NRG ENERGY, INC. Form 424B3 September 13, 2006

Filed Pursuant to Rule 424(b)(3) Registration No. 333-123677

Prospectus Supplement No. 6 dated September 13, 2006 (To Prospectus dated June 2, 2005)

NRG Energy, Inc.

420,000 Shares of 4% Convertible Perpetual Preferred Stock 10,500,000 Shares of Common Stock issuable upon conversion of the Preferred Stock

This Prospectus Supplement supplements the prospectus dated June 2, 2005 (the Prospectus ) of NRG Energy, Inc., relating to the sale by certain of our stockholders (including their pledgees, donees, assignees, transferees, successors and others who later hold any of the selling stockholders interests) of up to 420,000 shares of preferred stock, or 10,500,000 shares of our common stock issuable upon conversion of the preferred stock. You should read this Prospectus Supplement in conjunction with the Prospectus, and this Prospectus Supplement is qualified by reference to the Prospectus, except to the extent that the information in this Prospectus Supplement supersedes the information contained in the Prospectus.

Investing in our preferred stock or common stock involves risks that are described in the Risk Factors section beginning on page 6 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this Prospectus Supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement is September 13, 2006

The table of selling stockholders contained in the Prospectus is hereby superseded by the following table.

			·	ne			
		ship Before ffering	Prosne	ectus (1)	Owne	rshin Afta	er Offering (2)
	O.	nering	TTOSP	Commons	Owne	isiiip Aite	of Offering (2)
Name	Preferred	Common (3)	Proformed	(3)	Proforma <b>a</b>	ommon %	of Common (4)
1976 Distribution Trust	6	150	6	150	0	0	*
FBO A.R.	U	130	O	130	U	U	·
Lauder/Zinterhofer							
2000 Revocable Trust	5	125	5	125	0	0	*
FBO A.R.	3	123	3	123	U	U	·
Lauder/Zinterhofer							
Advent Claymore	2,435	60,875	2,435	60,875	0	0	*
Enhance Growth &	2,433	00,873	2,433	00,873	U	U	•
Income Fund							
	6.702	160.075	6.722	160.075	0	0	*
Advent Convertible	6,723	168,075	6,723	168,075	0	0	4.
Master (Cayman), L.P.	C 4.1	16.005	C 4.1	16.005	0	0	*
Alcon Laboratories	641	16,025	641	16,025	0	0	*
AM International	790	19,750	790	19,750	0	0	<b>*</b>
EMAC 63 Ltd.	6.016	172 000	6.016	172 000	0	0	*
AM Master Fund I, LP	6,916	172,900	6,916	172,900	0	0	
Anthony Munk	607	15,175	607	15,175	0	0	*
Arlington County	1,032	25,800	1,032	25,800	0	0	*
Employees Retirement							
Systems	20.5		20.5	- 10-	ā	0	
Asante Health Systems	205	5,125	205	5,125	0	0	*
BBT Fund, L.P.	8,850	221,250	8,850	221,250	0	0	*
Boston Income	1,255	31,375	1,255	31,375	0	0	*
Portfolio c/o Eaton							
Vance Management							
High Yield Group						_	
Citigroup Global	5,000	125,000	5,000	125,000	0	0	*
Markets, Inc.(5)							
City of New York Fire	225	5,625	125	3,125	100	0	*
Dept Pension Fund							
High Yield(6)							
City of New York	700	17,500	375	9,375	325	0	*
Teachers Retirement							
System High Yield(6)							
City University of New	215	5,375	215	5,375	0	0	*
York							
CNHCA Master	5,500	137,500	5,500	137,500	0	0	*
Account, LP							
Coastal Convertibles	1,500	37,500	1,500	37,500	0	0	*
Ltd.							
Concentrated Alpha	6,750	168,750	6,750	168,750	0	0	*
Partners LP							

