



ERCOT GCPA Spring Conference

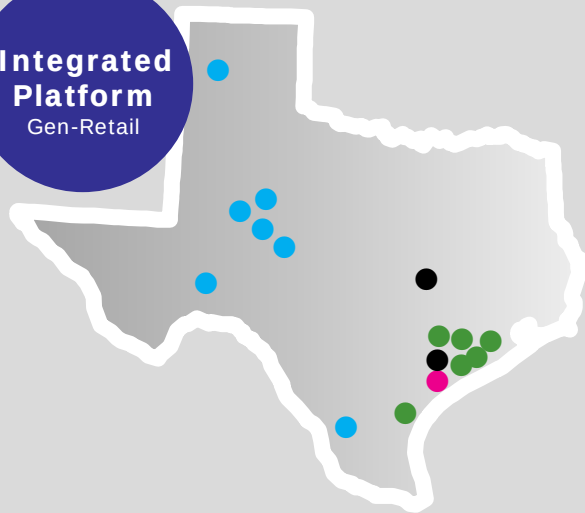
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President & CEO – NRG Energy

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NRG in ERCOT – A Balanced Portfolio

Integrated Platform
Gen-Retail



Largest Retailer

~**2.1 Million** Mass Retail Customers Served
Reliant – Leading Retail Brand
35 TWh Mass Load Served
18 TWh C&I Load Served



Second Largest Generator

~**10,100 MW** total thermal generation
700 MW wind generation
~**1,500 MW** under development wind and solar



Significant Presence

Close to **3,000** employees
~**\$1.5B** capital invested in past 3 years

Texas Energy Policy

Vast resources

Diverse natural resources
(gas, oil, wind, solar)

