VERDE CLEAN FUELS

Corporate Presentation

January 2024

Forward Looking Statements

This presentation (the “Presentation”) includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended, (the “Exchange Act”). Verde Clean Fuels, Inc.’s (the “Company”) forward-looking statements include, but are not limited to, statements regarding the Company’s or the Company’s management team’s expectations, hopes, beliefs, intentions or strategies regarding the future, including those relating to the Business Combination. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. These forward-looking statements are not guarantees of future performance, conditions or results, and involve a number of known and unknown risks, uncertainties, assumptions and other important factors, many of which are outside the control of the Company, that could cause actual results or outcomes to differ materially from those discussed in the forward-looking statements. Important factors, among others, include statements about our expected growth, expected performance, future operating results, outlook for the renewable energy industry, future global economic conditions, our to grow and manage growth profitably, maintain relationships with customers and suppliers and retain key employees, our ability to develop and operate new projects, our ability to obtain financing for future projects, the reduction or elimination of government economic incentives to the renewable energy market, delays in acquisition, financing, construction and development of new projects, the ability to secure necessary governmental and regulatory approvals, the ability to qualify for federal or state level low-carbon fuel credits, our business strategy and the business strategies of our customers, planned capital expenditures, future cash flows and borrowings, pursuit of potential acquisition opportunities, our financial position, return of capital to stockholders, business strategy and objectives for future operations.

The forward-looking statements contained in this Presentation are based on the Company’s current expectations and beliefs concerning future developments and their potential effects on the Company. There can be no assurance that future developments affecting the Company will be those that the Company has anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond the Company’s control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described or incorporated by reference under the heading “Risk Factors” included in our Annual Report on Form 10-K filed on March 31, 2023. Should one or more of these risks or uncertainties materialize, or should any of the assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. There may be additional risks that the Company considers immaterial or which are unknown. It is not possible to predict or identify all such risks. The Company will not and does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

INDUSTRY AND MARKET DATA

Although all information and opinions expressed in this Presentation, including market data and other statistical information, were obtained from sources believed to be reliable and are included in good faith, the Company has not independently verified the information and makes no representation or warranty, express or implied, as to its accuracy or completeness. Some data is also based on the good faith estimates of the Company, which are derived from its review of internal sources as well as the independent sources described above.

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NON-GAAP FINANCIAL AND OPERATIONAL MEASURES

This Presentation includes certain financial measures that are not presented in accordance with U.S. generally accepted accounting principles (“GAAP”). Adjusted EBITDA and EBITDA Margin are non-GAAP financial measures that the Company uses to facilitate comparisons of operating performance across periods. Non-GAAP measures should be used as a supplement to, and not a substitute for, the Company’s GAAP measures of performance and the financial results calculated in accordance with GAAP and reconciliations from these results should be carefully evaluated. Non-GAAP measures have limitations as an analytical tool and should not be considered in isolation or in lieu of an analysis of the Company’s results as reported under GAAP and should be evaluated only on a supplemental basis. See the appendix to the Presentation that define the non-GAAP financial measures included in this Presentation and reconcile these non-GAAP financial measures to the most directly comparable financial measures calculated and presented in accordance with GAAP.

The low-carbon car of the future is the one you're already driving.

Verde Clean Fuels offers a clean alternative to petroleum-derived gasoline.

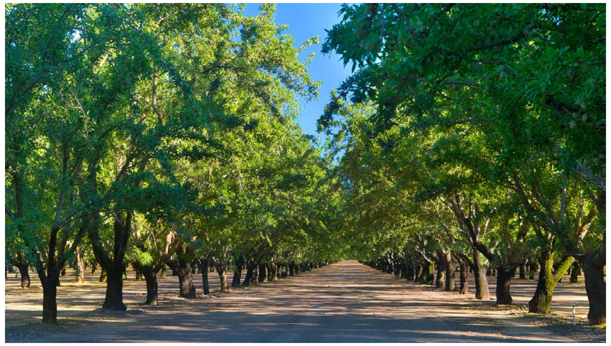
Our technology converts waste feedstocks to gasoline compatible with standard car engines and existing refueling infrastructure.

Advantages of Verde's Proprietary STG+ Process

- ✓ **Utilizes Low Value, Widely Available "Waste Feedstocks" to Produce Clean Gasoline**
- ✓ Environmentally Superior to Other Clean Fuels and Electric Vehicles
- ✓ Requires No Changes to Existing Automobiles or Gasoline Distribution Infrastructure
- ✓ **Logistically Advantaged Feedstock Supply is Abundant**
- ✓ Produces Finished Product at Low Cost and Generates Attractive Investment Returns with no new subsidies or incentives
- ✓ Avoids Geopolitical Dependencies (e.g. Battery Supply Chains, Oil Imports)

Advantages of Verde's Proprietary STG+ Process

Biomass – cellulosic waste



- Sourced from wood waste, agricultural waste, and other cellulosic waste streams
- Typically disposed of at a cost of $40-$50/ton
- Utilizes existing waste streams
- Currently no economic value

Flared natural gas

- Sourced from flared natural gas from oil & gas operations
- Disposal method is environmentally damaging and increasingly expensive
- Currently no (or negative) economic value

Stranded natural gas

- Sourced from existing natural gas reserves without market access
- Resource has no other uses
- Currently no economic value

Verde's STG+ Process Turns Waste Into Salable Product and Can Eliminate Environmentally Damaging Practices