11,000	275,000	11,000	275,000	0	0	*
1,500	37,500	1,500	37,500	0	0	*
1,857	46,425	1,857	46,425	0	0	*
1,500	37,500	1,500	37,500	0	0	*
		2				
	1,500 1,857	1,500 37,500 1,857 46,425	1,500 37,500 1,500 1,857 46,425 1,857 1,500 37,500 1,500	1,500     37,500     1,500     37,500       1,857     46,425     1,857     46,425       1,500     37,500     1,500     37,500	1,500     37,500     1,500     37,500     0       1,857     46,425     1,857     46,425     0       1,500     37,500     1,500     37,500     0	1,500     37,500     1,500     37,500     0     0       1,857     46,425     1,857     46,425     0     0       1,500     37,500     1,500     37,500     0     0

		ship Before ffering	Prosp	ectus (1)	Ownersh	ip After (2)	_
				Commons		C	% of Common
Name	Preferred	Common (3)	Preferred	(3)	Preferred C	Common	<b>(4)</b>
Diversified High Yield	245	6,125	245	6,125	0	0	*
Bond Fund c/o Eaton							
Vance Management High							
Yield Group							
Drawbridge Convertible I	489	12,225	489	12,225	0	0	*
Ltd.							
Drawbridge Convertible II	156	3,900	156	3,900	0	0	*
Ltd.							
Drawbridge Global Macro	3,310	82,750	3,310	82,750	0	0	*
Masterfund Ltd.							
ELCA Unscreened High	525	13,125	275	6,875	250	0	*
Yield(6)							
FIST Convertible Secs FD	10,000	250,000	10,000	250,000	0	0	*
Fidelity Financial Trust:	4,900	122,500	3,900	97,500	0	0	*
Fidelity							
Strategic Dividend & Incom	ne						
Fund(7)(8)							
Fore Convertible Master	25,220	630,500	25,220	630,500	0	0	*
Fund, Ltd.							
Fore Erisa Fund, Ltd.	2,790	69,750	2,790	69,750	0	0	*
Frontpoint Convertible	5,000	125,000	5,000	125,000	0	0	*
Arbitrage Fund LP							
GLG Market Neutral Fund	22,000	550,000	22,000	550,000	0	0	*
Grace Convertible	7,000	175,000	7,000	175,000	0	0	*
Arbitrage Fund, Ltd.	201	5.025	201	5.005	0	0	.1.
Grady Hospital	201	5,025	201	5,025	0	0	*
Guggenheim Portfolio	2,511	62,775	2,511	62,775	0	0	*
Company VIII (Cayman)							
Ltd.	<b>5</b> ,000	125 000	<i>5</i> ,000	125 000	0	0	*
Guggenheim Portfolio	5,000	125,000	5,000	125,000	0	0	
Company XXXI, LLC Hallmark Master Trust	70	1.750	70	1.750	0	0	*
	70	1,750	70	1,750	0	U	••
High Yield Fund c/o Eaton Vance Management High							
Yield Group							
HFR CA Opportunity Mgt.	340	8,500	340	8,500	0	0	*
Trst.	340	8,500	340	8,300	U	U	
HFR CA Select Fund	750	18,750	750	18,750	0	0	*
HFR RVA Combined	2,000	50,000	2,000	50,000	0	0	*
Master Trust	2,000	50,000	2,000	30,000	O	U	
mater fluor	10,000	250,000	10,000	250,000	0	0	*
	10,000	230,000	10,000	230,000	U	U	

