UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 24, 2012

NRG ENERGY, INC.

(Exact name of Registrant as specified in its charter)

Delaware001-1589141-1724239(State or other jurisdiction
of incorporation)(Commission File
Number)(IRS Employer
Identification No.)

211 Carnegie Center, Princeton, New Jersey 08540

(Address of principal executive offices, including zip code)

(609) 524-4500

(Registrant's telephone number, including area code)

N/A

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

×	Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
	Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
	Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events

The purpose of this current report on Form 8-K is to update the joint proxy statement/prospectus (the "Joint Proxy Statement/Prospectus") included in the Registration Statement on Form S-4, file No. 333-183334 (the "Registration Statement"), filed by NRG Energy, Inc. ("NRG") with the Securities and Exchange Commission (the "SEC") and declared effective by the SEC on October 5, 2012, concerning the proposed merger of NRG and GenOn Energy, Inc. ("GenOn"). The Joint Proxy Statement/Prospectus was first mailed to the respective stockholders of NRG and GenOn on or about October 10, 2012.

As disclosed in the Joint Proxy Statement/Prospectus, following the announcement of the execution of a definitive merger agreement between NRG and GenOn, nine lawsuits raising claims on behalf of a purported class of GenOn stockholders were filed in the Delaware Court of Chancery against GenOn, members of GenOn's board of directors, NRG and Plus Merger Corporation, which lawsuits were subsequently consolidated into a single action captioned *In re GenOn Energy, Inc. Shareholders Litigation*, Consolidated C.A. No. 7721-VCN (the "Delaware Action").

On October 24, 2012, the parties to the Delaware Action entered into a memorandum of understanding with respect to a proposed settlement of the Delaware Action, pursuant to which the parties have agreed, among other things, that GenOn and NRG will make certain supplemental disclosures related to the proposed merger, all of which are set forth in a supplement to the Joint Proxy Statement/Prospectus (the "Proxy Supplement").

A copy of the Proxy Supplement is filed herewith as Exhibit 99.1 and incorporated by reference herein. The Proxy Supplement should be read in conjunction with the Joint Proxy Statement/Prospectus, which should be read in its entirety. The information contained in this Current Report on Form 8-K (and in the Exhibit hereto) is incorporated by reference into the Registration Statement and the Joint Proxy Statement/Prospectus included therein.

In addition to the disclosure in the "Litigation Relating to the Merger" section of the Joint Proxy Statement/Prospectus and the disclosure in the attached Proxy Supplement, on October 25, 2012, the United States District Court for the Southern District of Texas issued an order staying the lawsuit captioned *Bushansky v. GenOn Energy, Inc. et al.*, No. 4:12-CV-02257 until the later of the resolution of a motion for preliminary injunction or the final settlement of the aforementioned Delaware Action.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit
Number

99.1 Supplement to Joint Proxy Statement/Prospectus, dated October 24, 2012.

Forward Looking Statements

In addition to historical information, the information presented in this report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. These statements involve estimates, expectations, projections, goals, assumptions, known and unknown risks and uncertainties and can typically be identified by terminology such as "may," "will," "should," "could," "objective," "projection," "forecast," "goal," "guidance," "outlook," "expect," "intend," "seek," "plan," "think," "anticipate," "estimate," "predict," "target," "potential" or "continue" or the negative of these terms or other comparable terminology. Such forward-looking statements include, but are not limited to, statements about the anticipated benefits of the proposed transaction between NRG and GenOn, each party's and the combined company's future revenues, income, indebtedness, capital structure, plans, expectations, objectives, projected financial performance and/or business results and other future events, each party's views of economic and market conditions, and the expected timing of the completion of the proposed transaction.

Forward-looking statements are not a guarantee of future performance and actual events or results may differ materially from any forward-looking statement as result of various risks and uncertainties, including, but not limited to, those relating to: the ability to satisfy the conditions to the proposed transaction between NRG and GenOn, the ability to successfully complete the proposed transaction (including any financing arrangements in connection therewith) in accordance with its terms and in accordance with expected schedule, the ability to obtain stockholder, regulatory or other approvals for the proposed transaction, or an inability to obtain them on the terms proposed or on the anticipated schedule, diversion of management attention on transaction-related issues, impact of the transaction on relationships with customers, suppliers and employees, the ability to finance the combined business post-closing and the terms on which such financing may be available, the financial performance of the combined company following completion of the proposed transaction, the ability to successfully integrate the businesses of NRG and GenOn, the ability to realize anticipated benefits of the proposed transaction (including expected cost savings and other synergies) or the risk that anticipated benefits may take longer to realize than expected, legislative, regulatory and/or market developments, the outcome of pending or threatened lawsuits, regulatory or tax proceedings or investigations, the effects of competition or regulatory intervention, financial and economic market conditions, access to capital, the timing and extent of changes in law and regulation (including environmental), commodity prices, prevailing demand and market prices for electricity, capacity, fuel and emissions allowances, weather conditions, operational constraints or outages, fuel supply or transmission issues, hedging ineffectiveness.

