ENERGY LOGISTICS & DISTRIBUTION

Industry In-Sight™

WINTER / SPRING 2021




JORDAN KNAUFF & COMPANY

ENERGY EQUIPMENT & INFRASTRUCTURE ALLIANCE

The Voice of the Energy Supply Chain

ENERGYBUILDERS

IN THIS REPORT

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS

All charts in this report are updated to the latest information available at the time of publication. Due to differing reporting dates for various data used throughout the report, all charts are not updated to the same ending period.

INTRODUCTION ... About This Report

We are pleased to offer this periodic report which provides a comprehensive compilation of energy information, insights and data. It aggregates critical planning and forecasting information from a myriad of sources into one resource for energy supply chain analysts and decision-makers.

The energy supply chain is an increasingly complex network of upstream, midstream and downstream providers of construction, equipment, materials and services. As shale gas-oil and renewable energy continue to expand in the U.S., additional infrastructure is needed to connect the new sources to the current network of pipelines, storage and transmission stations. Current and new members of the supply chain will need to expand in order to build and service the additional infrastructure.

We define the Energy Logistics & Distribution Industry as any energy production, transportation and storage activities that take place from the well-head to the refinery or gas processing plant through delivery to the end user. Industry members include: producers and distributors of oil and natural gas, natural gas liquids, refined fuels and propane; energy storage and pipeline operators; oil and gas field services; producers and distributors of lubricants, oils, greases and fluids; service contractors, capital equipment manufacturers; materials suppliers; as well as logistics, transportation and maintenance providers.

Segments covered in this Industry In-Sight™ include:

- Crude oil and refined products, natural gas, liquefied natural gas (LNG), natural gas liquids including propane and heating/fuel oil, as well as drilling activity.
- Renewables, including solar, wind, hydropower and ethanol.
- Logistics, including storage and terminals, pipelines, trucking, shipping and rail.
- Economic and financial data pertinent to the Energy Logistics & Distribution Industry.

It is our intention that this publication will provide value in the following areas:

- **Aggregate Information** – The Data Center provides comprehensive statistics on the Energy Logistics & Distribution Industry including, among others: prices (domestic and international), production, consumption, inventory, imports/exports, LNG terminals, drilling activity, solar and wind capacities, energy consumption by sector and source, tank and underground storage capacities and utilization, pipeline mileage and trucking conditions. In all, the report offers more than 70 individual charts covering these topics and more. All charts in this report are updated to the latest information available at the time of publication.
- **Input to Business Decisions** – As a relevant and informative reference for use when contemplating decisions that will have a meaningful impact on your business. Accordingly, we welcome any input, feedback and suggestions to help us include meaningful and timely topical content in future publications. We especially would like to receive suggestions for ideas on Hot Topics in the Energy Logistics & Distribution Industry.
- **Identification of Opportunities** – The breadth of information provided will enable owners and operators of energy logistics businesses to track developments in energy segments outside of their day-to-day focus.
- **Public and Transaction Comparables by Segment** – This section provides the tracking of a cross-section of publicly-traded companies and transactions in various segments of the Energy Logistics & Distribution Industry. The data include operating metrics, such as revenues and EBITDA (earnings before interest, taxes, depreciation and amortization); and valuation analyses such as total enterprise value / latest twelve months revenues and total enterprise value / latest twelve months EBITDA.

Thank you for taking the time to review this Energy Logistics & Distribution Industry In-Sight™. Our goal is to provide the most comprehensive and beneficial information possible. Please forward your feedback and suggestions to any member of the Jordan Knauff & Company or Energy Equipment and Infrastructure Alliance team members listed on the last two pages of this report.

INTRODUCTION

Who is the Energy Equipment & Infrastructure Alliance (EEIA)?

EEIA ... The Voice of the Energy Supply Chain

The energy supply chain is over 120,000 companies in sixty industries, annually contributing more than $170 billion to the U.S. economy, with hundreds of thousands of workers in communities throughout every state of the union. They provide construction, well services, capital equipment, supplies, logistics, professional services and technology in support of energy operations. They build energy infrastructure including production sites, transmission infrastructure, pipelines, storage facilities, processing plants and export terminals.

The shale energy revolution is transforming prosperity, security and quality of life in America. In a few short years, it has brought rising employment, income and opportunity to workers and businesses of all sizes and in all fifty states, often to communities that until recently have known limited prospects for growth. It has given Americans a cleaner environment, lower energy costs, renewed national competitiveness and energy security.

Creating a supportive public and policymaker environment for this miracle depends on active public engagement by energy supply chain stakeholders -- the non-oil and gas companies where energy-driven jobs and opportunities are greatest.

EEIA is that voice. We mobilize and lead the North American supply chain in pursuit of government policies that support full development of our energy resources, while protecting public health, safety and the environment. We also work for widespread public support for energy development.

The Energy Equipment & Infrastructure Alliance (EEIA) is active on all fronts: federal and state legislative, regulatory, judicial and public opinion. Our strength is based upon the supply chain's enormous fifty-state contributions to jobs, economic growth and community prosperity. We conduct economic research that measures and reports the facts about the energy supply chain's tremendous contributions to the American economy.

We are an organization of leading supply chain companies, trade associations and labor organizations. We are the voices of the businesses and workers of America's energy miracle.




INTRODUCTION

Who is Jordan Knauff & Company (JKC)?

JKC was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs that lead them and the financial entities that transact with them. JKC has been active within the Energy Logistics & Distribution Industry as operators, investors, board members and investment bankers prior to the firm's founding in 2001.

On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, buyers, sellers and investment bankers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.

Experience has taught us that the owners and executives of middle-market businesses tend to have very different needs and goals in capital transactions from those that are common to capital events related to larger companies. Our personnel apply their considerable expertise to accomplish important goals: delivery of successful outcomes for our clients. Pursuant to that, we direct and manage all aspects of the capital transaction process, assist our clients with the management of important constituents (employees, customers, vendors and lenders), act as a teammate to other important client advisors (legal counsel, accountant, tax advisor) and collaborate with transaction counsel in the negotiations with the parties on the other side of the transaction.

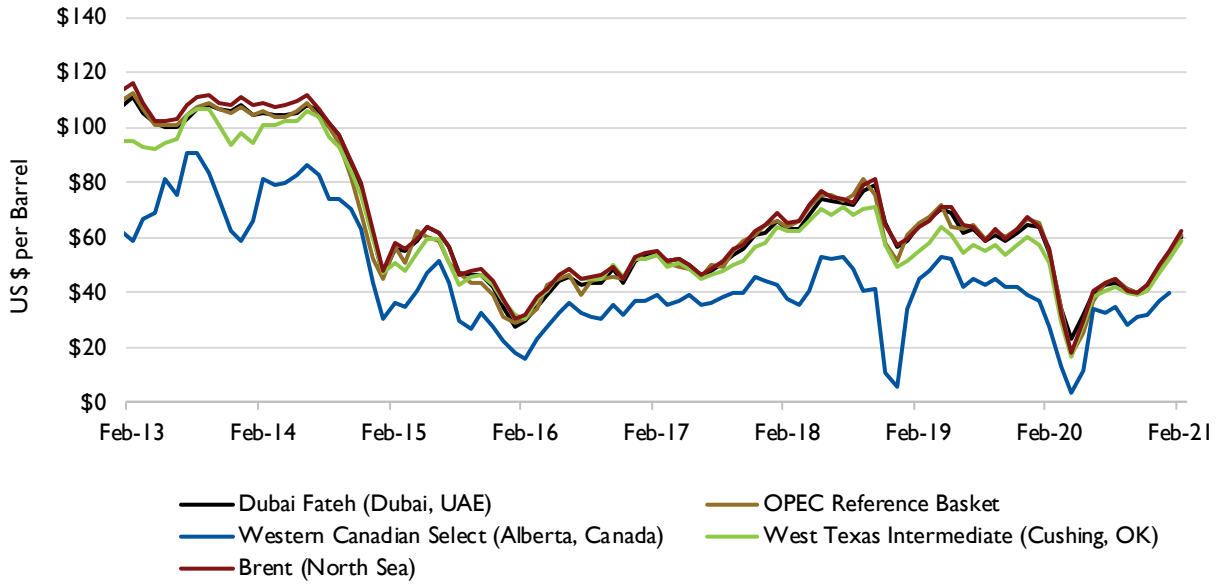
The Services We Provide

- Sell Companies: Generate a liquidity event on behalf of the owner(s) through whole, majority, or minority sale of assets, stock or units.
- Raise Capital: Representation of companies, management teams and entrepreneurs in the raising of senior debt, mezzanine debt or equity capital. Proceeds may be used for a variety of reasons, including, among others, recapitalizations, funding of growth, funding of acquisitions or liquidity for owners and investors.
- Acquisition Advisory: Assistance in sourcing and closing acquisitions -- whether it be a single transaction or a series of acquisitions as part of a consolidation strategy in an Industry Development Project™ (IDP) - a proprietary method for assisting private equity groups, companies or private investors that want to pursue multiple non-auction transactions within a single industry.
- Strategic Business Services: A suite of services for middle-market business owners and executives. Comprised of three components – Company Specific Valuation, Capital Road Map® and Strategic Industry Analysis – these services can be packaged together or used on an à la carte basis.

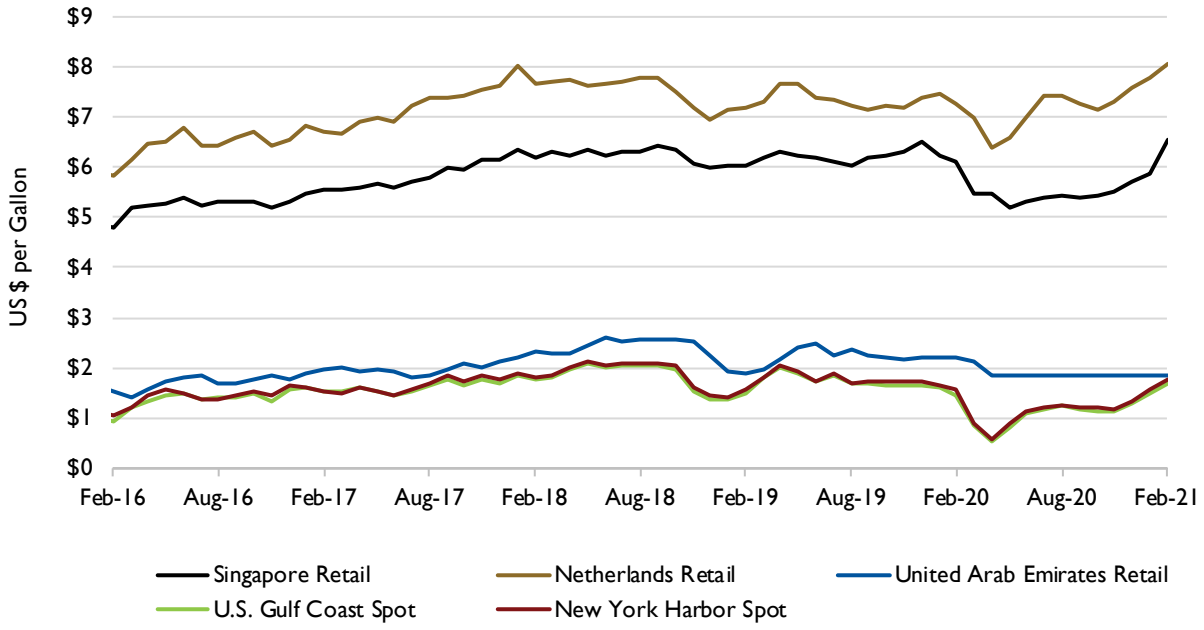
DATA CENTER

OIL

CRUDE OIL PRICES (MONTHLY AVERAGE) (1)



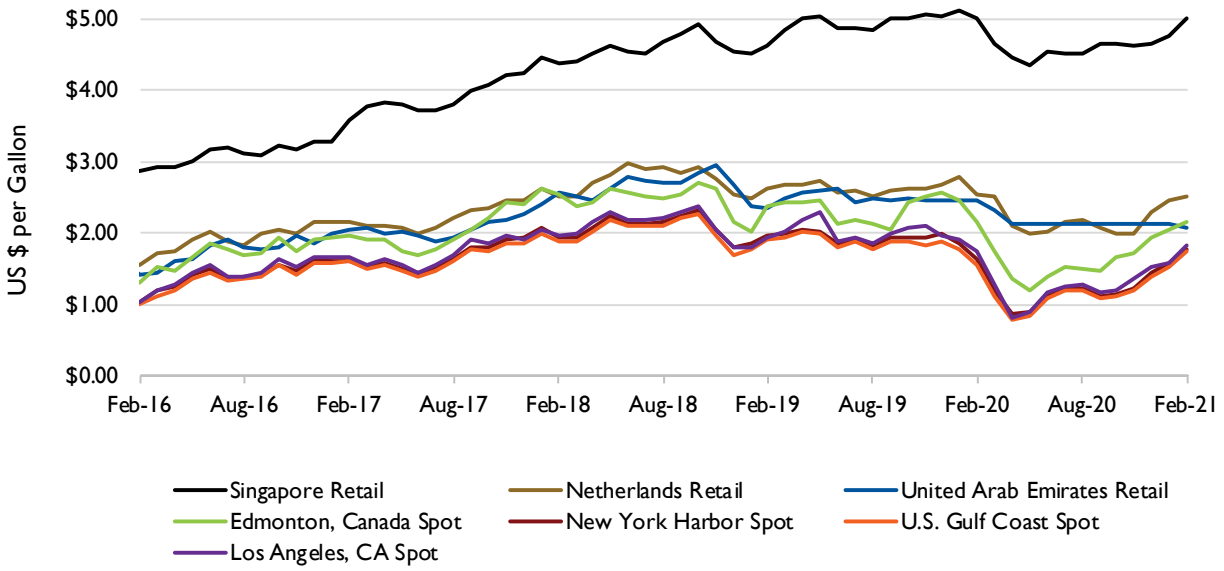
GASOLINE PRICES (MONTHLY AVERAGE) (2)



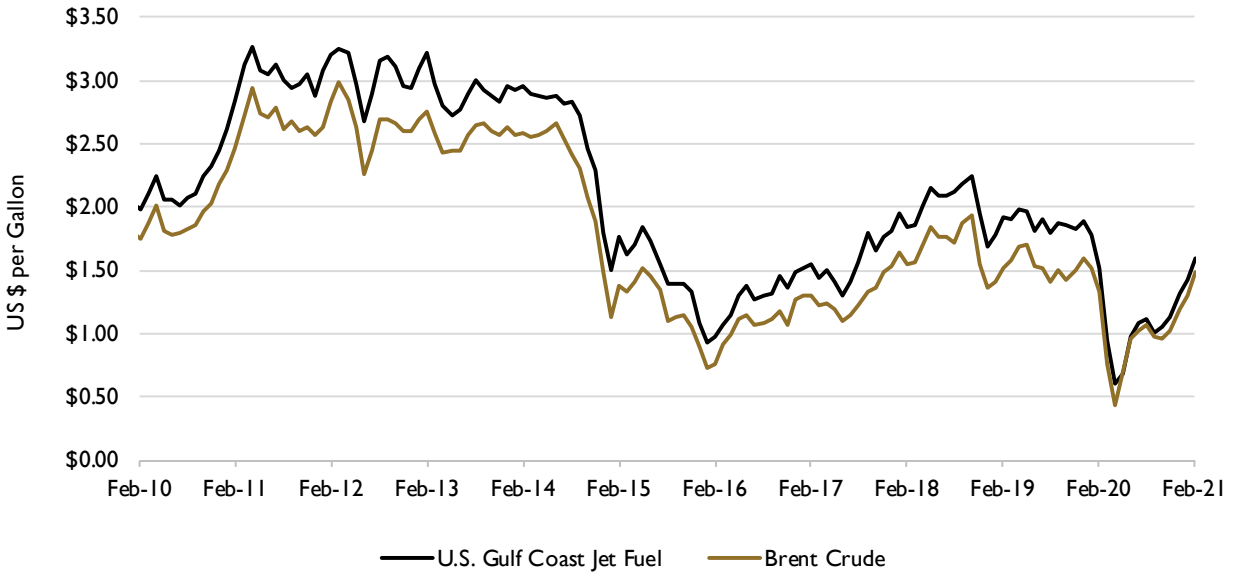
DATA CENTER

OIL

DIESEL PRICES (MONTHLY AVERAGE) (3)



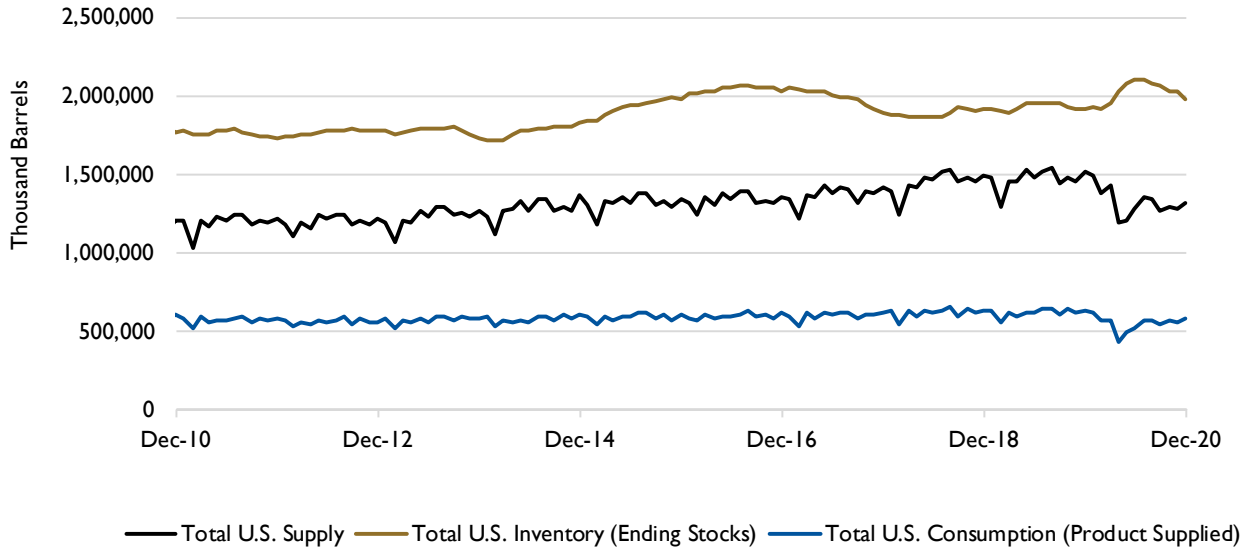
JET FUEL PRICES (MONTHLY AVERAGE) (4)



