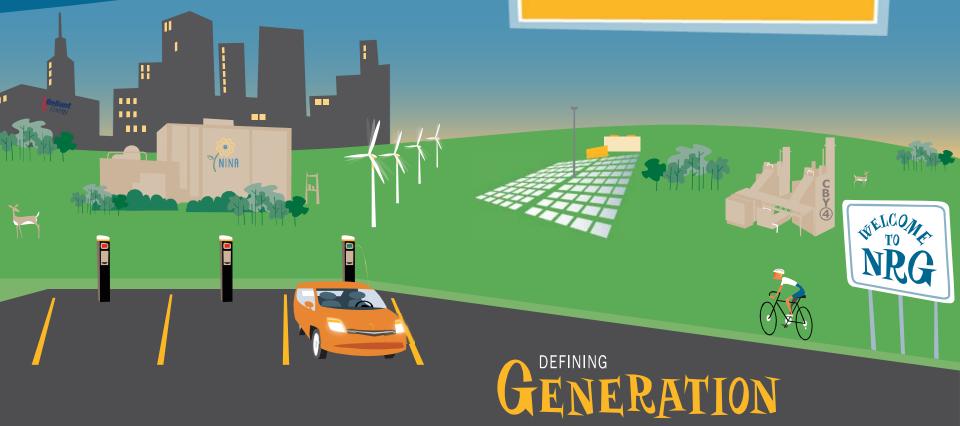


# NRG TODAY AND TOMORROW

Welcome

**David Crane** 

**President & Chief Executive Officer** 







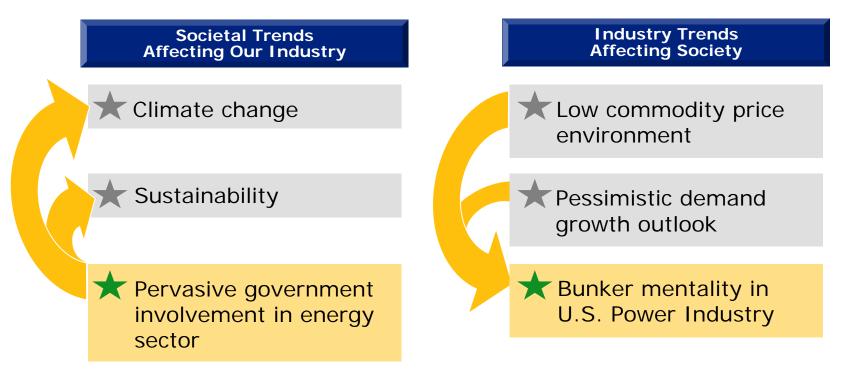
# Welcome

- Trends
- Challenges & Opportunities
- **✓ NRG's Competitive Advantage**





# NRG seeks to be responsive to, and capitalize on, long-term trends



Circumstances are ideal for NRG to succeed ... and succeed **BIG** 



# NRG

# Comparison of Peer Strategies - Hybrids

		Defensive Strategies				Offensive Strategies						
		Commodity Price Recovery	Asset Sales	Cost Reductions	Debt Reduction	Stock Buyback	Rate Base Growth		vnfield/ owering Nuclear	Renewables	Acquisitions	Greenfield Development
	AYE			×		×		×	×	×	×	×
	CEG			X	×	×		X		X	X	×
	EIX		X	×	×	×		X	×		X	
Hybrids:	ETR			×	×				×	×		×
Hyb	EXC		X		X	×		X	×	X	×	×
	FPL		X	×	X	×			×		X	
	PEG							X	×		×	×
	PPL			X	×	X				X	X	×

Note: Chart based on public information

Retreating to the shelter of rate base for growth

# **Comparison of Peer Strategies - IPPS**



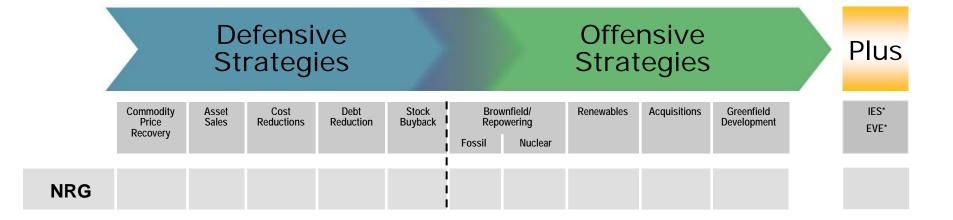
		Defensive Strategies					Offensive Strategies				
		Commodity Price Recovery	Asset Sales	Cost Reductions	Debt Reduction	Stock Buyback		vnfield/ owering Nuclear	Renewables	Acquisitions	Greenfield Development
	AES					X		X			
	CPN					×		×	X		×
IPPs:	DYN					×	X	×	×	×	X
	MIR		X	×	×	×		×	×	×	×
	RRI					X	X	X	×	×	×

Note: Chart based on public information

Except for AES, almost uniformly in Defensive Posture

## **NRG: A Strategy Scorecard**





\*IES: Integrated Energy Solutions EVE: Electric Vehicle Ecosystem



Tomorrow afternoon, fill in the page yourself







NRG's strategy over the past six years has been to pursue value opportunities **AGGRESSIVELY** while paying close attention to **MITIGATION** of **RISKS** to our core business...