Embrace competition

A pro-business government
and regulatory environment

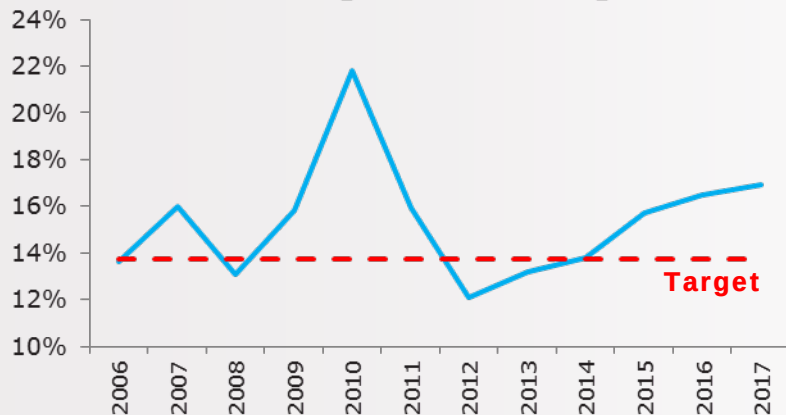
Transmission focused

Policy to bring vast
resources to market

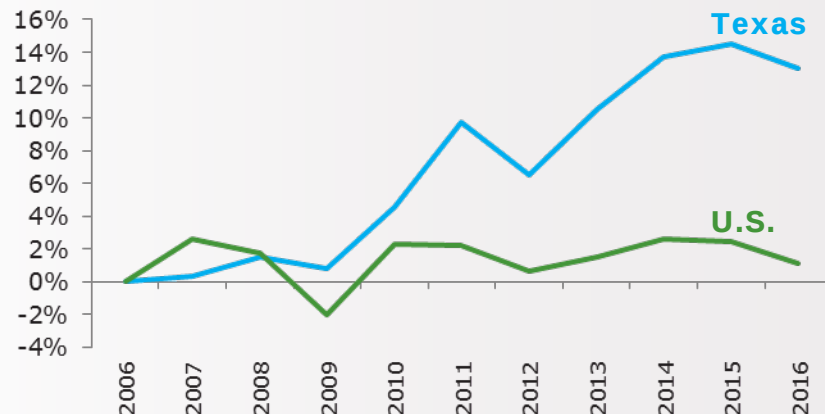
Thriving economy

Strong population and
electric demand growth

Planning Reserve Margins¹



Cumulative Demand growth²



Current Market Concerns

1 Price Formation

2 Renewables

3 Transmission

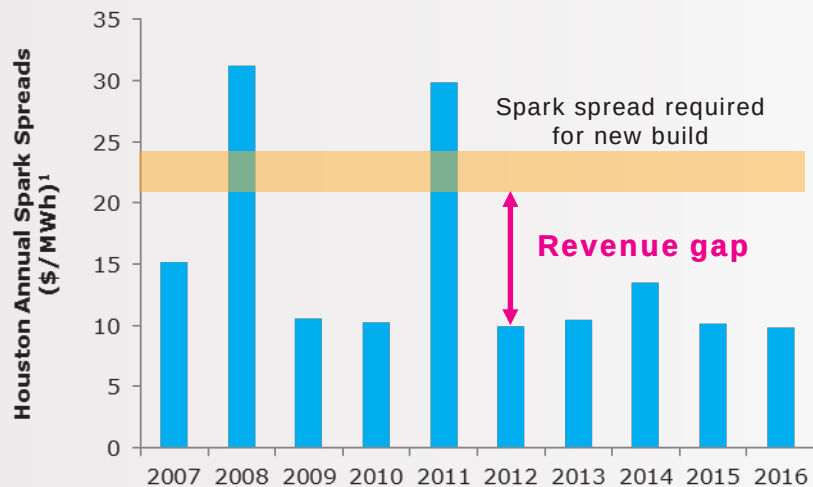


- Annual transmission spend has increased 4x since 2002
- Inherent preference for transmission over market solutions
- Consumers bear the burden of these increasing costs

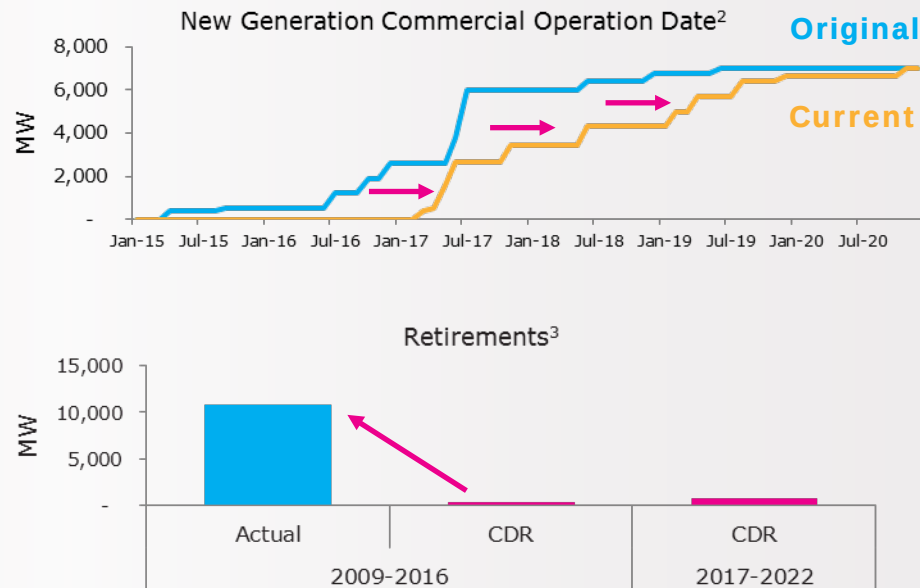
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Price Formation

Market prices do not incentivize new dispatchable generation, now and haven't for the past five years...