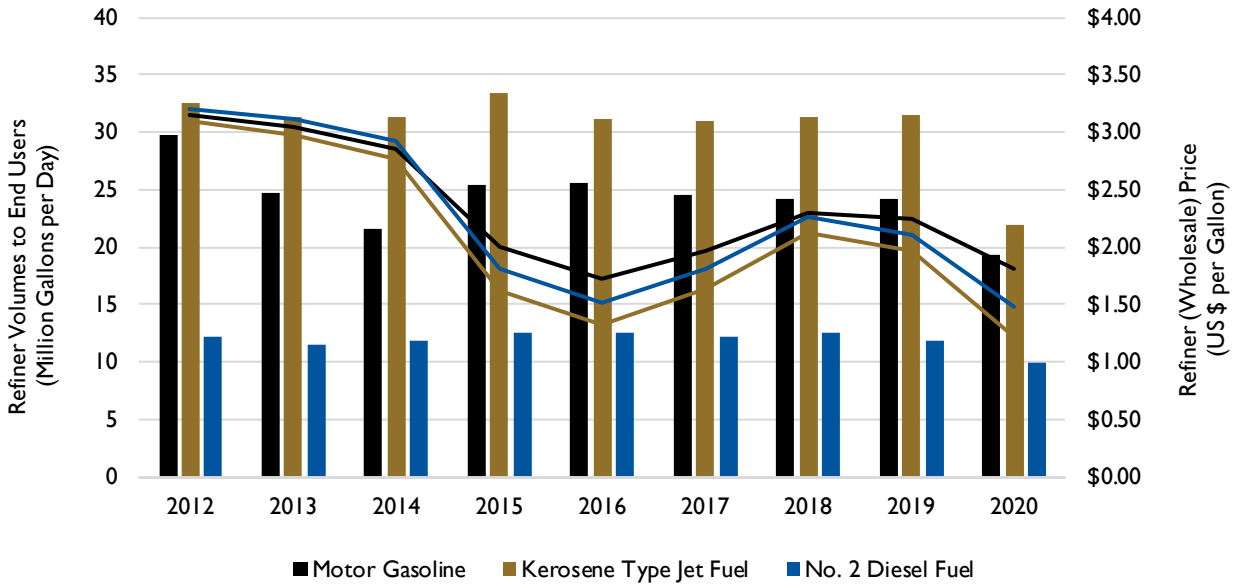
DATA CENTER

OIL

U.S. Crude Oil and Petroleum Products Supply, Inventory and Consumption (Monthly) (5)



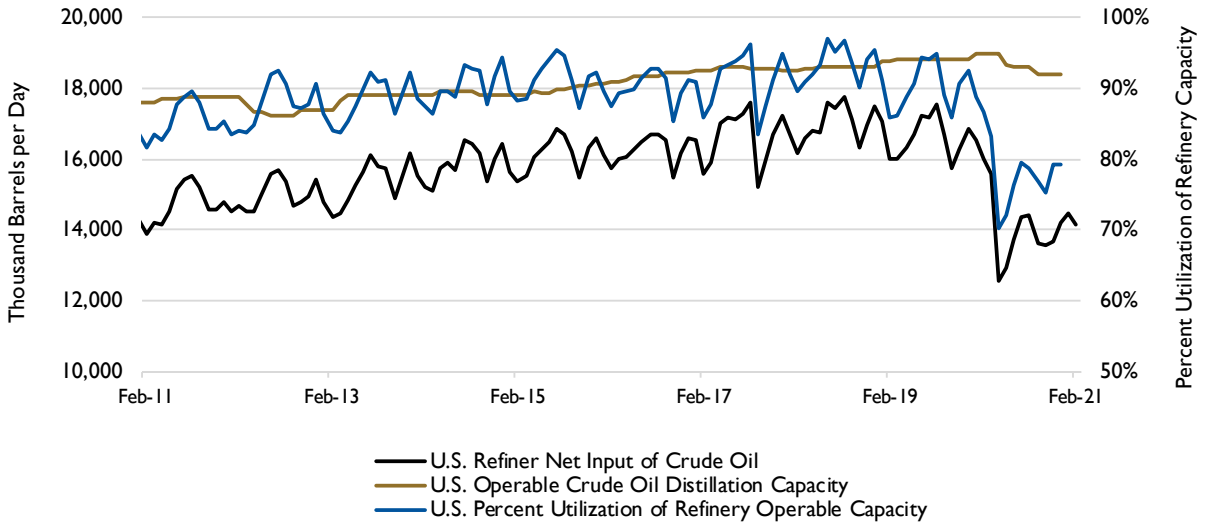
U.S. Refinery Volumes and Wholesale Prices of Petroleum Products (Annual Average) (6)



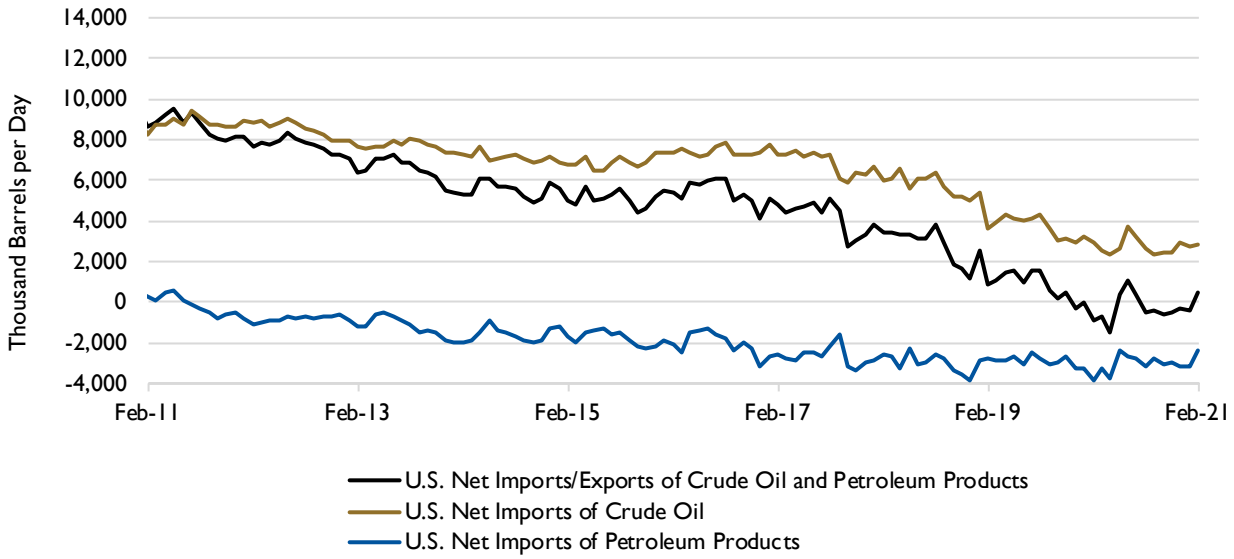
DATA CENTER

OIL

U.S. Crude Oil Refinery Input, Distillation Capacity and Refinery Utilization (Monthly Average) (7)



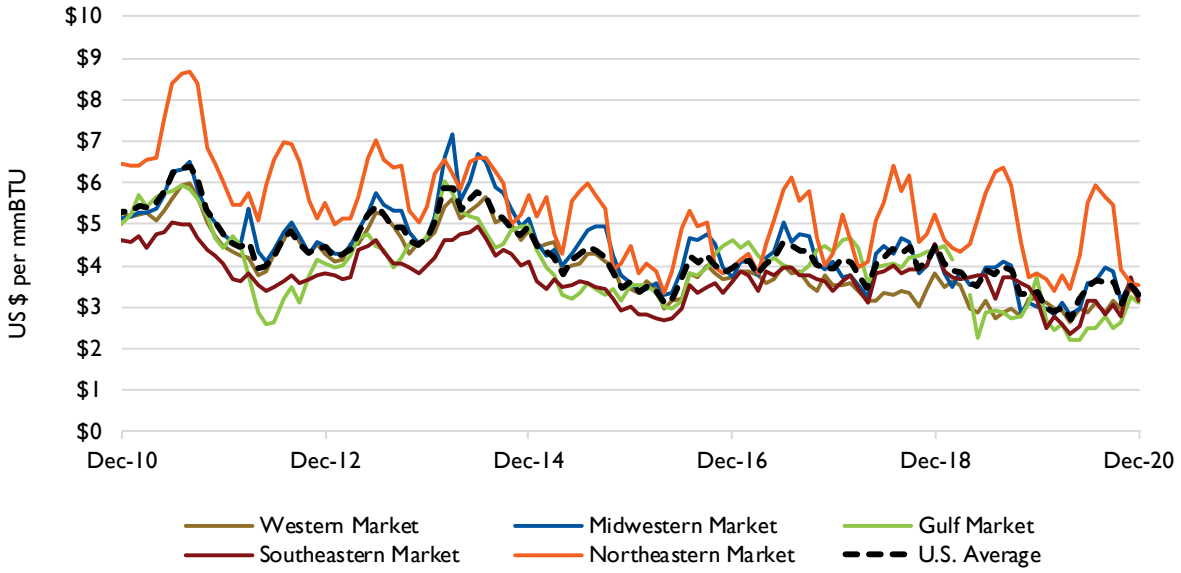
U.S. Crude Oil and Petroleum Products Imports and Exports (Monthly Average) (8)



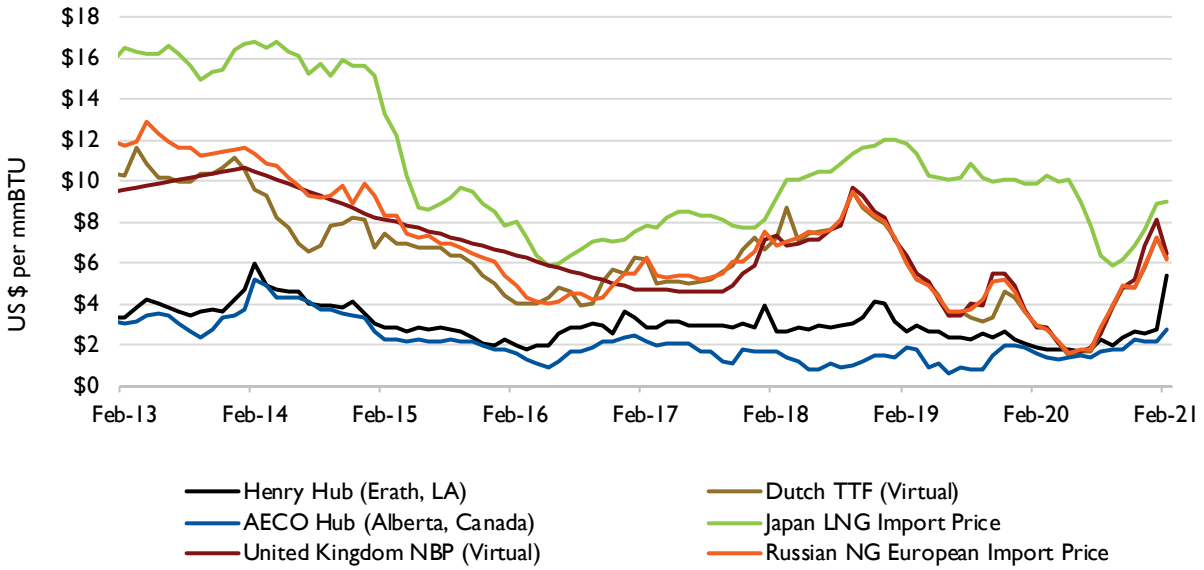
DATA CENTER

NATURAL GAS

DOMESTIC NATURAL GAS CITYGATE PRICES PER REGION (MONTHLY AVERAGE) (9)



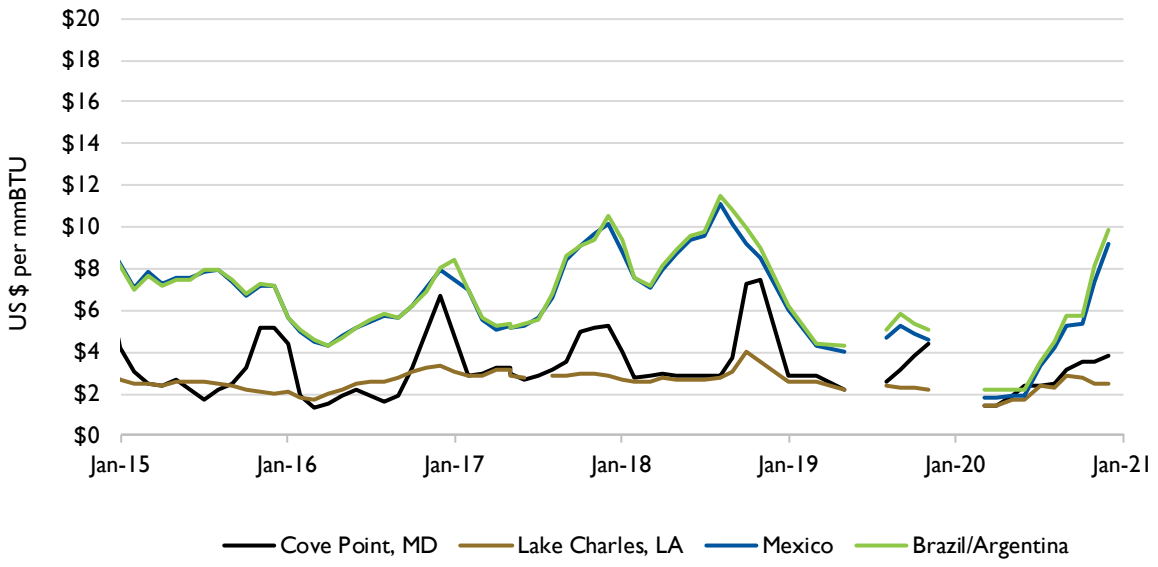
INTERNATIONAL NATURAL GAS PRICES (MONTHLY AVERAGE) (10)



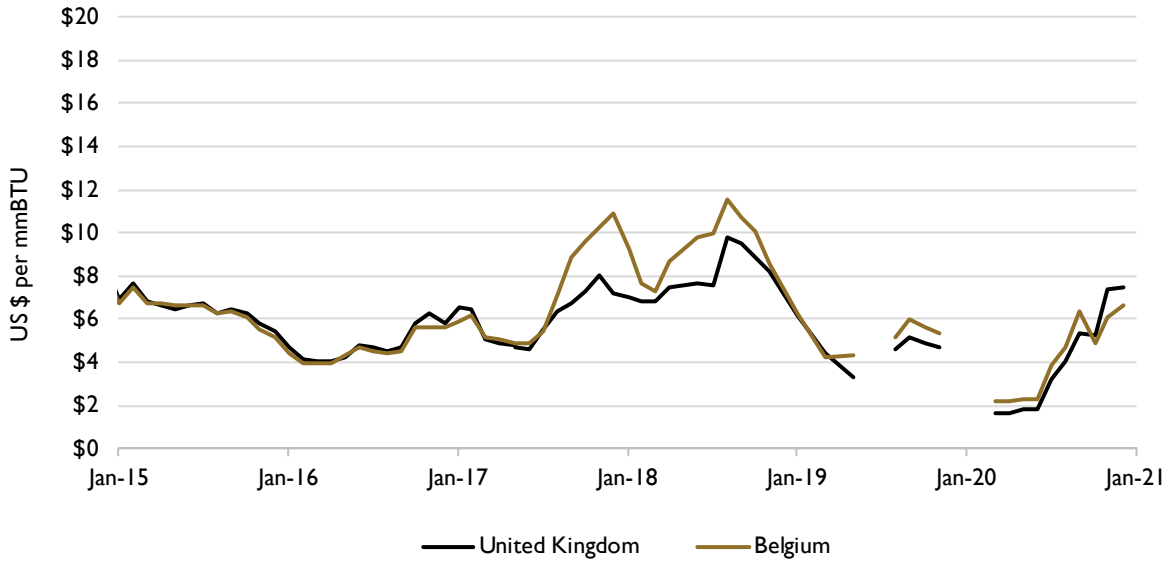
DATA CENTER

NATURAL GAS

AMERICAS LIQUEFIED NATURAL GAS PRICES (MONTHLY AVERAGE) (11)



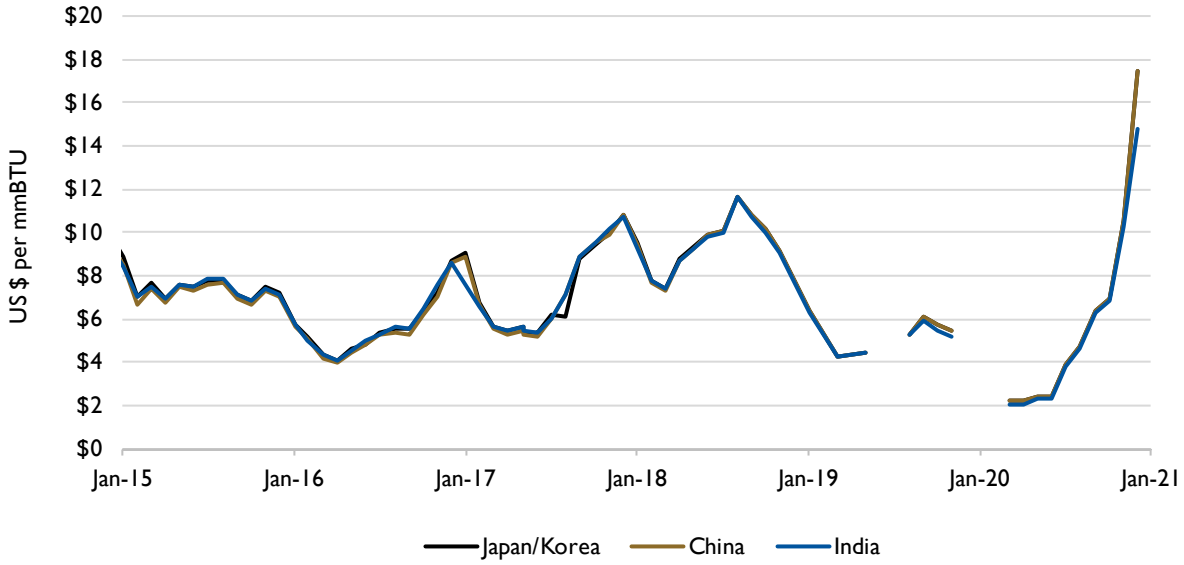
WESTERN EUROPE LIQUEFIED NATURAL GAS PRICES (MONTHLY AVERAGE) (12)