Highbridge International							
LLC							
High Income Portfolio c/o	865	21,625	865	21,625	0	0	*
Eaton Vance Management							
High Yield Group							
IAM National Pension	350	8,750	175	4,375	175	0	*
Fund(6)							
Independence Blue Cross	623	15,575	623	15,575	0	0	*
Industriens	325	8,125	175	4,375	150	0	*
Pensionsforsikring(6)							
		3					

		ship Before ffering	Prosp	ectus (1)	Ownership After (2)			
				Commons			% of Common	
Name	Preferred	Common (3)	Preferred	(3)	Preferred	Common	(4)	
ING Convertible Fund	1,920	48,000	1,920	48,000	0	0	*	
ING CP Convertible	80	2,000	80	2000	0	0	*	
Portfolio		,						
<b>ING MFS Utilities</b>	40	79,520	40	1,000	0	78,520	*	
Portfolio								
<b>ING Investors Trust</b>	8,600	215,000	8,600	215,000	0	0	*	
ING T. RowePrice								
Capital Appreciation								
Portfolio(6)								
Institutional	1,500	37,500	1,500	37,500	0	0	*	
Benchmarks Master								
Fund, Ltd.		255		255				
Intl Union of	15	375	15	375	0	0	*	
Operating Engineers								
(ENG) c/o Eaton								
Vance Management High Yield Group								
JMG Capital Partners,	34,500	862,500	34,500	862,500	0	0	*	
Inc	34,300	802,300	34,300	802,300	U	U		
JMG Triton Offshore	2,850	71,250	2,850	71,250	0	0	*	
Ltd.	2,050	71,250	2,000	71,250	· ·	Ü		
John Hancock Funds II	250	6,250	100	2,500	150	0	*	
Spectrum Income		·						
Fund(6)								
John Hancock Trust	225	5,625	100	2,500	125	0	*	
Spectrum Income								
Trust(6)								
John Hancock Trust	100	133,640	100	2,500	0	131,140	*	
Utilities Trust	• • • •	10.000	• • • •	<b>7</b> 000		0.100		
John Hancock Trust	200	18,800	200	5,000	0	9,100	*	
Mid Value Trust	2.500	(2.500	2.500	(2.500	0	0	*	
JP Morgan Securities,	2,500	62,500	2,500	62,500	0	0	Ψ.	
Inc. Kamunting Street	15,000	375,000	15,000	375,000	0	0	*	
Master Fund, Ltd.	13,000	373,000	13,000	373,000	U	U		
KBC Financial	8,955	223,875	8,955	223,875	0	0	*	
Products USA, Inc.	0,755	223,073	0,755	223,073	O	O		
KDC Convertible	3,000	75,000	3,000	75,000	0	0	*	
Arbitrage Fund LP	- ,		- , - • •	,	-			
Laborers District	200	10,300	200	5,000	0	4,100	*	
Council & Contractors								

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Pension FD of Ohio(6)							
Lydian Overseas	5,000	125,000	5,000	125,000	0	0	*
Partners Master Fund							
L.P.							
Lyxor	465	11,625	465	11,625	0	0	*
Lyxor/AM Investment	988	24,700	988	24,700	0	0	*
Fund Ltd.							
Lyxor/Silverado Fund	1,550	38,750	1,550	38,750	0	0	*
LTD							
Man Mac I, Ltd.	9,390	234,750	9,390	234,750	0	0	*
McMahan Securities	45	1,125	45	1,125	0	0	*
Co. LP							
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		ship Before ffering	Prosp	pectus (1)	Owner	rship After O	ffering (2) % of
Name MFS Utilities Fund, a	Preferred 1,355	Common (3) 1,614,875	Preferred 1,355	<b>Commons</b> (3) 33,875	Preferred 0	Common 1,581,000	Common (4) 1.17%
Series of MFS Series Trust VI MFS Variable Insurance Trust -	820	874,400	820	20,500	0	853,900	*
MFS Utilities Series MFS/Sun Life Series Trust:	224	2/2 000	224	9.100	0	255 700	*
Utilities Series	324	363,800	324	8,100	0	355,700	
National Bank of Canada	1,186	29,650	1,186	29,650	0	0	*
New Orleans Firefighters Pension/Relief Fund	126	3,150	126	3,150	0	0	*
New York City Employees Retirement Systems Enhanced Fund(6)	875	21,875	475	11,875	400	0	*
Newport Alternative Income Fund	2,972	74,300	2,972	74,300	0	0	*
NMS Services (Cayman) Inc.	752	18,800	752	18,800	0	0	*
Northern Income Equity Fund	2,460	61,500	2,460	61,500	0	0	*
Occidental Petroleum Corporation	114	2,850	114	2,850	0	0	*
Pebble Limited Partnership	2,083	52,075	2,083	52,075	0	0	*
PensionsInvest Globa High Yield(6)		6,250	250	6,250	0	0	*
PFA Invest Global High Yield(6)	800	20,000	450	11,250	350	0	*
PIMCO Convertible Fund	500	12,500	500	12,500	0	0	*
Policeman and Fireman Retirement System of the City of Detroit	500	12,500	500	12,500	0	0	*
Pro-Mutual	1,357	33,925	1,357	33,925	0	0	*
RWDSU Local 338 High Yield Fund c/o	20	500	20	500	0	0	*

