

# Win Today, Win Tomorrow...



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David Crane | Chief Executive Officer

# ...Win the Future



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# Road Map

to Navigate the Future

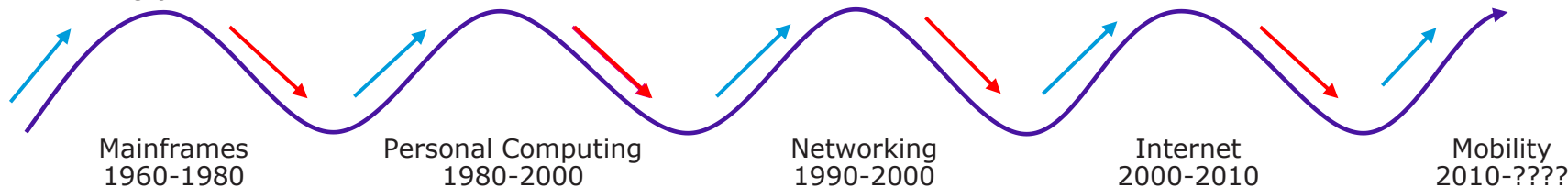
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# Technology Propels Waves of Massive Value Creation...



## Winners

- |                     |                   |            |          |            |
|---------------------|-------------------|------------|----------|------------|
| ✦ IBM               | ✦ Microsoft       | ✦ Cisco    | ✦ Google | ✦ Apple    |
| ✦ NCR               | ✦ Compaq          | ✦ Lucent   | ✦ Amazon | ✦ Facebook |
| ✦ Control Data      | ✦ Dell            | ✦ Nortel   | ✦ eBay   | ✦ Google   |
| ✦ Honeywell         | ✦ Intel           | ✦ Nokia    | ✦ Yahoo  |            |
| ✦ Digital Equipment | ✦ Hewlett Packard | ✦ Ericsson |          |            |
| ✦ Xerox             |                   |            |          |            |



## Losers

- |                 |                      |                      |                      |
|-----------------|----------------------|----------------------|----------------------|
| ✦ Mainframe     | ✦ Regional Bells     | ✦ Traditional retail | ✦ Personal computers |
| ✦ Minicomputers | ✦ Long distance co's | ✦ Print media        | ✦ "Dumb" cellphones  |
|                 |                      |                      | ✦ Anything wired     |

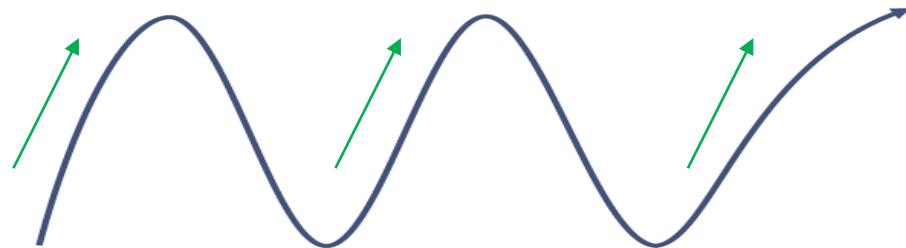
★ ... As well as Value Destruction (for those who don't adopt) ★

# The Same Trends Will Apply in the Power Industry



## Winners

- ✦ Local utilities
- ✦ Utility spin-offs
- ✦ Early IPPs
- ✦ NRG Energy



Local monopolies  
(Pre-PURPA<sup>1</sup>)  
Before 1978

Early Deregulation  
(Bilateral Phase)  
1978-2002

Late Deregulation  
(Merchant Phase)  
2002-2014

## Winners & Losers

Who will Win and Who will Lose in the Post-Merchant Phase (2014- )?

