PETRA NOVA Carbon Capture
This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to certain risks, uncertainties and assumptions and typically can be identified by the use of words such as “expect,” “estimate,” “should,” “anticipate,” “forecast,” “plan,” “guidance,” “believe” and similar terms. Such forward-looking statements include our future growth and financial performance, Company operations, developments in renewables, and project development. Although NRG believes that its expectations are reasonable, it can give no assurance that these expectations will prove to have been correct, and actual results may vary materially. Factors that could cause actual results to differ materially from those contemplated above include, among others, general economic conditions, hazards customary in the power industry, weather conditions, competition in wholesale and retail power markets, the volatility of energy and fuel prices, failure of customers to perform under contracts, changes in the wholesale and retail power markets, changes in government regulation of markets and of environmental emissions, the condition of capital markets generally, our ability to access capital markets, unanticipated outages at our generation facilities, adverse results in current and future litigation, failure to identify or successfully implement acquisitions and repowerings, the inability to implement value enhancing improvements to plant operations and companywide processes, our ability to realize value through our commercial operations strategy, and our ability maintain successful partnering relationships.

NRG undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. The foregoing review of factors that could cause NRG’s actual results to differ materially from those contemplated in the forward-looking statements included in this Investor Presentation should be considered in connection with information regarding risks and uncertainties that may affect NRG’s future results included in NRG’s filings with the Securities and Exchange Commission at www.sec.gov. Statements made in connection with the exchange offer are not subject to the safe harbor protections provided to forward-looking statements under Private Securities Litigation Reform Act.
Approximately 50K MWs of global, diverse energy*

Nearly 3,000,000 recurring customers within NRG retail brands

One of the nation’s largest SOLAR Power generators

Ownership interest in nearly 140 power-generation facilities across 29 states

Largest independent power producer in U.S.

Fortune 200

*NRG and NRG Yield Assets excluding 1,346 MW thermal, Before non-controlling interest

© 2017 NRG Energy, Inc. All rights reserved. 3Q16
One of the nation’s largest and most diverse generation portfolios

![Map showing power capacity categories: gas, coal, oil, wind, solar, nuclear, district energy.]

- Nearly 50,000 MW total power capacity.
- 50% gas
- 25% coal
- 11% oil
- 9% Renewables (wind & solar)
- 2% nuclear
- 2% international

© 2017 NRG Energy, Inc. All rights reserved. 3Q16

NRG and NRG Yield Assets excluding 1,346 MW thermal. Net dependable capacity ratings based on NRG ownership.
Carbon capture at commercial scale

- Achieved COD on Dec. 29, 2016
- ON TIME AND ON BUDGET

- Captures approximately 1.6 million tons per year of carbon dioxide (CO₂)
- CO₂ is used to enhance oil production at the West Ranch Oilfield
- Sequestering 5,200 tons of CO₂ per day

• 240MWe equivalent CO₂ scrubber on a 640MW coal-fired power plant
Petra Nova Project Overview

Five Projects in One

1. **Diverting the flue gas** from an existing facility (Parish Unit 8)
2. **Processing flue gas** in a carbon capture system to strip out the CO$_2$
3. **Transport CO$_2$** to a nearby oil field.
4. **CO$_2$-EOR** operation to produce otherwise unrecoverable oil
5. **Transport and sell oil** – marketing, selling, and transporting the recovered oil

Oil revenues pay for the entire project

No impact on power plant or its costs
How Carbon Capture Works

Post combustion amine-based CO₂ capture systems are an adaptation of a technology that has been around since the 1930s, but are just now being used to treat coal flue gas.

Large scale CO₂-EOR has been proven successfully since the early 1970s to produce otherwise unrecoverable oil from mature fields (tertiary recovery).

The integration of proven technologies into a value creation chain.
Flat terrain and flat topography through agricultural area

- 81 Miles (Parish to West Ranch)
- 12” diameter
- .330 wall pipe (.406 on HDDs)
- 1,900 psi at inlet

- Private pipeline
- No condemnation power
Enhanced Oil Recovery Project

West Ranch Field Development

• Field will be flooded using a “5-spot” pattern (each producer surrounded by 4 injectors)

• A comprehensive monitoring, verification, and accounting plan is in place to track the flow of CO2 and to insure that it is sequestered in the reservoir.

• University of Texas Bureau of Economic Geology developed the plan to sync with oilfield operations.
Oilfield Facilities Recapture and Inject CO₂

West Ranch Field
Central Facilities

• 200 new wells to be drilled (over 100 now complete)

• 2 central processing facilities to separate oil-CO₂-water

• All produced CO₂ and water is reinjected into the formation
Commercial Structure

Our Partners

- **JX**
  - JX Holdings is a leading integrated energy, resources, and materials company

- **NRG**
  - NRG Energy, Inc. is the largest independent power company in the US

- **Hilcorp**
  - Hilcorp Energy is one of the largest privately-held oil and natural gas E&P companies in the US

- **JBIC and NEXI**
  - JBIC and NEXI are wholly-owned by the Japanese government. Provided a combine $250 MM project loan.

- **US DOE**
  - US DOE awarded $190 MM grant funded through Clean Coal Power Initiative
Petra Nova Carbon Capture and Enhanced Oil Recovery Project

Thank you!