Eaton Vance							
Management High							
Yield Fund							
S.A.C. Arbitrage	8,000	200,000	8,000	200,000	0	0	*
Fund, LLC							
Sage Capital	3,000	75,000	3,000	75,000	0	0	*
Management LLC							
Salomon Brothers	6,600	165,000	6,600	165,000	0	0	*
Asset Management,							
Inc.(9)							
SEPTA High Yield	20	500	20	500	0	0	*
Fund c/o Eaton Vance							
Management High							
Yield Group							
			5				

				ine			
		ship Before ffering	Prosp	ectus (1)	Owne	rship After O	ffering (2) % of
Name	Preferred	Common (3)	Duofound	Commons	Preferred	Common	Common
		` '		(3)			(4)
Severn River Master	1,000	25,000	1,000	25,000	0	0	*
Fund c/o Morgan							
Stanley							
Silver Point Capital	1,365	1,042,333	1,365	34,125	0	1,008,208	*
Fund LP							
Silver Point Capital	2,135	1,654,740	2,135	53,375	0	1,601,365	1.19%
Offshore Fund, Ltd.							
Silverado Arbitrage	500	22,500	500	12,500	0	10,000	*
Trading, Ltd.							
Sphinx Fund	140	3,500	140	3,500	0	0	*
SRI Fund, L.P.	1,500	37,500	1,500	37,500	0	0	*
T. RowePrice	23,400	585,000	23,400	585,000	0	0	*
Capital Appreciation	20,.00	202,000	20,.00	202,000	· ·	Ŭ	
Fund(6)							
T. RowePrice High	8,550	213,750	4,350	108,750	4,200	0	*
Yield Fund(6)	0,550	213,730	7,550	100,730	4,200	O	
T. RowePrice	300	7,500	300	7,500	0	0	*
	300	7,300	300	7,300	U	U	
Capital Appreciation							
Trust(6)	12 000	640,000	12 000	200.000	0	165,000	*
T. RowePrice	12,000	640,800	12,000	300,000	0	165,800	*
Mid-Cap Value							
Fund(6)							
TRP Invest Global	1,950	48,750	350	8,750	1,600	0	*
High Yield(6)							
Trustmark Insurance	393	9,825	393	9,825	0	0	*
UBS AG London	5,000	125,000	5,000	125,000	0	0	*
FBO HFS							
<b>UBS AG London</b>	18,500	462,500	18,500	462,500	0	0	*
FBO PFEL							
<b>UBS AG London</b>	20,000	500,000	20,000	500,000	0	0	*
FBO WCBP							
UBS O Connor LLC	4,561	114,025	4,561	114,025	0	0	*
FBO O Connor	,	•	•	,			
Global Convertible							
Arbitrage Master							
Ltd.							
Volkswagen High	10	250	10	250	0	0	*
Yield Bond Fund c/o	10	230	10	230	Ū	U	
Eaton Vance							
Management High							
Yield Group							