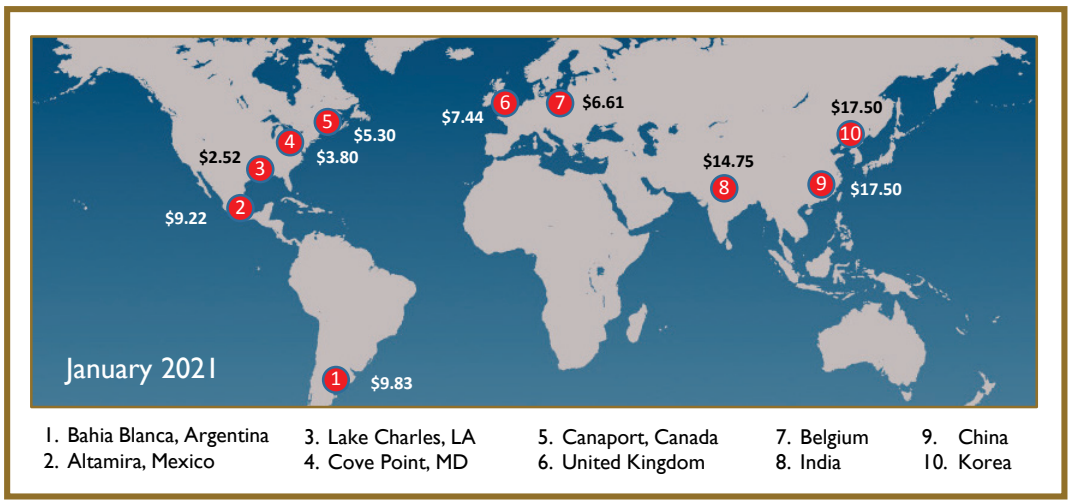
DATA CENTER

NATURAL GAS

ASIA LIQUEFIED NATURAL GAS PRICES (MONTHLY AVERAGE) (13)



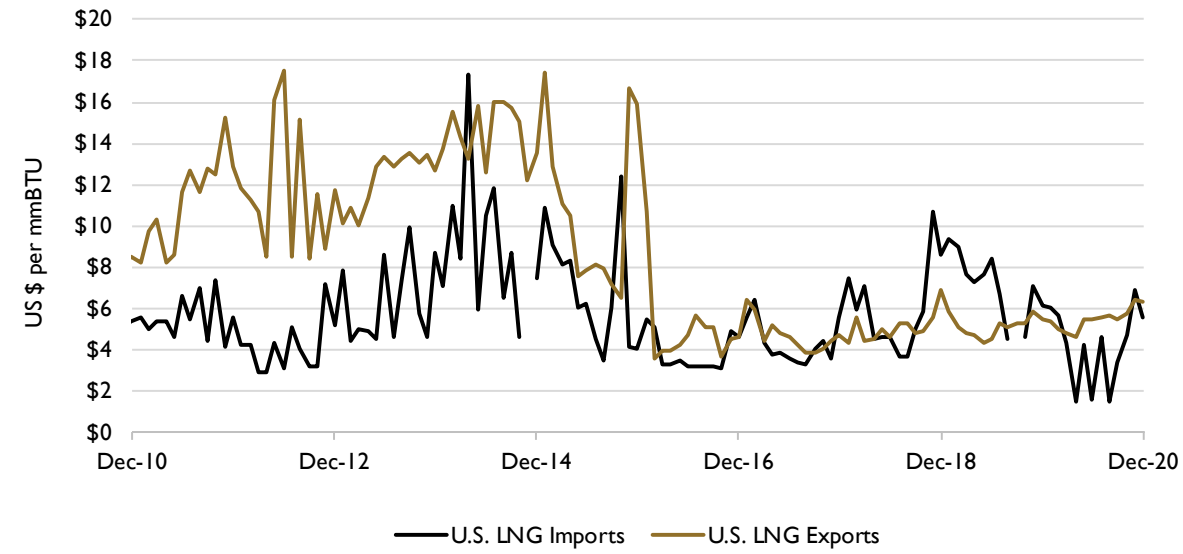
WORLD LIQUEFIED NATURAL GAS PRICES MAP (MONTHLY AVERAGE) (14)



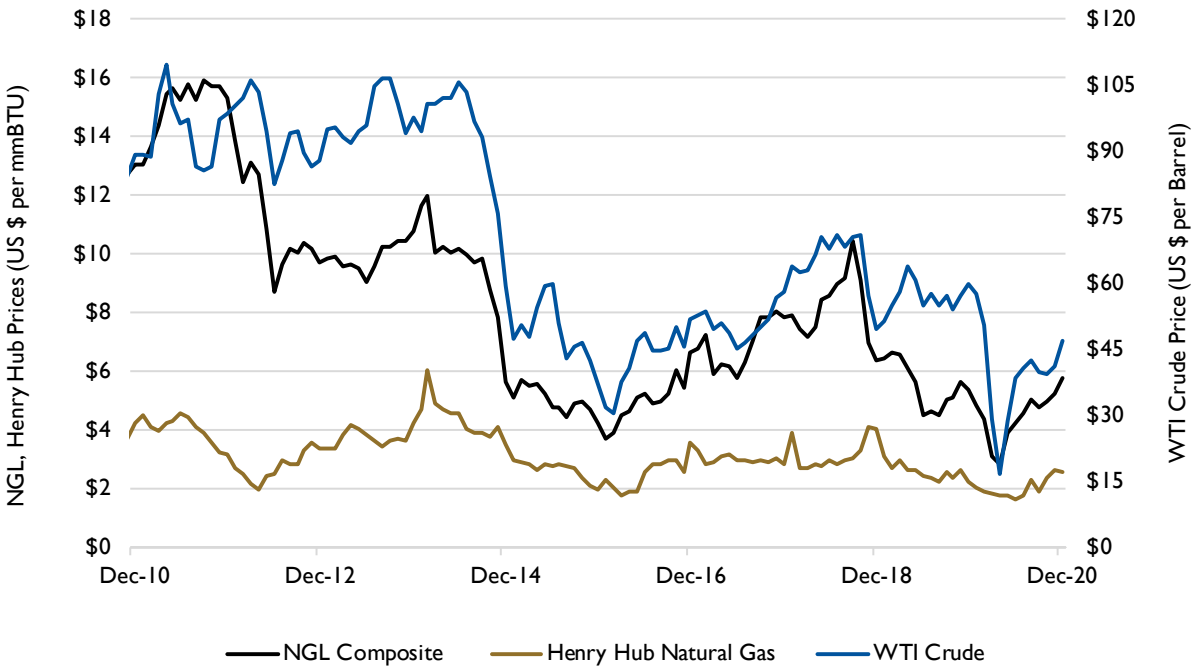
DATA CENTER

NATURAL GAS

U.S. IMPORT / EXPORT LIQUEFIED NATURAL GAS PRICES (MONTHLY AVERAGE) (15)



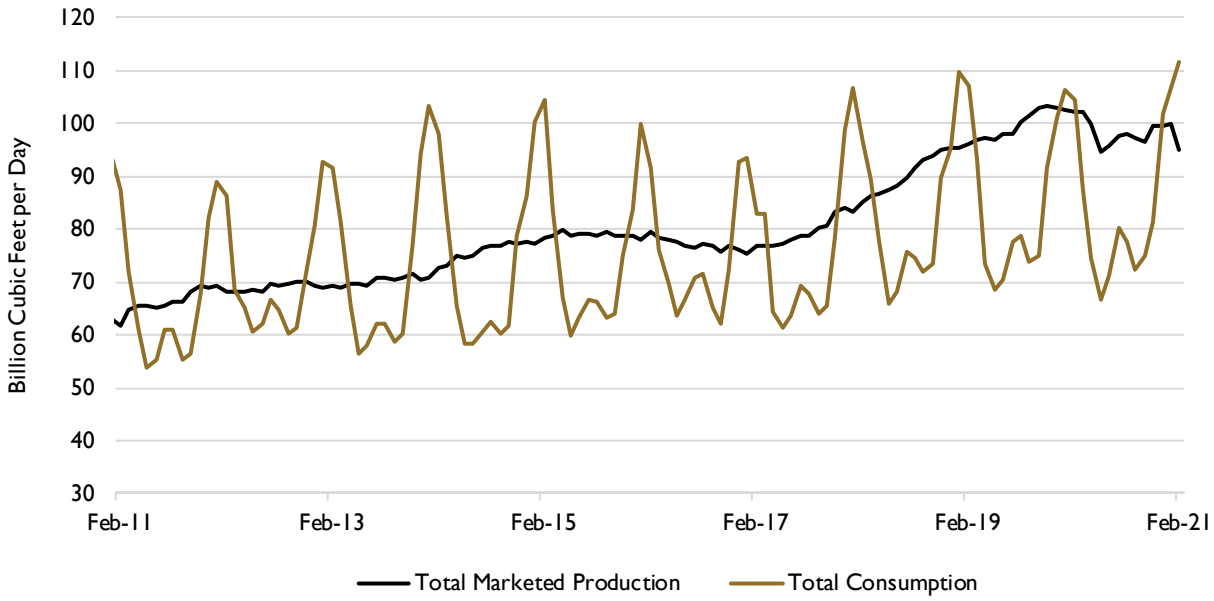
NATURAL GAS PLANT LIQUIDS PRICES (MONTHLY AVERAGE) (16)



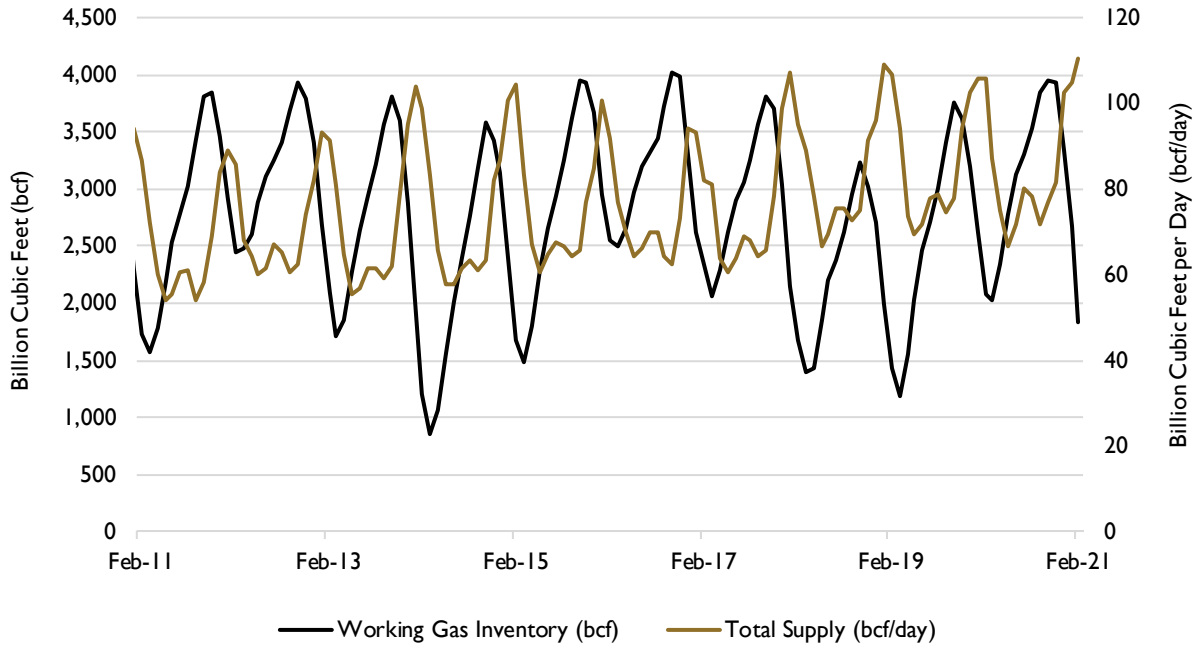
DATA CENTER

NATURAL GAS

U.S. Natural Gas Production and Consumption (Monthly) (17)



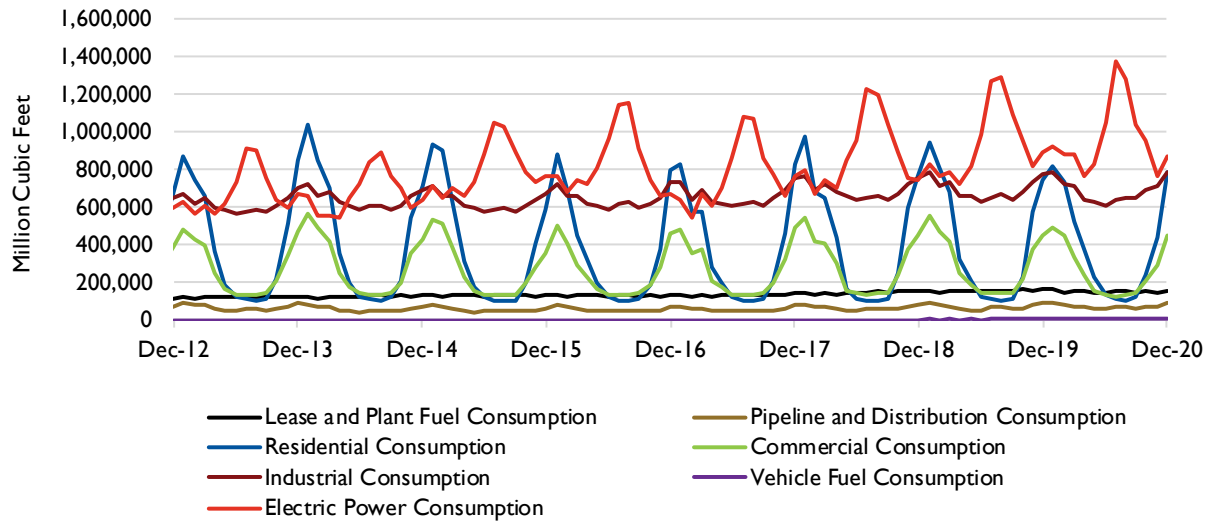
U.S. Natural Gas Supply and Inventory (Monthly) (18)



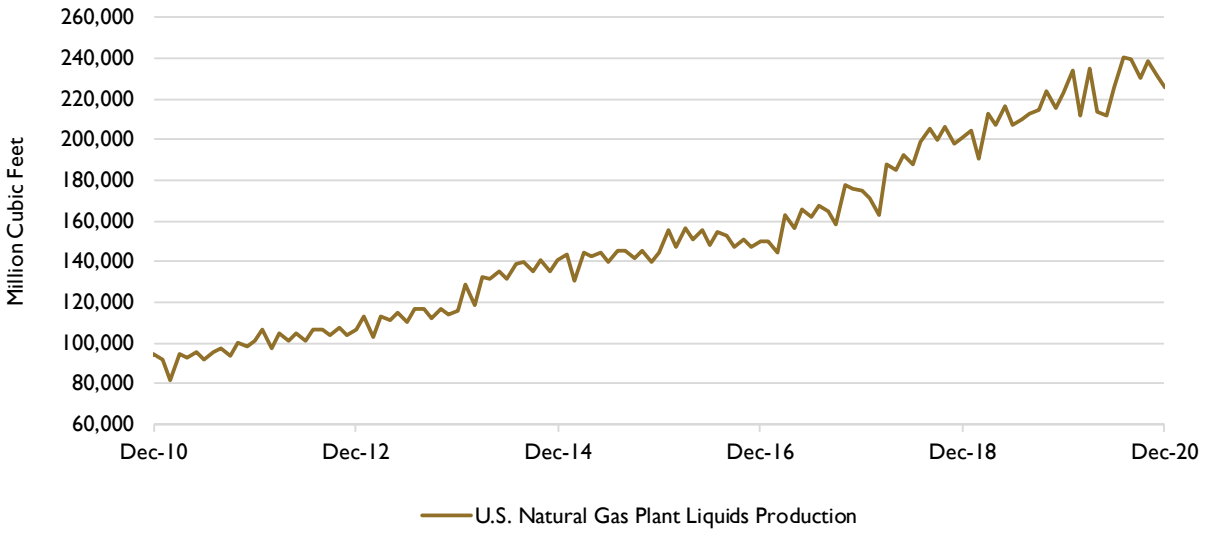
DATA CENTER

NATURAL GAS

U.S. Natural Gas Consumption by End Use (Monthly) (19)



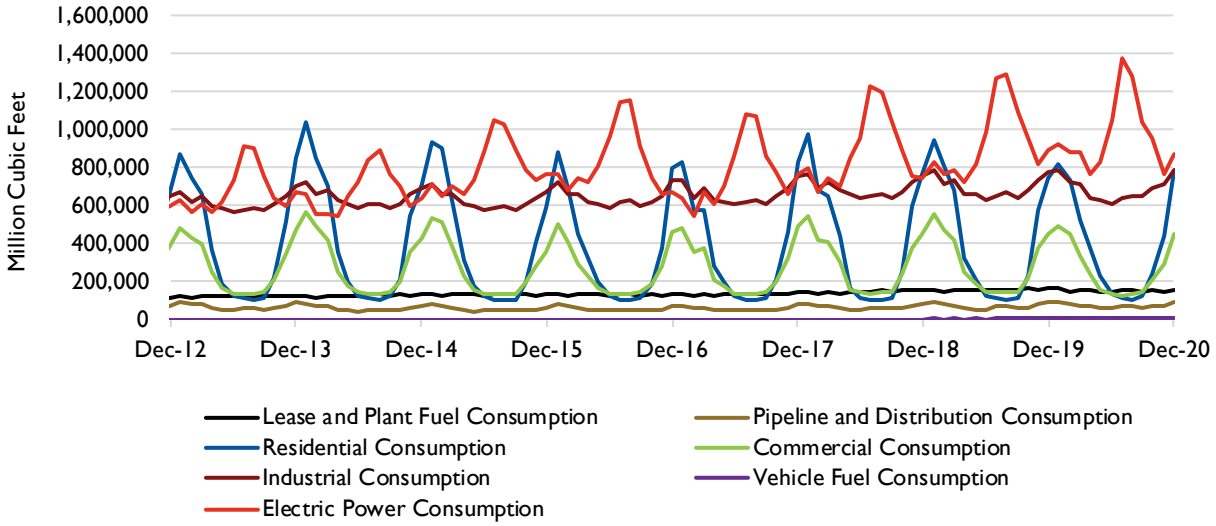
U.S. Natural Gas Plant Liquids Production (Monthly) (20)