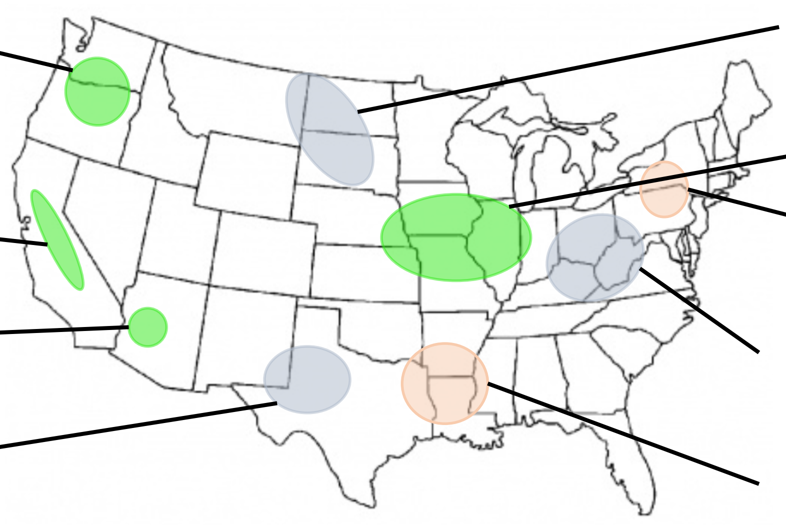
These Waste Feedstocks Are Widely Available in the US

Columbia River Valley
Agricultural Waste, Separated Yard Waste

Central Valley, California
Agricultural/Orchard Waste

Arizona
Agricultural Waste, Separated Yard Waste

Permian Basin
Disadvantaged/Flared Natural Gas



Williston Basin (Bakken Formation)
Disadvantaged/Flared Natural Gas

"Corn Belt"
Agricultural Waste

Pennsylvania/New York Timber
Timber Wood Waste

Appalachian Basin (Marcellus Shale)
Disadvantaged Natural Gas

East Texas, Louisiana, Arkansas, Mississippi Pine Industry
Pine Industry Wood Waste

Annual US Cellulosic Waste Production:

Forest Resources = 241mm Tons/yr
Agricultural Resources = 318mm Tons/yr

Cellulosic waste from forest and agricultural resources could yield **28 Billion gallons of renewable gasoline**

Approximately 22% of the US Annual Gasoline Demand Can Come From Forest and Agricultural Waste

https://www.energy.gov/eere/bioenergy/bioenergy-frequently-asked-questions

These waste feedstocks are widely available in the US

22%

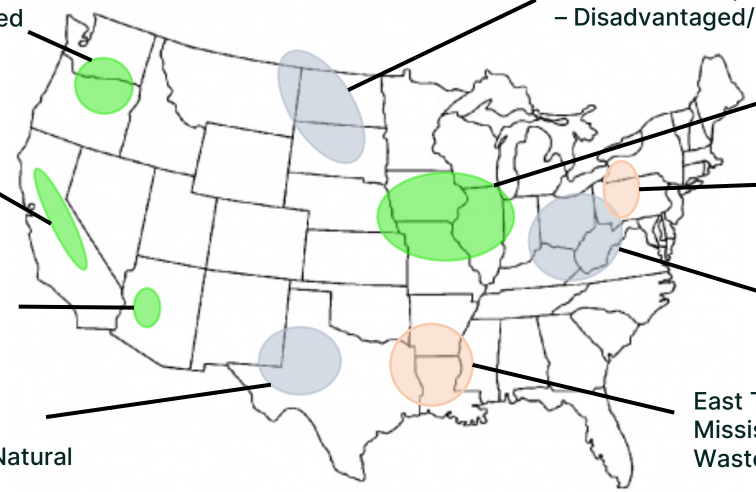
of the US annual gasoline demand can come from forest and AG waste

US gasoline demand = 135 billion gallons per year
(https://www.eia.gov/energyexplained/gasoline/use-of-gasoline.php)

Waste feedstocks

Feedstock sources

- Millions of tons of cellulosic waste (biomass) from agriculture, timber, MSW
- Billions of cubic feet of disadvantaged natural gas



Cellulosic Waste:

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https://www.energy.gov/eere/bioenergy/bioenergy-frequently-asked-questions

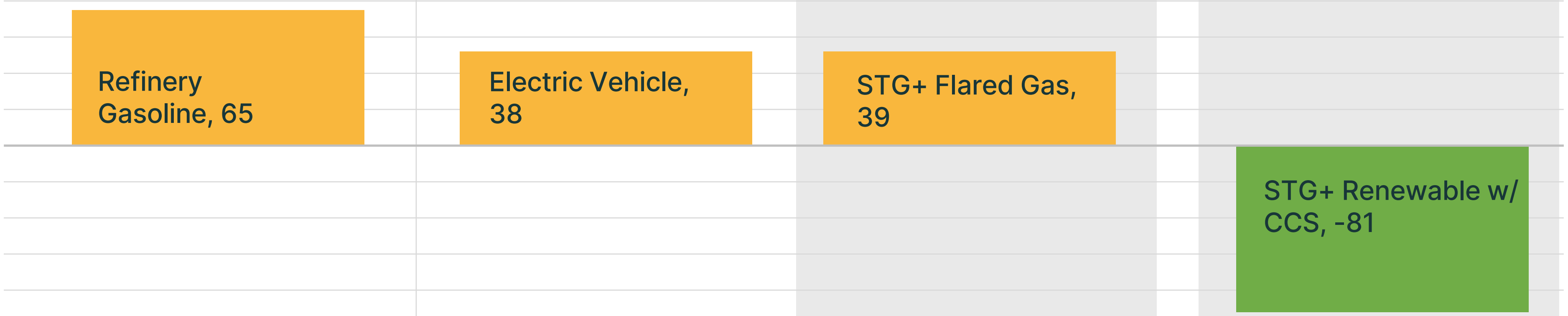
STG+ Gasoline is environmentally superior