Characterized by:

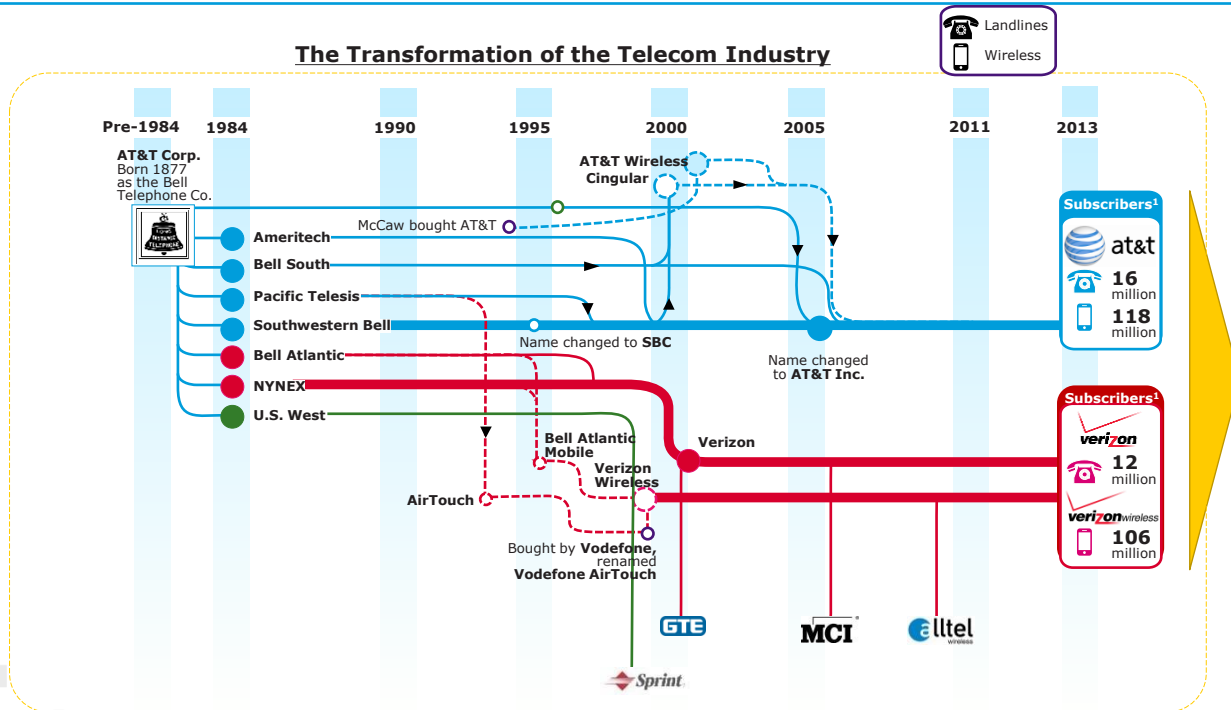
- ✦ Chronically low commodity prices
- ✦ Customer choice impervious to regulatory constraints
- ✦ Distributed Solar as THE disruptive technology catalyst
- ✦ Focus on mobile energy (to power mobile devices)

<sup>1</sup> Public Utility Regulatory Policies Act of 1978

★ Imprudent to Assume Energy Consumers Will Not Embrace Transformative Technological Change ★



# Who Wins a Transformation?



Having consolidated the 20<sup>th</sup> century paradigm (fixed lines), AT&T and Verizon gained dominance of the 21<sup>st</sup> century model (cellular)

Source: WSJ reporting and publicly available information

<sup>1</sup> Subscriber figures as of Q3 2014 and currently available information for AT&T and Verizon, respectively

★ **Telecom Provides the Answer:** The incumbent who fully embraces the future technology while continuing to compete aggressively to win in the present industry paradigm are best positioned ★