...delaying new projects and putting existing generation at risk

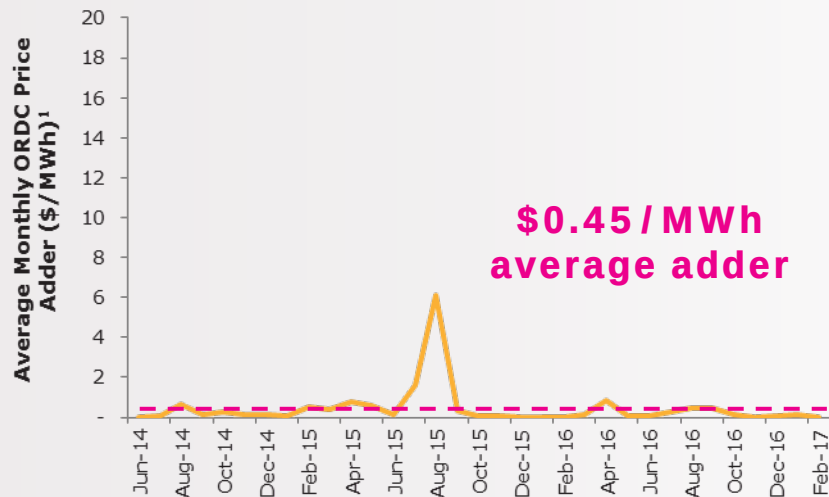


Prices insufficient to attract or maintain dispatchable generation

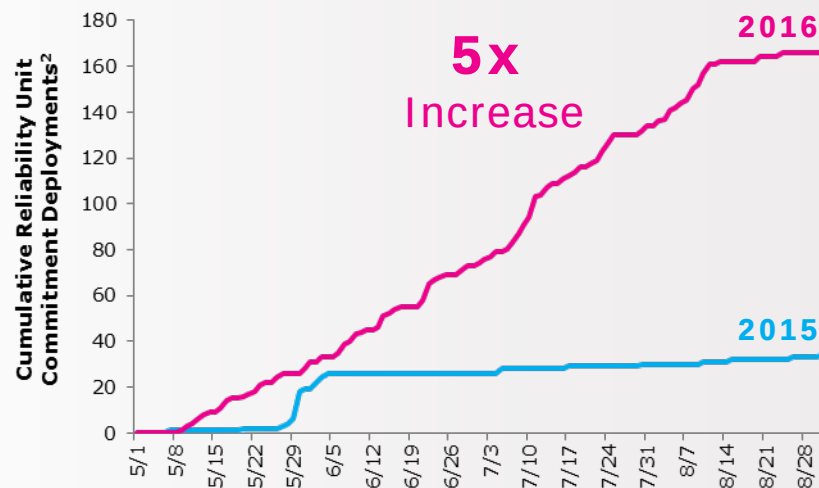
¹ Source: ERCOT, NRG estimates; Spark spreads based on actual real time on-peak clears vs HSC GDA.. Spark spread needed for new build based on the revenue requirement for a 6.8 HR NGCC at \$800/kW. ² Source: ERCOT GIS reports; Graph includes only those assets that are listed as new thermal generation in the Dec 2016 CDR. ³ Source: Energy Velocity, ERCOT CDR's; CDR retirements represent retirements identified in prior and current CDR's.

Price Formation – Additional Concerns

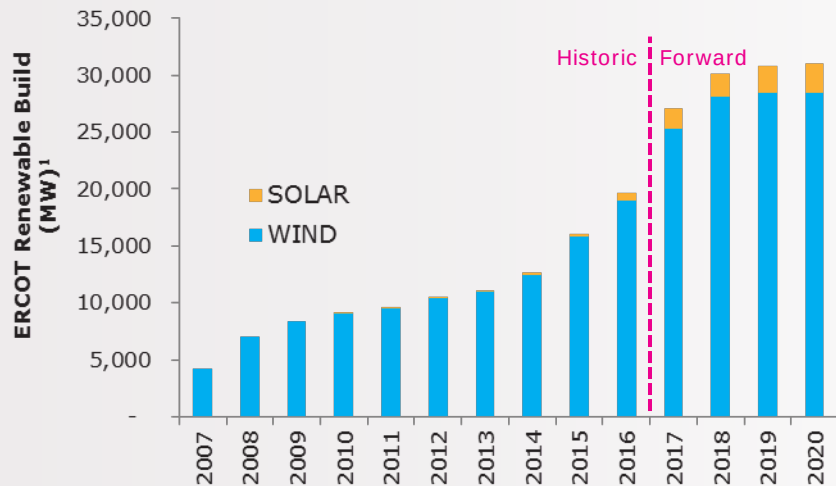
ORDC has not provided the right price signals...