Renewable Gasoline in a traditional internal combustion engine has a lower lifecycle carbon intensity than an EV

Advantages of Verde's Proprietary STG+ Process

	Refinery Gasoline	Electric Vehicles	STG+ Gasoline from Flared Natural Gas	STG+ Renewable Gasoline w/ CCS
Materials / Manufacturing	5 Tons CO_2	11 Tons CO_2	5 Tons CO_2	5 Tons CO_2
Feedstock / Source	Oil: 12 Tons CO_2 / 200k Miles	Grid: 27 Tons CO_2 / 200k Miles	Flared Gas: (-14) Tons CO_2 / 200k Miles	Biomass: (-134) Tons CO_2 / 200k Miles
Vehicle Emissions	48 Tons CO_2 / 200k Miles (Fossil CO_2)	N/A	48 Tons CO_2 / 200k Miles (Fossil CO_2)	48 Tons CO_2 / 200k Miles (Green CO_2)
Recycling Opportunity	N/A	(1) Ton CO_2 / 200k Miles	N/A	N/A

Total Carbon Footprint (Tons CO_2)



STG+ Gasoline in a Traditional Internal Combustion Engine has a Lower Lifecycle Carbon Intensity than an EV

Advantages of Verde's Proprietary STG+ Process

Refinery Fuel	CO2 Emissions (MM Tons/Year)	Green Alternatives	Benchmark 2050 Penetration Rate (%)	Reduced CO_2 Emissions (MM Tons/Year)
Jet Fuel	261	SAF	50% [1] Industry Goal	130
Diesel	468	Renewable/Bio Diesel	8% [2]	37
Gasoline	1,086	Electric Vehicles	31% [3]	140
		STG+ Renewable Gasoline w/ CCS	10%	330

With Only 10% Market Penetration, STG+ Renewable Gasoline Could
Reduce Carbon Emissions by More Than EVs, Renewable Diesel, and SAF **Combined**

[1] https://www.caafi.org/focus_areas/docs/CAAFI_SAF_Market_Pull_from_Aviation_September2021.pdf

[2] https://www.eia.gov/todayinenergy/detail.php?id=51778

[3] https://www.eia.gov/todayinenergy/detail.php?id=50096

STG+ Gasoline – A Perfect Substitute for Petroleum-Derived Fuel

Requires No Change to Consumers, Cars, or Infrastructure

✓ **Keep your car**

268MM ICE vehicles on the roads today can take part in decarbonizing transportation

✓ **Keep your gas stations**

145,000+ gas stations nationwide[1] can be utilized to distribute renewable gasoline with existing gasoline pumps and tanks

