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Poised to benefit from ongoing capacity market reforms

A wellpositioned geographically and fueldiversified portfolio

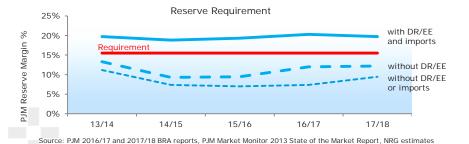
Substantial
investment opportunities
at low multiples and more
attractive risk/return profile
than new builds





## Retirements and Dependence on Demand Response Causing Reliability Concerns...

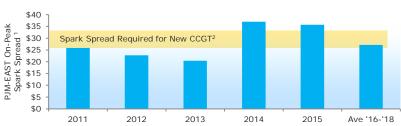




## ...Driving Capacity Market Reforms and Improved Price Formation



Source: PJM ISO, NYISO, ISO-NE, Analyst's estimates



Source: PJM, ICE, NRG Estimates Forward values as of 12/31/14.

1 2011 - 2014 spark spread calculated using actual DAM settles vs. 7 heat rate x TETCO M3 gas; 2015 – 2018 spark spreads based on forward on-peak power prices vs. 7 heat rate x TETCO M3 gas 2 CCGT CONE range is calculated based on overnight capital cost of \$1,100/kW, net of capacity and ancillary revenue; Spark Spreads = (On-peak power - 7 heat rate x TETCO M3 gas)



## East: Asset Strategy

### ~\$1B Capital Committed<sup>1</sup>

Midwest Gen (4,306 MW) PJM - ATSI PJM - ComEd Gas Addition Environmental upgrades, natural gas additions, retirements Summer 2016 COD

Avon Lake (732 MW)

Summer 2016 COD

NY - RoSGas Repowering Fall 2016 COD

Dunkirk (435 MW)

Portland (401 MW) PJM - MAAC

Oil Repowering Summer 2016 COD

New Castle (330 MW) PIM - ATSI

Gas Addition Summer 2016 COD PJM - MAAC

Summer 2016 COD

Shawville (597 MW)

Gas Repowering

**Case Study** 



- Oil conversion by Summer 2016
- Investment: ~\$65 MM
- ❖ Est. Adj. EBITDA: \$11 MM<sup>2</sup>
- 5.9x EBITDA multiple

Significant Accretion Just Based on Capacity



<sup>1</sup> From NRG's 2nd Quarter 2014 Results Presentation on Aug. 7, 2014. Includes ~\$545MM at Midwest Generation and ~\$440MM at GenOn subsidiary

<sup>&</sup>lt;sup>2</sup> Assumes \$120/mw-Day





Strong growth
in electric demand
provides opportunities
both in front of and behind
the meter

Our
integrated
platform continues
to drive value in Texas

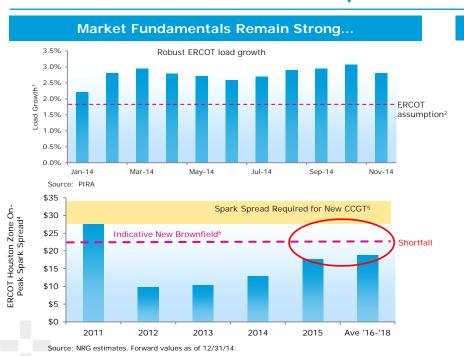
NRG Carbon360
provides a large,
differentiated value
proposition while also
protecting fleet
diversity



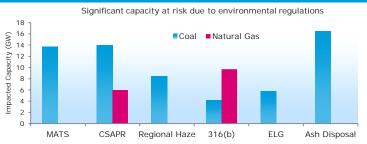
## Gulf Coast: Market Update



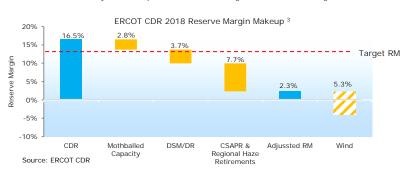
Power to be free



#### ...and ERCOT Reserve Margin is Vulnerable



Source: ERCOT study entitled "Impacts of Environmental Regulations in the ERCOT Region"



<sup>12-</sup>month rolling average of weather normalized YOY load growth. 2 ERCOT energy growth rate of 1.8% as defined in ERCOT's Long-Term Hourly Peak Demand and Energy Forecast

<sup>&</sup>lt;sup>3</sup> CDR reserve margin, Mothballed Capacity, DSM/DR, and Wind reserve margin values based on ERCOT Dec 2014 CDR values; CSAPR & Regional Haze retirements based on ERCOT study entitled "Impacts of Environmental Regulations in the ERCOT Region" <sup>4</sup> 2011 - 2014 spark spread calculated using actual RT settles vs. 7 heat rate x Houston Ship Channel gas. <sup>5</sup> CCGT CONE range calculated based on overnight capital cost in the range of \$800/kW to \$900/kW; Spark spreads = (On-peak power - 7 heat rate x Houston Ship Channel gas.) <sup>6</sup> Assumes overnight capital cost in the range of \$800/kW to \$900/kW; Spark spreads = (On-peak power - 7 heat rate x Houston Ship Channel gas). <sup>6</sup> Assumes overnight the cost of \$700/kW and 6.3 heat rate CCGT

## **Gulf Coast: Asset Strategy**

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Well-diversified portfolio and advantaged development opportunities provides resiliency and opportunity

## Industrial Expansion: 5 Year Opportunity

- 4,000 MW electric demand
- → 700 MW steam demand

#### NRG Brownfield Expansion Sites

- Robinson- 360 MW in construction
- → Bertron 5 750 MW air permit issued

- Integrated Platform (wholesale/retail)
- Multiple Brownfield Sites
- \* CCS/EOR Opportunities







NRG
is well
positioned for
continued growth

The California
electricity supply mix is
going through drastic changes

NRG has
established a solid
foundation and reputation
through recent successes

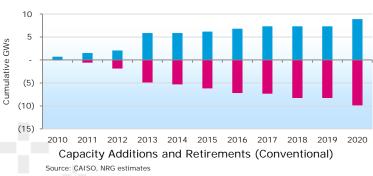


## West: Market Update

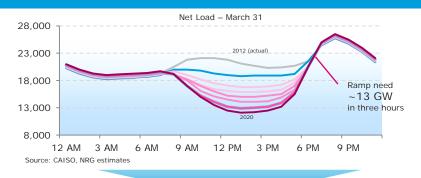
# 1

#### Renewable Generation and Retirements...





#### ... Create Opportunities on Existing Sites for Firming Capacity



- \* Renewables:
  - Incremental 9 GW to meet RPS target by 2020
- \* Conventional:
  - 10 GW of retirements (Nuclear and OTC1)
  - 13 GW of ramping capacity to integrate renewables
- Preferred resources:
  - Growing share of utility procurement programs





## West: Asset Strategy

Repowering projects create solid long-term foundation – 2,600 MWs



Marsh Landing Generating Station 720 MW PPA (2023)



Mandalay Energy Center 262 MW PPA (2040)



El Segundo Energy Center 550 MW PPA (2023)



Walnut Creek Energy Park 500 MW PPA (2023)



Carlsbad Energy Center 600 MW PPA (2037)

#### Potential growth through more gas repowering



Willow Pass Generating Station



El Segundo Energy Center 2

#### More growth through preferred resources and storage



Direct asset control Lighting, HVAC and Distributed Generation



Demand response program support Electricity Load Management



Energy Storage 1.3 GW Mandate

