

# Occidental Petroleum Oxy Low Carbon Ventures, LLC

Midland, Texas

December 3, 2018



# Oxy Low Carbon Ventures (OLCV) Organization



Richard Jackson  
SVP Operations

- > 20 years in upstream oil & gas
- > 15 years with Occidental
- > 12 years technical and business leadership roles in domestic and international projects



Rick Callahan  
SVP Low Carbon Ventures

- > 34 years of industry experience – midstream, domestic and int'l oil and gas
- > 12 years with Occidental
- > 19 years in corporate leadership – Operations, Planning, Development



Scott Willis  
VP LCV  
Commercial Dev.

- > 29 years with Occidental
- > 20 years in chemicals
- > 9 years in oil and gas and major projects
- > 16 years in corporate leadership – Plant Manager, VP Operations, Dir. Major Projects



Rob Zeller  
VP LCV  
Technology

- > PhD in Chemical Engineering
- > 29 years in chemicals
- > 20+ years in technical leadership roles
- > 10 years in corporate leadership – Technical Director, Director of Technology



Charlene Russell  
VP LCV  
Low Carbon Strategy

- > 21 years with Occidental
- > 30 years of commercial and business development experience in oil and gas and chemicals
- > 6 years leading strategic CO<sub>2</sub> sourcing and policy development teams



Joe Matranga  
VP LCV  
Power

- > 37 years with Occidental
- > 19 years with chemicals
- > 18 years in power
- > 17 years in corporate leadership – Director Project Development, VP Operations, SVP - Power



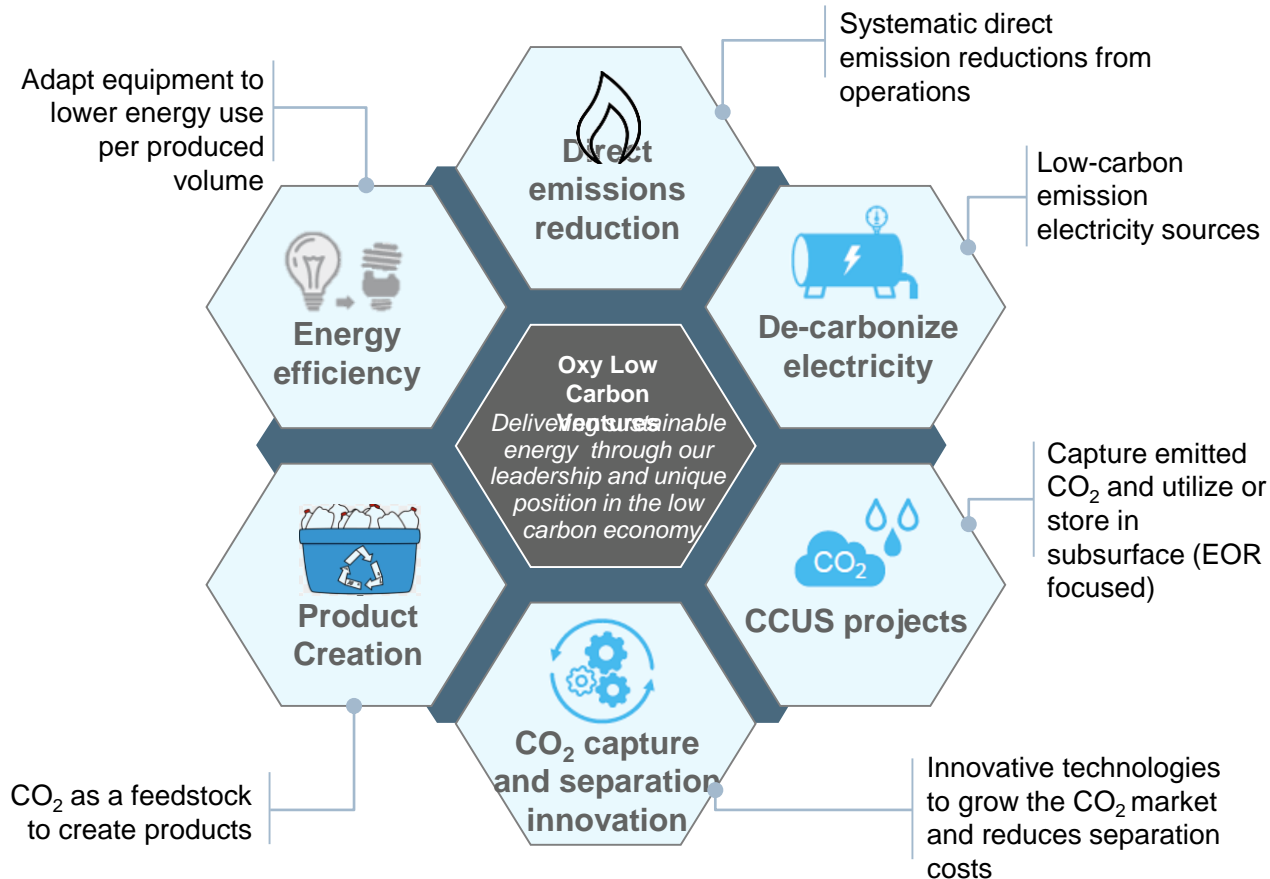
Anthony Cottone  
Sr. Dir. LCV  
Strategic Dev.