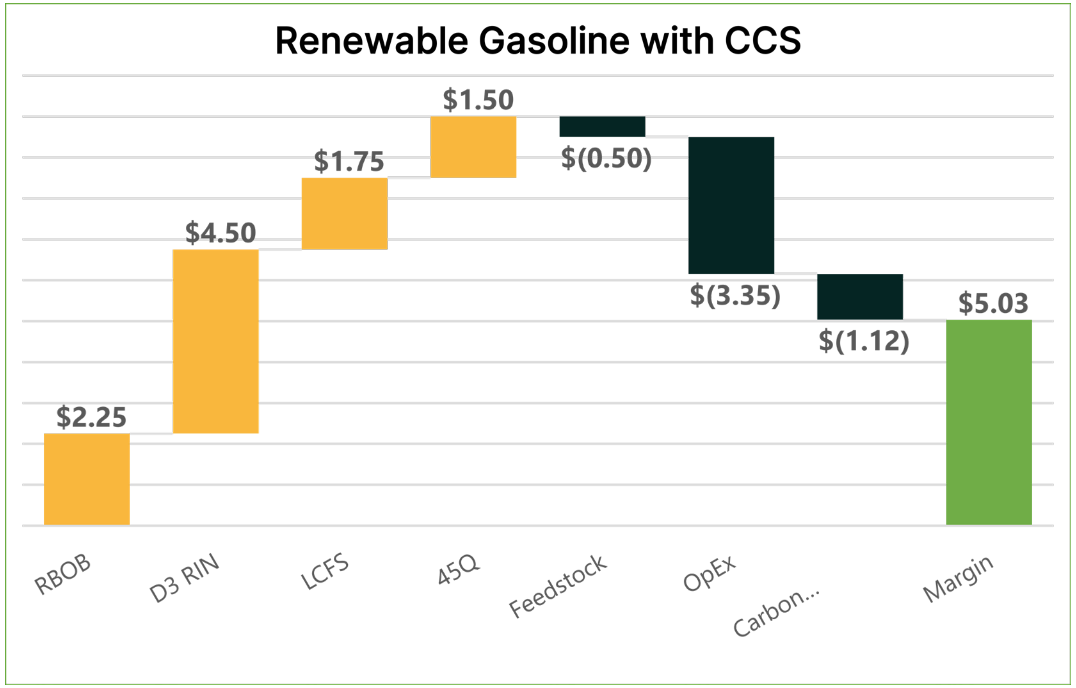
✓ **Keep infrastructure**

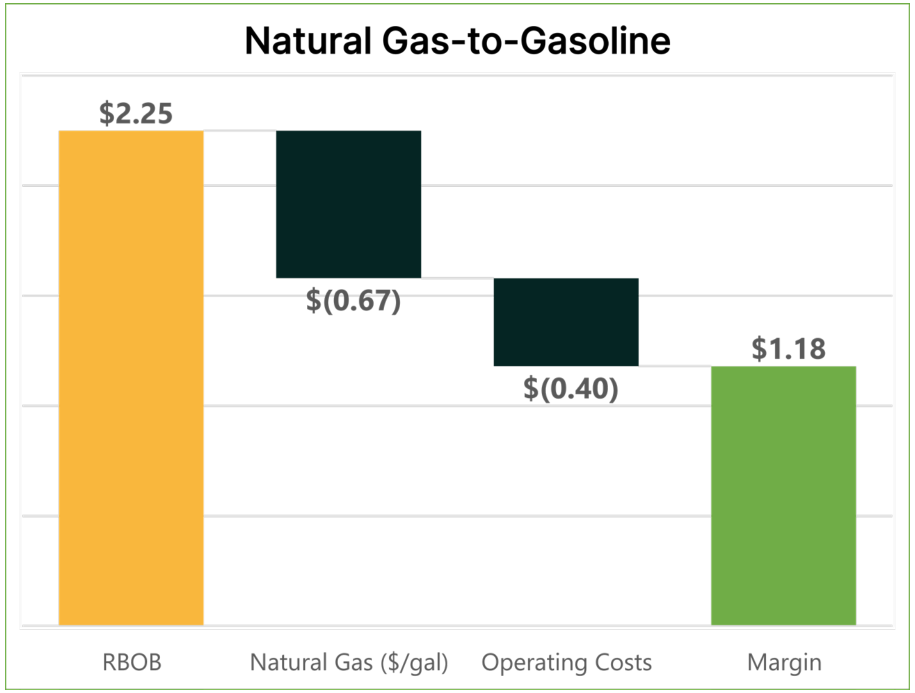
Renewable gasoline is a **consumer-ready fuel** that requires no changes to the existing gasoline distribution infrastructure (pipelines, terminals, trucks)

No other commercially available Gasoline alternatives

[1]Association for Convenience and Fuel Retailing (NACS) - www.convenience.org/Topics/Fuels/The-US-Petroleum-Industry-Statistics-Definitions
EIA – "2022 Annual Energy Outlook"

Illustrative Economics





Key Assumptions:
- CapEx = $235MM
- D3 RIN = $3.00
- LCFS = $80/to CO_2

Key Assumptions:
- Capex = $325MM
- Crude Oil = $70.00
- Crack Spread = $24.50
- RBOB = $2.25
- Natural Gas = $2.50

Cottonmouth JV – 1st Project Location

Key Partners

Gas Supply: DIAMONDBACK ENERGY

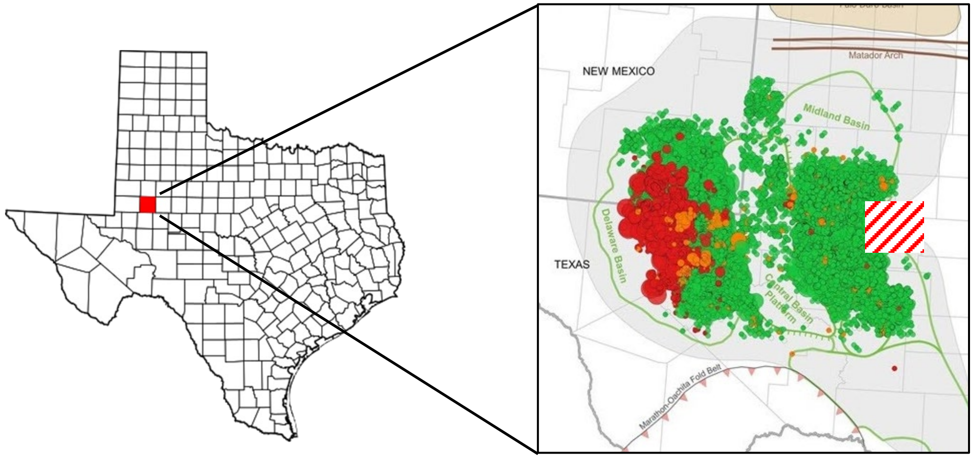
Equipment/Engineering: Koch Modular PROCESS SYSTEMS

Project Goals and Details

- Diamondback Energy - Leading Permian Basin Producer
- Diamondback site – additional project locations available
- 34 MMcf/d of natural gas to be used as feedstock
- Produce ~3,000 bbl/d RBOB gasoline
- $325MM estimated Capex
- Permian gas trading at WAHA (disadvantaged) could support >25 plants
- First commercial plant proves concept
  - Opportunities in other gas-prone basins (eg: Marcellus; Bakken)
  - Global flaring and stranded gas opportunities

Project location

- Located in Martin County, Texas in the heart of the Permian's Midland Basin
- Existing Diamondback location with access to power, water and gas metering infrastructure
- Current pipeline infrastructure throughout the basin is insufficient, leading to constraints and flaring
  - >50MMcf/d can be delivered to site