# Value Created During Transformation

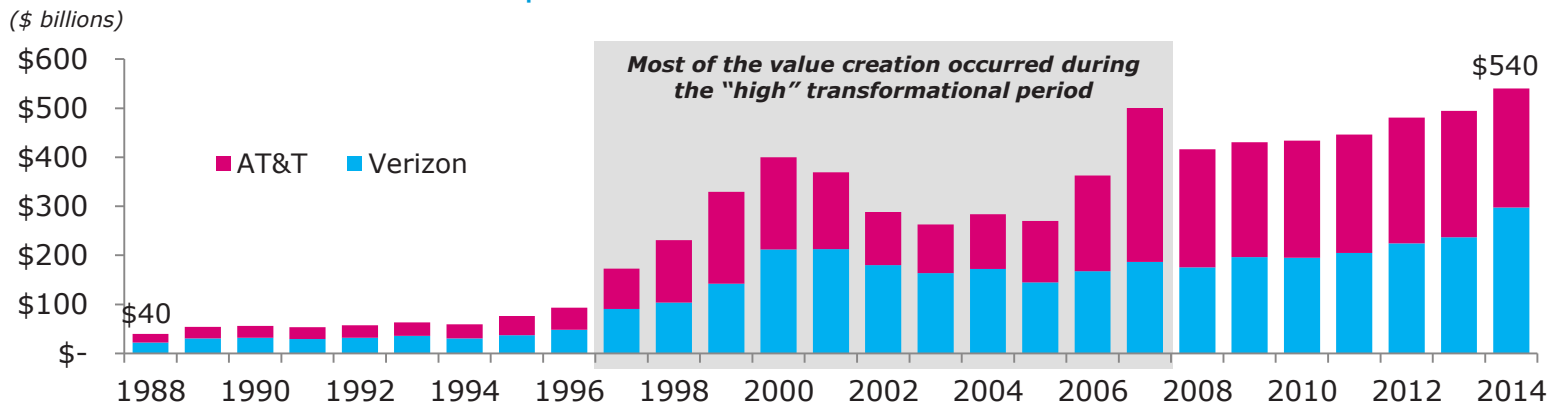
*Wireless portable telephone services... (allowing) customers to make and receive telephone call from any location... complete with services currently offered by the Company and could result in losses of revenues.*

- Bell Atlantic 1993 10-K

*Wireless services also constitute potential sources of competition to our wireline telecommunications services, especially as wireless carriers continue to lower their prices to end users.*

- Verizon 1999 10-K

## Enterprise Value of Verizon & AT&T<sup>1</sup>



Source: Bloomberg, Annual Reports, other public information

<sup>1</sup> Enterprise value data for AT&T & Verizon, which includes legacy companies (e.g. Southwestern Bell, Bell Atlantic) prior to the formation of present-day AT&T & Verizon, is calculated using net debt and equity values

★ For NRG: This is the Path with Both the Least Risk and Greatest Upside ★



# The Winning Blueprint



- 1. Aggressively embrace the sector’s disruptive technology..... *Done*
- 2. Shift hard the company’s culture from being a fixed asset company to a customer focused company built on a foundation of fixed assets and technological expertise..... *In Progress*
- 3. Be a consolidator at value of the traditional sector along the way..... *In Progress*

## How NRG Will Win



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# Our Market Opportunity

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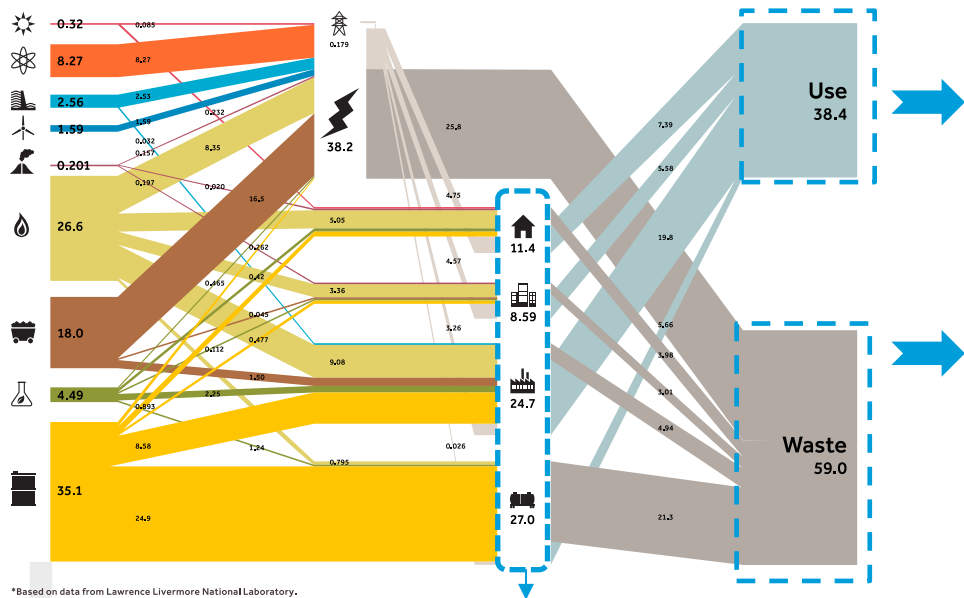