Additional information concerning other risk factors is contained in NRG's and GenOn's most recently filed Annual Reports on Form 10-K, subsequent Quarterly Reports on Form 10-Q, recent Current Reports on Form 8-K, and other SEC filings.

Many of these risks, uncertainties and assumptions are beyond NRG's ability to control or predict. Because of these risks, uncertainties and assumptions, you should not place undue reliance on these forward-looking statements. Furthermore, forward-looking statements speak only as of the date they are made, and NRG does not undertake any obligation to update publicly or revise any forward-looking statements to reflect events or circumstances that may arise after the date of this communication. All subsequent written and oral forward-looking statements concerning NRG, GenOn, the proposed transaction, the combined company or other matters and attributable to NRG, GenOn or any person acting on their behalf are expressly qualified in their entirety by the cautionary statements above.

Additional Information about the Proposed Transaction and Where You Can Find It

In connection with the proposed merger between NRG and GenOn, NRG filed with the Securities and Exchange Commission ("SEC") a registration statement on Form S-4 that includes a joint proxy

statement of NRG and GenOn and that also constitutes a prospectus of NRG. The registration statement was declared effective by the SEC on October 5, 2012. NRG and GenOn first mailed the joint proxy statement/prospectus to their respective stockholders on or about October 10, 2012. NRG and GenOn may also file other documents with the SEC regarding the proposed transaction. INVESTORS AND SECURITY HOLDERS OF NRG AND GENON ARE URGED TO READ THE JOINT PROXY STATEMENT/PROSPECTUS AND ANY OTHER RELEVANT DOCUMENTS THAT ARE FILED WITH THE SEC, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS TO THESE DOCUMENTS, CAREFULLY AND IN THEIR ENTIRETY BECAUSE THEY CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Investors and stockholders may obtain free copies of the joint proxy statement/prospectus and other documents containing important information about NRG and GenOn through the website maintained by the SEC at www.sec.gov. In addition, NRG makes available free of charge at www.nrgenergy.com (in the "Investors" section), copies of materials it files with, or furnish to, the SEC.

Participants In The Merger Solicitation

NRG, GenOn, and certain of their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from the stockholders of NRG and GenOn in connection with the proposed transaction. Information about the directors and executive officers of NRG is set forth in its proxy statement for its 2012 annual meeting of stockholders, which was filed with the SEC on March 12, 2012. Information about the directors and executive officers of GenOn is set forth in its proxy statement for its 2012 annual meeting of stockholders, which was filed with the SEC on March 30, 2012. Other information regarding the participants in the proxy solicitation can be found in the above-referenced registration statement on Form S-4. These documents can be obtained free of charge from the sources indicated above.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

NRG ENERGY, INC.

Date: October 25, 2012 By: /s/ DAVID R. HILL

Name: David R. Hill

Title: Executive Vice President and General Counsel

5

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
99.1	Supplement to Joint Proxy Statement/Prospectus, dated October 24, 2012.
	6

QuickLinks

Item 8.01 Other Events

Item 9.01. Financial Statements and Exhibits.

Forward Looking Statements

Additional Information about the Proposed Transaction and Where You Can Find It

Participants In The Merger Solicitation

SIGNATURES

EXHIBIT INDEX

Exhibit 99.1

SUPPLEMENT TO PROXY STATEMENT/PROSPECTUS

We have made the following supplemental disclosures to the Joint Proxy Statement/Prospectus in connection with the proposed settlement of In re GenOn Energy, Inc. Shareholders Litigation, Consolidated C.A. No. 7721-VCN pending in the Delaware Court of Chancery. The parties have entered into a memorandum of understanding to settle the lawsuit pending in the Delaware Court of Chancery. Pursuant to the proposed settlement, we have agreed to provide the additional information set forth below. The supplement disclosures also include an update regarding the financing commitment obtained by NRG in connection with the merger. This supplemental information should be read in conjunction with the Joint Proxy Statement/Prospectus, which should be read in its entirety. Defined terms used but not defined herein have the meanings set forth in the Joint Proxy Statement/Prospectus.

This supplement to proxy statement/prospectus is dated October 24, 2012 and is first being mailed to stockholders of GenOn on or about October 26, 2012.