Each green dot represents an oil well with potential for associated gas

The Cottonmouth JV Can Serve as a Template for Similar Future Projects in the Permian and Appalachian Basins in the U.S., as well as Globally

Elk Hills Project Overview

Key Partners

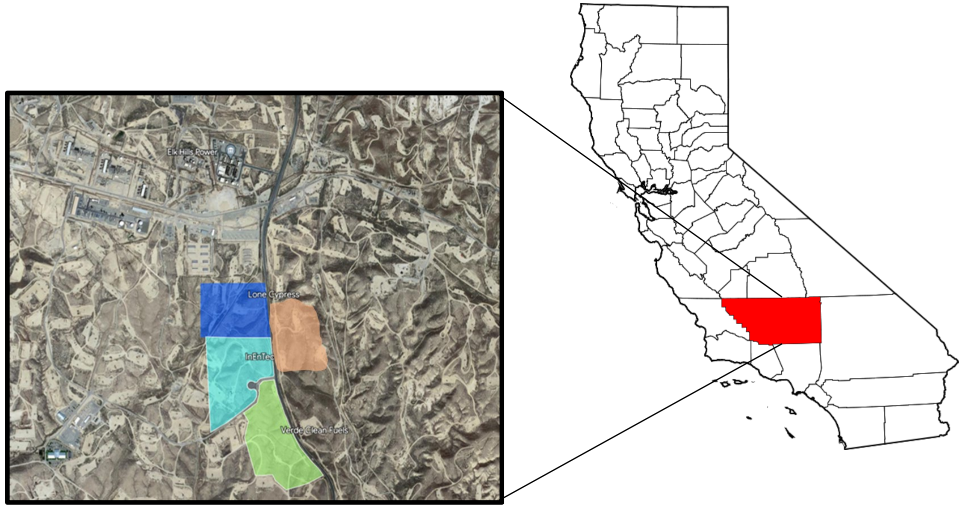
CARBON TERRAVAULT · CALIFORNIA RESOURCES CORPORATION · Koch Modular PROCESS SYSTEMS · INENTEC

Project Goals and Details

- Renewable gasoline and carbon sequestration project
- California Resources Corp site
- Utilize 450 tons/d of agricultural waste
- Produce up to 7.5 MM gal/year RBOB renewable gasoline
- Product will be CARBON NEGATIVE (expect -125gCO_2e/MJ)
- Sequester 125,000 Tons/year of CO_2
- $235MM estimated capex requirement
- Qualifies for: D3 RIN, LCFS, & 45Q
- Carbon TerraVault (CRC & Brookfield Renewable JV) Draft Class VI CO_2 injection well:
- First in US permit (draft) for CO_2 sequestration in depleted oil reservoir
- First in California for underground CO_2 sequestration

Project location

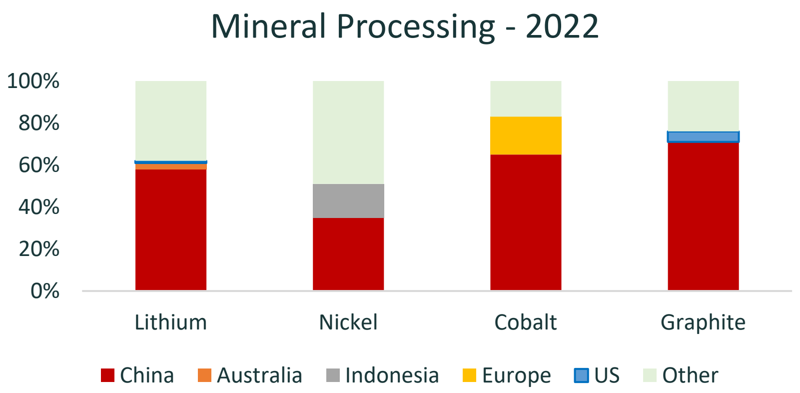
- Location: Martin County
- Located at California Resources Corp.'s Net Zero Industrial Park in Bakersfield, CA
- Area produces significant amounts of agricultural waste from almond orchards, providing low-cost feedstock for STG+ process



The Cottonmouth JV Can Serve as a Template for Similar Future Projects in the Permian and Appalachian Basins in the U.S., as well as Globally