# Today's Energy Dynamics

Estimated United States Energy use in 2013: 97.4 Quads



With an overabundance of natural gas, wind, solar, coal and, increasingly, oil, the "post merchant" era is defined by chronic oversupply of our key input commodities resulting in constrained commodity pricing

A well designed system... for the 20th century... but no system that generates ~60% waste is going to survive unscathed and untouched by technology through the 21st century

- NRG is focused on shifting trends:
- ❖ Centralized → distributed
  - ❖ Fossil → clean
  - ❖ Unreliable → grid resilient
  - ❖ Oil Transport → EV transport

Fight for market share with respect to all types of energy consumers: home, commercial, industrial and transportation

★ Even in an era of unfavorable supply-demand dynamics, enormous areas of opportunities exist for NRG ★



# Huge Market Opportunity

## Customer Concentrations (USA)

	Total	NRG
<b>Retail</b>	Homes	115 MM
	Commercial & industrial	5 MM 281,000 small business 89,000 C&I
	Cellular sites	.3 MM

More than 50% of the generating capacity of the U.S. is more than 30 years old

## Generating Capacity

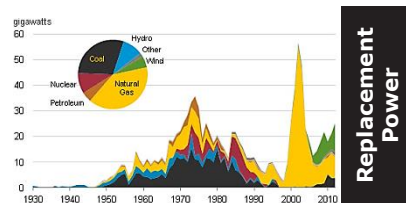
	Total	NRG
<b>Global</b>	World	5,000 GW
	USA	1,000 GW
	Africa	100 GW

Source: EIA, Census Bureau, NRG Estimates

## Energy Products (USA 2009)

	Total	NRG
Refrigerators	140 million	--
Hot water heaters	117 million	--
Dryers	90 million	--
Furnaces / boilers	82 million	--
Stand by generators	2 million	Negligible

**Distributed**



## Electric Grid

High voltage transmission	283,000 miles
Low voltage distribution	2.2 MM miles
Distribution poles	130 MM
Substations	70,000

**Disrupted**

★ And we are not constrained in these growth areas by market share considerations ★



# Pursuing a Path to Growth...

(\$ millions)