SETTLEMENT OF LITIGATION

As previously disclosed beginning on pages 37 and 101 of the Joint Proxy Statement/Prospectus, thirteen lawsuits raising claims on behalf of a purported class of GenOn stockholders were filed against GenOn Energy, Inc., which we refer to as GenOn, the members of the GenOn Board, NRG Energy, Inc., and Plus Merger Corporation. Nine of these thirteen lawsuits (one of which was voluntarily dismissed) were filed in the Delaware Court of Chancery, which we refer to as the Delaware court, and such lawsuits were consolidated on August 24, 2012 as *In re GenOn Energy, Inc.*Shareholders Litigation, which we refer to as the Delaware action. Three of the remaining actions were filed in Texas state court and subsequently consolidated, and one was filed in Texas federal court.

On October 24, 2012, we entered into a Memorandum of Understanding (the "MOU") with the plaintiffs in the Delaware action, which sets forth the parties' agreement in principle for settlement. As explained in the MOU, to avoid the risk that the Delaware action may delay or otherwise adversely affect the consummation of the merger and to minimize the expense of defending such action, we have agreed, pursuant to the terms of the proposed settlement, to make certain supplemental disclosures related to the proposed merger, all of which are set forth below. Subject to completion of certain confirmatory discovery by counsel to the plaintiffs, the MOU contemplates that the parties will enter into a stipulation of settlement. The stipulation of settlement will be subject to customary conditions, including court approval following notice to the GenOn's stockholders. In the event that the parties enter into a stipulation of settlement, a hearing will be scheduled at which the Delaware court will consider the fairness, reasonableness, and adequacy of the settlement. As explained in the MOU, if the settlement is finally approved by the Delaware court, the parties anticipate that it will resolve and release all claims in all actions (including those claims brought in the Texas state actions and the Texas federal action) brought on behalf of a non-opt out class of stockholders who held GenOn common stock any time between and including July 20, 2012 and the date of the consummation of the merger, that were or could have been brought challenging any aspect of the proposed merger, the merger agreement, and any disclosure made in connection therewith, pursuant to terms that will be disclosed to stockholders prior to final approval of the settlement. In addition, in connection with the settlement, the parties contemplate that plaintiffs' counsel in the Delaware action will file a petition in the Delaware court for an award of attorneys' fees and expenses to be paid by GenOn or its successor. GenOn or its successor will pay or cause to be paid any attorneys' fees and expenses awarded by the Delaware court. The settlement will not affect the merger consideration. There can be no assurance that the parties will ultimately enter into a stipulation of settlement or that the Delaware court will approve the settlement even if the parties were to enter into such stipulation. In such event, the proposed settlement as contemplated by the MOU may be terminated.

SUPPLEMENTAL DISCLOSURES

Summary—Treatment of GenOn's Existing Debt; Financing

The following disclosure replaces the last sentence in the third paragraph under the heading "Treatment of GenOn's Existing Debt; Financing" on page 21 of the Joint Proxy Statement/Prospectus in its entirety:

NRG has obtained commitment letters from Credit Suisse AG, Cayman Islands Branch and Morgan Stanley Senior Funding, Inc. to fund up to \$1.0 billion under a new senior secured term loan facility, to the extent such funds are necessary to consummate the Change in Control Offers and the NRG Debt Offers.

Risk Factors

The following disclosure replaces the fourth sentence in the last paragraph on page 38 of the Joint Proxy Statement/Prospectus:

While NRG has obtained commitment letters from Credit Suisse AG, Cayman Islands Branch and Morgan Stanley Senior Funding, Inc. to fund up to \$1.0 billion under a new senior secured term loan facility, there is no assurance that the new financing will be obtained on desired terms and within a desired timeframe or will not contain terms, conditions or restrictions that would be detrimental to the combined company after the completion of the merger.

Background of the Merger

The following disclosure is to be added after the fourth sentence of the second paragraph on page 42 of the Joint Proxy Statement/Prospectus:

In view of this analysis, and in light of the reasonable size of the break-up fee that was ultimately agreed to with NRG, the GenOn Board determined that it was not necessary to solicit interest from other potential strategic buyers. In addition, in view of this analysis, and the GenOn Board's view of the benefits of the contemplated transaction with NRG (see "GenOn Board of Directors' Recommendation and Its Reasons for the Merger"), the GenOn Board determined that a transaction with NRG would represent a superior alternative to remaining a standalone entity.

The following disclosure replaces and supplements the sixth full paragraph on page 44 of the Joint Proxy Statement/Prospectus:

On June 19, 2012, Messrs. Crane and Andrews from NRG met with Messrs. Muller and Holden from GenOn in Washington, D.C. During this meeting, the parties confirmed with each other certain findings from the initial due diligence phase and engaged in further discussions regarding the proposed transaction structure, anticipated synergies and integration matters. In addition, for the first time, the parties shared their respective views on valuation and potential governance structures for the combined company. With respect to valuation, Messrs. Muller and Holden emphasized GenOn's view that the exchange ratio should be based on the premise that the stockholders of GenOn and NRG should share equally the synergies resulting from general and administrative expense reductions expected to result from the proposed transaction. Messrs. Crane and Andrews disagreed with such premise on the basis that, among other things, NRG stockholders would own a substantially greater percentage of the capital stock of the combined company than GenOn stockholders. NRG also expressed the view that, based on the companies' relative values and potential synergies resulting from general and administrative expense reductions, the exchange ratio would likely fall within the range of 0.1 to 0.125. The parties also discussed the process for conducting detailed due diligence and the contemplated timing for signing and announcing a transaction assuming successful completion of due diligence and agreement on the terms of a merger agreement.

