# Valero Energy Ecosystem

Valero Energy Corporation
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## Outside Relationships

### Regulators

**Key US Federal Regulators**

**U.S. Environmental Protection Agency**
Regulation of Discharge of Materials into the Environment, Waste Management, Pollution Prevention Measures, Greenhouse Gas (GHG) Emissions

Sets Renewal Fuel Standard (RFS)—an Annual Quota for the Quantity of Renewable Fuels (such as Ethanol and Diesel) That Must be Blended into Transportation Fuels Consumed in the U.S.A

Water and Air Permits

**California Air Resources Board (CARB)**
(Specifications for Sale of Gas In California)

**Internal Revenue Service and State/Local Tax Authorities**
(Income Taxes, Indirect Taxes (Excise/Duty, Sales/Use, Gross Receipts, and Value-Added Taxes), Payroll Taxes, Franchise Taxes, Withholding Taxes, and Ad Valorem Taxes)

**Data Privacy Regulators**
(California Consumer Privacy Regulation, European General Data Protection Regulation (GDPR))

**Similar Government Regulatory Agencies Outside the U.S.**

### Capital

**Public Debt Holders**

**Commercial Banks**
(Barclay's Bank, JPMorgan Chase, RBS, Wells Fargo, Mizuho Bank, Bank of Tokyo-Mitsubishi)

Bond Financing

Working Capital and Revolving Credit Financings

Environmental Protection and General Business Regulation

### Suppliers

**Key Categories of Supply**

**Chemicals and Catalysts**
- National Oil Companies
- Global Chemical Producer

Chemical Supplies

**Maintenance Materials**
- MRO Supplies

Maintenance, Repair and Operating Supplies

**Onsite/ Offsite Services**
- Engineering Services

Engineering Services

**Transportation Providers**
- Rail Cars
- Barges And Ocean-going Ships
- Third Party Pipeline Systems
- Trucking Companies

Transportation Services For Raw Materials And Finished Goods

**Natural Gas Suppliers**
- Gas Suppliers

Natural Gas Feedstock Supplies for Valero Refineries And Ethanol Plants

**Corn Suppliers**
- Local Farmers

Corn Feedstock Supplies For Ethanol Production

**Crude Oil**
- National Oil Companies And Open Market Suppliers

Crude Oil Supplies

**Wind Energy Suppliers**
- Wind Turbine, Blade And Platform Manufacturers

Wind Energy Equipment And Supplies

**Renewable Diesel Suppliers**
- Restaurants
- Supermarkets
- Ethanol Plants
- Other Foodservice Establishments

Supplies of Animal Fat, Used Cooking Oil, and Distiller's Corn Oil

### Customers

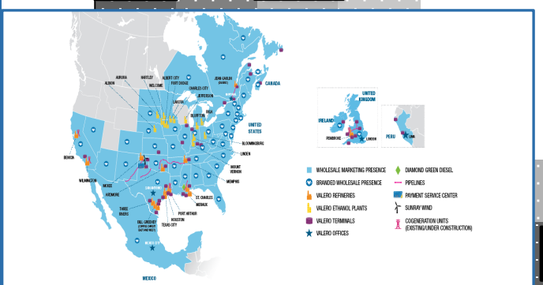
Natural Gas Feedstock Supplies for Valero Refineries And Ethanol Plants

Corn Feedstock Supplies For Ethanol Production

Crude Oil Supplies

Wind Energy Equipment And Supplies

Supplies of Animal Fat, Used Cooking Oil, and Distiller's Corn Oil




## Valero Energy (a Delaware Corporation)

### Debt Structure

**Debt ( $ 9.67 B @ 12.31.2019 ) | Credit Ratings: (Long-term unsecured): BBB (Fitch), BBB (S&P), Baa2 (Moody's)**

- Letter of Credit Facility) Maturing 2020: $50 M
- Canadian Revolver Maturing 2020: C$150 M
- IEnova Revolver (a VIE Facility) Maturing 2028: $491 M
- Accounts Receivable Sales Facility Maturing 2020: $1.3 B
- Valero Revolver Maturing 2024: $4.0 B
- Valero Senior Notes at 3.65-6.125% Maturing 2020-2025: $600 M
- Valero Senior Notes Maturing 2031-2040 of 6.625-10.5%: $2,524 M
- VLP Senior Notes Maturing 2026 of 4.375%: $500 M
- Valero Senior Notes at 3.4-8.75% Maturing 2026-2030 : $3,200 M
- Valero Senior Notes Maturing 2045-2097 of 4.9-7.45%: $160 M
- VLP Senior Notes Maturing 2028 of 4.5%: $500 M