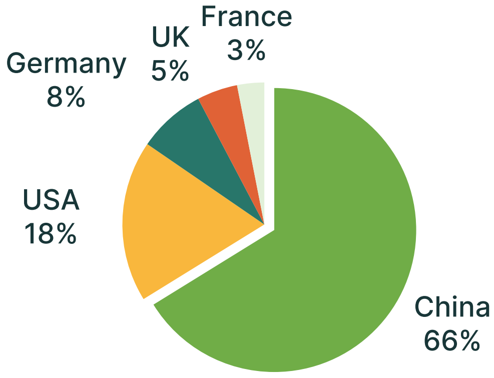
Geopolitical Dependency

China is Dominant in Mineral Processing[1]…



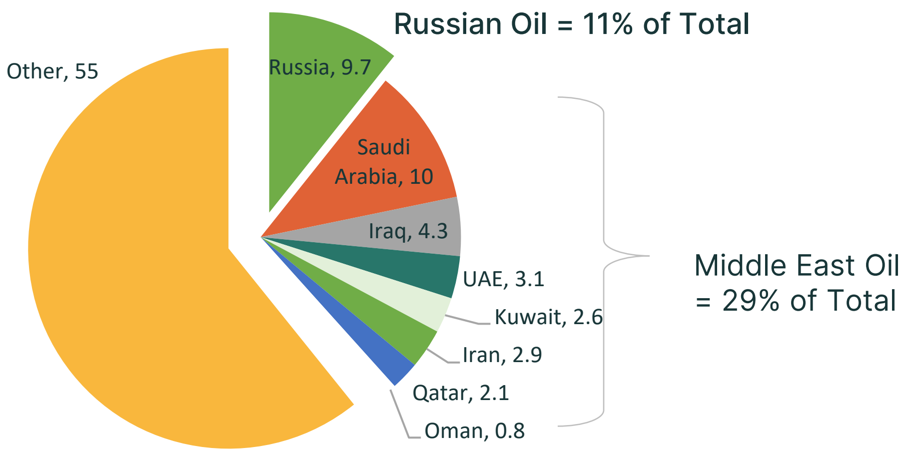
… And 2/3 of batteries are produced in China[2]

Top 5 Countries by Battery Capacity Deployed Q3 2023:



40% of Total Global Oil Production is at Geopolitical Risk

2023E Global Oil Production (MMbpd)[3]



"The collision between geopolitical fragmentation, tensions, and interdependencies opens the door to episodes of price volatility and supply disruptions — which are likely to become more frequent in the decade ahead." [4]

Sources: [1]China's Role in Critical Mineral Supply Chains | German Marshall Fund of the United States (gmfus.org) ; [2]https://cleantechnica.com/2023/11/24/the-5-countries-producing-the-most-ev-batteries/ ; [3]https://www.eia.gov/tools/faqs/faq.php?id=709&t=6; [4] https://lazard.com/media/ecippffr/critical-materials-research-brief-may-2023.pdf

Appendix

Verde Leadership
Verde Technology
Carbon Intensity Validation

Management Team

Our leadership team boasts over 100 years of combined energy industry experience and has successfully executed more than 50 capital projects.

Ernie Miller

Chief Executive Officer

- Developed and financed over 4,500 MW of industrial cogeneration facilities at 6 locations for Calpine representing more than $4Bn in capital investment
- Had 44 natural gas fired power plants under construction with more than 20 being commissioned in a single twelve-month period
- Led the project team in closing over $1.2Bn in non-recourse project financing

John Doyle

Chief Technology Officer

- Managed ~$1Bn in capital projects in the environmental and renewable energy spaces including ethanol plants and large-scale pollution control projects
- A founder and key executive at Verenium, a cellulosic ethanol company that operated for 12 years before being acquired by BP for $120MM, becoming the basis for BP Biofuels

Rohn Crabtree

EVP Business Development

- Led the first power plant construction revolver financings ($3.5Bn) for over 28 natural gas-fired plants
- Managed more than $480MM of first leveraged lease project financings for solar power generation
- SVP of finance and development at Calpine, oversaw completion of 44 natural gas fired power plants
- Co-founder and Managing Partner of Nautilus Renewables, developed a 100,000 ton/yr MSW-to-fuel pellet plant in Ontario, Canada

Laura Morris

Senior Project Manager

- Served as Lead Contracts Engineer for the $3Bn ExxonMobil Guyana Project
- Included contracting strategy development, negotiation and Pre-FEED/FEED contracts execution
- EPC Specialist for ExxonMobil major capital projects
- Multiple leadership roles in the Procurement organization, contract portfolios ranging $1Bn-$7Bn

Verde Board of Directors

Ron Hulme – Chairman

- Chief Executive Officer - Bluescape Energy Partners (2015-2021)
- McKinsey & Company
  - Office of Managing Director; Board
  - Global Leader of Strategy
  - Corporate Finance – Energy Practice
- Chief Executive Officer – Carlson Capital LP (2011-2014)

Curtis Hebert, Jr.

- Commissioner and Chairman of the Federal Energy Regulatory Commission (FERC) (1997-2001)
- Entergy Corporation – Executive Vice President (2001-2010)
- Bipartisan Policy Center, Washington, D.C. – Co-Chair – Energy Reliability Task Force & Cybersecurity Task Force
- Brunini Law Firm - Partner

Jonathan Siegler – Compensation Committee Chair

- Bluescape Resources Company (2008-present), Parallel Resource Partners (2011-present), and Bluescape Energy Partners – Managing Director and member of the Investment Committee (2016-present)
- TXU Corp – Senior Vice President of Strategy and M&A (2004-2008)
- McKinsey & Company – Engagement Manager – strategy, finance, and operations (2001-2004)

Duncan Palmer – Audit Committee Chair

- Cushman Wakefield – Chief Financial Officer (2014-2021)
  - Led Cushman Wakefield's IPO
- RELX – Chief Financial Officer (2012-2014)
- Owens Corning – Chief Financial Officer (2007-2012)
- Royal Dutch Shell – senior finance executive

Graham van't Hoff

- Shell Chemicals – Chief Executive Officer (2013-2019)
- Shell Alternative Energies – Executive Vice President (2012)
- Shell International Petroleum Co. – Board of Directors (2014-2017)
- Shell UK Limited – Chairman (2011-2012)