The following disclosure replaces and supplements the second full paragraph on page 46 of the Joint Proxy Statement/Prospectus:

On July 13, 2012, Mr. Crane called Mr. Muller to discuss the potential range for the exchange ratio, including the range expressed by NRG at the June 19 meeting in Washington, D.C., and the methodology supporting the range. Messrs. Crane and Muller also discussed recent trends and volatility in each company's stock price. Messrs. Crane and Muller agreed that, in light of the target signing date of July 20, 2012, the exchange ratio would be determined based on the average closing prices of NRG common stock and GenOn common stock during the 10 and 20 trading day period ending July 18, 2012. Following this conversation, Mr. Andrews of NRG and Mr. Holden of GenOn worked with each other to refine the assumptions and methodologies for determining the exchange ratio and, in accordance with NRG's and GenOn's directives, representatives from Morgan Stanley and J.P. Morgan also engaged in discussions regarding the exchange ratio. In these discussions, GenOn and its representatives continued to adhere to the view that the exchange ratio should be based on the premise that the stockholders of GenOn and NRG should share equally the synergies resulting from general and administrative expense reductions expected to result from the proposed transaction, and NRG and its representatives continued to disagree with such premise. While both parties expected that the final exchange ratio would result in a premium to GenOn's stockholders, the parties did not target an exchange ratio that would result in a specific premium or range of premiums to GenOn's stockholders.

The following disclosure replaces and supplements the first full paragraph on page 47 of the Joint Proxy Statement/Prospectus:

On July 18, 2012, Mr. Crane and Mr. Muller had further discussions about the exchange ratio. Upon confirming the parties' understandings regarding the relative values of the companies and potential synergies in general and administrative expenses and applying the assumptions and methodologies previously discussed by the parties, Messrs. Crane and Muller agreed that they would seek the approval of their respective boards of directors based on an exchange ratio of 0.1216, which, as Mr. Crane and Mr. Muller had discussed on July 13, 2012, was determined based on the average closing prices of NRG common stock and GenOn common stock during the 10 and 20 trading day period ended on July 18, 2012. Also on July 18, 2012, Mr. Miller held separate telephone conversations with Mr. Caldwell and Mr. Cosgrove regarding the structure and composition of the board of directors of the combined company.

NRG Board of Directors' Recommendation and Its Reasons for the Merger

The following disclosure replaces and supplements the last sentence in the third to last paragraph on page 52 of the Joint Proxy Statement/Prospectus:

In connection with the execution of the merger agreement, NRG obtained commitments from Credit Suisse AG, Cayman Islands Branch and Morgan Stanley Senior Funding, Inc. to fund up to \$1.6 billion under a new senior secured term loan facility, which commitment was subsequently reduced to \$1.0 billion at NRG's request.

Opinion of NRG's Financial Advisors

Credit Suisse Securities (USA) LLC

 $The following \ sentence \ is \ added \ before \ the \ last \ sentence \ of \ the \ second \ full \ paragraph \ on \ page \ 61 \ of \ the \ Joint \ Proxy \ Statement/Prospectus:$

Based on its professional judgment, Credit Suisse utilized the forward-looking metrics described above given that such metrics are viewed as relevant indicators of the future prospects of a company and selected the ranges of multiples described above after taking into consideration various financial and operating characteristics of the selected companies.

The first sentence following the heading "Selected Transactions Analysis" on page 62 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

Credit Suisse reviewed publicly available financial terms of the following nine publicly announced transactions, which generally were selected because, as is the case with the merger, they involved utility companies with significant unregulated generation businesses and pure-play power generation companies:

The third sentence in the first full paragraph on page 63 of the Joint Proxy Statement/ Prospectus is hereby replaced in its entirety with the following:

The present values (as of December 31, 2012) of the cash flows, terminal values and potential tax benefits were then calculated using discount rates ranging from 7.0% to 8.5% derived based on Credit Suisse's professional judgment after taking into consideration a weighted average cost of capital calculation.

The third sentence in the second full paragraph on page 63 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

The present values (as of December 31, 2012) of the cash flows, terminal values, environmental capital expenditures and potential tax benefits, less the present value (as of December 31, 2012) of operating leases, were then calculated using discount rates ranging from 8.5% to 9.5% derived based on Credit Suisse's professional judgment after taking into consideration a weighted average cost of capital calculation.