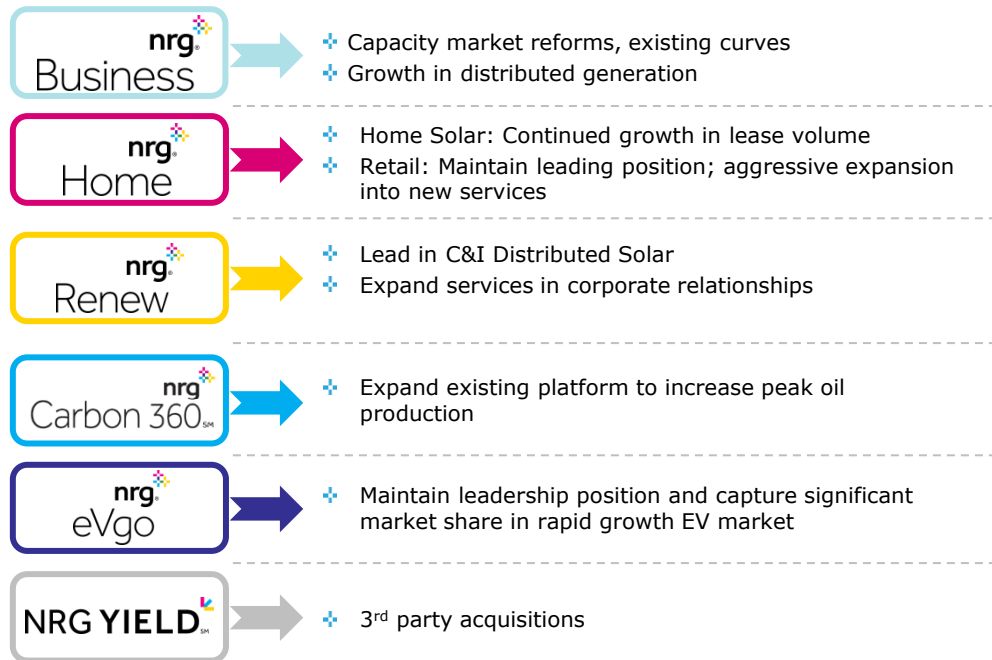
## Targeting a 10% CAGR Long Term

Adjusted EBITDA Potential

~\$6,600



~2022



Adjusted EBITDA  
\$3,300



2015<sup>1</sup>

<sup>1</sup> NRG Energy's 2015 midpoint Adjusted EBITDA guidance



...Even in a Subdued Commodity Price Environment



# NRG Home: NRG's Biggest Current Opportunity



## System Power

- ❖ ~21 MM residential customers in competitive markets<sup>1</sup>
- ❖ Annual per customer EBITDA of \$150 - \$250/yr

### Annual EBITDA availability:

**\$3.2 - \$5.4 BN**

## Goal Zero

- ❖ 75% are estimated to be potential customers
- ❖ 120 MM U.S. households
- ❖ + 350 MM U.S. wireless subscribers

### Annual EBITDA availability:

**~\$1.7 - \$2.0 BN + Global Market**

## Residential Solar

Number of homes in U.S.	120,000,000
Homes eligible for Solar (%)	36,000,000 (30%)
Net market size <sup>2</sup>	35,500,000
EV/customer	\$20,000 - \$30,000

### Value Opportunity<sup>3</sup>:

**\$700BN - \$1.1T**

## Home Energy Services

- ❖ Only 2% of U.S. homes have energy mgmt systems w/smart thermostats
- ❖ Potential penetration of 10% with monthly service agreements

### Annual EBITDA availability:

**\$1.1 BN and growing**

<sup>1</sup> Residential market size of 20-25 million customers, with more than twice that number eligible to be served by a competitive retailer;

<sup>2</sup> Net of estimated existing installations; <sup>3</sup> Value cannot be measured properly in EBITDA terms

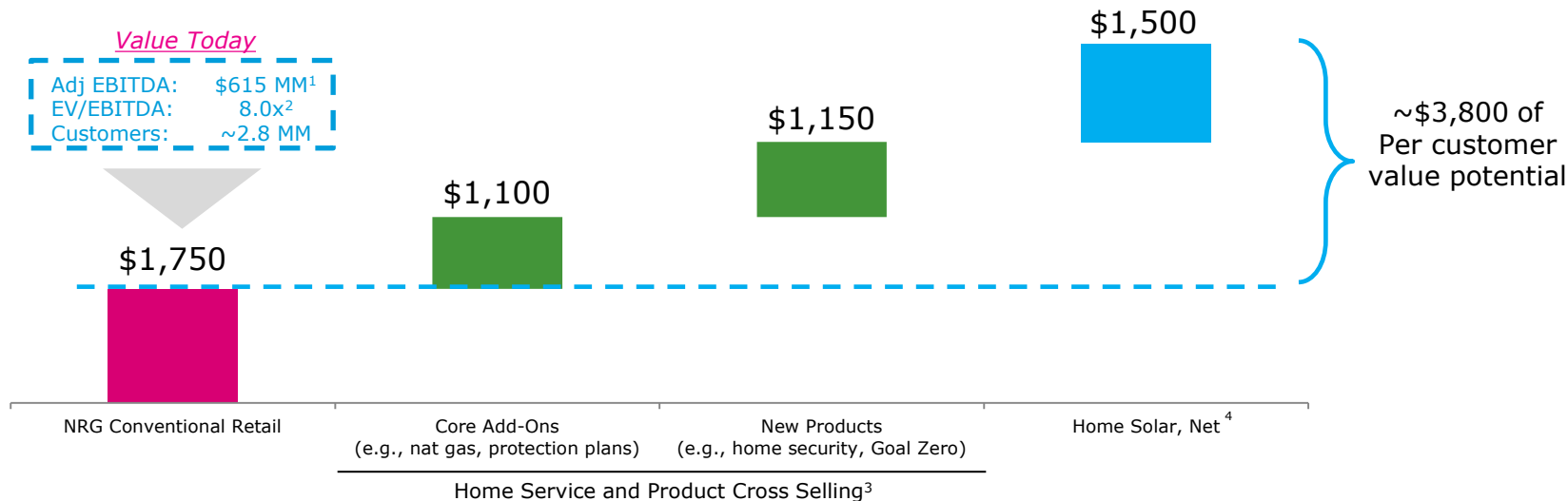
★ In the current era of energy surplus, the value pendulum is swinging decisively to the end use energy consumer ★