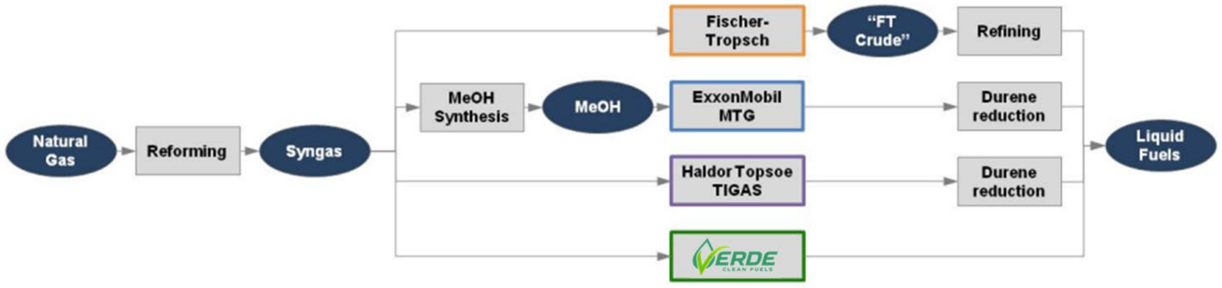
Dail St. Claire

- New York State Common Retirement Fund – Investment Advisory Committee (2021-present)
- CRS Temporary Housing – Independent Director (2022-present)
- New York City Comptroller – Senior Investment Officer
- Amalgamated Bank – Chief Strategist of ESG Investments and Sustainable Cash Management (2022-present)

Martijn Decker

- Aurivos – Managing Partner (2021-present)
- Shell International – Vice President of Strategy and Portfolio (2016-2021)
  - Led Shell's hydrogen strategy and development
  - Led implementation of digitization strategy
- Shell Oil – Vice President of Strategy and Growth of Americas Exploration (2010-2016)

STG+ Compared to Other Processes



	Product	Intermediate Products	Multiple Steps to Final Product	Scale	Capital Intensity
Fischer Tropsch	Synthetic Crude Oil "FT Crude"	None	Yes - refining	50,000 Bbl/d	Very High
ExxonMobil MTG	Gasoline	Methanol	Yes – durene reduction	100,000+ Bbl/d	High
Topsoe TIGAS	Gasoline	None	Yes – durene reduction	15,000 – 50,000 Bbl/d	High
Verde STG+	**Gasoline** ★	**None** ★	**No** ★	**500 Bbl/d – multiples of 3000 Bbl/d** ★	**Low** ★

New Jersey Demonstration Facility Has Proven Our Technology

Verde's Demonstration Facility, Located in Hillsborough, NJ, Has Been in Operation Since 2015

Verde's fully operational demonstration facility has proven the company's technology and ability to scale

- ✓ Over 10,500 operational hours logged
- ✓ Confirmation of process technology by multiple independent entities (The World Bank, E3 Consulting)
- ✓ Reactor designs, process configurations and control system representative of full-scale plant
- ✓ Demonstration plant represents operational commercial design at lower output volume

"[Verde Clean Fuels'] STG+ technology is clearly superior to conventional MTG technologies for these smaller scale plants."

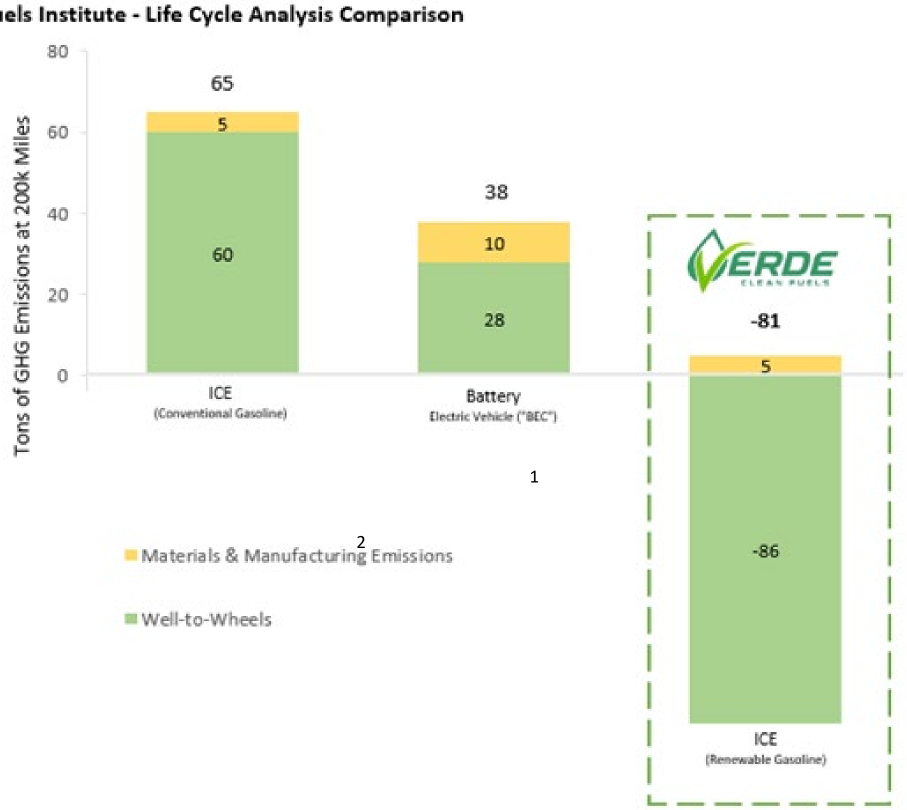
-The World Bank, Global Gas Flaring Reduction Partnership