The second bullet on page 64 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

stock price targets for NRG common stock and GenOn common stock in publicly available Wall Street research analyst reports published following first quarter earnings results, which indicated low and high stock price targets for NRG of approximately \$17.00 to \$28.50 per share (with an average of \$20.50 per share) and for GenOn of approximately \$1.40 to \$4.25 per share (with an average of \$2.39 per share) and an implied exchange ratio reference range of 0.0491x to 0.2500x;

The second full sentence in the first paragraph on page 65 of the Joint Proxy Statement/Prospectus is replaced in its entirety with the following:

Credit Suisse or certain of its affiliates may provide financing services to NRG in respect of potential debt offers in connection with the merger, including acting as administrative agent, joint lead bookrunner and joint lead arranger for, and as a lender under, a proposed new \$1.0 billion senior secured term loan facility of NRG to the extent such funds are necessary to consummate such debt offers, and may act as a dealer manager for potential refinancings of certain debt obligations of NRG or GenOn in connection with or related to the merger, for which services Credit Suisse and such affiliates would expect to receive compensation.

Morgan Stanley & Co. LLC

The third sentence of the first full paragraph on page 68 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

Morgan Stanley noted a range of undiscounted low to high stock price targets for NRG common stock and GenOn common stock as of July 19, 2012 of approximately \$17.00 to \$28.50 pershare (with a median of \$20.00 per share) and \$1.40 to \$4.25 per share (with a median of \$2.63 per share), respectively, which indicated an implied exchange ratio reference range of 0.049x to 0.250x, as compared to the 0.1216 exchange ratio provided for in the merger.

The following sentence is added before the first sentence on page 69 of the Joint Proxy Statement/ Prospectus:

Based on its professional judgment, Morgan Stanley utilized the forward-looking metrics described above given that such metrics are viewed as relevant indicators of the future prospects of a company and selected the ranges of multiples described above after taking into consideration various financial and operating characteristics of the selected companies.

The first sentence following the heading "Selected Precedent Transactions Analysis and Premiums Paid" on page 69 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

Morgan Stanley reviewed the purchase prices paid and calculated the ratio of aggregate value to one fiscal year forward and two fiscal years forward adjusted EBITDA based on publicly available information in the following seven transactions publicly announced since 2004, which generally were selected because, as is the case with the merger, they involved utility companies with significant unregulated generation businesses and pure-play power generation companies.

The second sentence in the third full paragraph on page 70 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

These values and potential tax benefits were then discounted to present value as of December 31, 2012 utilizing a range of discount rates of 7.5% to 8.5% derived based on Morgan Stanley's professional judgment after taking into consideration a weighted average cost of capital calculation.

The second sentence in the fourth full paragraph on page 70 of the Joint Proxy Statement/Prospectus is hereby replaced in its entirety with the following:

These values and potential tax benefits were then discounted to present value as of December 31, 2012 utilizing a range of discount rates of 8.5% to 9.5% derived based on Morgan Stanley's professional judgment after taking into consideration a weighted average cost of capital calculation.

The third sentence in the last paragraph on page 72 of the Joint Proxy Statement/Prospectus is replaced in its entirety with the following:

Morgan Stanley or certain of its affiliates may provide financing services to NRG in respect of potential debt offers in connection with the merger, including acting as administrative agent, joint lead bookrunner and joint lead arranger for, and as a lender under, a proposed new \$1.0 billion senior secured term loan facility of NRG to the extent such funds are necessary to consummate such debt offers, and may act as a dealer manager for potential refinancings of certain debt obligations of NRG or GenOn in connection with or related to the merger, for which services Morgan Stanley and such affiliates would expect to receive compensation.

Opinion of GenOn's Financial Advisor

The following disclosure is to be inserted after the last sentence of the paragraph spanning pages 74 and 75 of the Joint Proxy Statement/Prospectus:

In utilizing these forecasts for purposes of its analyses, J.P. Morgan followed the assumptions used by the management of GenOn with respect to the forecasts, which were different in certain respects from the assumptions used by the management of NRG and NRG's financial advisors.