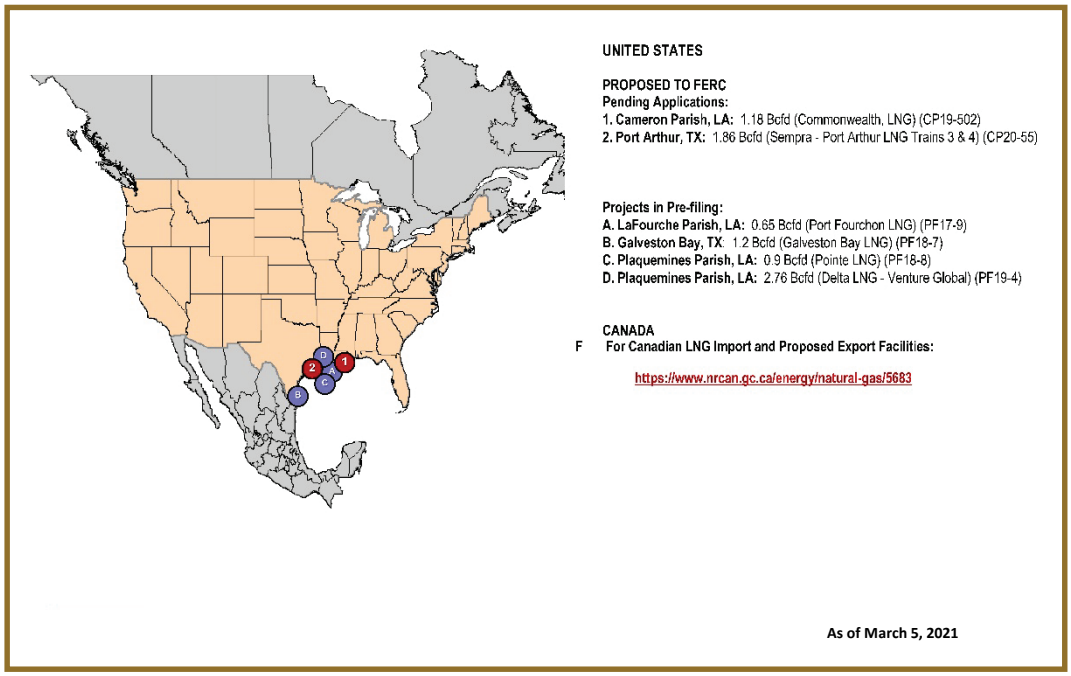
DATA CENTER

NATURAL GAS

U.S. LIQUEFIED NATURAL GAS IMPORT AND EXPORT VOLUMES (MONTHLY) (21)



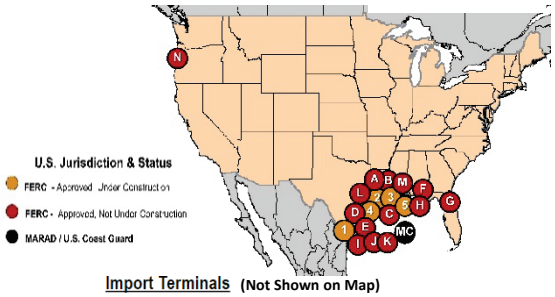
NORTH AMERICAN LNG EXPORT TERMINALS – *PROPOSED* (22)



DATA CENTER

NATURAL GAS

NORTH AMERICAN LNG IMPORT/EXPORT TERMINALS – *APPROVED* (23)



Import Terminals (Not Shown on Map)

UNITED STATES As of March 5, 2021

APPROVED - UNDER CONSTRUCTION - FERC
None

APPROVED – NOT UNDER CONSTRUCTION – FERC
1. **Corpus Christi, TX:** 0.4 Bcfd (Cheniere – Corpus Christi LNG) (CP12-507)
2. **Kenai, AK:** .007 Bcfd (Trans-Foreland – Kenai LNG) (CP15-521)

APPROVED - NOT UNDER CONSTRUCTION - MARAD/Coast Guard
A. **Gulf of Mexico:** 1.0 Bcfd (Main Pass Energy Hub)
B. **Gulf of Mexico:** 1.4 Bcfd (TORP Technology-Bienville LNG)

CANADA
For Canadian LNG Import and Proposed Export Facilities go to:
https://www.nrcan.gc.ca/energy/natural-gas/5683

Export Terminals (Shown on Map)

UNITED STATES As of March 5, 2021

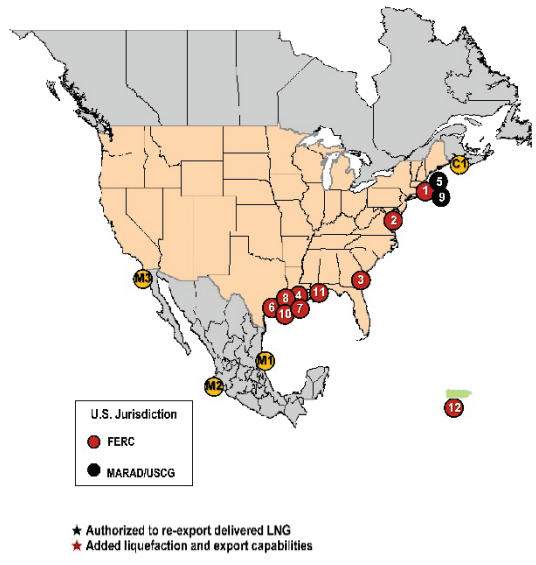
FERC – APPROVED, UNDER CONSTRUCTION
1. **Corpus Christi, TX:** 0.72 Bcfd (Cheniere–Corpus Christi LNG Train3) (CP12-507)
2. **Sabine Pass, LA:** 0.7 Bcfd (Sabine Pass Liquefaction Train 6) (CP13-552)
3. **Cameron Parish, LA:** 1.41 Bcfd (Venture Global Calcasieu Pass) (CP15-550)
4. **Sabine Pass, TX:** 2.26 Bcfd (ExxonMobil – Golden Pass) (CP14-517, CP20-459)
5. **Calcasieu Parish, LA:** 4.0 Bcfd (Driftwood LNG) (CP17-117)

FERC – APPROVED, NOT UNDER CONSTRUCTION
A. **Lake Charles, LA:** 2.2 Bcfd (Lake Charles LNG) (CP14-120)
B. **Lake Charles, LA:** 1. 186 Bcfd (Magnolia LNG) (CP14-347)
C. **Hackberry, LA:** 1.41 Bcfd (Sempra - Cameron LNG Trains 4 & 5) (CP15-560)
D. **Port Arthur, TX:** 1.86 Bcfd (Port Arthur LNG Trains 1 & 2) (CP17-20)
E. **Freeport, TX:** 0.72 Bcfd (Freeport LNG Dev Train 4) (CP17-470)
F. **Pascagoula, MS:** 1.5 Bcfd (Gulf LNG Liquefaction) (CP15-521)
G. **Jacksonville, FL:** 0.132 Bcf/d (Eagle LNG Partners) (CP17-41)
H. **Plaquemines Parish, LA:** 3.40 Bcfd (Venture Global LNG) (CP17-66)
I. **Brownsville, TX:** 0.55 Bcfd (Texas LNG Brownsville) (CP16-116)
J. **Brownsville, TX:** 3.6 Bcfd (Rio Grande LNG – NextDecade) (CP16-454)
K. **Brownsville, TX:** 0.9 Bcfd (Annova LNG Brownsville) (CP16-480)
L. **Corpus Christi, TX:** 1.86 Bcfd (Cheniere Corpus Christi LNG) (CP18-512)
M. **Sabine Pass, LA:** NA Bcfd (Sabine Pass Liquefaction) (CP19-11)
N. **Coos Bay, OR:** 1.08 Bcfd (Jordan Cove) (CP17-494)
O. **Nikiski, AK:** 2.63 Bcfd (Alaska Gasline) (CP17-178)

MARAD/USCG – APPROVED, NOT UNDER CONSTRUCTION
MC. **Gulf of Mexico:** 1.8 Bcfd (Delfin LNG)

CANADA - LNG IMPORT AND PROPOSED EXPORT FACILITIES
https://www.nrcan.gc.ca/energy/natural-gas/5683

NORTH AMERICAN LNG IMPORT/EXPORT TERMINALS – *EXISTING* (24)



★ Authorized to re-export delivered LNG
★ Added liquefaction and export capabilities

Import Terminals (Shown on Map)

UNITED STATES As of March 5, 2021
1. **Everett, MA:** 1.035 Bcfd (GDF SUEZ - DOMAC)
2. **Cove Point, MD:** 1.8 Bcfd (Dominion - Cove Point LNG) ★
3. **Elba Island, GA:** 1.6 Bcfd (El Paso - Southern LNG) ★
4. **Lake Charles, LA:** 2.1 Bcfd (Southern Union – Corpus Christi LNG) ★
5. **Offshore MA:** 0.8 Bcfd (Excelerate Energy – Northeast Gateway)
6. **Freeport, TX:** 1.5 Bcfd (Cheniere/Freeport LNG Dev.) ★★
7. **Sabine, LA:** 4.0 Bcfd (Cheniere/Sabine Pass LNG) ★★
8. **Hackberry, LA:** 1.8 Bcfd (Sempra - Cameron LNG) ★
9. **Offshore MA:** 0.4 Bcfd (GDF SUEZ – Neptune LNG)
10. **Sabine Pass, TX:** 2.0 Bcfd (ExxonMobil – Golden Pass) (Phase I & II)
11. **Pascagoula, MS:** 1.5 Bcfd (El Paso/Crest/Sonangol - Gulf LNG Energy)
12. **Peñuelas, PR:** 0.3 Bcfd (EcoElectrica)

CANADA
C1. **Saint John, NB:** 1.0 Bcfd (Repsol/Fort Reliance - Canaport LNG)

MEXICO
M1. **Altamira, Tamulipas:** 0.7 Bcfd (Shell/Total/Mitsui – Altamira LNG)
M2. **Baja California, MX:** 1.0 Bcfd (Sempra – Energia Costa Azul)
M3. **Manzanillo, MX:** 0.5 Bcfd (KMS GNL de Manzanillo)

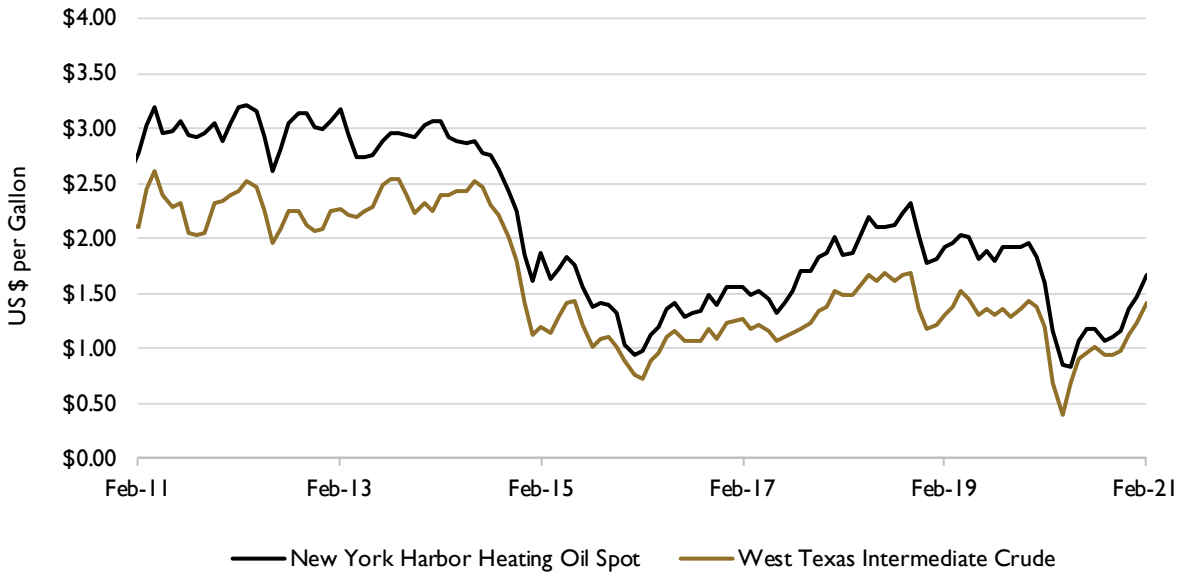
Export Terminals (Not Shown on Map)

UNITED STATES As of March 5, 2021
1. **Kenai, AK:** 0.2 Bcfd (Trans-Foreland)
2. **Sabine, LA:** 3.5 Bcfd (Cheniere/Sabine Pass LNG – Trains 1-5)
3. **Cove Point, MD:** 0.82 Bcfd (Dominion–Cove Point LNG)
4. **Corpus Christi, TX:** 1.44 Bcfd (Cheniere – Corpus Christi LNG Trains 1, 2)
5. **Hackberry, LA:** 2.15 Bcfd (Sempra–Cameron LNG, Trains 1-3)
6. **Elba Island, GA:** 350 MMcfd (Southern LNG Company Units 1-10)
7. **Freeport, TX:** 2.13 Bcfd (Freeport LNG Dev/Freeport LNG Expansion/FLNG Liquefaction Trains 1-3)

DATA CENTER

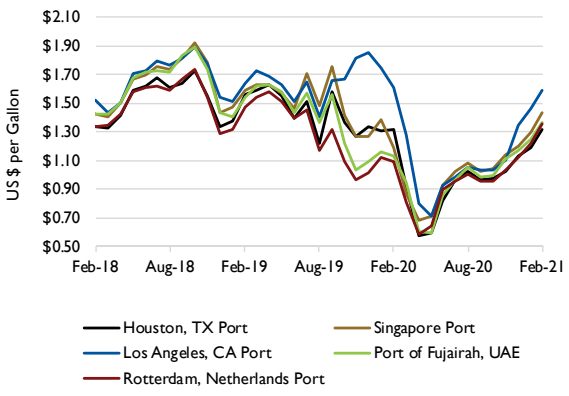
PROPANE AND HEATING/FUEL OIL

HEATING OIL PRICES (MONTHLY AVERAGE) (25)

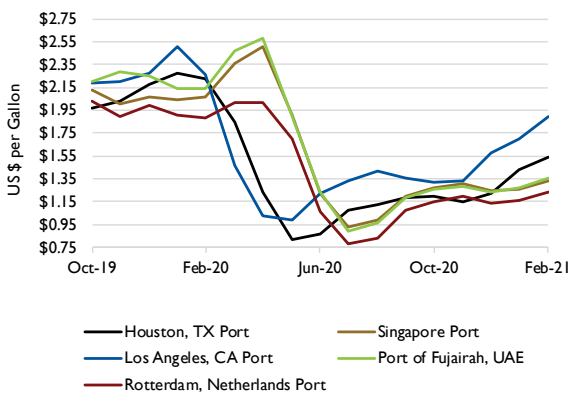


INTERMEDIATE FUEL OIL AKA "BUNKER FUEL" PRICES (MONTHLY AVERAGE) (26)

Intermediate Fuel Oil 380



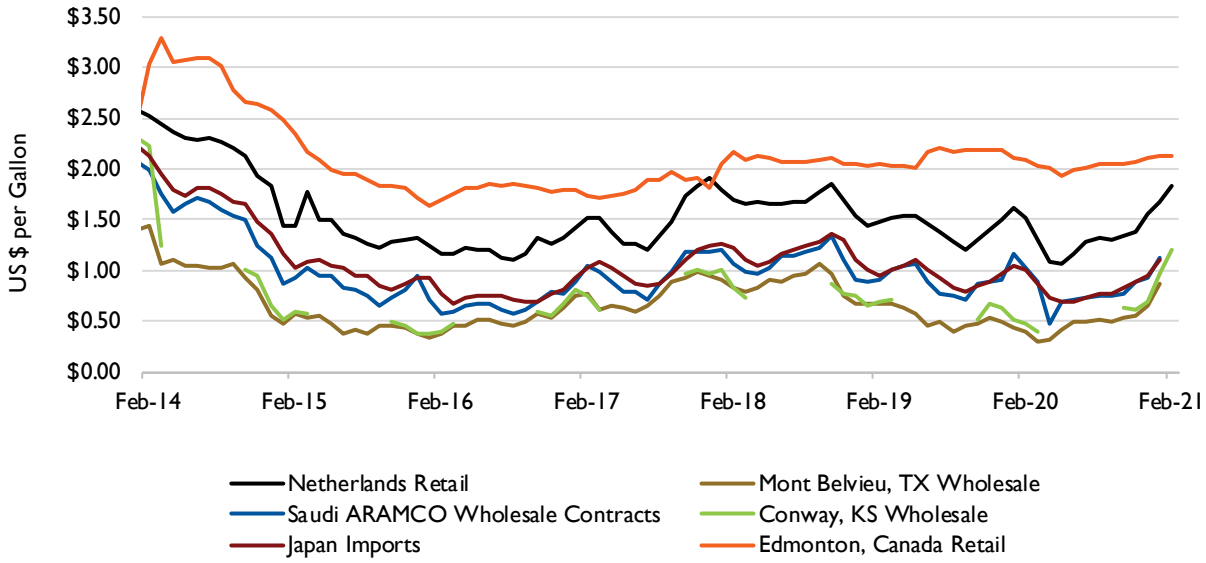
Very Low Sulfur Fuel Oil (VLSFO)



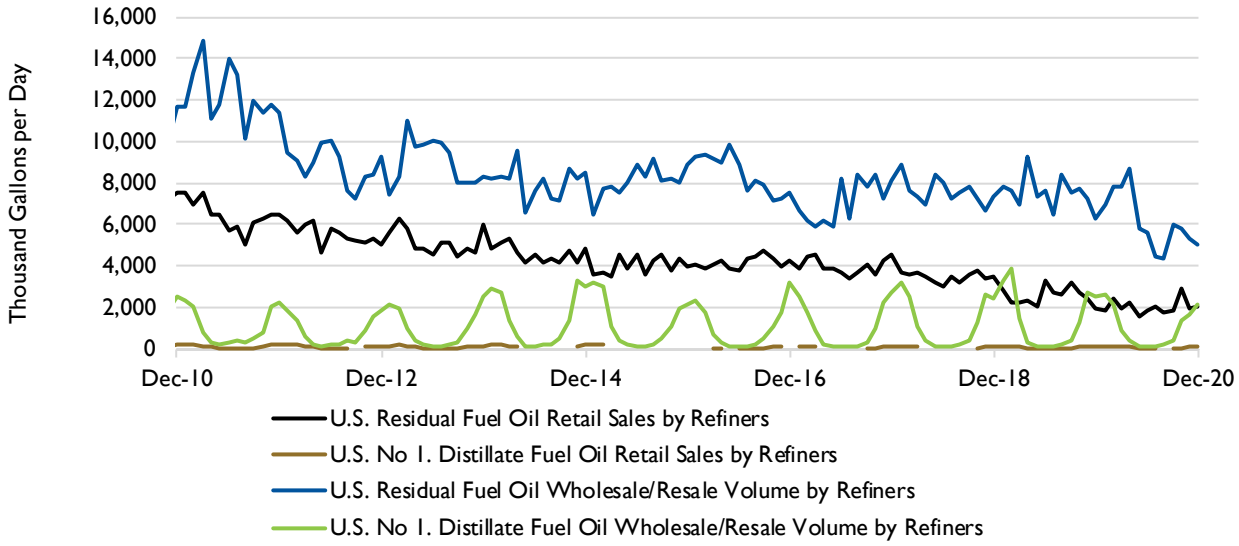
DATA CENTER

PROPANE AND HEATING/FUEL OIL

PROPANE PRICES (MONTHLY AVERAGE) (27)