### Equity Structure

**Equity Matters**

Common Stock
*Authorized*: 1,200,000,000 shares
*Outstanding*: 409,291,851 (673,501,593 Issued)
*Record Holders*: 5,082

Common Stock Repurchase Plan
*Authority*: $2.5 billion
*Expiration*: None
*Amount Available*: $1.5 billion

### Governance

**Board of Directors**

- H. Paulett Eberhart (A)
- Kimberly S. Greene (P)
- Deborah P. Majoras (P)
- Eric D. Mullins (P)
- Donald L. Nickles (P)
- Philip J. Pfeiffer (C)
- Robert A. Profusek (C)
- Stephen M. Waters (A)
- Randall J. Weisenburger (A)
- Rayford Wilkins, Jr. (C)

Board Committees:
Audit (A), Compensation (C), Nominating and Governance, and Public Policy Committee (P)

**Management Team**

- Joseph W. Gorder (Chairman and CEO)
- Eric Fisher (SVP- Wholesale Marketing and International Commercial Operations)
- Mark Schmeltekopf (SVP and Chief Accounting Officer)
- R. Lane Riggs (President and COO)
- Rich Lashway (SVP – Corporate Development and Strategy)
- Cheryl Thomas (SVP and Chief Technology Officer)
- Jason W. Fraser (EVP and CFO)
- Martin Parrish (SVP – Alternative Energy and Project Development)
- Rich Walsh (SVP and General Counsel)
- Gary K. Simmons (EVP and CCO)
- Julia Rendon Reinhart (SVP and CHR Officer)
- Greg Bram (VP- Supply Chain Optimization)

### Corporate Matters

**Human Resources**
- Human Resources Operations
- Compensation
- Benefits
- Immigration
- Talent Acquisition
- Talent Development
- Diversity and Inclusion
- Global Security
- Facilities
- Administrative Services

**Commercial**
- Advertising
- Retail Accounts
- E Commerce
- Wholesale Marketing
- Commercial Operations

**Supply Chain Optimization**
- Economic Analysis for Refining Operations
- Supplier Relations

**Finance and Accounting**
- Budget Support
- Internal Audit
- Accounting
- Financial Reporting
- Tax
- Forecasting
- Profit Planning

**Corporate Development and Strategy**
- Company Strategy
- Innovation

**Legal**
- Litigation Management
- Regulatory Affairs
- Contract Management
- Corporate Governance
- Labor and Employment Law
- Intellectual Property
- Compliance
- Securities Law Reporting
- Environmental, Health and Safety

**Information Technology**
- IT Software and Equipment
- IT Infrastructure
- Data Processing Systems
- Procurement Management Systems
- Information Systems Development
- E Commerce Platforms
- IT Support
- Inventory Management Systems

**Alternative Energy and Project Development**
- Oversight of Valero's 14 Ethanol Plants
- Alternative Energy Investments
- Project Development

### Operations

#### Petroleum Refineries

(2020 Revenues: $60.848 B)

**Description**

The refining operations involve (a) refining crude oil into fuel, petrochemical feedstocks, and specialty products such as asphalt and solvent, (b) marketing activities associated with these products, and (c) operating logistics assets to support the refining operations.

**Characteristics**

- 3.2 Million Barrels Per Day
- 3,100 Miles of Active Pipelines
- Over 50 Docks
- Approximately 6000 Employees
- 130 Million Barrels of Storage

**Refining Facilities**

- Ardmore Refinery (Ardmore, OK)
- Bill Greehey Refineries (Corpus Christi, TX)
- Jean Gaulin Refinery (Canada)
- McKee Refinery (Sunray, TX)
- Benicia Refinery (Benicia, CA)
- Houston Refinery (Houston, TX)
- Memphis Refinery (Memphis, TN)
- Texas City Refinery (Texas City, TX)
- Pembroke Refinery (Wales, UK)
- Meraux Refinery (Chalmette, LA)
- St. Charles Refinery (Norco, LA)
- Wilmington Refinery (Wilmington, CA)
- Port Arthur Refinery (Port Arthur, TX)
- Three Rivers Refinery (Three Rivers, TX)

**Products**

Asphalt | Propane | Petroleum Coke | Natural Gas Liquids | Sulfur | Solvents | Aromatics | Naphthenic Oils

**Production Process**

1. Shipping: Acquires 2.2 million barrels of crude oil a day from suppliers. The crude is shipped to the refineries via pipeline, rail, trucks, or ships and barges.
2. Storage: The crude oil is stored in the refineries, which have a storage capacity of 26.2 million barrels.
3. Refining: The crude oil is heated by a furnace and sent to a distillation tower, where it is separated by boiling point. Then the material is converted by heat, pressure or a catalyst into finished products such as fuel (gasoline and diesel) and specialty products (e.g., asphalt and solvents).
4. Transportation: Finished refined products are shipped to customers via pipeline, rail, trucks or ships and barges.
5. Consumers: The company distributes the fuel to Valero fuel stations and to fuel outlets (e.g., Sunoco) for sale to motorists and other end consumers. Valero also sells fuel directly to the military and airports.