The following disclosure replaces and supplements the second full paragraph on page 75 of the Joint Proxy Statement/Prospectus:

J.P. Morgan calculated a range of terminal values for GenOn by applying a selected range of terminal value multiples of 7.5x to 8.5x to GenOn's estimated terminal year Open EBITDAR, which was based on a 2.0% escalation of the 2016 projection. The unlevered free cash flows and range of

terminal values were then discounted to present value as of January 1, 2013 using a selected range of discount rates of 8.5% to 9.5%., which was derived from the capital asset pricing model. J.P. Morgan then subtracted out the net present value of estimated environmental capital expenditures for 2018-2021 and out-of-the-money gas transportation contracts, and added the net present value of net operating loss, or NOL, usage for all years, in each case using a discount rate of 9.0%, which was derived from the capital asset pricing model, to calculate a firm value for GenOn. The NOL usage for each of GenOn and NRG is derived from the respective cash flow streams of the companies, which are discounted at different rates reflecting the different risk profiles of each company. Therefore the discount rates applied to the NOLs are the same as the discount rates used for the cash flow streams for the companies. After subtracting debt and the present value of operating leases per GenOn management guidance, and adding cash and cash equivalents, this analysis implied the following approximate per share equity value reference ranges for GenOn, as compared to GenOn's closing stock price of \$1.82 on July 20, 2012:

The following disclosure replaces and supplements the first bullet point entitled "Generation." on page 76 of the Joint Proxy Statement/Prospectus:

Generation. J.P. Morgan performed a discounted cash flow analysis to estimate the present value of the unlevered free cash flows that the generation business unit is projected to generate for fiscal years 2013 through 2016. Unlevered cash flows for the generation business unit were based on estimated Open EBITDA, adjusted for the cash value of realized hedges, capital expenditures and changes in working capital. J.P. Morgan calculated a range of terminal values for the generation business unit by applying a selected range of terminal value multiples of 7.5x to 8.5x to NRG's estimated terminal year Open EBITDA, which was based on a 2.0% escalation of the 2016 projection. The unlevered free cash flows and range of terminal values were then discounted to present value as of January 1, 2013 using a selected range of discount rates of 7.5% to 8.5%, which was derived from the capital asset pricing model. J.P. Morgan utilized different discount rates for NRG and GenOn's discounted cash flow analyses since the NRG Generation business is more diversified than the GenOn generation business.

The following disclosure is to be inserted as the last sentence fragment to the last sentence of the second bullet point entitled "Retail." on page 76 of the Joint Proxy Statement/Prospectus:

, which was derived from the capital asset pricing model.

The following disclosure is to be inserted as the last fragment to the last sentence of the third bullet point entitled "Solar." on page 76 of the Joint Proxy Statement/Prospectus:

, which was derived from the capital asset pricing model. Terminal values were not factored into the discounted cash flow analysis as the financial forecasts covered the assumed lifespan of NRG's existing solar business.

The following disclosure replaces and supplements the second to last paragraph on page 76 of the Joint Proxy Statement/Prospectus:

J.P. Morgan then subtracted from the aggregated firm values of the business units calculated above the net present value of estimated 2017 environmental capital expenditures and certain recoveries of capital expenditures from co-ops after 2016 net of taxes, and added the net present value of NOL usage for all years, in each case using a discount rate of 8.0%, which was derived from the capital asset pricing model, to calculate a firm value for NRG. After subtracting debt and preferred stock and

adding cash, this analysis implied the following approximate per share equity value reference ranges for NRG, as compared to NRG's closing stock price of \$18.05 of July 20, 2012:

The following disclosure is to be inserted after the last sentence of the first full paragraph on page 77 of the Joint Proxy Statement/Prospectus:

J.P. Morgan compared the relative implied per share equity value reference range for GenOn and NRG derived from the discounted cash flow analyses to determine and review the implied exchange ratio reference range and compare the proposed exchange ratio of the proposed transaction to those ranges, since the proposed transaction is a stock-for-stock transaction and GenOn's stockholders will retain an equity stake in the combined company after the closing of the transaction.

The following disclosure replaces and supplements the first bullet point on page 78 of the Joint Proxy Statement/Prospectus:

Wall street analysts' price targets, based on equity research reports published from May 2012 onwards, for GenOn common stock of \$1.40, \$1.50, \$1.75, \$2.00, \$2.50, \$2.60, \$2.75, \$3.00, \$4.00, to \$4.25 and for NRG common stock of \$17.00, \$19.00, \$20.00, \$21.00, \$23.00 to \$28.50;

The following disclosure replaces and supplements the second bullet point and the table of information accompanying it on page 78 of the Joint Proxy Statement/Prospectus:

Publicly available financial terms of the following eight selected precedent transactions involving merchant and hybrid utilities, noting that, recent transactions in the merchant and hybrid utility sector offer limited comparability for several reasons, including, unique market conditions attendant to certain transactions and business mix considerations (transactions marked with ** were not consummated):

			Firm Value Multiples	
				1-Year
		m .	LTM	Forward
Announcement date	Acquiror	Target	EBITDA	EBITDA
	Exelon			
04/28/11	Corporation	Constellation Energy	7.0x	7.9x
04/11/10	RRI Energy	Mirant Corporation	8.0x	6.0x
	Exelon			
07/02/09	Corporation**	NRG Energy	4.6x	6.7x
	MidAmerican			
09/18/08	Energy**	Constellation Energy	5.1x	4.0x
02/25/07	TPG and KKR	TXU Energy	8.1x	8.4x
	Mirant			
05/30/06	Corporation**	NRG Energy	N/A	9.4x
12/19/05	FPL Group**	Constellation Energy	8.8x	8.0x
	Exelon	Public Service		
12/20/04	Corporation**	Enterprise Group	9.5x	9.8x