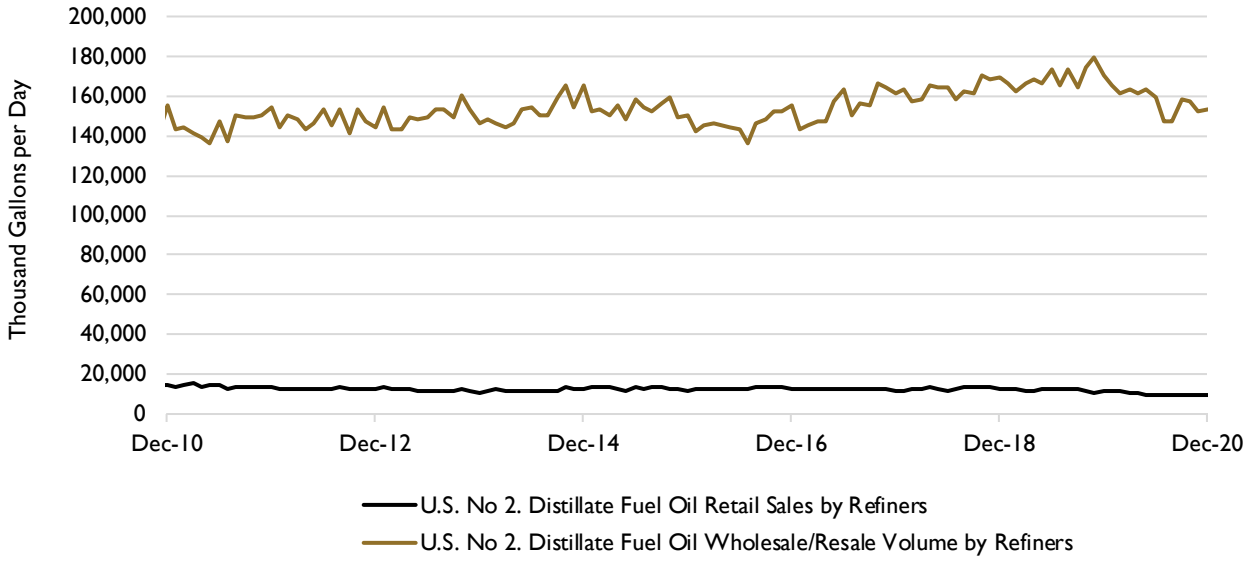
NO. 1 DISTILLATE FUEL OIL, RESIDUAL FUEL OIL WHOLESALE, RETAIL SALES VOLUME BY REFINERS (MONTHLY) (28)



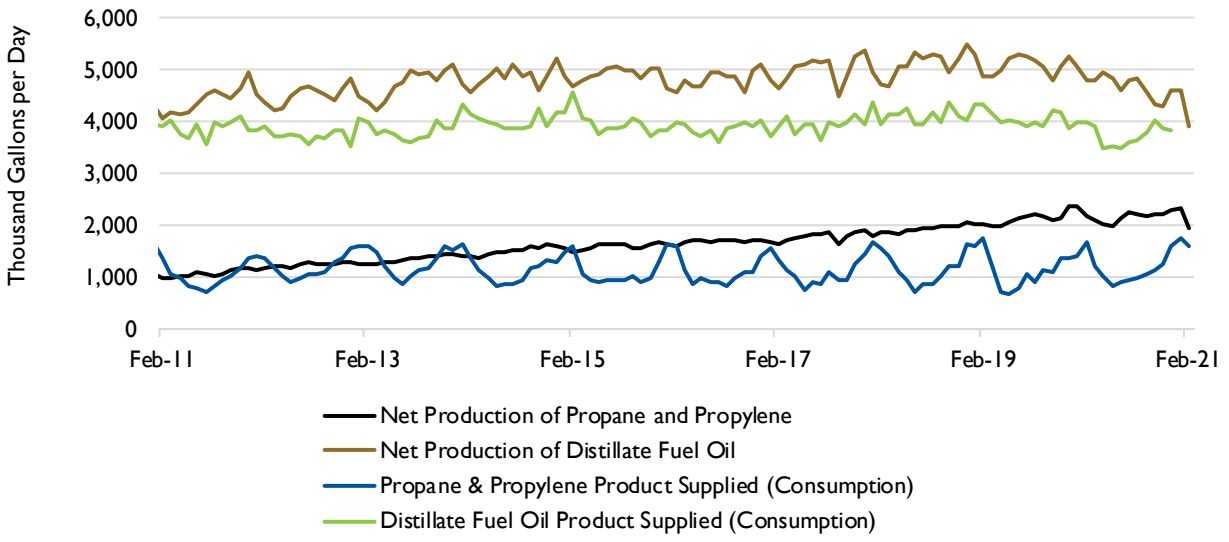
DATA CENTER

PROPANE AND HEATING/FUEL OIL

No. 2 Distillate Fuel Oil Wholesale, Retail Sales Volume by Refiners (Monthly) (29)



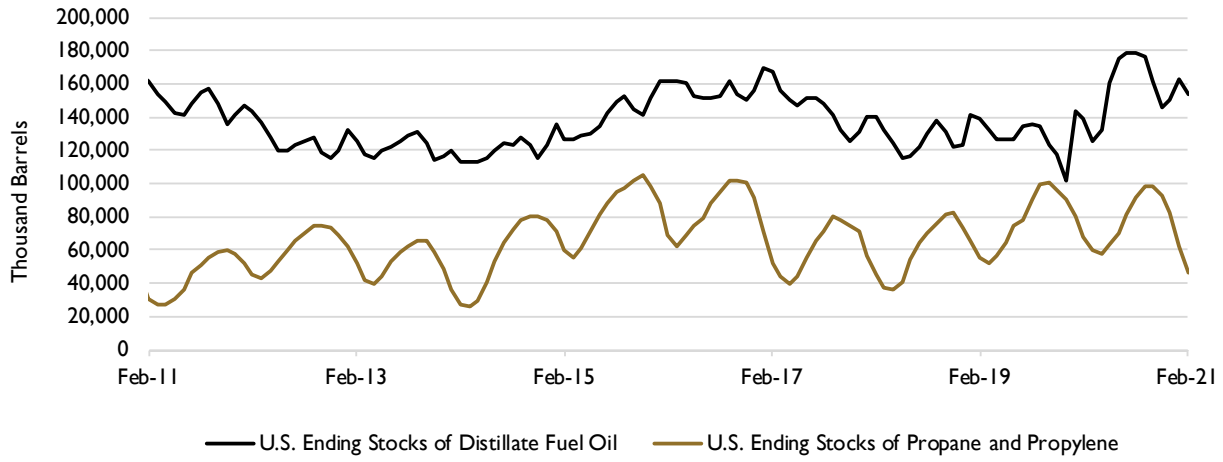
Propane & Propylene and Distillate Fuel Oil Production and Consumption (Monthly) (30)



DATA CENTER

PROPANE AND HEATING/FUEL OIL

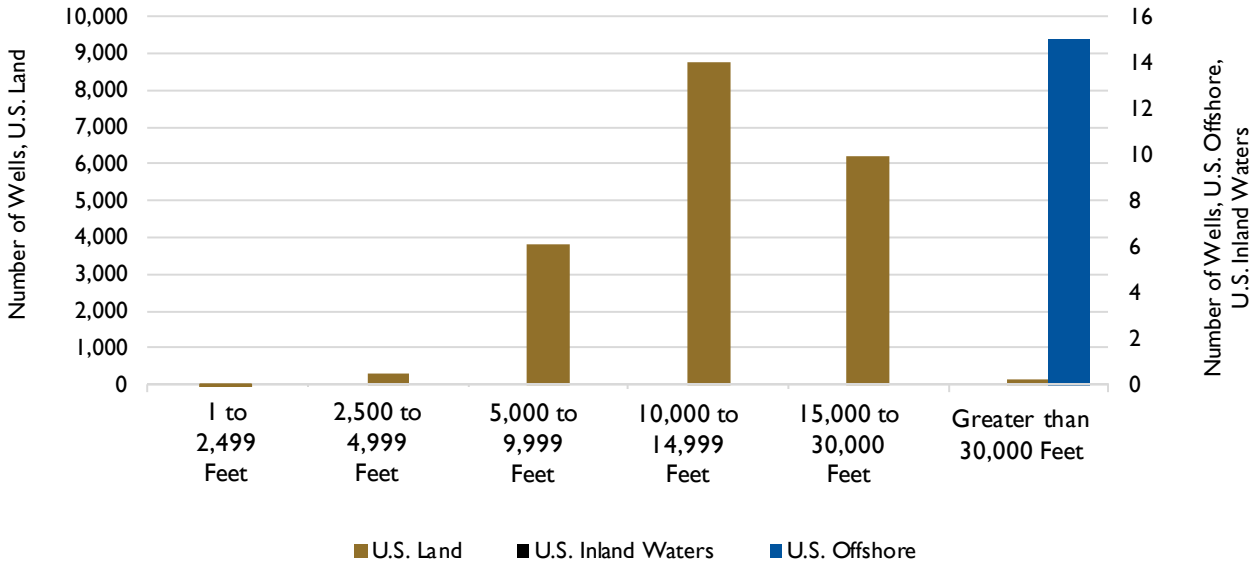
U.S. ENDING STOCKS OF PROPANE & PROPYLENE AND DISTILLATE FUEL OIL (MONTHLY AVERAGE) (31)



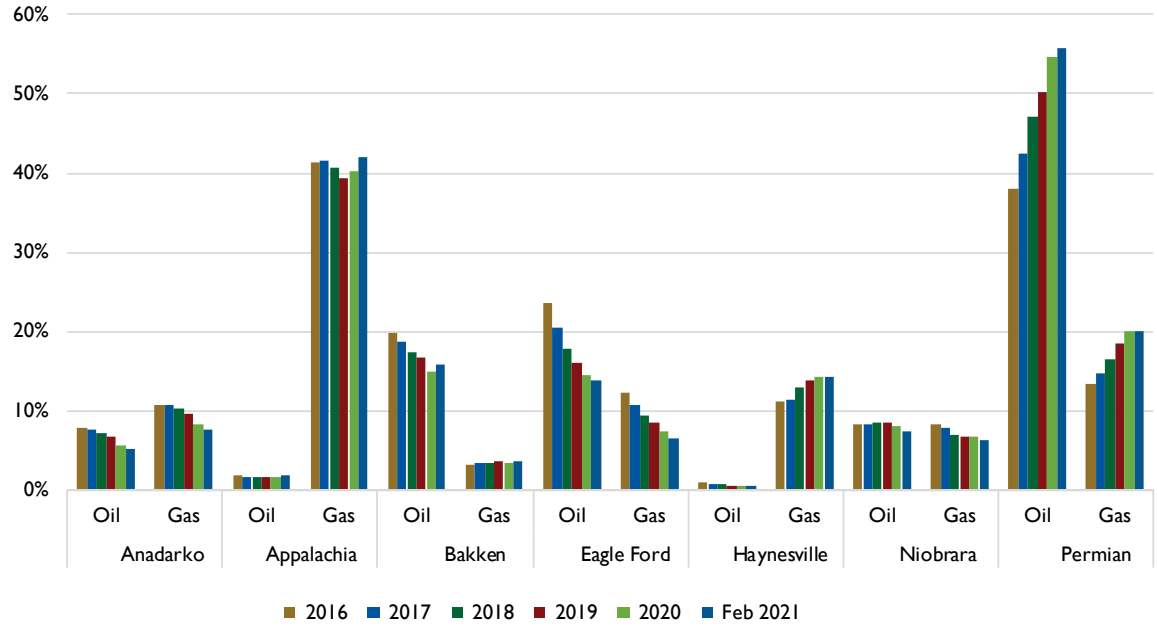
DATA CENTER

DRILLING ACTIVITY

U.S. WELL STARTS BY DEPTH (YEAR TO DATE FEBRUARY 28, 2021) (32)



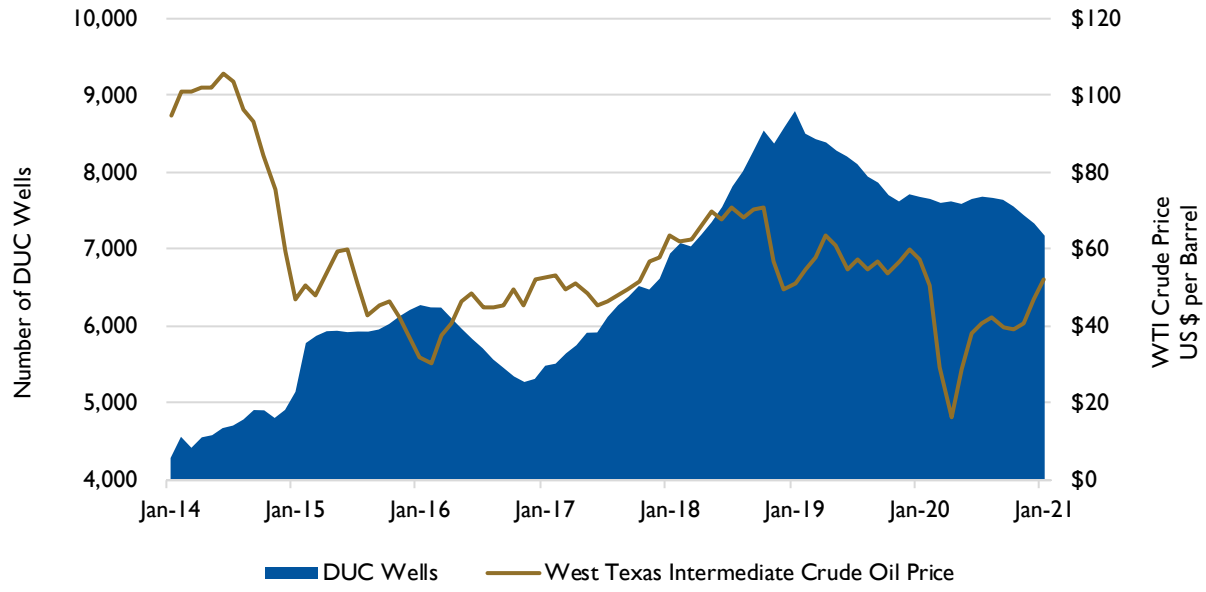
PERCENTAGE OF CRUDE OIL AND NATURAL GAS PRODUCTION PER SHALE REGION (ANNUAL) (33)



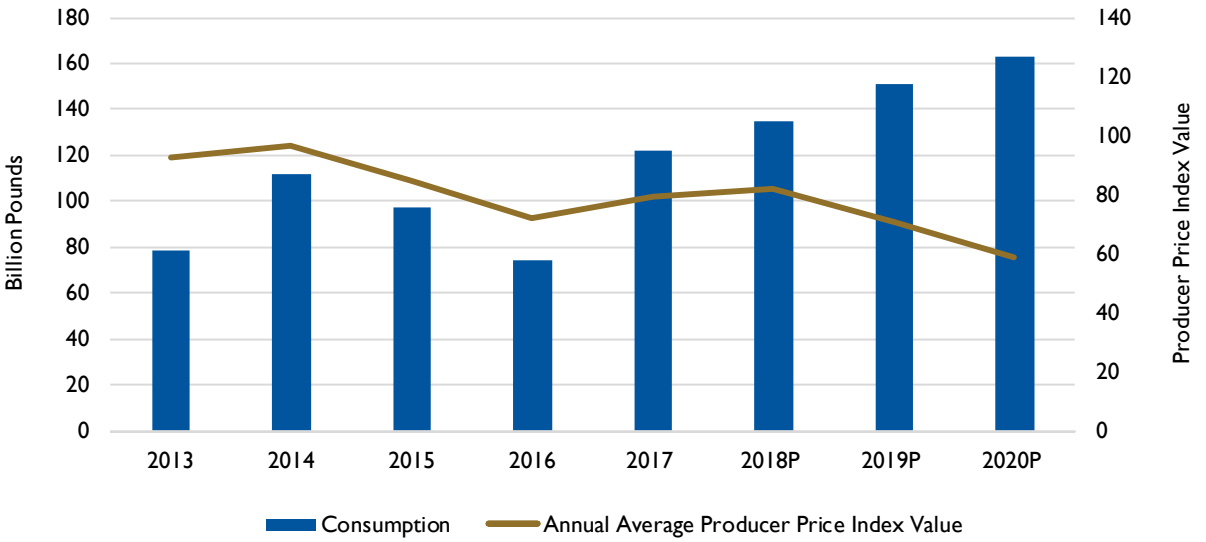
DATA CENTER

DRILLING ACTIVITY

DRILLED BUT UNCOMPLETED (DUC) WELLS VS. CRUDE OIL PRICE (MONTHLY) (34)