... The **FUTURE** will be **NO DIFFERENT** 

#### From here to where...

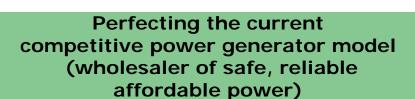




Government, and the political process, will shape our industry more directly than it has at any time since the 1970's

### NRG: Planning for Two Outcomes





#### **Priorities:**

- 1. Baseload in PJM
- 2. Low carbon generation
- 3. Revenue diversification away from Texas
- **4.** Cash accretive acquisitions well below replacement cost
- **5.** Cost synergies through consolidation of G&A; procurement synergies

# Transforming to a post-hydrocarbon purveyor of sustainable energy solutions ("Energizing Lifestyles")

#### **Priorities**:

- Low carbon baseload (primarily nuclear)
- 2. Renewables... and not just terrestrial wind
- 3. Fast start, high efficiency gas-fired capacities in each region
- 4. Electric Vehicle Ecosystems
- 5. Smart Meter Systems

NRG will look to perfect its core business while using the strength of that business as a springboard into 21st century

# **Power Industry Disruptive Technologies:** Ride the Wave or be Swamped by it?







Since our primary product (wholesale electricity) remains incapable of being stored, our business remains primitively simple real time supply – demand driven



We are at a point where both the supply and the demand side of our fundamental industry equation face the prospect of a Disruptive Technology, changing the complexion of historic patterns plus an enabling system to interconnect the two

#### **SUPPLY**



Positive Side Effect: Return of long term offtake agreements



#### **DEMAND**





Positive Side Effect:

More meaningful relationships with the customer

Disruptive technologies benefit the early adopters who are first to embrace them

Mutual **Smart Grid** 

**Enabler** 

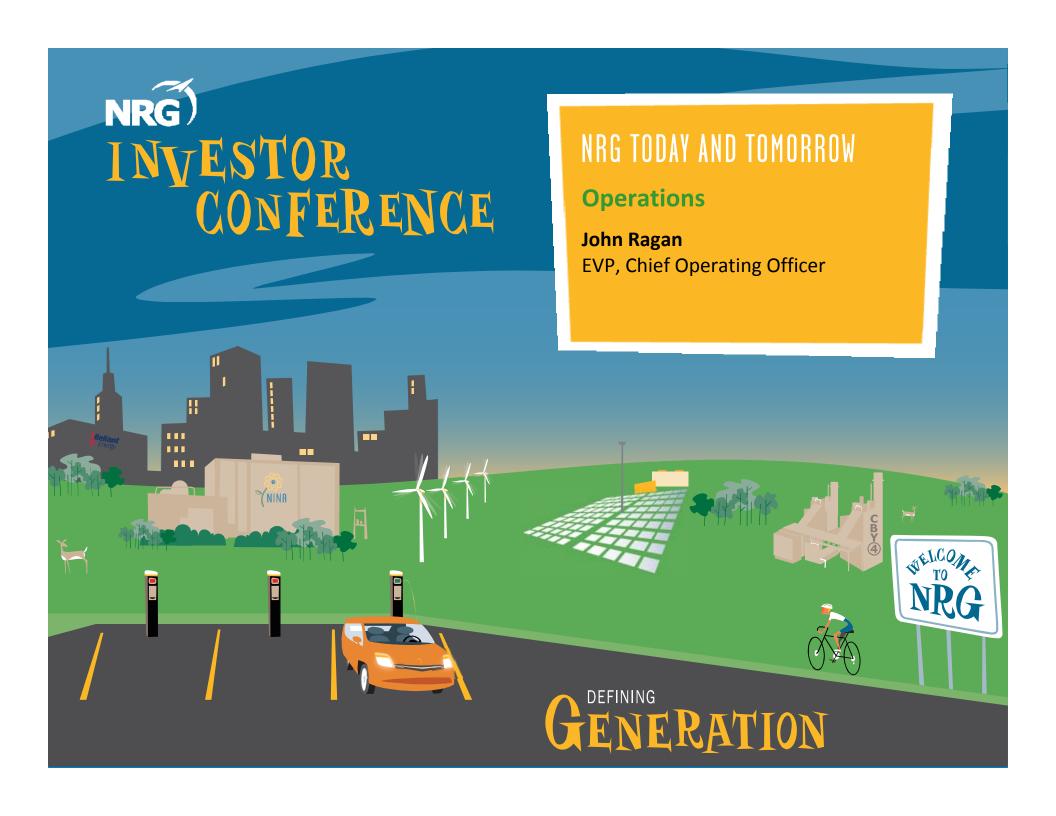
# 2009: Trends and Developments



### Accelerating trends mesh with NRG's comparative advantages

MEGA Trends	2009 Developments		2009 Developments	Comparative Advantage
Sustainability	<ul> <li>Government as a source of all funding</li> <li>Federal RPS</li> <li>Renewables</li> </ul>		<ul> <li>Separation into haves and have nots</li> </ul>	Liquidity - NRG
	bilateralism among LSEs  • Legislation (W-M),	A unique opportunity for NRG to transform itself, while enhancing its core business	<ul> <li>Distributed solutions increasingly in vogue</li> </ul>	Retail - NRG
Climate Change	Regulation (EPA) or Judicial Intervention (2 <sup>nd</sup> Circuit)	core business	<ul> <li>New projects are tax driven</li> </ul>	Tax appetite - NRG
Change	<ul> <li>General receptivity to change (Market, Industry, Consumers)</li> </ul>		<ul> <li>Competitors: Sleep, survive or self-delude</li> </ul>	Business attitude - NRG

NRG: A unique, but time-sensitive, advantage





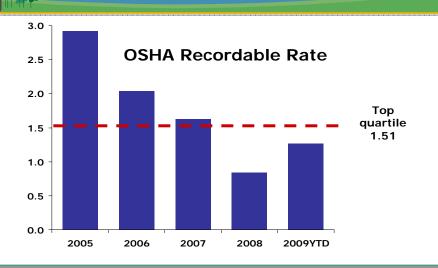
- ✓ Operational Performance & Culture
- Environmental
- ✓ Development Engineering Procurement Construction (DEPC)

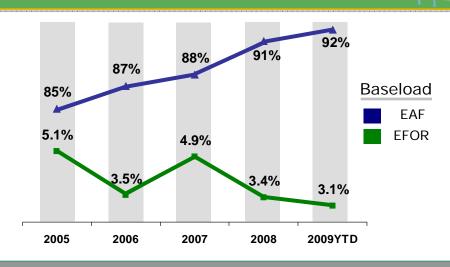
# **Operations: Progressive Culture Change**