Unaudited Financial Forecasts

The following disclosure is to be added after the third sentence of the last full paragraph on page 79 of the Joint Proxy Statement/Prospectus:

As requested by the respective managements of NRG and GenOn, NRG's financial advisors utilized certain assumptions of NRG's management with respect to the financial forecasts of NRG and GenOn, and GenOn's financial advisor utilized certain assumptions of GenOn's management with respect to the financial forecasts of NRG and GenOn, which assumptions were different in certain respects as more fully described below.

The following disclosure replaces and supplements the first full paragraph on page 81 of the Joint Proxy Statement/Prospectus:

Retail electricity load and margins—the forecasts for NRG's retail businesses are based on current load levels and NRG's forecasted growth, assuming the completion of a business combination between NRG and GenOn that would successfully incorporate NRG's integrated wholesale/retail model, for Mass and Commercial & Industrial, or C&I, retail customers. These forecasts are consistent with NRG's realized growth and include sufficient costs to reflect the necessary marketing and operational expenditures to support such growth.

The following disclosure replaces and supplements the first full paragraph on page 82 of the Joint Proxy Statement/Prospectus:

NRG management adjusted the NRG management case in the following primary areas to create the NRG adjusted management case:

- (a) Since the provision of the NRG management case to GenOn, the likelihood and the terms of a potential sale of NRG's ownership in Agua Caliente and the CVSR project had changed. Accordingly, NRG management adjusted the NRG management case to assume that NRG would retain its 51% ownership in Agua Caliente and sell-down only 24.5% of its interest in the CVSR project;
- (b) NRG management reduced NRG's Mass and C&I load growth assumptions in markets NRG provides retail services to reflect NRG's forecasted growth on a standalone basis; and
- (c) NRG management also adjusted the NRG management case to include two approaches to determining Adjusted EBITDA for the terminal year—NRG management's fundamental view of results for the terminal year and a market view of the results for the terminal year. NRG management's fundamental view, referred to as case 1, represents gross margin for the period from 2017 through the remaining years of the generational fleet's lifespan and takes into consideration the long-term expected supply/demand balance in each key market and assumes that the markets, in order to maintain the amount of resources necessary to maintain system reliability, will reach an equilibrium whereby prices will be able to support the net cost of entry for new generating plants. The market view, which is referred to as case 2, represents gross margin determined based on the May 22, 2012 projections for market prices in 2017. These two approaches result in approximately \$2.8 billion (case 1) or \$1.9 billion (case 2) of Adjusted EBITDA in the terminal year.

The NRG adjusted management case was prepared for the NRG Board and NRG's financial advisors, and was not provided to GenOn.

Interests of Directors and Executive Officers in the Merger—Interests of Directors and Executive Officers of GenOn in the Merger

The following disclosure replaces and supplements the final full paragraph on page 90 of the Joint Proxy Statement/Prospectus:

Upon completion of the merger, Mr. Muller, who is currently GenOn's Chairman, President and Chief Executive Officer, and three other directors of GenOn—Messrs. E. Spencer Abraham, Terry G. Dallas and Evan J. Silverstein—will be appointed as directors of NRG. In addition, Mr. Muller will be appointed as the Vice Chairman of the NRG Board. As previously disclosed, Mr. Muller had previously announced his intention to retire from his position as Chief Executive Officer of GenOn in December 2013, which will mark the third anniversary of the merger between Mirant and RRI that formed GenOn.

Treatment of GenOn's Existing Debt; Financing

The following disclosure replaces and supplements the second sentence in the second paragraph on page 99 of the Joint Proxy Statement/Prospectus:

In connection with the execution of the Merger Agreement, NRG obtained commitment letters from Credit Suisse AG, Cayman Islands Branch and Morgan Stanley Senior Funding, Inc. (which are referred to as Financing Commitment) to fund up to \$1.6 billion under a new senior secured term loan facility, to the extent such funds are necessary to consummate the Change in Control Offers and the NRG Debt Offers. On October 19, 2012, at NRG's request, the Financing Commitment was amended to reduce the maximum amount of financing to \$1.0 billion.