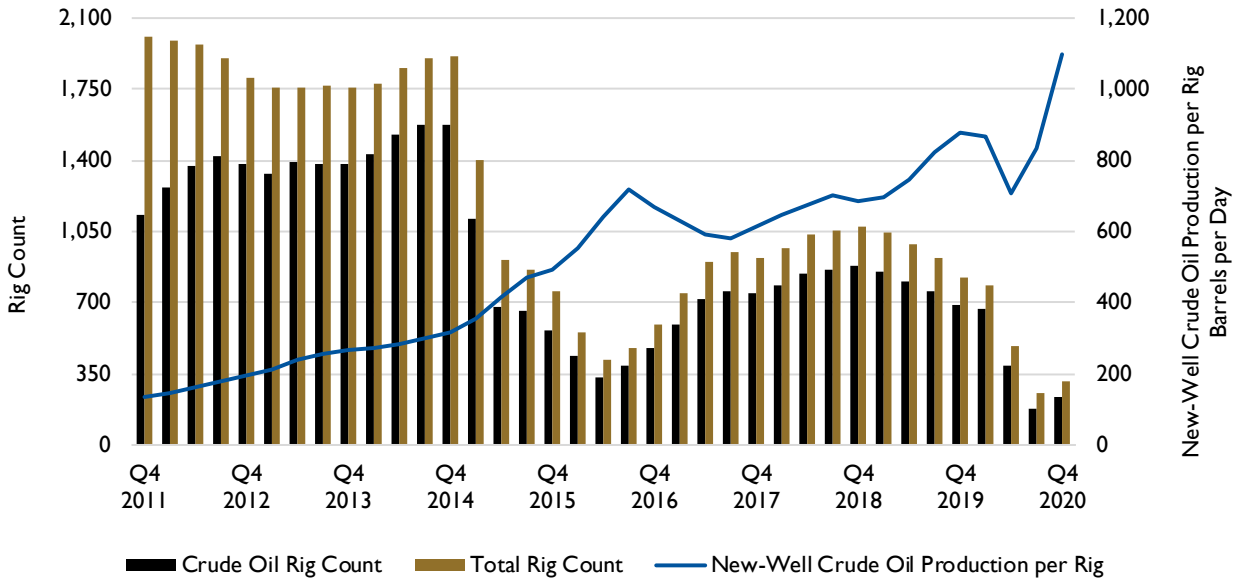
HYDRAULIC FRACTURING SAND CONSUMPTION AND PRODUCER PRICE INDEX (ANNUAL) (35)



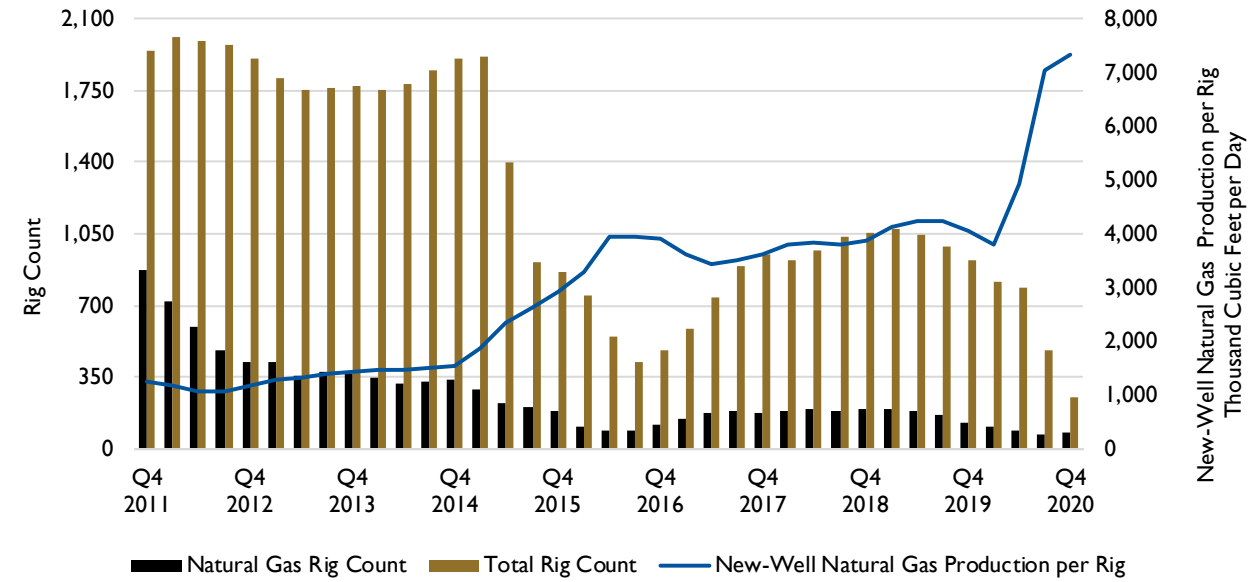
DATA CENTER

DRILLING ACTIVITY

CRUDE OIL PRODUCTION, RIG COUNT AND PRODUCTION PER RIG (QUARTERLY) (36)



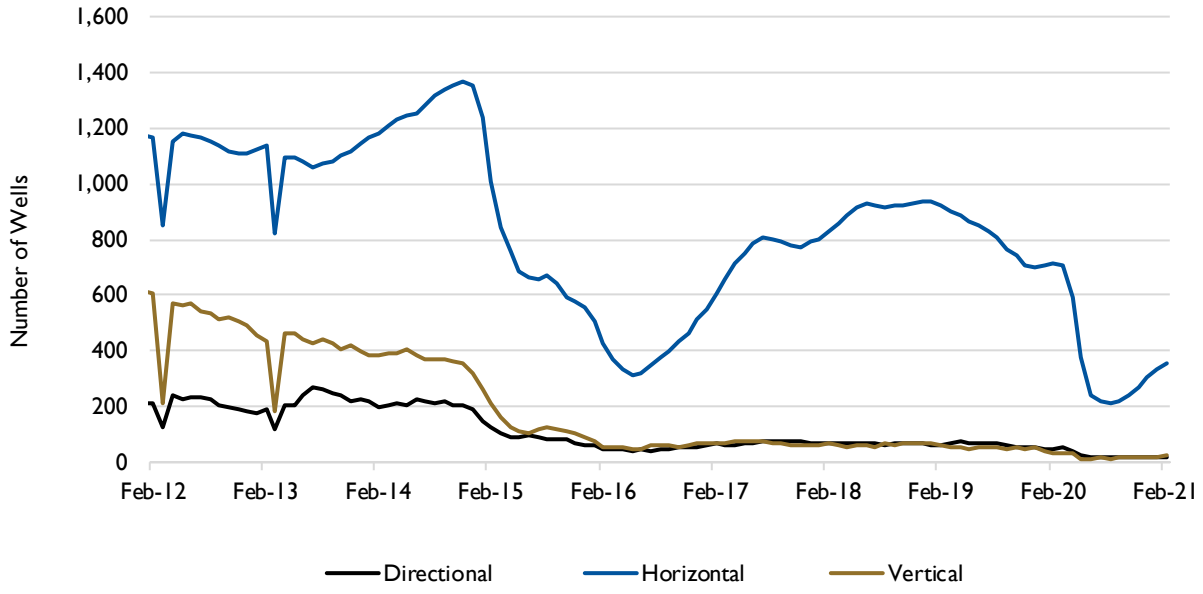
NATURAL GAS PRODUCTION, RIG COUNT AND PRODUCTION PER RIG (QUARTERLY) (37)



DATA CENTER

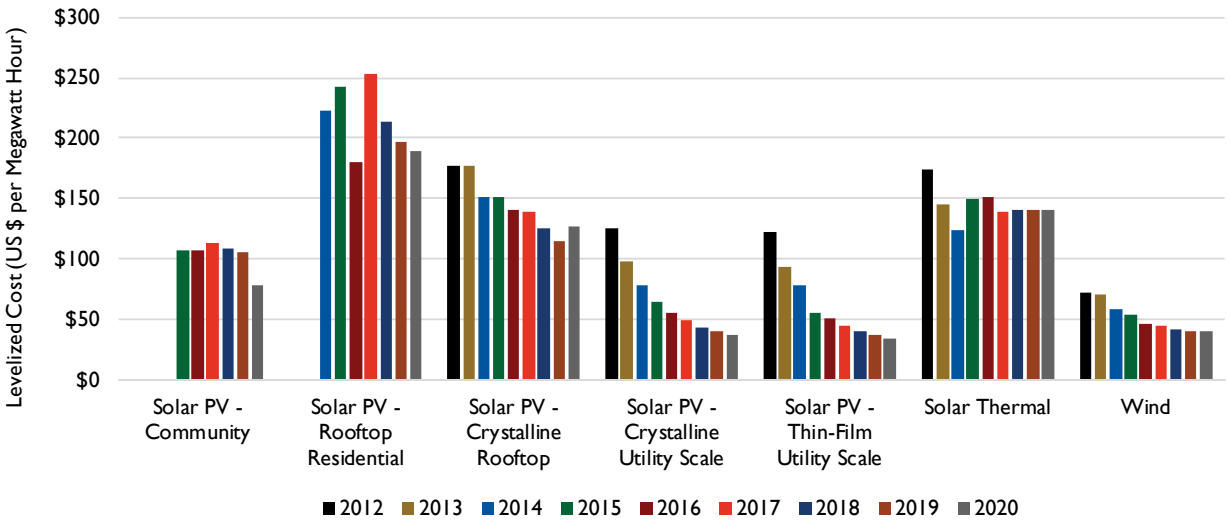
DRILLING ACTIVITY

U.S. Drilling Rigs by Type (Monthly) (38)



RENEWABLES

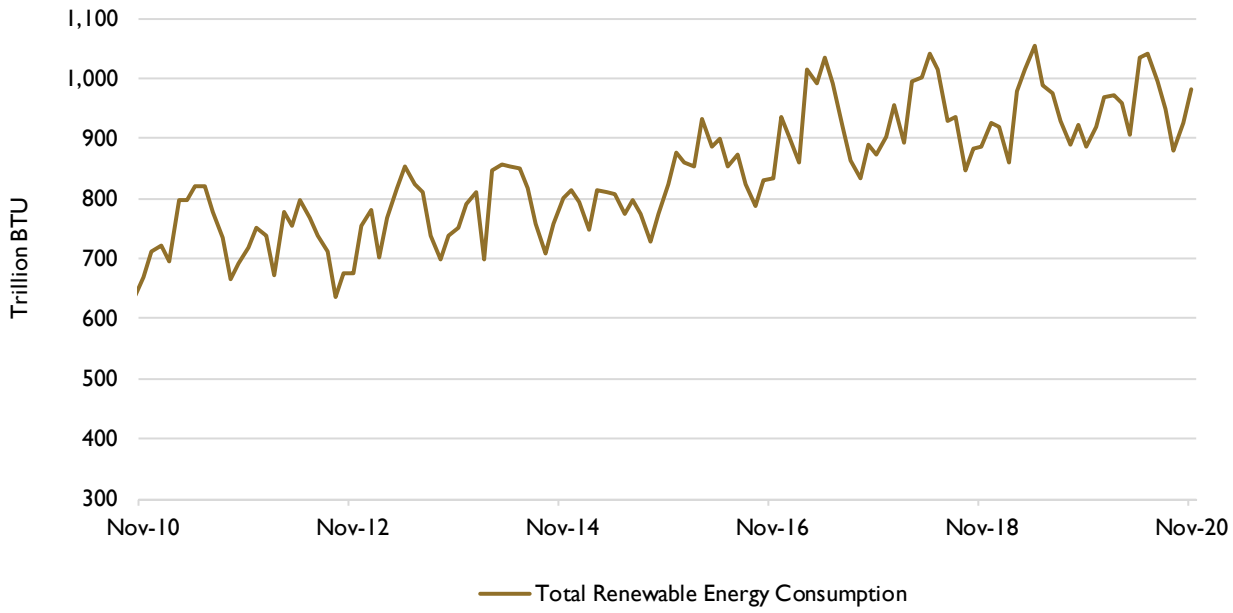
Wind and Solar Prices (Annual Average) (39)



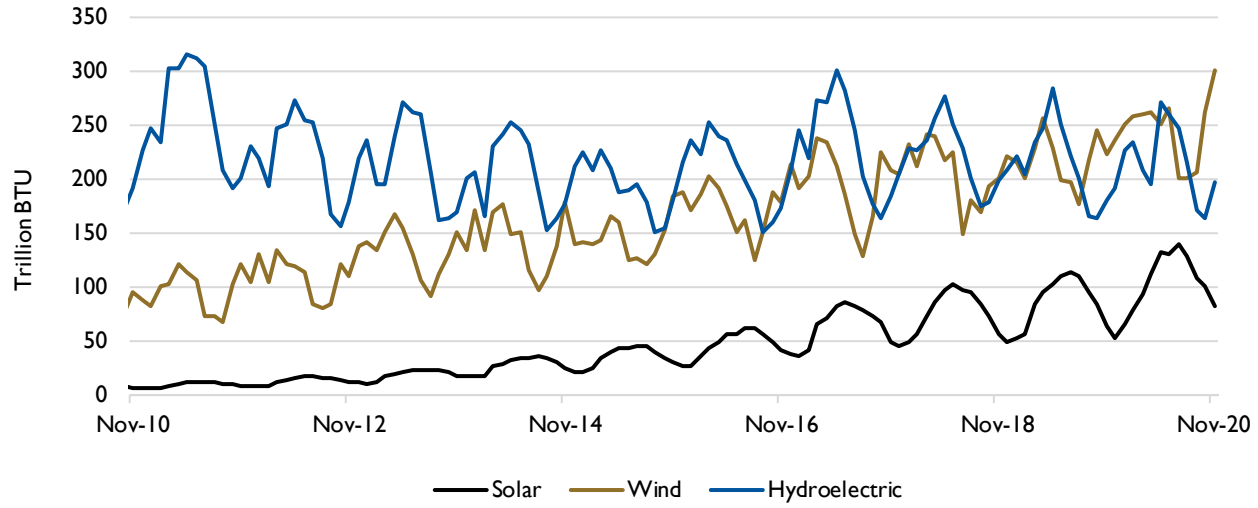
DATA CENTER

RENEWABLES

U.S. TOTAL RENEWABLE ENERGY CONSUMPTION (MONTHLY) (40)



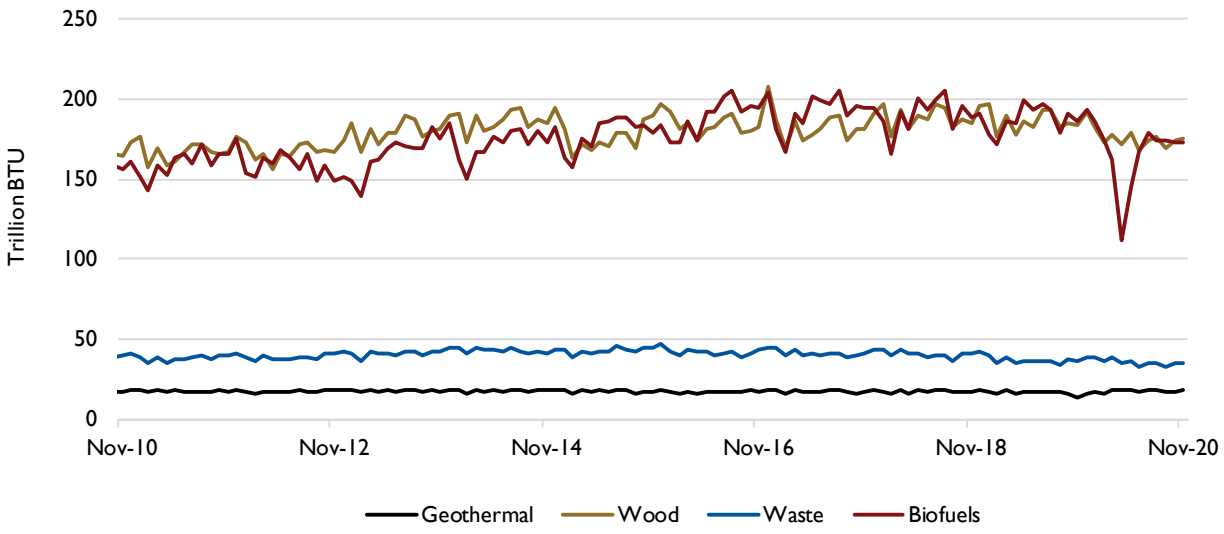
U.S. SOLAR, WIND AND HYRDOELECTRIC ENERGY CONSUMPTION (MONTHLY) (41)



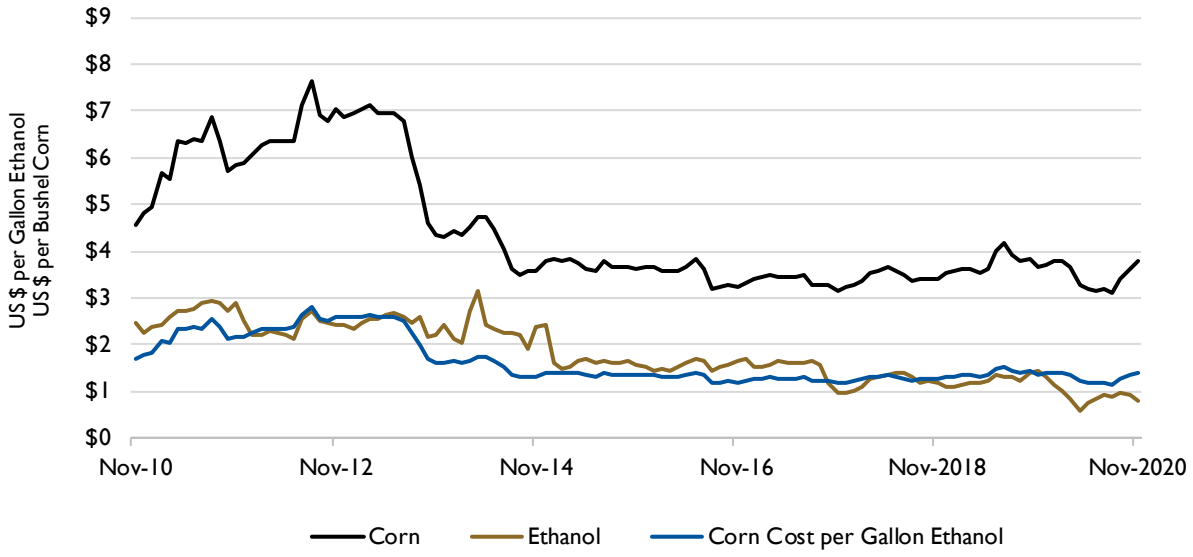
DATA CENTER

RENEWABLES

U.S. Wood, Waste, Biofuels and Geothermal Energy Consumption (Monthly) (42)