Whitebox Convertible Arbitrage Partners LP	26,000	650,000	26,000	650,000	0	0	*
Whitebox Diversified Convertible Arbitrage Partners LP	5,000	125,000	5,000	125,000	0	0	*
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	Ownership Before Offering		Prospectus (1)		Ownership After		Offering (2) % of	
				Commons			Common	
Name	Preferred	Common (3)	Preferred	(3)	PreferredC	Common	<b>(4)</b>	
Xavex Convertible Arbitrage 7 Fund	150	3,750	150	3,750	0	0	*	
Zazove Convertible Arbitrage Fund, LP	4,000	100,000	4,000	100,000	0	0	*	
Zazove Hedged Convertible Fund, LP	2,000	50,000	2,000	50,000	0	0	*	
Zurich Institutional Benchmarks Master Fund Ltd. c/o Forest Investment LLC	2,061	51,525	2,061	51,525	0	0	*	
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- \* Less than 1%.
- (1) Amounts indicated may be in excess of the total amount registered due to sales or transfers exempt from the registration requirements of the Securities Act of 1933, as amended, since the date upon which the selling stockholders provided to us the information regarding their preferred stock.
- (2) The information regarding the beneficial ownership after resale of shares is based on the assumption that each selling stockholder will sell all of the shares of preferred stock and common stock owned by the selling stockholder and covered by the Prospectus.
- (3) Unless otherwise indicated, includes all shares of common stock issuable upon conversion of the preferred stock and assumes a conversion price of \$40.00 per share, which is equal to an approximate conversion rate of 25 shares per share of preferred stock. However, this conversion price will be subject to adjustment as described under Description of the Preferred Stock Conversion Rights in the Prospectus. As a result, the number of shares of common stock beneficially owned prior to this offering and the number of shares of common stock offered hereby may increase or decrease in the future.
- (4) Based on 134,580,642 shares of common stock outstanding as of September 11, 2006.
- (5) Citigroup Global Markets Inc. was a co-placement agent on the issuance of the preferred stock.
- (6) T. Rowe Price Associates, Inc. serves as investment adviser with power to direct investments and/or sole power to vote the shares owned by certain funds and accounts subject this footnote, as well as shares owned by certain other individual and institutional investors. For purposes of reporting requirements of the Securities and Exchange Act of 1934, T. Rowe Price Associates, Inc. may be deemed to be the beneficial owner of all of the shares listed above that are subject to this footnote; however, T. Rowe Price Associates, Inc. expressly disclaims that it is in fact the beneficial owner of such securities. T. Rowe Price Associates, Inc. is the wholly owned subsidiary of T. Rowe Price Group, Inc., which is a publicly traded financial services holding company.
- (7) The entity is a registered investment fund advised by Fidelity Management & Research Company (FMR Co.), a registered investment adviser under the Investment Advisers Act of 1940, as amended. FMR Co., 82 Devonshire Street, Boston, Massachusetts 02190, a wholly-owned subsidiary of FMR Corp. and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of 2,402,699 shares of our outstanding common stock as a result of acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940.
- (8) Based on information provided by the selling stockholder and, in addition to the preferred stock and common stock covered by this prospectus, includes beneficial ownership of our 5.75% Mandatory Convertible Preferred Stock, as well as the common stock to be issued upon conversion of such preferred stock.
- (9) Salomon Brothers Asset Management, Inc. acts as discretionary investment advisor with respect to certain accounts that hold the preferred stock. Accordingly, Salomon Brothers Asset Management, Inc. may be deemed to be the beneficial owner of such preferred stock. Salomon Brothers Asset Management, Inc. is the beneficial owner and, therefore, the Selling Stockholder of the following accounts: General Motors Investment Corp. (5,000 shares), General Motors Broad Mandate (600 shares) and Smith Barney Convertible Fund (1,000 shares).