Forward Looking Statements

In addition to historical information, the information presented in this communication includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. These statements involve estimates, expectations, projections, goals, assumptions, known and unknown risks and uncertainties and can typically be identified by terminology such as "may," "will," "should," "could," "objective," "projection," "forecast," "goal," "guidance," "outlook," "expect," "intend," "seek," "plan," "think," "anticipate," "estimate," "predict," "target," "potential" or "continue" or the negative of these terms or other comparable terminology. Such forward-looking statements include, but are not limited to, statements about the anticipated benefits of the proposed transaction between NRG and GenOn, each party's and the combined company's future revenues, income, indebtedness, capital structure, plans, expectations, objectives, projected financial performance and/or business results and other future events, each party's views of economic and market conditions, and the expected timing of the completion of the proposed transaction.

Forward-looking statements are not a guarantee of future performance and actual events or results may differ materially from any forward-looking statement as result of various risks and uncertainties, including, but not limited to, those relating to: the ability to satisfy the conditions to the proposed transaction between NRG and GenOn, the ability to successfully complete the proposed transaction (including any financing arrangements in connection therewith) in accordance with its terms and in accordance with expected schedule, the ability to obtain stockholder, regulatory or other approvals for the proposed transaction, or an inability to obtain them on the terms proposed or on the anticipated schedule, diversion of management attention on transaction-related issues, impact of the transaction on relationships with customers, suppliers and employees, the ability to finance the combined business post-closing and the terms on which such financing may be available, the financial performance of the combined company following completion of the proposed transaction, the ability to successfully integrate the businesses of NRG and GenOn, the ability to realize anticipated benefits of the proposed transaction (including expected cost savings and other synergies) or the risk that anticipated benefits may take longer to realize than expected, legislative, regulatory and/or market developments, the outcome of pending or threatened lawsuits, regulatory or tax proceedings or investigations, the effects of competition or regulatory intervention, financial and economic market conditions, access to capital, the timing and extent of changes in law and regulation (including environmental), commodity prices, prevailing demand and market prices for electricity, capacity, fuel and emissions allowances, weather conditions, operational constraints or outages, fuel supply or transmission issues, hedging ineffectiveness.

Additional information concerning other risk factors is contained in NRG's and GenOn's most recently filed Annual Reports on Form 10-K, subsequent Quarterly Reports on Form 10-Q, recent Current Reports on Form 8-K, and other SEC filings.

Many of these risks, uncertainties and assumptions are beyond NRG's or GenOn's ability to control or predict. Because of these risks, uncertainties and assumptions, you should not place undue

reliance on these forward-looking statements. Furthermore, forward-looking statements speak only as of the date they are made, and neither NRG nor GenOn undertakes any obligation to update publicly or revise any forward-looking statements to reflect events or circumstances that may arise after the date of this communication. All subsequent written and oral forward-looking statements concerning NRG, GenOn, the proposed transaction, the combined company or other matters and attributable to NRG or GenOn or any person acting on their behalf are expressly qualified in their entirety by the cautionary statements above.

Additional Information And Where To Find It

In connection with the proposed merger between NRG and GenOn, NRG filed with the Securities and Exchange Commission ("SEC") a registration statement on Form S-4 that includes a joint proxy statement of NRG and GenOn and that also constitutes a prospectus of NRG. The registration statement was declared effective by the SEC on October 5, 2012. NRG and GenOn first mailed the joint proxy statement/prospectus to their respective stockholders on or about October 10, 2012. NRG and GenOn may also file other documents with the SEC regarding the proposed transaction. INVESTORS AND SECURITY HOLDERS OF NRG AND GENON ARE URGED TO READ THE JOINT PROXY STATEMENT/PROSPECTUS AND ANY OTHER RELEVANT DOCUMENTS THAT ARE FILED WITH THE SEC, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS TO THESE DOCUMENTS, CAREFULLY AND IN THEIR ENTIRETY BECAUSE THEY CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION. Investors and stockholders may obtain free copies of the joint proxy statement/prospectus and other documents containing important information about NRG and GenOn through the website maintained by the SEC at www.sec.gov. In addition, NRG and GenOn make available free of charge at www.nrgenergy.com and www.genon.com, respectively (in the "Investor Relations" section), copies of materials they file with, or furnish to, the SEC.

Participants In The Merger Solicitation

NRG, GenOn, and certain of their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from the stockholders of GenOn and NRG in connection with the proposed transaction. Information about the directors and executive officers of NRG is set forth in its proxy statement for its 2012 annual meeting of stockholders, which was filed with the SEC on March 12, 2012. Information about the directors and executive officers of GenOn is set forth in its proxy statement for its 2012 annual meeting of stockholders, which was filed with the SEC on March 30, 2012. Other information regarding the participants in the proxy solicitation can be found in the above-referenced registration statement on Form S-4. These documents can be obtained free of charge from the sources indicated above.

QuickLinks

Exhibit 99.1

SUPPLEMENT TO PROXY STATEMENT/PROSPECTUS
SETTLEMENT OF LITIGATION
SUPPLEMENTAL DISCLOSURES
Forward Looking Statements
Additional Information And Where To Find It
Participants In The Merger Solicitation