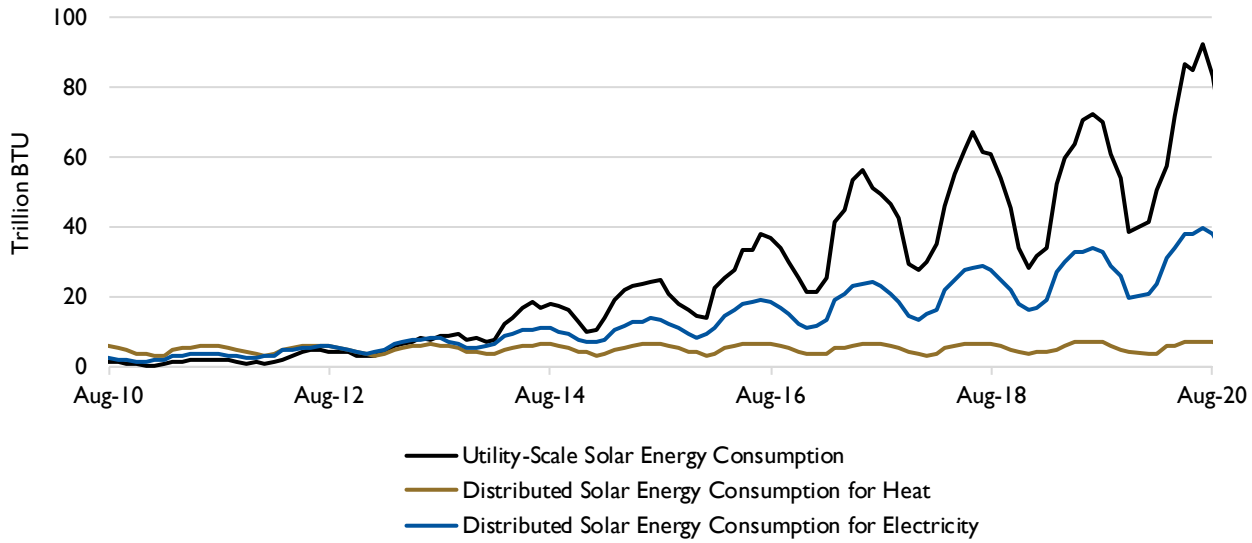
Corn and Ethanol Prices and Corn Cost per Gallon of Ethanol (Quarterly) (43)



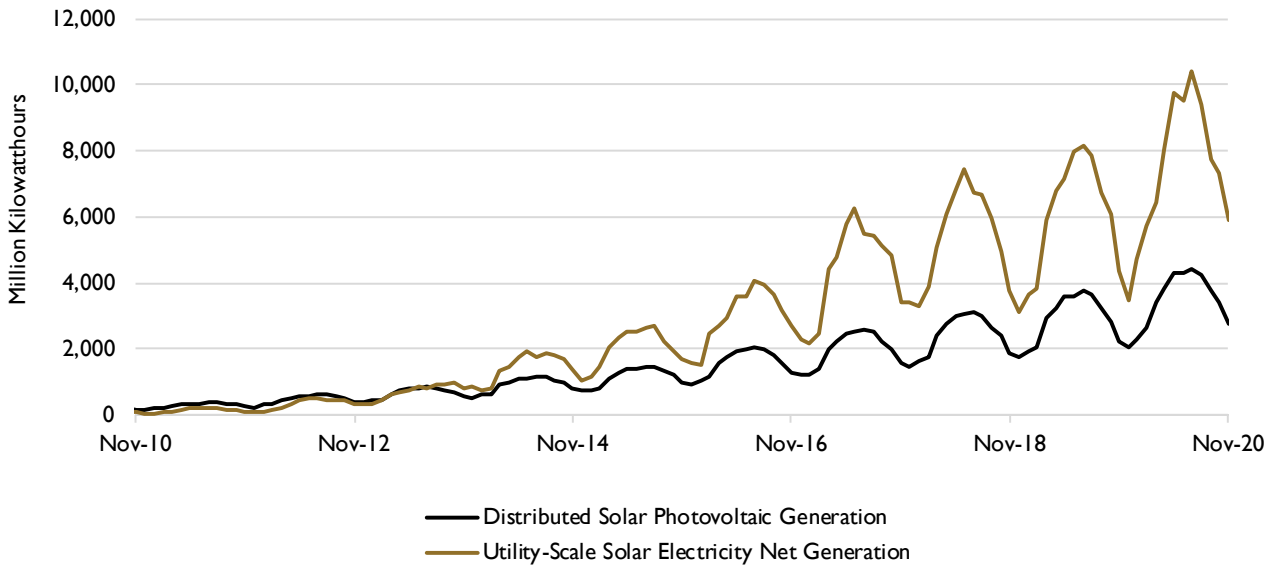
DATA CENTER

RENEWABLES

U.S. Solar Energy Consumption (Monthly) (44)



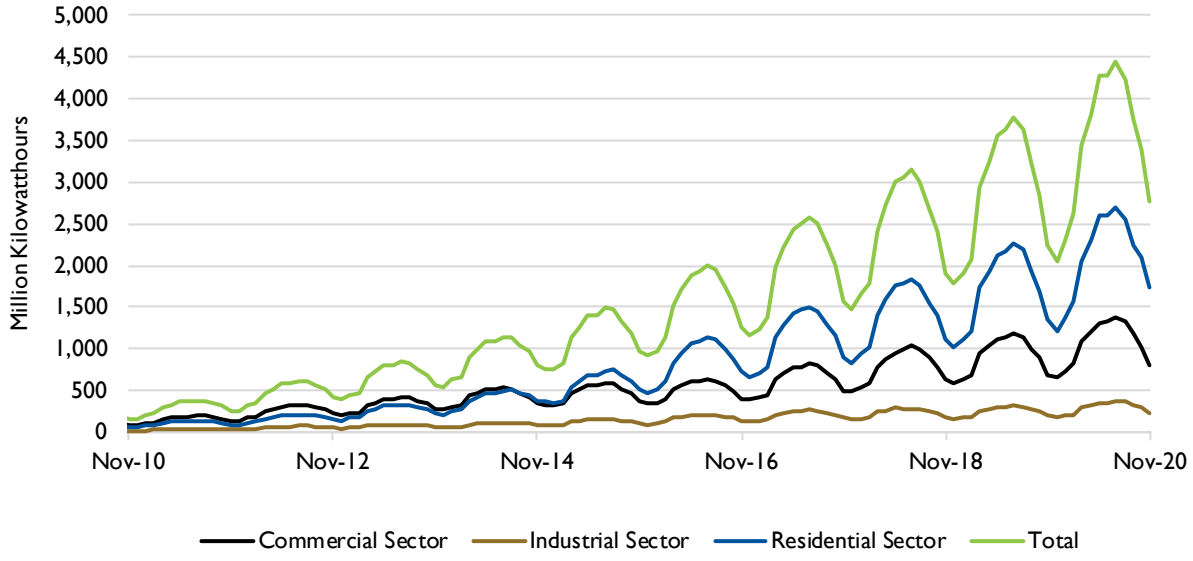
U.S. Solar Energy Net Generation (Monthly) (45)



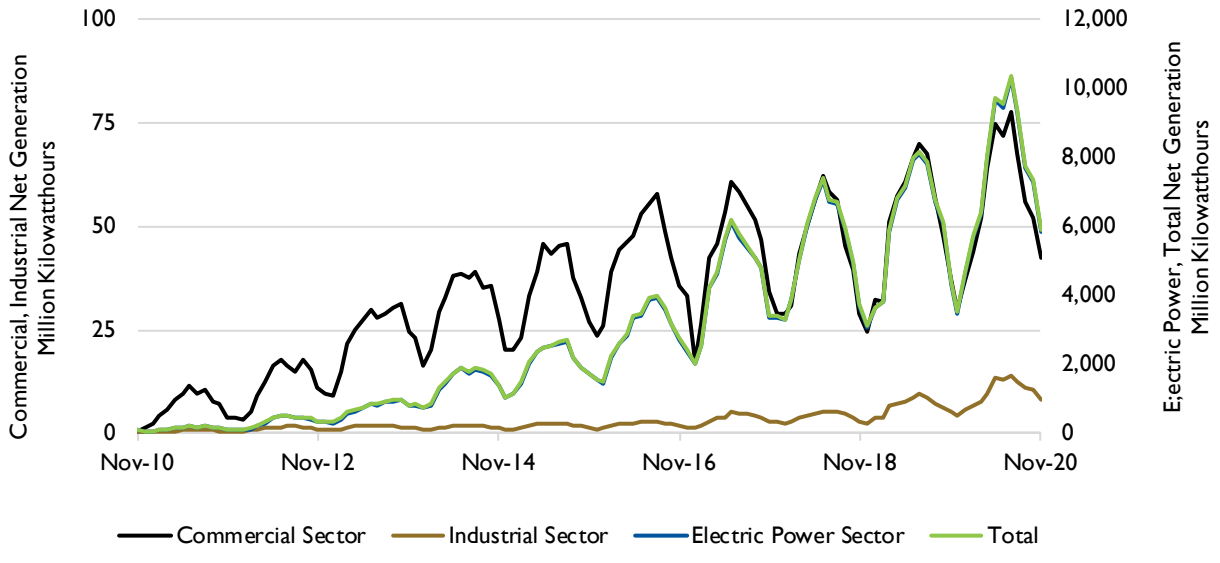
DATA CENTER

RENEWABLES

DISTRIBUTED SOLAR PHOTOVOLTAIC GENERATION BY SECTOR (MONTHLY) (46)



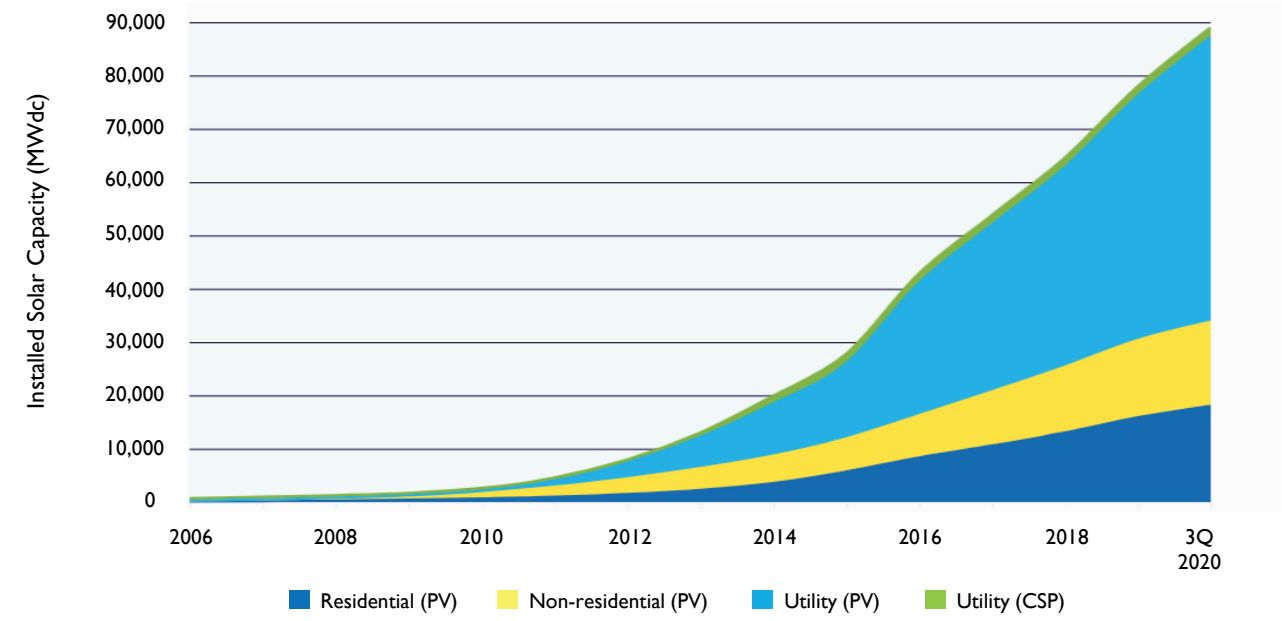
UTILITY-SCALE SOLAR ELECTRICITY NET GENERATION BY SECTOR (MONTHLY) (47)



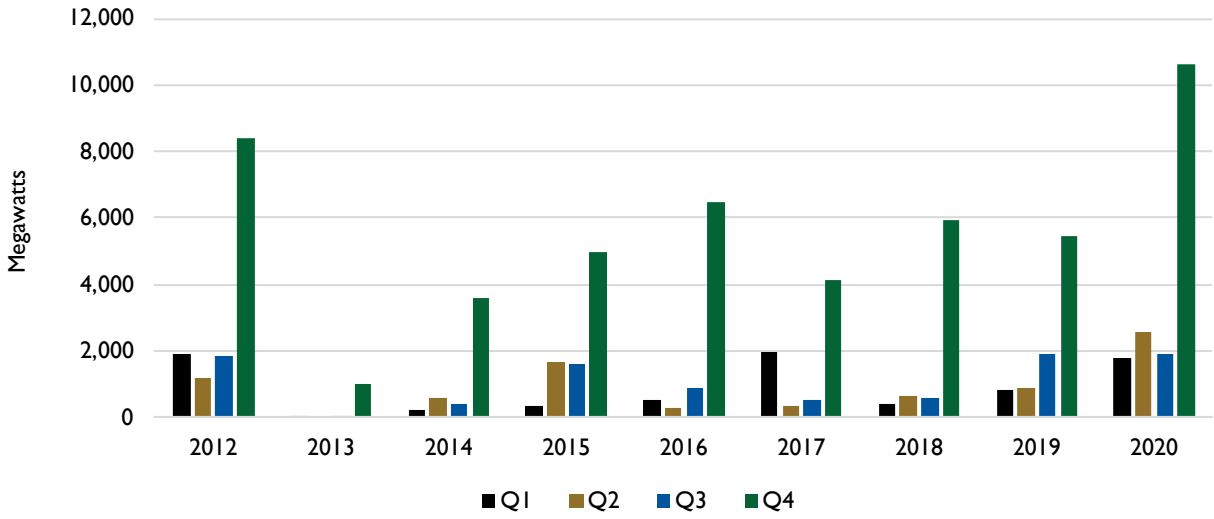
DATA CENTER

RENEWABLES

U.S. Cumulative Solar Installations (Annual) [48]



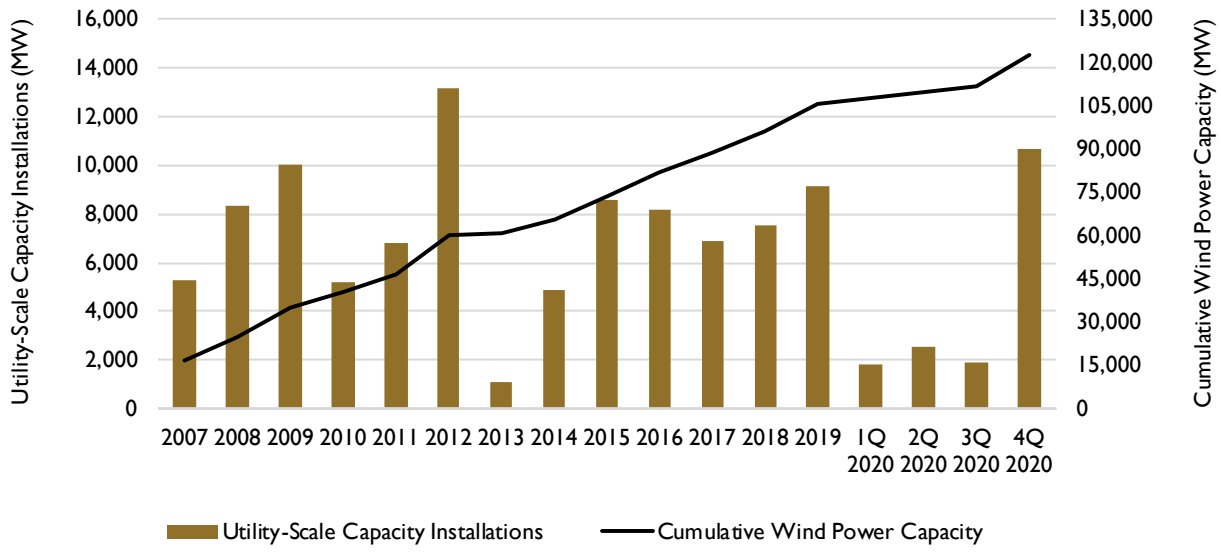
U.S. Wind Power Capacity Installations (Quarterly) [49]



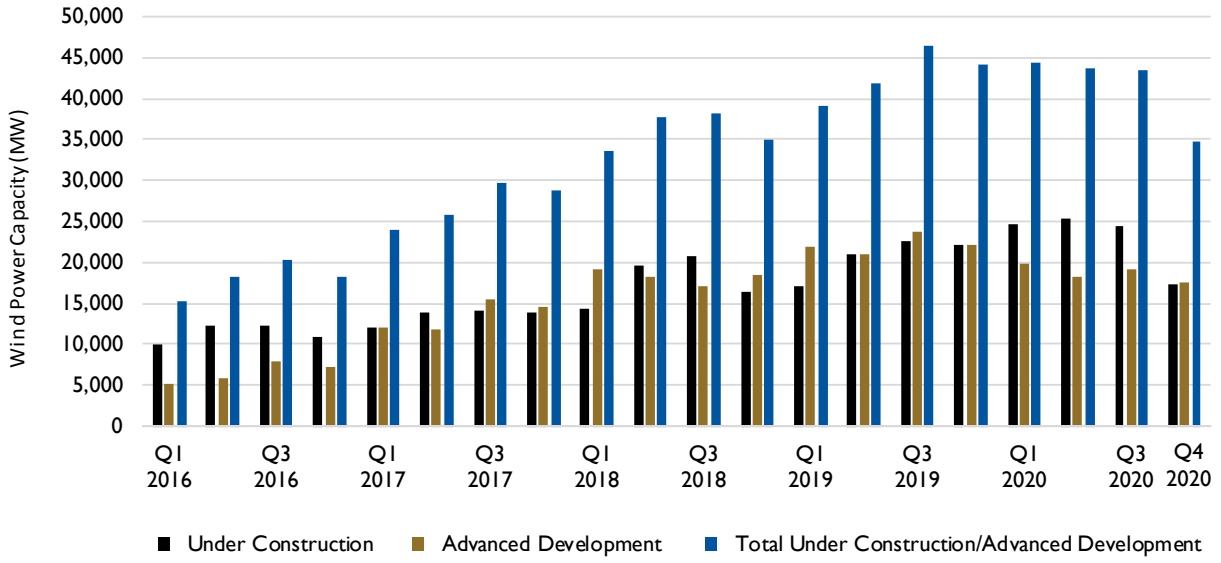
DATA CENTER

RENEWABLES

UTILITY-SCALE WIND POWER CAPACITY INSTALLATIONS (ANNUAL) (50)