- > 6 years with Occidental
- > 11 years of capital markets and corporate finance experience
- > MBA from Columbia University

# Oxy Low Carbon Ventures

## Leveraging our unique position and leadership in the CO<sub>2</sub> market to provide a sustainable energy future

- OLCV is dedicated to being a leader in providing the market with impactful low carbon solutions
- Dedicated business unit to work across all segments to reduce Occidental's carbon footprint
- Commitment to reduce direct, indirect, and production greenhouse gas emissions



# Occidental Is The Leader In CO<sub>2</sub> Enhanced Oil Recovery

## Capability

Over 1,200 employees with deep history of enhanced oil recovery and sequestration

## Reservoir

Largest acreage position with the most CO<sub>2</sub> and waterfloods

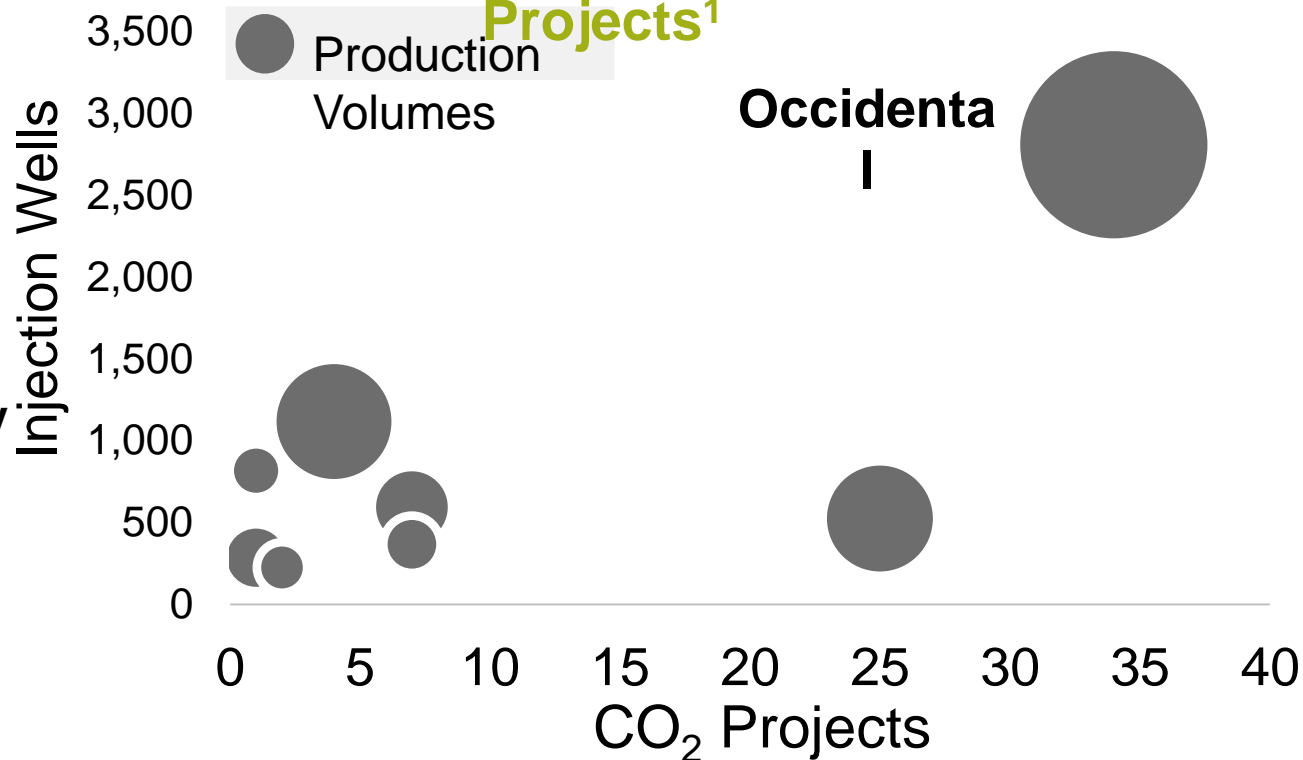
## Supply

Inject 2.6 Bcfd of naturally occurring, anthropogenic and recycled CO<sub>2</sub>

## Infrastructure

13 CO<sub>2</sub> recycle facilities and 2,500 miles of CO<sub>2</sub> gathering and trunk lines

## CO<sub>2</sub> EOR Projects<sup>1</sup>



<sup>1</sup>Source: 2016 Oil & Gas Journal, EOR Survey, adjusted for recent Oxy EOR acquisition



# White Energy & OLCV



## Summary

<b>CO<sub>2</sub> Source</b>	Post-Combustion
<b>CO<sub>2</sub> Stream</b>	~90%
<b>Stage</b>	Study/Commercial
<b>CO<sub>2</sub> Abatement</b>	~850,000 MTPA

## Project Overview

- OLCV and White Energy have agreed to pursue the development of carbon capture and transportation equipment at two of White Energy's ethanol plants in the Texas Panhandle.
- Captured CO<sub>2</sub> will be transported to the Permian Basin, where Occidental will utilize it in its CO<sub>2</sub> enhanced oil recovery business.
- The carbon capture project will be designed to be eligible for 45Q tax credits and California's Low Carbon Fuel Standard Carbon Capture and Storage protocol.
- Occidental is an industry leader in applying CO<sub>2</sub> EOR technology with two CO<sub>2</sub> Monitoring, Reporting and Verification (MRV) plans approved by the U.S. Environmental Protection Agency (EPA).

## Partner Overview

- **White Energy LLC** is a producer of biofuels in Texas and Kansas. The company owns and operates 4 ethanol plants with capacity to produce 300 mm gallons per year.

- **Oxy Low Carbon Ventures, LLC and NET Power reach investment agreement, subject to regulatory approval, in November 2018**
- **NET Power has developed a novel power system that produces low-cost, reliable, and flexible electricity from natural gas, while generating no atmospheric emissions, including full CO<sub>2</sub> capture**
- **World's first and only industrial-scale supercritical CO<sub>2</sub>-based power plant**
- **Generated CO<sub>2</sub> is pipeline ready**
- **OCLV will join Exelon Generation, McDermott and 8 Rivers Capital as investors**



Thank you!