#### Renewable Diesel

(2020 Revenues: $1.267 B)

**Description**

The renewable diesel segment produces low-carbon intensity renewable diesel fuel from recycled animal fats, used cooking oil and inedible corn oil. The company conducts these operations through Diamond Green Diesel Holdings LLC (DGD), a joint venture with Darling Ingredients Inc.

**Characteristics**

Renewable diesel is sold in California, Canada and Europe (planned expansion to increase production to 675 million gallons per year in 2021).

Each year Valero's Diamond Green Diesel joint venture is the world's second largest producer of renewable diesel.

Strategically located next to Valero's St. Charles refinery to capture synergies and gain access to export markets

**Processing Facilities**

- Diamond Green Diesel I Plant (Norco, La) (275 Million Gallons of Renewable Diesel)
- Diamond Green Diesel I Plant (Under Construction in Norco, La) (400 Million Gallons of Renewable Diesel and 60 Million Gallons of Renewable Naphtha)
- Diamond Green Diesel III Plant (Under Development in Port Arthur, Texas) (425 Million Gallons of Renewable Diesel and 40 Million Gallons of Renewable Naphtha)

**Production Process**

1. Feedstock: Diamond Green Diesel receives animal fat and used cooking oil primarily from restaurants, supermarkets and other foodservice establishments, and inedible corn oil primarily from ethanol plants. Feedstocks are transported to the plant by rail, truck, and ships and barges.
2. Processing: The feedstocks are treated to remove impurities and then hydro-treated with high-pressure hydrogen to remove oxygen and separate the water. The next step is isomerization where cold flow properties are managed to ensure compatibility with existing infrastructure and engines. The final step is fractionation--i.e., the separation of feedstocks into finished products.
3. Distribution: Renewable diesel is stored until it is shipped to customers primarily in low-carbon markets. It can be transported via pipeline, ship or railcar.

#### Ethanol

(2020 Revenues: $3.243 B)

**Description**

The ethanol operations involve (a) acquiring corn and using the entire kernel of corn to produce renewable fuel and other products, (b) marketing activities associated with these products, and (c) operating logistics assets to support the ethanol operations.

**Characteristics**

- 1.73 billion gallons per year
- 20% share of US ethanol exports in 2019
- World's second largest corn ethanol producer
- 1000 employees

**Processing Facilities**

- Albert City Plant (Albert City, IA)
- Albion Plant (Albion, NE)
- Aurora Plant (Aurora, SD)
- Bloomingburg Plant (Bloomingburg, OH)
- Bluffton Plant (Bluffton, IN)
- Charles City Plant (Charles City, IA)
- Fort Dodge Plant (Fort Dodge, IA)
- Hartley Plant (Hartley, IA)
- Jefferson Plant (Johnson Creek, WI)
- Lakota Plant (Lakota, IA)
- Linden Plant (Linden, IN)
- Mount Vernon Plant (Mount Vernon, IN)
- Riga Plant (Blissfield, MI)
- Welcome Plant (Welcome, MN)

**Products**

Ethanol
(a clean-burning, high-octane renewable fuel that is blended with gasoline)

Distiller's grains, dried or modified (wet)
(Protein, fat, fiber and other solids from the fermenting process, used as a high-value feed for cattle, swine and poultry)

Fuel-and feed-grade corn oil
(Used to make renewable diesel fuel and livestock feed)

**Production Process**

1. Receiving: Local farmers and suppliers deliver field corn to the plants by truck and rail.
2. Fermentation: Water, yeast, and enzymes are mixed and heated to form corn mash, which fermented for more than 48 hours to produce ethanol and carbon dioxide.
3. Distillation: The fermented mash is heated to separate the ethanol from the water and solids in distillation.
4. Drying: The non-fermentable solids are dried to produce the feed product – distiller's grains.
5. Markets: Ethanol is shipped primarily by rail to fuel providers who mix the ethanol with gasoline to be sold at Valero stations and other fuel outlets. Distiller's grains are shipped primarily by truck, rail and barge to businesses that process them into livestock feed. The corn oil is shipped primarily to plants to make renewable diesel fuel.

