures, more effective risk management policies and procedures, greater ability to incur losses, longer-standing relationships with customers, greater potential for profitability from ancillary services or greater flexibility in the timing of their sale of generation capacity and ancillary services than NRG does.

NRG's competitors may be able to respond more quickly to new laws or regulations or emerging technologies, or to devote greater resources to the construction, expansion or refurbishment of their power generation facilities than NRG can. In addition, current and potential competitors may make strategic acquisitions or establish cooperative relationships among themselves or with third parties. Accordingly, it is possible that new competitors or alliances among current and new competitors may emerge and rapidly gain significant market share. There can be no assurance that NRG will be able to compete successfully against current and future competitors, and any failure to do so would have a material adverse effect on the Company's business, financial condition, results of operations and cash flow.

***Operation of power generation facilities involves significant risks and hazards customary to the power industry that could have a material adverse effect on NRG's revenues and results of operations. NRG may not have adequate insurance to cover these risks and hazards.***

The ongoing operation of NRG's facilities involves risks that include the breakdown or failure of equipment or processes, performance below expected levels of output or efficiency and the inability to transport the Company's product to its customers in an efficient manner due to a lack of transmission capacity. Unplanned outages of

generating units, including extensions of scheduled outages due to mechanical failures or other problems occur from time to time and are an inherent risk of the Company's business. Unplanned outages typically increase the Company's operation and maintenance expenses and may reduce the Company's revenues as a result of selling fewer MWh or require NRG to incur significant costs as a result of running one of its higher cost units or obtaining replacement power from third parties in the open market to satisfy the Company's forward power sales obligations. NRG's inability to operate the Company's plants efficiently, manage capital expenditures and costs, and generate earnings and cash flow from the Company's asset-based businesses could have a material adverse effect on the Company's results of operations, financial condition or cash flows. While NRG maintains insurance, obtains warranties from vendors and obligates contractors to meet certain performance levels, the proceeds of such insurance, warranties or performance guarantees may not be adequate to cover the Company's lost revenues, increased expenses or liquidated damages payments should the Company experience equipment breakdown or non-performance by contractors or vendors.

Power generation involves hazardous activities, including acquiring, transporting and unloading fuel, operating large pieces of rotating equipment and delivering electricity to transmission and distribution systems. In addition to natural risks such as earthquake, flood, lightning, hurricane and wind, other hazards, such as fire, explosion, structural collapse and machinery failure are inherent risks in the Company's operations. These and other hazards can cause significant personal injury or loss of life, severe damage to and destruction of property, plant and equipment, contamination of, or damage to, the environment and suspension of operations. The occurrence of any one of these events may result in NRG being named as a defendant in lawsuits asserting claims for substantial damages, including for environmental cleanup costs, personal injury and property damage and fines and/or penalties. NRG maintains an amount of insurance protection that it considers adequate, but the Company cannot provide any assurance that its insurance will be sufficient or effective under all circumstances and against all hazards or liabilities to which it may be subject. A successful claim for which the Company is not fully insured could hurt its financial results and materially harm NRG's financial condition. Further, due to rising insurance costs and changes in the insurance markets, NRG cannot provide any assurance that its insurance coverage will continue to be available at all or at rates or on terms similar to those presently available. Any losses not covered by insurance could have a material adverse effect on the Company's financial condition, results of operations or cash flows.

***Maintenance, expansion and refurbishment of power generation facilities involve significant risks that could result in unplanned power outages or reduced output and could have a material adverse effect on NRG's results of operations, cash flow and financial condition.***

Many of NRG's facilities are old and require periodic upgrading and improvement. Any unexpected failure, including failure associated with breakdowns, forced outages or any unanticipated capital expenditures could result in reduced profitability.

NRG cannot be certain of the level of capital expenditures that will be required due to changing environmental and safety laws and regulations (including changes in the interpretation or enforcement thereof), needed facility repairs and unexpected events (such as natural disasters or terrorist attacks). The unexpected requirement of large capital expenditures could have a material adverse effect on the Company's liquidity and financial condition.

If NRG makes any major modifications to its power generation facilities, the Company may be required to install the best available control technology or to achieve the lowest achievable emission rates as such terms are defined under the new source review provisions of the federal Clean Air Act. Any such modifications would likely result in substantial additional capital expenditures.

***The Company may incur additional costs or delays in the development, construction and operation of new plants, improvements to existing plants, or the implementation of environmental control equipment at existing plants and may not be able to recover their investment or complete the project.***

The Company is in the process of developing or constructing new generation facilities, improving its existing facilities and adding environmental controls to its existing facilities. The development, construction, expansion, modification and refurbishment of power generation facilities involve many additional risks, including:

delays in obtaining necessary permits and licenses;

environmental remediation of soil or groundwater at contaminated sites;

interruptions to dispatch at the Company's facilities;

supply interruptions;

work stoppages;

labor disputes;

weather interferences;

unforeseen engineering, environmental and geological problems;

unanticipated cost overruns;

exchange rate risks;

performance risks; and

unsuccessful partnering relationships.