NRG TODAY AND TOMORROW

INVESTOR CONFERENCE







✓ Focus on Safety

✓ Culture of Accountability and Innovation

✓ Measure, Analyze Lead ✓ Active, Visible Management; Fleet wide Continuity

Leading to Enhanced Performance

## Plant Operations Focus: 2010 through 2012





#### **Outage Planning**

Centralized point of accountability

- Enhanced Preparation / ORI
- Cost Tracking / Emergent Work
- Return To Service / Testing
- Lessons Learned

Leverage Procurement, Engineering, EPC, and Maintenance Services



#### **Maintenance Services**

Expand Maintenance Services from Texas focus to national focus

- Turbine / Generator Support services
- I&C, Electrical, and Inspection Services
- Waterwall Tube Analysis

Drive lower costs using the internal expertise and central repair shop for the national fleet



#### **Inventory Management**

Move towards national management of inventory

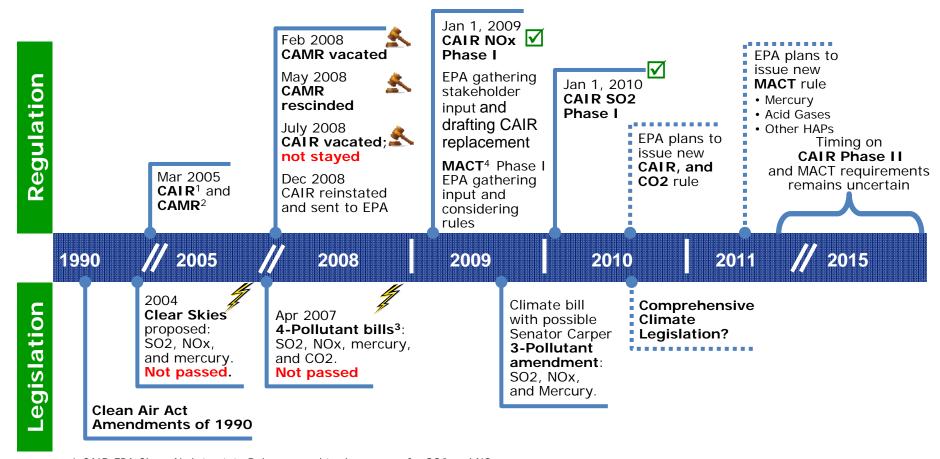
- Inventory Optimization
- Expanded Use of Strategic Partners
- Warehouse Consolidations
- Optimizing Material Deliveries
- Investment Recovery

Continue to find value opportunities within existing operating fleet

#### NRG TODAY AND TOMORROW

## 20 Year Evolution of Air Quality Regulations





- 1-CAIR-EPA Clean Air Interstate Rule- cap and trade program for SO2 and NOx
- 2-CAMR-Clean Air Mercury Rule- cap and trade program for mercury
- 3-Carper Clean Air Planning Act and Alexander-Lieberman Clean Air/Climate Change Act- cap and trade for SO2, NOx, & CO2 and limits for mercury
- 4-Maximum Available Control Technology

History tells us that EPA needs clear Congressional action in order to implement sound comprehensive air regulation

#### INVESTOR CONFERENCE





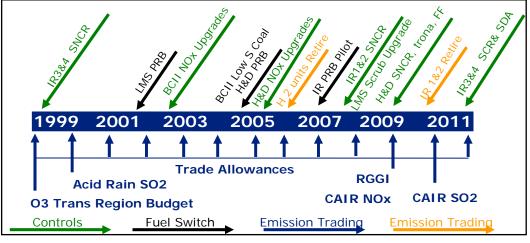
### **Environmental Investments**

**Existing & Current Environmental Capex** 

	Advanced Controls						
Plant	Unit	SO2		<b>⊔</b> ~			
			LNB	SNCR	SCR	Hg	
	1						
Dunkirk	2						
	3						
	4						
Huntley	67						
Tiditicy	68						
Indian	3 <sup>(1)</sup>						
River	4						
	1 <sup>(1)</sup>	co-benefit					
Big Cajun	2	lsf					
	3	co-benefit					
Limestone	1						
Limestone	2						
	5	Isf					
Parish	6	lsf					
1 011311	7	Isf					
	8						
· · · · · · · · · · · · · · · · · · ·		installed	С	urrent capex			



**Integrated Approach to Emission Reductions** 



Co-benefit = 15%, Isf= low sulfur coal, LNB= low NOX burners, SNCR=selective non-catalytic reduction, SCR= selective catalytic reduction

Integrated approach to emission reductions is the most cost effective path to meet tightening environmental requirements

### **Uncertainty in EPA Rules**



manageable



- Worst case, install scrubbers on ~1900 MW at WA Parish and ~1500 MW at Big Cajun
- Big Cajun is allowed recovery of environmental costs plus return
- Our incremental increase for dry scrubbers is only \$250/KW as fabric filters will already be in place for all but one unit

Water



manageable



Dut of 19 coal units, only 3 small Northeast and 1 South Central coal unit have not yet finalized once through cooling mitigation

Waste

Coal Combustion Residue



manageable



- Dry disposal techniques in place
- Northeast landfills use synthetic liners, most designed to hazardous waste standards
- Future cells at other facilities will meet new rule

Future environmental investments, under the strictest scenarios, are limited and manageable for larger, newer units at NRG





# Development Engineering Procurement Construction (DEPC) Services

- DEPC is our group to support development and manage engineering, procurement and construction of projects
- Established team in late 2006
- Internal group provides NRG a market advantage for execution of projects by:
  - Controlling engineering early
  - Strategically procuring services, materials and equipment
  - Aggressively managing contractors for cost and schedule control
- Deliver direct project savings as compared to EPC wrapped projects:
  - Equipment cost reduction ~5-7%
  - > Fees and Contingency reduced~10-15%