# Massive Value Capture Opportunity

All values in nominal \$ per customer

## Value Build: An Illustration



<sup>1</sup> Represents NRG's mid-point 2015 financial guidance for NRG Home Retail; <sup>2</sup> Assumed value for illustrative purposes; <sup>3</sup> Values represent an 8.0x multiple to assumed annual adjusted EBITDA potential based on internal NRG research; <sup>4</sup> Net additional value assuming no customer acquisition cost offset by a reduction in system power use given solar installation

Incremental value will be directly related to how we deliver affordability, resilience and convenience all with a sense of purpose to customers



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# The NRG...and NRG Home...Value Proposition Is a Multi-Year Value Progression THAT BEGINS TODAY...





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# 2015 WIN TODAY





# NRG: Value Catalysts 2015

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## NRG Business

- + Wholesale fleet begins to capitalize on capacity retirement wave

## NRG Home/ NRG Home Solar

- + **Value Recognition Event:** Emergence of NRG Home, particularly NRG Home Solar, as a top player in mega-growth distributed generation sector, with distinct consumer-driven value proposition

## NRG Yield (Including Capital Allocation)

- + A robust double digit intrinsic growth pipeline with line of sight deep into the long term





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# 2016-2019 WIN TOMORROW





# NRG Group: Value Catalysts 2016-2019

NRG Business/  
NRG Carbon 360

- + Achieve scarcity value for our assets by “out-surviving the other guy” through comprehensive asset optimization

NRG Home / eVgo

- + **Value Recognition Event:** Clear confirmation of cross-sell/up-sell value across a truly national addressable market

NRG Renew

- + **Value Recognition Event:** Sustainability/clean energy partner of choice for Fortune 500 companies

NRG Yield

- + **Multiple** intrinsic channels of sustained double digit growth



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# 2020 WIN THE FUTURE and Beyond

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# NRG Group of Companies: Value Catalysts 2020 and Beyond



## NRG Business

- ✦ B2B (on site) generation becomes largest part of sizable market for replacement power

## NRG Carbon 360

- ✦ **Value Recognition Event:** Large scale carbon revenue business

## NRG Home

- ✦ Energy provider of choice to a national market of energy consumers of all ages

## eVgo

- ✦ **Value Recognition Event:** National charging network as a necessity to burgeoning PEV market

## Renew/Microgrids

- ✦ Renewables drive more value-added through complete micro-grid solutions

## NRG Yield

- ✦ Sustained industry-leading dividend growth rate



NRG Group: Energy Company of 21<sup>st</sup> Century





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# Recognizing Value





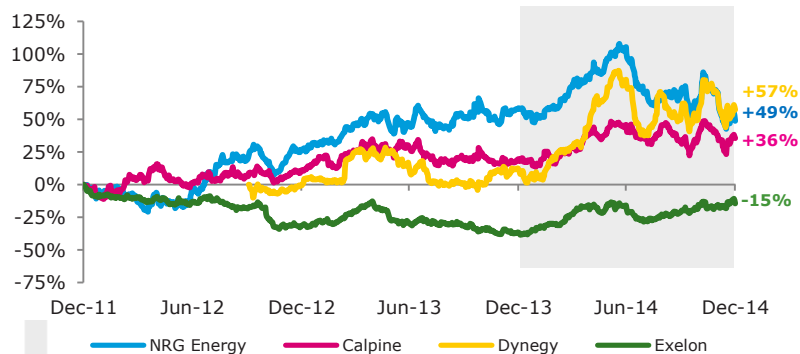
# NRG Share Price Performance

Even taking into account importance of dividend to *BOTH* NRG and NYLD, share price appreciation remains critical to NRG's value proposition