In addition, NINA, the Company's subsidiary focused on marketing, siting, developing, financing and investing in new advanced design nuclear projects in select markets across North America, including the planned STP Units 3 and 4 is subject to these and to additional risks, including delays in receiving or failure to receive commitments under the DOE's loan guaranty program and the inability to sell down NINA's interest in the STP expansion as the project develops.

Any of these risks could cause NRG's financial returns on new investments to be lower than expected, or could cause the Company to operate below expected capacity or availability levels, which could result in lost revenues, increased expenses, higher maintenance costs and penalties. Insurance is maintained to protect against these risks, warranties are generally obtained for limited periods relating to the construction of each project and its equipment in varying degrees, and contractors and equipment suppliers are obligated to meet certain performance levels. The insurance, warranties or performance guarantees, however, may not be adequate to cover increased expenses. As a result, a project may cost more than projected and may be unable to fund principal and interest payments under its construction financing obligations, if any. A default under such a financing obligation could result in losing the Company's interest in a power generation facility.

If the Company is unable to complete the development or construction of a facility or environmental control, or decides to delay or cancel such project, it may not be able to recover its investment in that facility or environmental control. In addition, the Company's nuclear development initiatives are an integral part of the Company's overall low or no carbon growth initiatives and the inability of the Company to maintain significant involvement in new nuclear development may result in the Company's inability to successfully implement the Company's other growth initiatives. Furthermore, if construction projects are not completed according to specification, the Company may incur liabilities and suffer reduced plant efficiency, higher operating costs and reduced net income.

***The Company's Repowering NRG program is subject to financing risks that could adversely impact NRG's financial performance.***

While NRG currently intends to develop and finance the more capital intensive, solid fuel-fired projects included in the *Repowering* NRG program on a non-recourse or limited recourse basis through separate project financed entities, and intends to seek additional investments in most of these projects from third parties, NRG anticipates that it will need to make significant equity investments in these projects. NRG may also decide to develop and finance some of the projects, such as smaller gas-fired and renewable projects, using corporate financial resources rather than non-recourse debt, which could subject NRG to significant capital expenditure requirements and to risks inherent in the development and construction of new generation facilities. In addition to providing some or all of the equity required to develop and build the proposed projects, NRG's ability to finance these projects on a non-recourse basis is contingent upon a number of factors, including the terms of the EPC contracts, construction costs, PPAs and fuel procurement contracts, capital markets conditions, the availability of tax credits and other government incentives for certain new technologies. To the extent NRG is not able to obtain



non-recourse financing for any project or should the credit rating agencies attribute a material amount of the project finance debt to NRG's credit, the financing of the *Repowering* NRG projects could have a negative impact on the credit ratings of NRG.

As part of the *Repowering* NRG program, NRG may also choose to undertake the repowering, refurbishment or upgrade of current facilities based on the Company's assessment that such activity will provide adequate financial returns. Such projects often require several years of development and capital expenditures before commencement of commercial operations, and key assumptions underpinning a decision to make such an investment may prove incorrect, including assumptions regarding construction costs, timing, available financing and future fuel and power prices.

***Supplier and/or customer concentration at certain of NRG's facilities may expose the Company to significant financial credit or performance risks.***

NRG often relies on a single contracted supplier or a small number of suppliers for the provision of fuel, transportation of fuel and other services required for the operation of certain of its facilities. If these suppliers cannot perform, the Company utilizes the marketplace to provide these services. There can be no assurance that the marketplace can provide these services as, when and where required.

At times, NRG relies on a single customer or a few customers to purchase all or a significant portion of a facility's output, in some cases under long-term agreements that account for a substantial percentage of the anticipated revenue from a given facility. The Company has also hedged a portion of its exposure to power price fluctuations through forward fixed price power sales and natural gas price swap agreements. Counterparties to these agreements may breach or may be unable to perform their obligations. NRG may not be able to enter into replacement agreements on terms as favorable as its existing agreements, or at all. If the Company was unable to enter into replacement PPA's, the Company would sell its plants' power at market prices. If the Company is unable to enter into replacement fuel or fuel transportation purchase agreements, NRG would seek to purchase the Company's fuel requirements at market prices, exposing the Company to market price volatility and the risk that fuel and transportation may not be available during certain periods at any price.

The failure of any supplier or customer to fulfill its contractual obligations to NRG could have a material adverse effect on the Company's financial results. Consequently, the financial performance of the Company's facilities is dependent on the credit quality of, and continued performance by, suppliers and customers.