#### **Projects to Date**

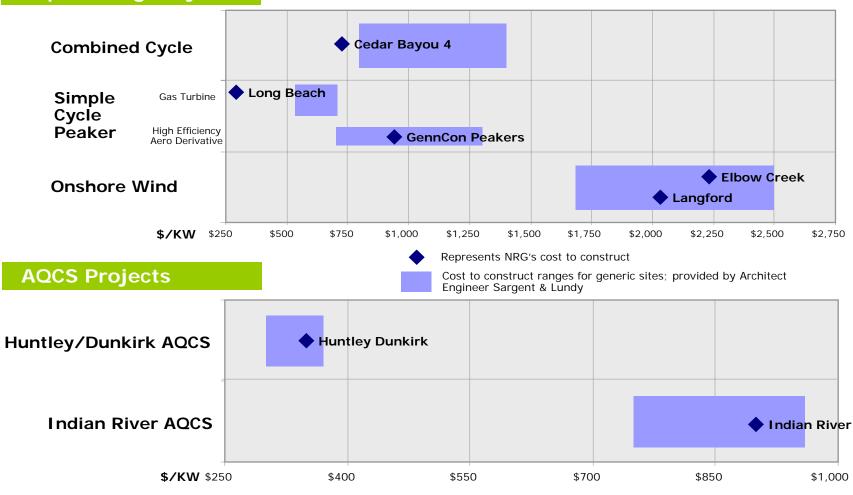
	Project	Date					
	Long Beach	August 2007					
	Cos Cob	June 2008					
	Huntley	December 2008					
,	Dunkirk	December 2009					
	Cedar Bayou	June 2009					
	Devon	June 2010					
	Middletown	June 2011					
	\$1.1 Billion in Projects						

Well developed infrastructure with strong record of success

### **DEPC Services**



#### **Repowering Projects**

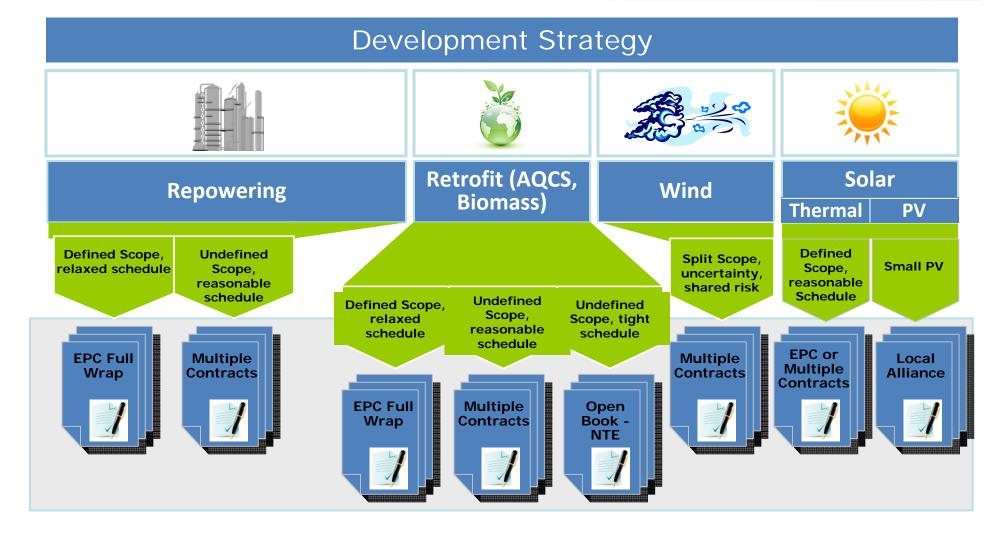


DEPC creates shareholder value by driving incremental costs out of projects

#### INVESTOR CONFERENCE



# **DEPC - Preferred Contracting Strategies** for Various Technologies



Contracting strategies to maximize results and minimize risk



- ✓ Strive for cultural excellence in base operations
- Maintain flexibility and options for environmental compliance
- Build on EPC platform for competitive advantage in repowering, environmental and renewable space







NINA

111

# NRG TODAY AND TOMORROW

#### **Commodities**

**Mauricio Gutierrez** 

**EVP, Commercial Operations** 

**Chris Moser** 

VP, Trading

**Mark Herrmann** 

VP, Structuring & Fundamentals



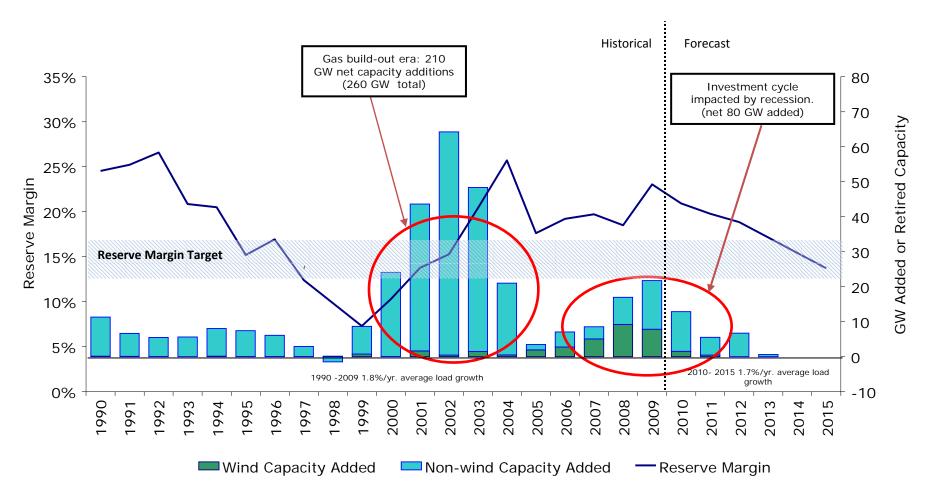
GENERATION



- **✓** Power Cycle Overview
- **✓** Supply-Demand Fundamentals
- Renewables
- Regional Dark Spreads
- Natural Gas Fundamentals
- Coal Fundamentals