## Outside Relationships

### Customers

Securities Regulation and NYSE Listing Rules

Dividends and Common Stock Repurchases

Equity Capital

Professional Services

**Independent Fuel Retailers**
- Sunoco Gas Stations
- Other Fuel Outlets

Wholesale Sales of Motor Fuel

Sales of Motor Fuel and Merchandise

**Ethanol Products Consumers**
- Airports
- Military
- Motor Fuel Customers

Sales of Motor Fuel and Merchandise

Livestock Feed

**Ranchers and Farmers**
(Cattle, Pigs, and Chicken)

Distiller's Corn Oil

**Renewable Diesel Producers**
- Diamond Green Diesel Joint Venture (Valero Energy--50%)
- Other Renewable Diesel Fuel Producers

### Suppliers

**Professional Services**
- KPMG (Audit Services)
- Bracewell LLP (Lobbying)
- Ernst & Young (Lobbying)
- Campbell Ewald (Advertising Services)
- Pillsbury Winthrop Shaw Pittman (Environmental Legal Services)

### Capital

**Significant Shareholders**
- The Vanguard Group, Inc. (10.76%)
- SSgA Funds Management, Inc. (6.23%)
- BlackRock Fund Advisors (5.36%)
- Capital Research & Management Co (4.53%)
- Charles Schwab Investment Management (1.63%)
- Institutional Ownership: 78.14%%

### Regulators

**Securities Regulators**
- US Securities and Exchange Commission (Securities Law Disclosure and Reporting Requirements; Anti-Bribery Law Compliance)
- New York Stock Exchange (Listing and Maintenance Rules)

Occupational Health and Safety Regulation

Wholesale Sale of Refined Petroleum Products

Air Discharge Permits

Wholesale Sale of Refined Diesel Products

Oil and Natural Gas Pipeline Regulation

**Refined Petroleum Product Consumers**
- Wholesale Rack Markets (Wholesalers, Distributors, Retailers, and Truck-Delivered End Users
- Bulk Sales Market (Oil Companies, Traders, Railroads, Airlines, and Utilities)

**Low Carbon Market Customers** (Light-Duty and Heavy-Duty Vehicles)

**Low Carbon Feedstocks Suppliers**

**Health and Safety Regulations**
- U.S. Occupational Safety and Health Administration (OSHA) (Requires Reporting, Safety Measures, and Workplace Disclosure Regarding Hazardous Jobs and Hazardous Materials Used or Produced in Operations)
- Louisiana and Texas Commission on Environmental Quality (TCEQ)

**Pipeline and Transportation Regulation**
- U.S. Department of Transportation (Includes Surface Transportation Board, Pipeline and Hazardous Materials Safety Administration, and Federal Railroad Administration) (Pipeline Regulation; Establishes Safety Standards for Hazardous Liquid Pipelines )
- Federal Energy Regulatory Commission (FERC) (Requires Tariff Rates for Interstate Pipelines That Transport Crude Oil)
- United States Coast Guard (USCG) (Restricts Marine Transportation of Crude Oil to Vessels Built and Owned by the U.S.)

## Key Company Data (as of December 31, 2020)

**Share Data**
- Stock Exchange: NYSE
- Ticker Symbol: VLO
- EPS: -$3.50
- Share Price (3/5/2021): $78.96)
- Annual Dividend: $3.60
- Forward Annual Dividend: $3.92

**Financial Highlights**

**Results of Operations**
- Total Revenues: $64.912 B
- Cost of Goods Sold: $65.735 B
- General and Administrative Expenses: $756 M
- Operating Income: - $1.579 B
- Net Loss: -$1.421 B

**Financial Condition (2019)**
- Total Assets: $51.774 B
- Total Liabilities: $29.238 B
- Equity: $22.536 B

**Cash Flow (2019)**
- From Operations: $5.532 B
- From Investing: -$3.001 B
- From Financing : -$2.997 B

**Resources**
- Employees: 10,222
- Global Headquarters: San Antonio, Texas
- 15 Petroleum Refineries in USA, UK, Canada
- 3100 Miles of Active Pipelines of Petroleum

**Key Competitors**
- Marathon Petroleum
- Phillips 66
- Exxon Mobil Corporation
- Devon Energy Corp
- Occidental Petroleum Corporation
- Imperial Oil Ltd.

**Recent Developments**

Valero Energy Corp announced partnership with P97 networks to deliver a new consumer experience across its 5,100 sites in the United States.

Valero Energy Corp installed 33 windmills in 2009 to supply a refinery in Sunray, Texas with green electricity to produce gasoline and diesel. It was recently able to pay for itself (10 years later).

Recently completed the Central Texas Pipelines and Terminals project which reduces secondary costs and extends the supply chain from the Gulf Coast.

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