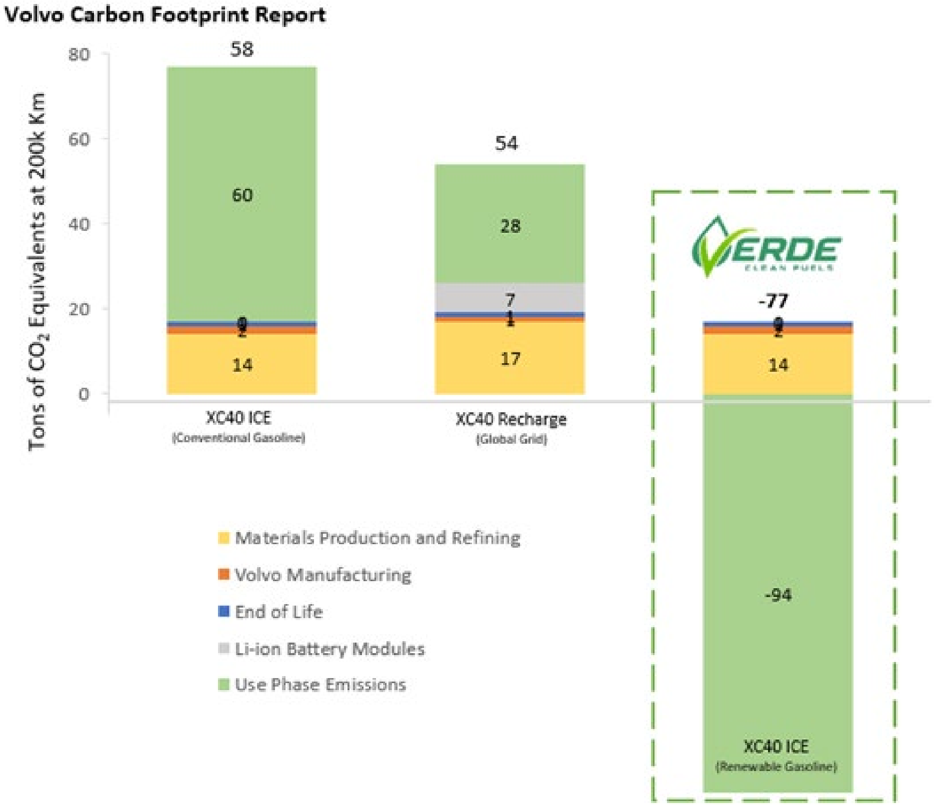
Verde's U.S. Patents

Title	Description	Patent Number	Date Issued
Single-Loop Octane Enrichment	Covers a system for making high octane fuel; the system includes a single loop system, e.g., the system of US Patent No. 9,169,166 or US Patent No. 9,670,416, for making medium octane fuel, and an octane enrichment reactor. The outlet of the single loop system contains medium octane fuel and is connected to the inlet of the octane enrichment reactor. The octane enrichment reactor contains a zeolite forming catalyst and a transalkylation catalyst.	10,808,179	10/20/2020
Novel Configuration in Single-Loop Synfuel Generation	Covers a system for making fuel by combining the third and fourth reactors of the MTGH process into a single reactor. The system contains three reactors instead of the four reactors of US Patent No. 9,169,166.	9,670,416	06/06/2017
Single Loop Multistage Fuel Production	Covers a method for converting synthesis gas to fuel using Primus' MTGH process. The process passes synthesis gas through four reactors in series and recycling unreacted synthesis gas to the first reactor. No removal or separation is affected between the reactors.	8,686,206	04/01/2014
Novel Fuel Composition	Covers a fuel composition containing at least 99.5% of aromatics and paraffins. The paraffins consists of normal or branched C4-C7 paraffins and C6-C8 single cyclic ring paraffins	8,569,554	10/29/2013
Novel Fuel Composition	Covers a method for controlling the aromatics to paraffins ratio in Primus' MTGH process by varying the total flow rate of synthesis gas to the first reactor.	8,722,951	05/13/2014
Novel Configuration in Single-Loop Synfuel Generation	Covers a method for making fuel from synthesis gas by combining the third and fourth reactors of the MTGH process into a single reactor. In this process, the synthesis gas is passed through three reactors instead of the four reactors of US Patent No. 8,686,206.	10,214,694	02/26/2019
Single-Loop Octane Enrichment	Covers a process for producing high octane fuel at a recovery of about 50% - 90% of the feed. The process involves passing medium octane fuel through an octane enrichment reactor containing a zeolite forming catalyst and a transalkylation catalyst. The octane enrichment reactor is also maintained at an H_2 concentration of about 20 - 50 molar %.	10,450,512	10/22/2019
Single-Loop Multistage Fuel Production	Covers the system for making fuel using Primus' MTGH process. The system contains four reactors in series, and a separator to separate the fuel product from water and unreacted synthesis gas. The unreacted synthesis gas is recycled to the first reactor.	9,169,166	10/27/2015

Renewable Gasoline Carbon Intensity Comparison - CSS

Verde's analysis of independent studies indicates renewable gasoline would have the most carbon benefit for transportation





Source: BloombergNEF, EIA – "2022 Annual Energy Outlook", EPA – "National Overview: Facts and Figures on Materials, Wastes and Recycling", EPA – "Landfill Methane Outreach Program" Landfill and Project Database, Volvo – "Carbon Footprint Report, Battery Electric XC40 Recharge and the XC40 ICE"

[1] Materials & Manufacturing Emissions includes Recycling
[2] Well-to-Wheels ("WTW") defined as Well-to-Tank ("WTT") plus Tank-to-Wheels ("TTW")

Contact

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