# ORROW NRG

# Reserve Margins and Capacity Additions

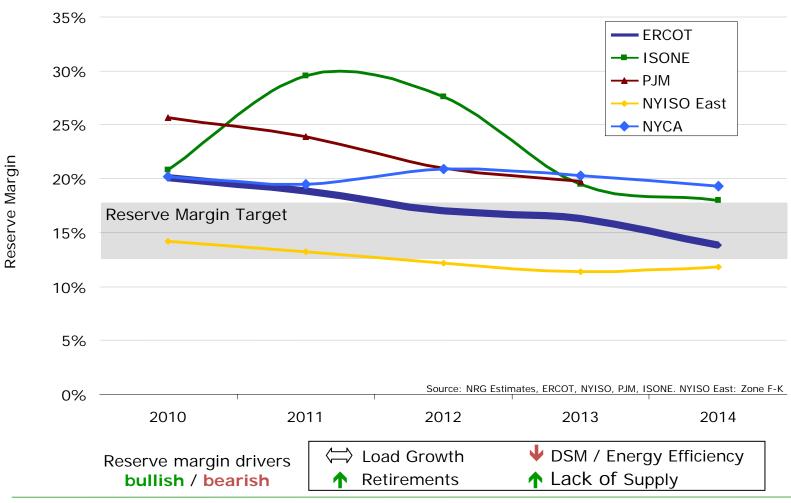


Source: NERC ES&D, EIA, Ventyx Energy Velocity. Reserve margin assumes 38 GW under construction. Load growth of -2% in 2009, 3% 2010 and 1.5% there after. Wind capacity at 15% of nameplate and 32 GW of installed direct DR capability.

Investment cycle interrupted by severe recession should lead to faster market recovery





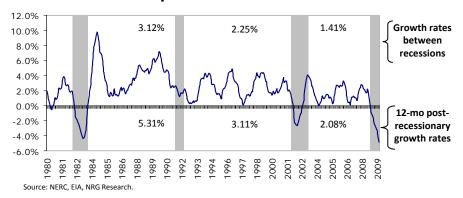


Mid-cycle delayed to 2015 by recession, but reserve margins are contracting in NRG core markets

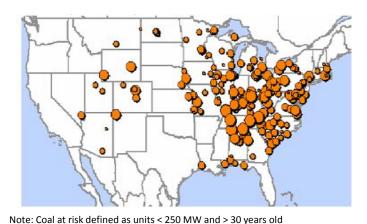
## **Reserve Margin Drivers**



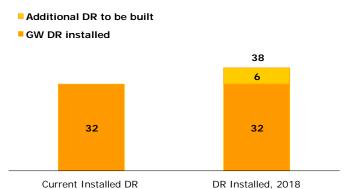
# Load growth has "spiked" in first year post-recession



# Tighter environmental legislation could drive 50 to 60 GW of coal generation out of market

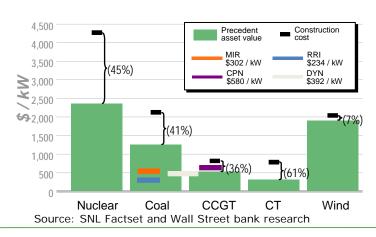


# Based on NERC estimates, DSM could represent 4.3% of total load by 2018



Source: NERC. Demand response includes direct load control and interruptible load programs and exclude 20 GW expected energy efficiency.

# Financial and commodity environments do not justify new supply without PPA's



Increasing environmental regulation and new build economics to stress reserve margins

# Renewable Portfolio Standards Will Shape **Next Investment Cycle**

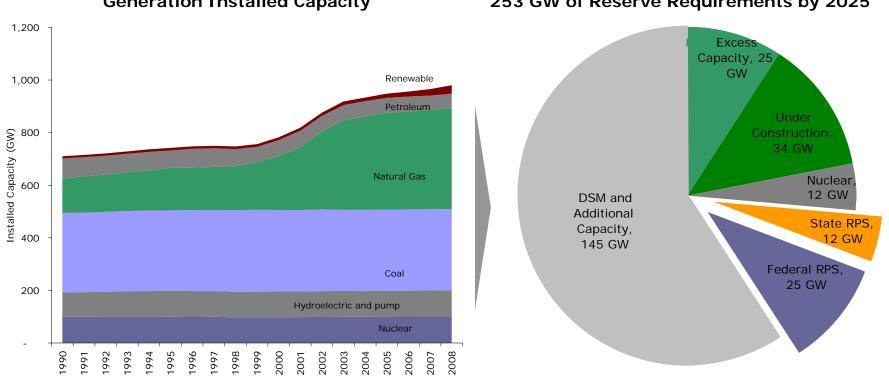
NRG TODAY AND TOMORROW



77 GW of wind-equivalent capacity needed to meet 2025 state-level RPS requirements and additional 169 GW to meet Federal RPS requirements

#### **Generation Installed Capacity**

#### 253 GW of Reserve Requirements by 2025



Source: NERC, EIA, NRG estimates

Note: Demand forecast assumes -2% growth in 2009, 3% growth in 2010, 1.5% growth thereafter. Equilibrium reserve margin requirement at 15%, 39 GW (nameplate) units currently under construction are completed, Net excess of 25 GW (35 GW retirements and 60 GW current excess capacity), wind built to meet state and federal RPS counts at 15% of capacity toward reserve margin. Federal RPS assumed at 15% of demand.

Combination of nuclear, gas and renewable generation to meet future demand growth

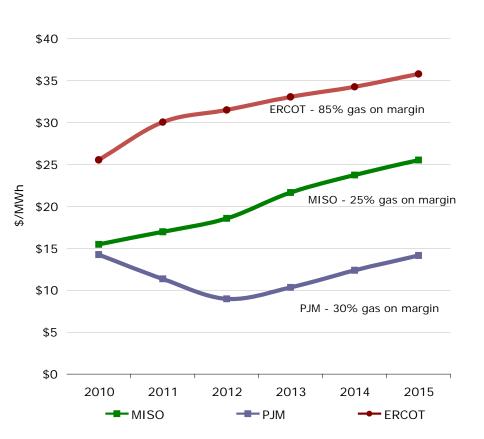


# Regional Dark Spreads Remain Attractive









#### **Production Cost by Coal Type**

	PRB	CAPP	NAPP	IL Basin	
2010 Forward Price (\$/ton)	\$9.03	\$58.65	\$55.00	\$41.95	
Transportation Cost to Typical Demand Center (\$/ton)	\$25-\$30	\$20-\$25 \$20-\$25		\$20-\$25	
Total Cost (\$/ton)	\$36.53	\$81.15	\$77.50	\$64.55	
Total Cost (\$/mmbtu)	\$2.08	\$3.25	\$2.98	\$2.88	
Energy Content	8,800	12,500	13,000	11,200	
Sulfur Content	0.35%	0.35% 1% 2%		3%	
International Demand	Х	✓	✓	х	
Power Market	ERCOT MISO	PJM	PJM	MISO	