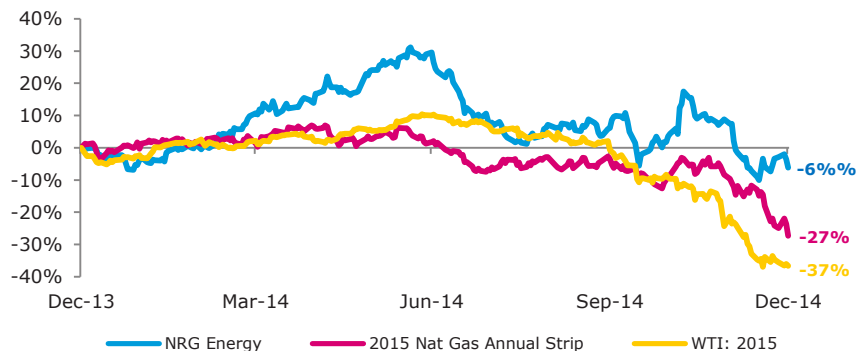
*Our 2014 performance lagged, but our 3 year performance remains in-line with Wall Street peers (IPPs)...*

*...NRG's 2014 share price weakness was driven primarily by bearish commodity price outlook...*

3-Year NRG Share Price Performance vs. Peers



2014 NRG Share Price Performance vs. Nat Gas and Oil



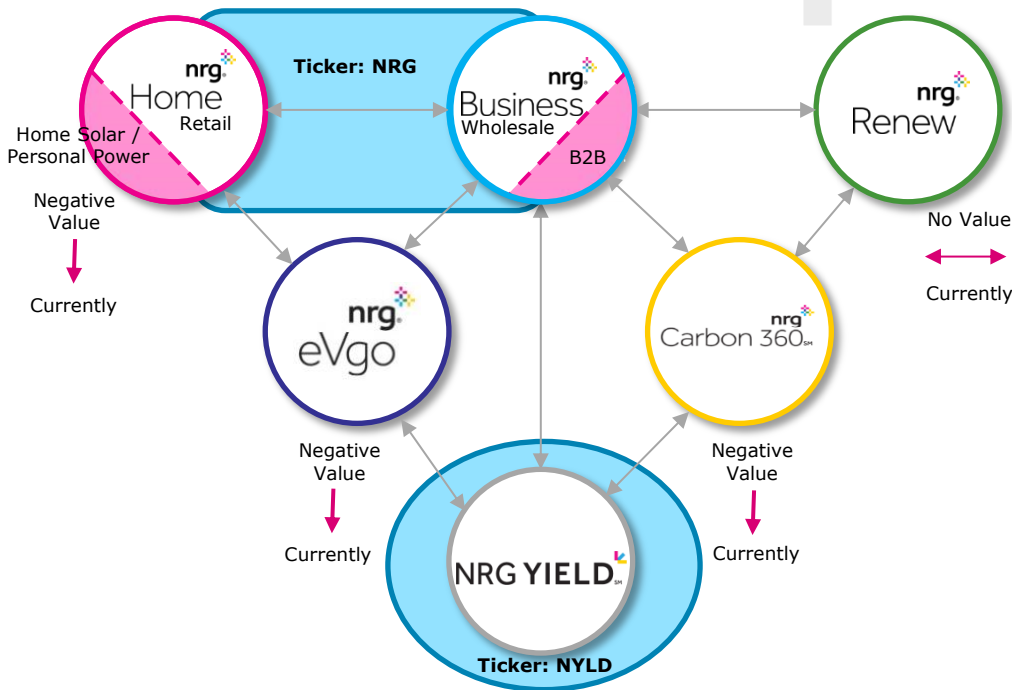
Substantiating the thesis

“It is hard to show the value of anything else we are doing buried under the mountain of 50,000 MW of conventional generation”