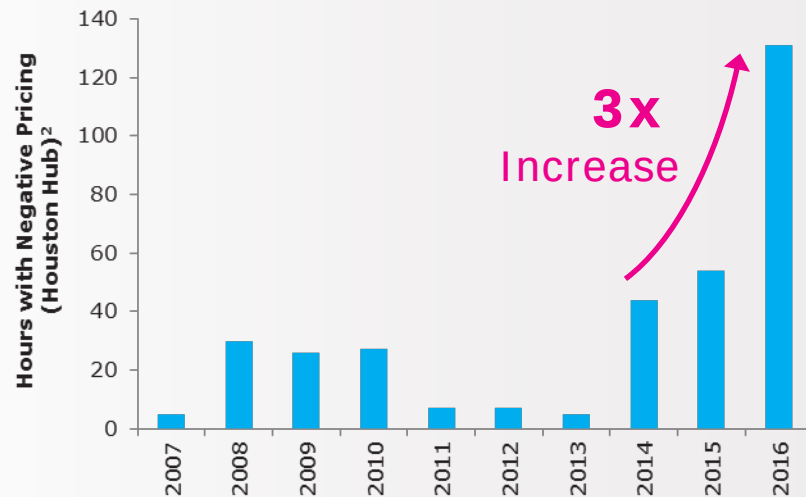
...resulting in significant out-of-market actions by ERCOT



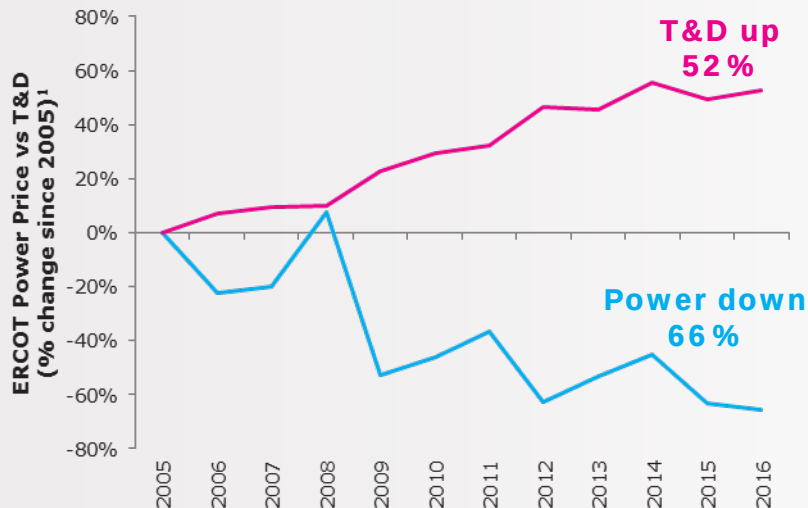
Wind is growing rapidly and will make up
~30 % of total capacity by 2020...



...increasing significantly the frequency of
negative prices



Abundant wind is causing substantial disruption to
marginal cost price formation...and more is coming

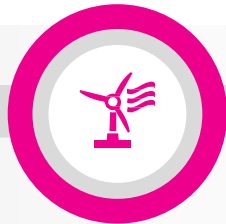


- Electric policy has been centered around a robust transmission system to bring ERCOT's vast resources to the market
- Transmission costs are socialized across consumers
- Transmission and distribution charges to residential consumers up over 50% since 2005
- More efficient, market-based solutions should be considered beyond transmission

Recommendations



Price Formation



Renewables



Transmission

1. Improve ORDC price signal and implement locational component
2. Include marginal losses in ERCOT prices
3. Minimize the use of out-of-market actions
4. Address mitigation rules for RMR units
5. Balance transmission investment with market-based solutions

Changes are needed today to ensure
a sustainable market structure in the future