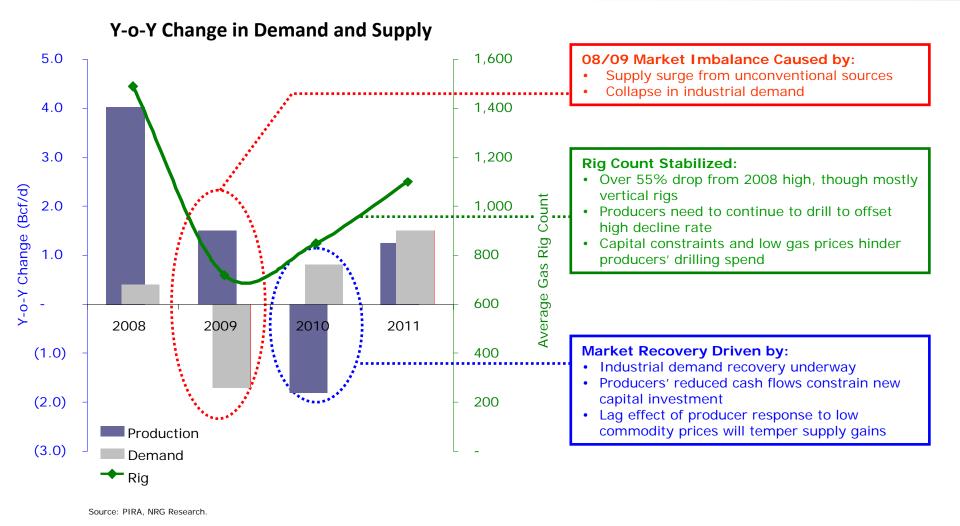
Note: Dark spreads calculated with Round the Clock power prices and delivered coal price as of 9/30/09 using 10.5 mmbtu/MWh heat rate (ERCOT/8800, MISO/8800, PJM/CAPP)

Dark spreads remain attractive long term particularly for PRB generators

# Natural Gas - Supply/Demand Outlook







Supply response and demand recovery will re-balance gas market in 2010

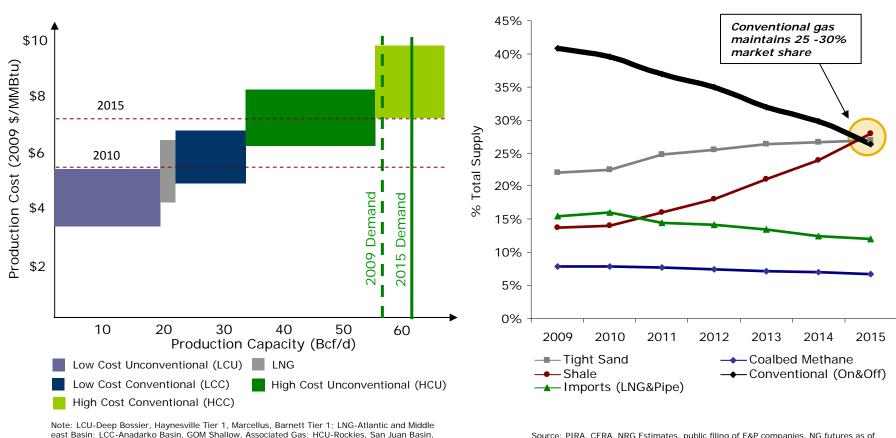
## **Natural Gas Production Costs**





#### **Production Basin Costs**





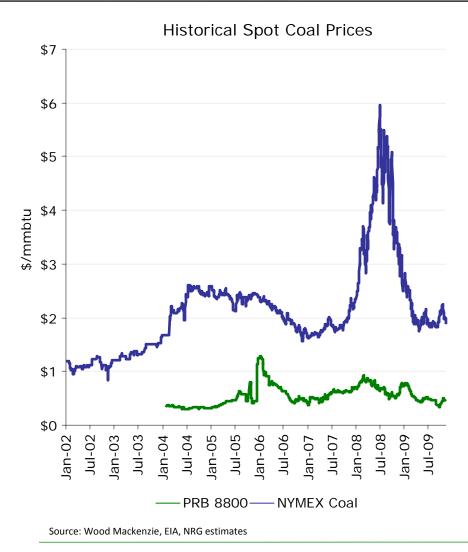
Source: PIRA, CERA, NRG Estimates, public filing of E&P companies. NG futures as of 11/2/2009

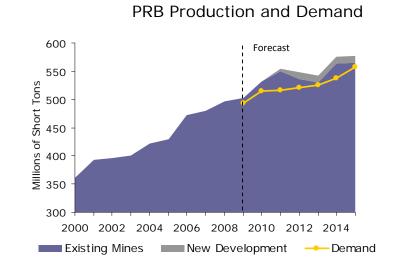
Unconventional gas will drive production growth, but marginal gas will likely come from conventional sources

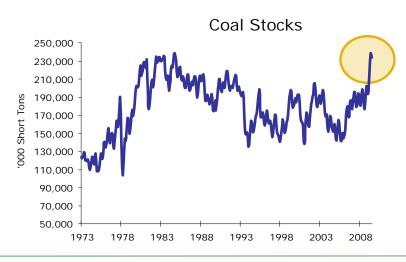
Barnett Tier 2/3; HCC-Permian Basin, California, GOM Deepwater.