# NRG Group: From Wall Street's Perspective



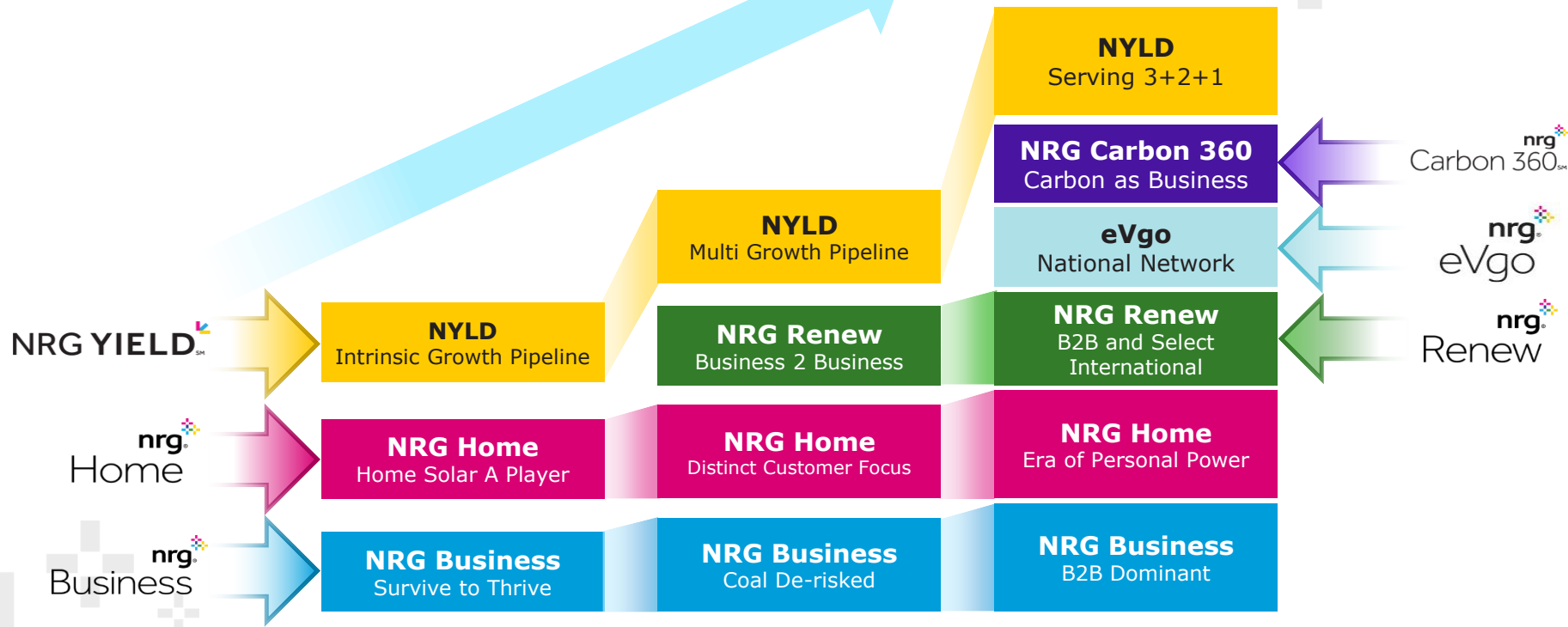
Value must not only be created, it must be highlighted in order for it to be recognized by the market.



★ Multiple options for value recognition through partial spins or other strategic initiatives ★

# NRG Value Creation... and Recognition

Long-term plan to double EBITDA in seven years even in a subdued commodity price environment



A COMPELLING PROPOSITION FOR SHORT, MEDIUM, AND LONG-TERM INVESTORS



# NRG: Protecting Investors from Risk of Status Quo



Winning in the Present Paradigm while positioning NRG to Win the Future is more complex...

...than plowing full steam, into the past (i.e. *business-as-usual*) like our peer group

Insulating NRG Investors from Future Shock