***NRG relies on power transmission facilities that it does not own or control and that are subject to transmission constraints within a number of the Company's core regions. If these facilities fail to provide NRG with adequate transmission capacity, the Company may be restricted in its ability to deliver wholesale electric power to its customers and the Company may either incur additional costs or forego revenues. Conversely, improvements to certain transmission systems could also reduce revenues.***

NRG depends on transmission facilities owned and operated by others to deliver the wholesale power it sells from the Company's power generation plants to its customers. If transmission is disrupted, or if the transmission capacity infrastructure is inadequate, NRG's ability to sell and deliver wholesale power may be adversely impacted. If a region's power transmission infrastructure is inadequate, the Company's recovery of wholesale costs and profits may be limited. If restrictive transmission price regulation is imposed, the transmission companies may not have sufficient incentive to invest in expansion of transmission infrastructure. The Company cannot also predict whether transmission facilities will be expanded in specific markets to accommodate competitive access to those markets.

In addition, in certain of the markets in which NRG operates, energy transmission congestion may occur and the Company may be deemed responsible for congestion costs if it schedules delivery of power between congestion zones during times when congestion occurs between the zones. If NRG were liable for such congestion costs, the Company's financial results could be adversely affected.

The Company has a significant amount of generation located in load pockets, making that generation valuable, particularly with respect to maintaining the reliability of the transmission grid. Expansion of transmission systems

to reduce or eliminate these load pockets could negatively impact the value or profitability of the Company's existing facilities in these areas.

***Because NRG owns less than a majority of some of its project investments, the Company cannot exercise complete control over their operations.***

NRG has limited control over the operation of some project investments and joint ventures because the Company's investments are in projects where it beneficially owns less than a majority of the ownership interests. NRG seeks to exert a degree of influence with respect to the management and operation of projects in which it owns less than a majority of the ownership interests by negotiating to obtain positions on management committees or to receive certain limited governance rights, such as rights to veto significant actions. However, the Company may not always succeed in such negotiations. NRG may be dependent on its co-venturers to operate such projects. The Company's co-venturers may not have the level of experience, technical expertise, human resources management and other attributes necessary to operate these projects optimally. The approval of co-venturers also may be required for NRG to receive distributions of funds from projects or to transfer the Company's interest in projects.

***Future acquisition activities may have adverse effects.***

NRG may seek to acquire additional companies or assets in the Company's industry or which complement the Company's industry. The acquisition of companies and assets is subject to substantial risks, including the failure to identify material problems during due diligence, the risk of over-paying for assets, the ability to retain customers and the inability to arrange financing for an acquisition as may be required or desired. Further, the integration and consolidation of acquisitions requires substantial human, financial and other resources and, ultimately, the Company's acquisitions may not be successfully integrated. There can be no assurances that any future acquisitions will perform as expected or that the returns from such acquisitions will support the indebtedness incurred to acquire them or the capital expenditures needed to develop them.

***NRG's business is subject to substantial governmental regulation and may be adversely affected by legislative or regulatory changes, as well as liability under, or any future inability to comply with, existing or future regulations or requirements.***

NRG's business is subject to extensive foreign, and U.S. federal, state and local laws and regulation. Compliance with the requirements under these various regulatory regimes may cause the Company to incur significant additional costs, and failure to comply with such requirements could result in the shutdown of the non-complying facility, the imposition of liens, fines, and/or civil or criminal liability.

Public utilities under the FPA are required to obtain FERC acceptance of their rate schedules for wholesale sales of electricity. All of NRG's non-qualifying facility generating companies and power marketing affiliates in the U.S. make sales of electricity in interstate commerce and are public utilities for purposes of the FPA. The FERC has granted each of NRG's generating and power marketing companies the authority to sell electricity at market-based rates. The FERC's orders that grant NRG's generating and power marketing companies market-based rate authority reserve the right to revoke or revise that authority if the FERC subsequently determines that NRG can exercise market power in transmission or generation, create barriers to entry, or engage in abusive affiliate transactions. In addition, NRG's market-based sales are subject to certain market behavior rules, and if any of NRG's generating and power marketing companies were deemed to have violated one of those rules, they are subject to potential disgorgement of profits associated with the violation and/or suspension or revocation of their market-based rate authority. If NRG's generating and power marketing companies were to lose their market-based rate authority, such companies would be required to obtain the FERC's acceptance of a cost-of-service rate schedule and could become subject to the accounting, record-keeping, and reporting requirements that are imposed on utilities with cost-based rate schedules. This could

have an adverse effect on the rates NRG charges for power from its facilities.

NRG is also affected by legislative and regulatory changes, as well as changes to market design, market rules, tariffs, cost allocations, and bidding rules that occur in the existing ISOs. The ISOs that oversee most of the wholesale power markets impose, and in the future may continue to impose, mitigation, including price limitations, offer caps, and other mechanisms to address some of the volatility and the potential exercise of market power in