### **Historical Coal Prices and Production**









PRB Coal prices to remain stable given production increases and record inventories



- Recession delayed mid-cycle for power but market dynamics could lead to faster recovery and margin expansion for incumbent generators
- Renewable portfolio standards and tighter environmental regulation will shape next investment cycle favoring nuclear, gas and renewable generation
- Expected natural gas prices will keep dark spreads attractive, particularly for PRB coal generators



# NRG TODAY AND TOMORROW

**Capital Allocation** 

**Gerald Luterman** 

**CFO** 

**Christopher Sotos** 

VP, Treasurer



GENERATION

# Agenda

- ✓ 2009 An Extraordinary Year
- ✓ 2010 Initial Guidance
- ✓ Financial performance since the last analyst day (2006)
- ✓ Next six years: 2010 2015
- ✓ Capital Structure
- Summary



### 2009 - An Extraordinary Year

- ☑ Third quarter reported record financial results
- Acquired and integrated Reliant Retail
- □ 2009 EBITDA Guidance of \$2.575B
   ★ Record Performance for NRG ★
  - Wholesale \$1.95B
  - Retail \$0.63B (eight months of ownership)
- □ Recurring Free Cash Flow from Operations guidance of \$1.4B



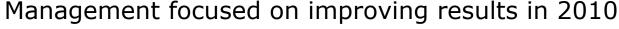


#### 2010 Initial Guidance

- 2010 EBITDA Guidance of \$2.2B
  - Wholesale \$1.7B
  - Retail \$0.5B
- Recurring Free Cash Flow from Operations of \$1.1B
  - Resulting in recurring Free Cash Flow of \$4/per share

Note: cash flow per share calculated by adding back preferred dividends and dividing by the 3<sup>rd</sup> quarter weighted average number of common diluted shares of 272 million













#### **Historical Financial Performance**

Performance over three years since we last convened in Houston (2006-2009E)...

NRG at 1 <sup>st</sup> Investor Conference		NRG Now	Change
(in millions) 2006		<u> 2009E</u>	
\$1,476	EBITDA	\$2,575	74%
\$663 <sup>1</sup>	Recurring Free Cash Flow	\$1,360	105%
\$2,2272	Liquidity	\$3,936 <sup>3</sup>	77%
PLUS		PLUS	
PLUS	$\star$ ~\$1.6B of debt paydown $\star$	PLUS	

<sup>1</sup> Recurring FCF excludes collateral movements, working capital movements and includes discontinued operations; 2006 adjusted for the hedge reset.







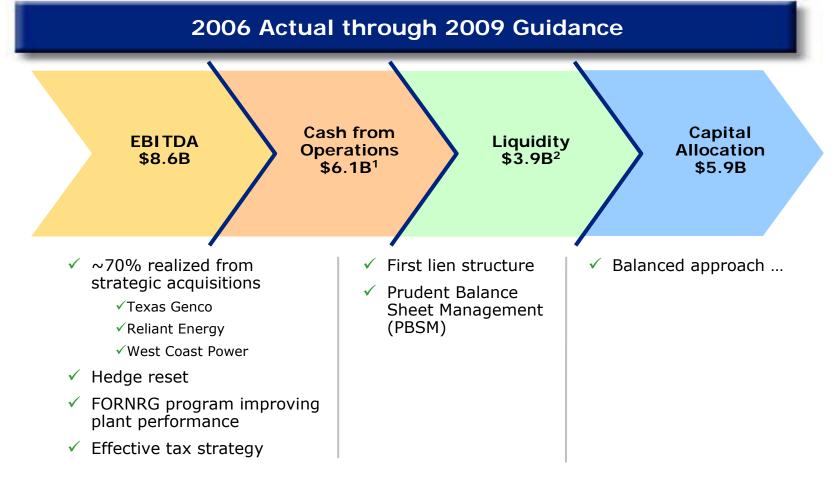


<sup>&</sup>lt;sup>2</sup> Includes ITISA cash balance

<sup>&</sup>lt;sup>3</sup> Liquidity as of September 30, 2009

# NRG

#### Financial Performance: The Past 4 Years



<sup>&</sup>lt;sup>1</sup> 2006 adjusted for the hedge reset.

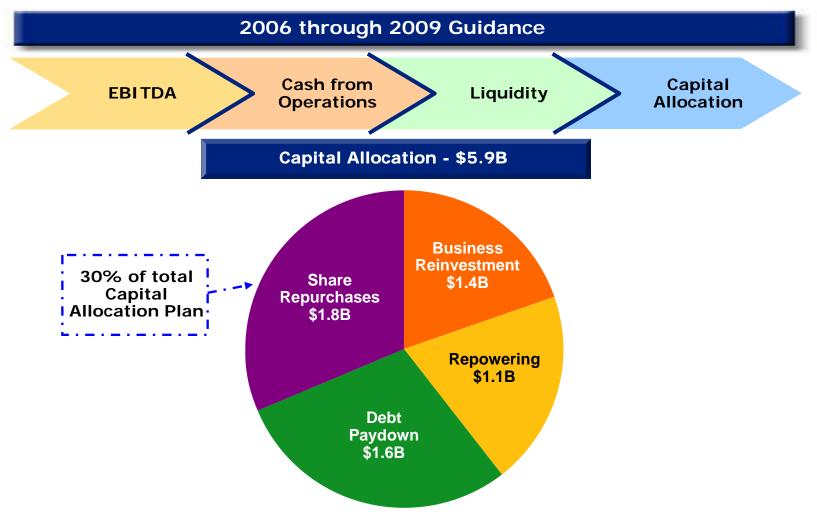
<sup>2</sup> Liquidity as of September 30, 2009

All phases of our financial performance focused on "Cash"



## NRG

#### Financial Performance: The Past 4 Years (Cont'd) -



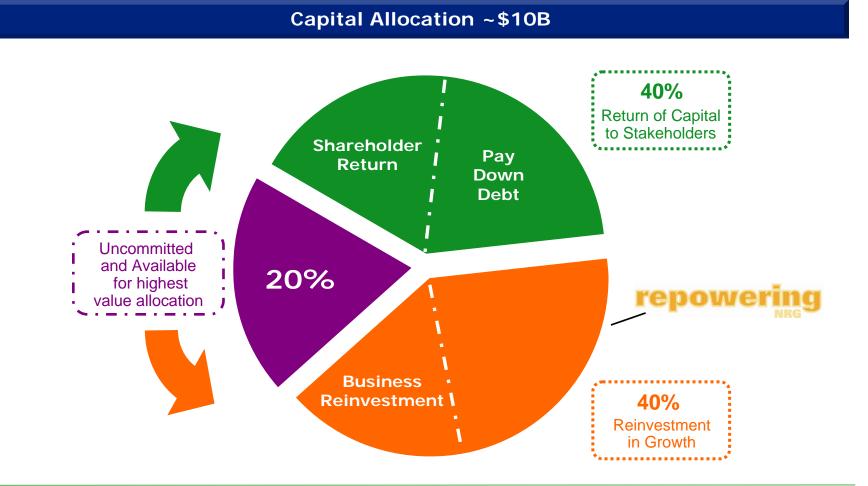
Note: 2009 is based on guidance provided on the 10/29/2009 earnings conference call.

A "balanced" and "value optimized" Capital Allocation Plan



#### NRG TODAY AND TOMORROW NRG

#### Capital Allocation Plan for 2010 - 2015



Capital Allocation will be weighted towards to what provides greatest shareholder return

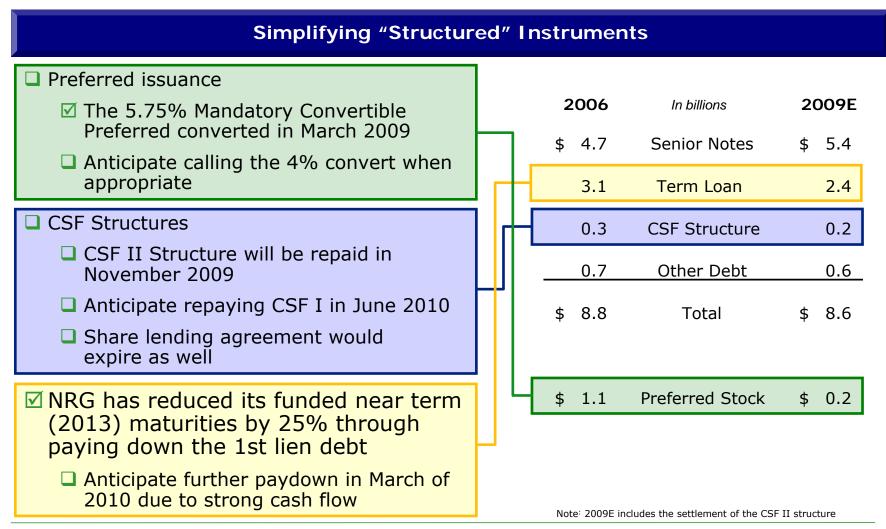
#### 2010 Financial Objectives

- Simplify Balance Sheet
- Solve for RP Basket
- Maintain our Eternal Commitment to Prudent Balance Sheet Management
  - Target "BB" Credit Profile
  - Maintain appropriate liquidity levels
  - Capital project investments generating returns in excess of Weighted Average Cost of Capital (WACC)
  - Return of capital to stakeholders

Prudent Balance Sheet Management and Efficient Capital Allocation supports sound merchant business model



### **Capital Structure Simplification**



Significant strides have been made in simplifying the Capital Structure.

More to come in 2010

### **Capital Structure**



#### **Credit Ratings**

	2	006	2	2009		
	S&P	Moody's	S&P	Moody's		
First Lien Debt	BB-	Ba1	BB+	Baa3		
Unsecured Debt	B-	B1	BB-	B1		
Corporate	B+	Ba3	BB-	Ba3		

#### **Credit Statistics**

			Targeted _	Meets NRG's Targeted Targeted Profile?		
	2006	2009 <sup>(1)</sup>	Range	2006	2009 & Beyond	
Net Debt/Total Capital	58%	45%	45% - 60%	Yes	Yes —	
Debt/Adj. EBITDA	5.9x	3.4x	≤ 4.25x	No	Yes	
FFO/Debt	12%	21%	> 18%	No	Yes	

(1) Base on 2009 guidance: see appendix for calculation

Credit statistics are now well within targeted range





#### **Priorities-Restricted Payment Basket**

- ✓ NRG remains committed to returning minimum of 3% of its market capitalization to its shareholders
- ✓ As such, NRG moved \$170MM of its 2010 repurchases forward to 2009, thereby repurchasing \$500MM of shares in 2009 while also retiring the CSF II structure
- ✓ As part of this commitment, NRG is focused on increasing its RP basket under its Indenture to address its historical constraints while remaining disciplined in its approach
- ✓ In order to achieve this end, NRG has a number of alternatives to discuss with the bondholder group for their consent
  - > Immediate cash payment
  - Exchange into new bond with longer maturities
  - > Increase in coupon

NRG's top capital allocation priority is to find a solution in 2010



- 2009 on track to be a <u>record</u> year in the face of some daunting head winds
- Management team is committed to strengthening the performance from the 2010 initial guidance
- Since 2006, NRG has excelled in its performance with successful investments generating a significant portion of our EBITDA, and returning 30% of our CFO to our shareholders
- Next 5 years we plan to maximize value through deployment of our substantial current and future cash flow by:
  - ✓ Significant growth capital being put to work
  - ✓ Continuing our share buyback program
  - ✓ Maintaining our commitment to prudent balance sheet management
- NRG's capital structure and liquidity provide a great basis for future growth and development



VNINA

111

## NRG 2009 Technology Expo At Reliant Stadium

7:00pm - 9:00pm

\*Buses depart at <u>6:00pm</u> from East Lobby

**David Crane** 

President & CEO



GENERATION



### NRG Technology Expo



#### **ABWR**



**Electric** Vehicle



Solar **Photovoltaic** 





**Biomass Closed Loop** 



Energy **Storage** 

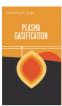


Solar **Thermal** 





**Biomass** Open Loop



**Plasma Gasification** 



Wind Offshore



Early-mover





Carbon Capture Sequestration



Smart **Energy** 



Wind **Onshore** 

Commercial Scale

**Exploring technologies with limited capital expenditure**