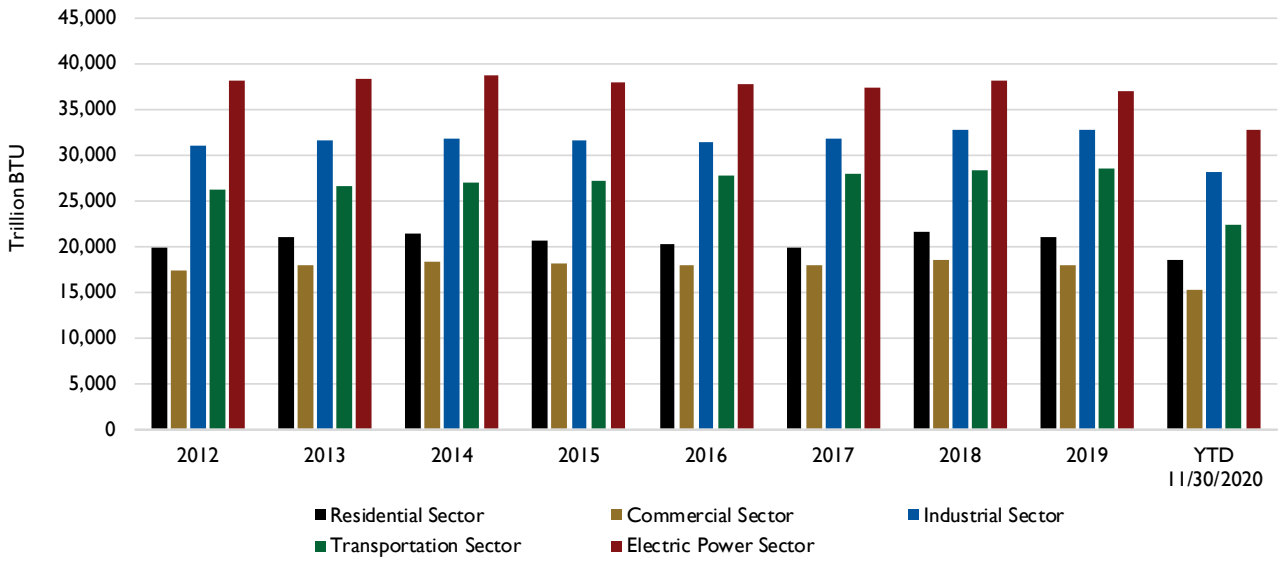
WIND POWER UNDER CONSTRUCTION OR IN ADVANCED DEVELOPMENT (QUARTERLY) (51)



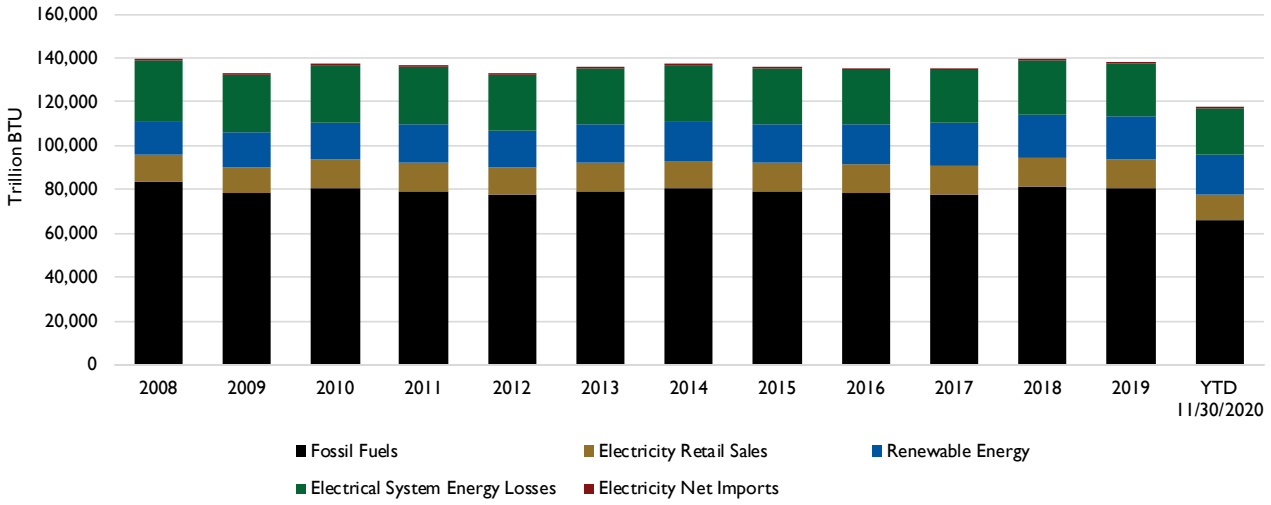
DATA CENTER

U.S. AGGREGATED ENERGY CONSUMPTION

ENERGY CONSUMPTION BY SECTOR (ANNUAL) (52)



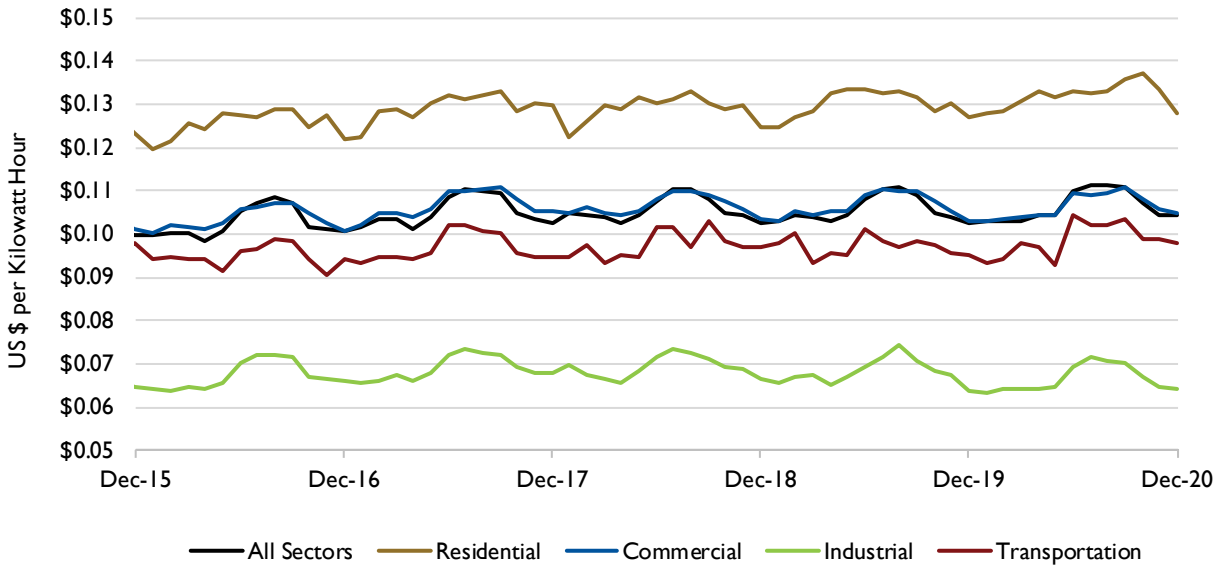
ENERGY CONSUMPTION BY SOURCE (ANNUAL) (53)



DATA CENTER

U.S. AGGREGATED ENERGY CONSUMPTION

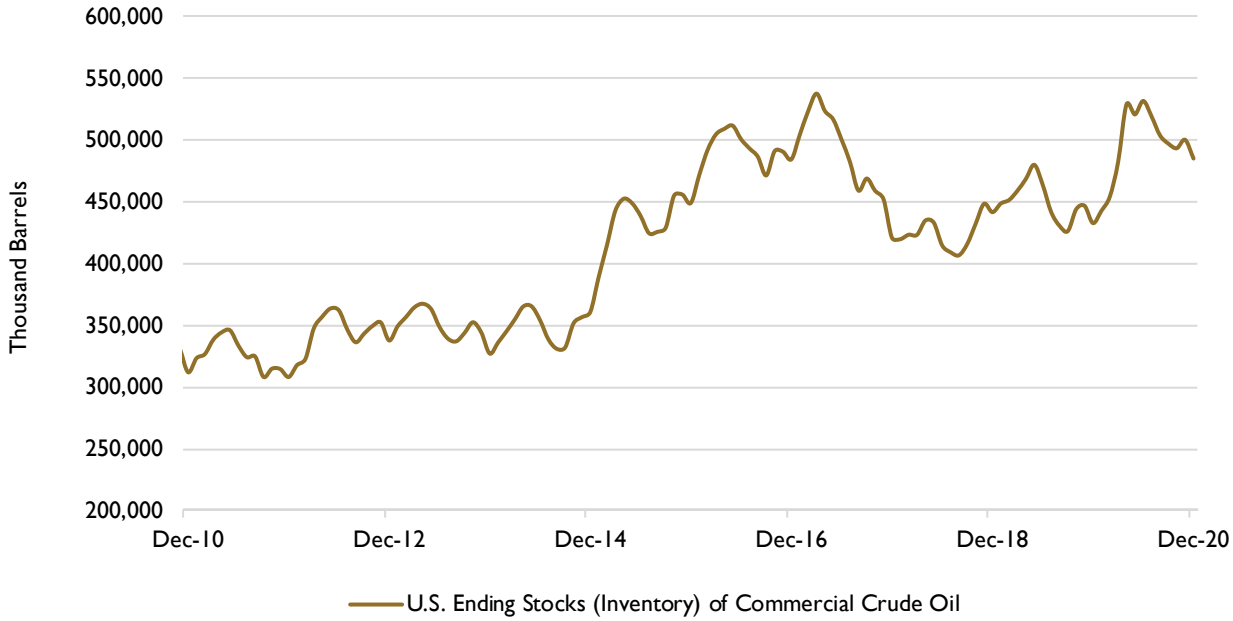
ELECTRICITY PRICES BY SECTOR (MONTHLY AVERAGE) (54)



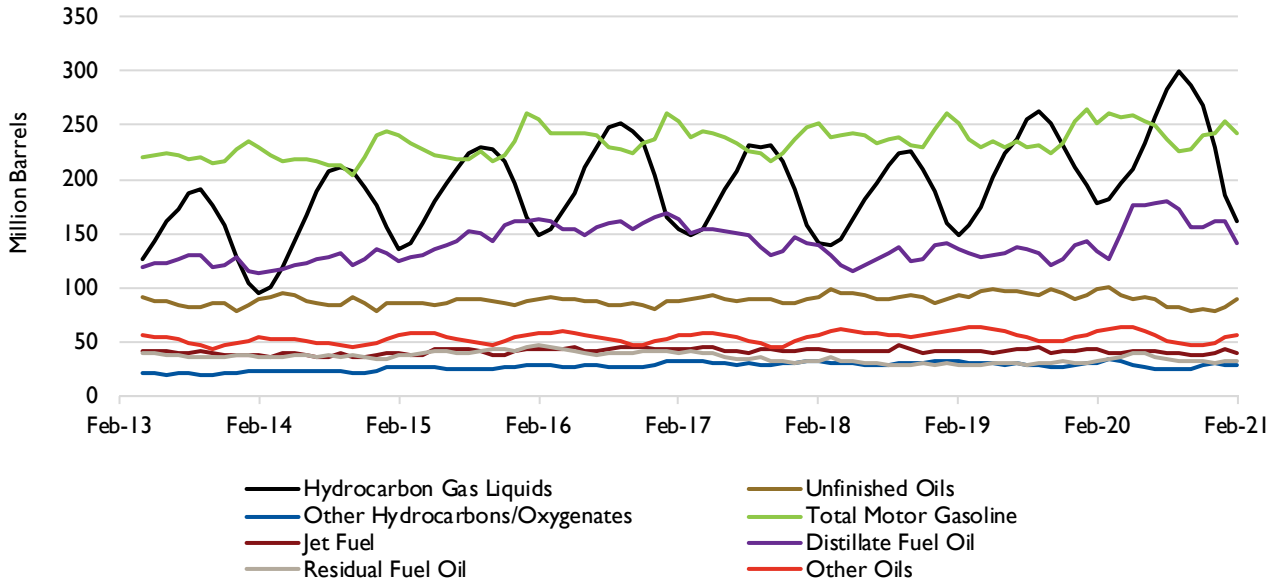
DATA CENTER

LOGISTICS - STORAGE AND TERMINALS

COMMERCIAL CRUDE OIL INVENTORY (MONTHLY) (55)



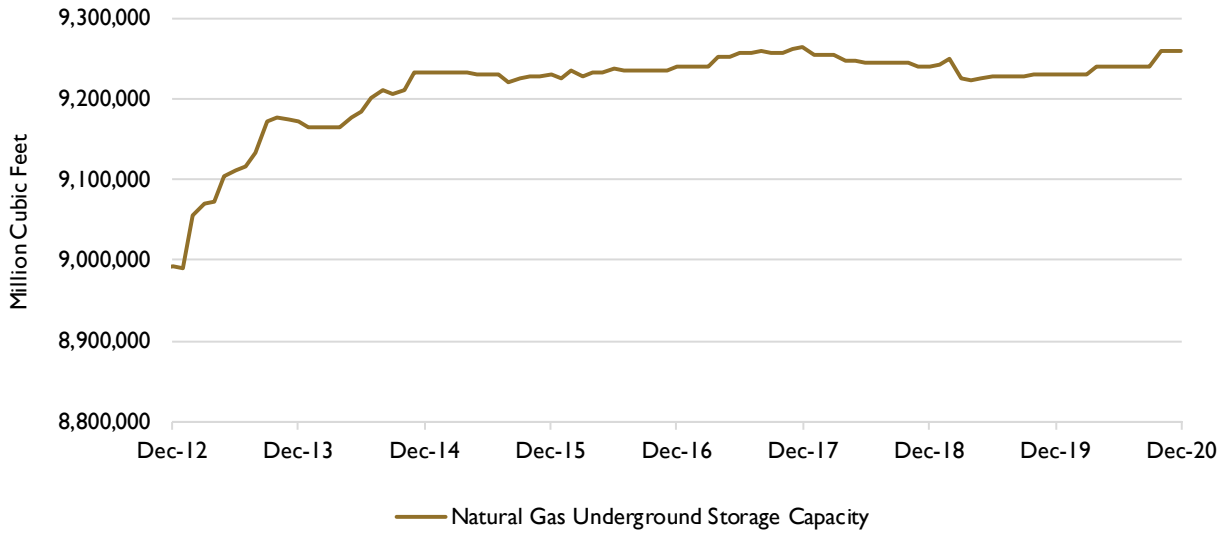
PETROLEUM AND OTHER LIQUIDS COMMERCIAL INVENTORY (MONTHLY) (56)



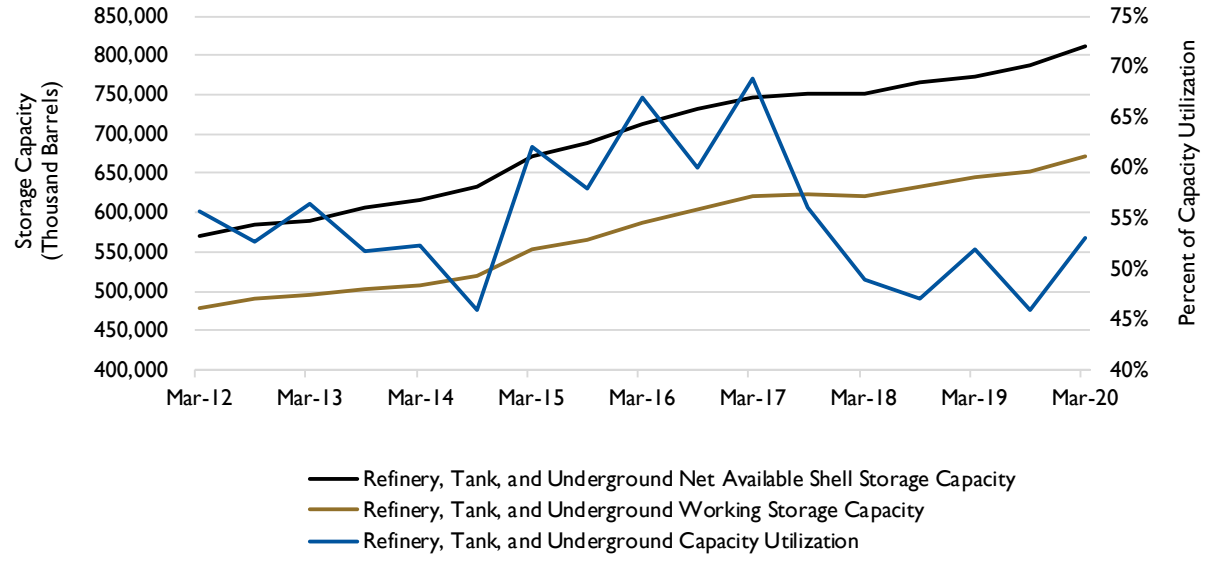
DATA CENTER

LOGISTICS - STORAGE AND TERMINALS

NATURAL GAS UNDERGROUND STORAGE CAPACITY (MONTHLY) (57)



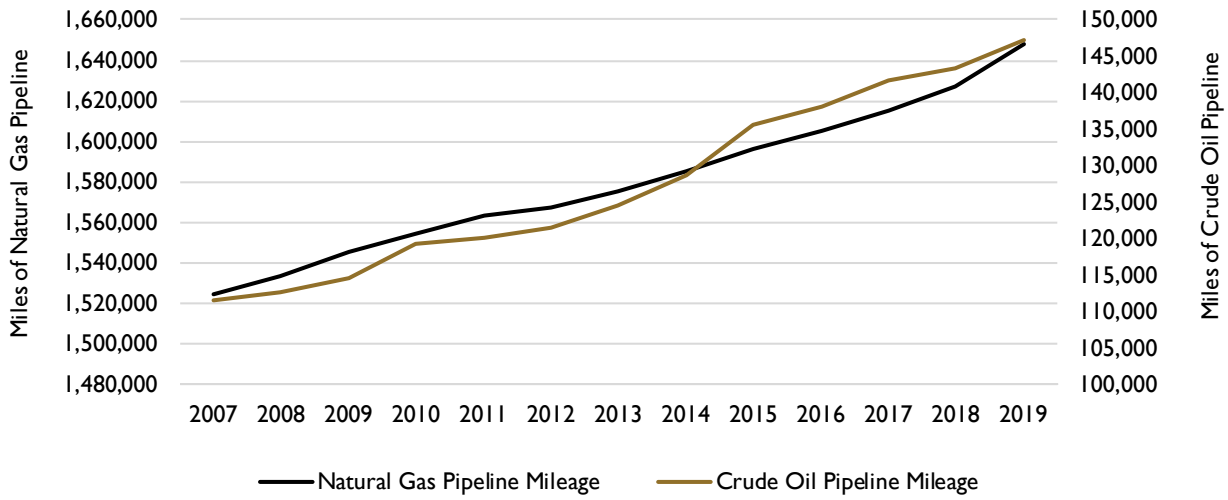
COMMERCIAL CRUDE OIL REFINERY, TANK AND UNDERGROUND STORAGE CAPACITY AND UTILIZATION (ANNUAL) (58)



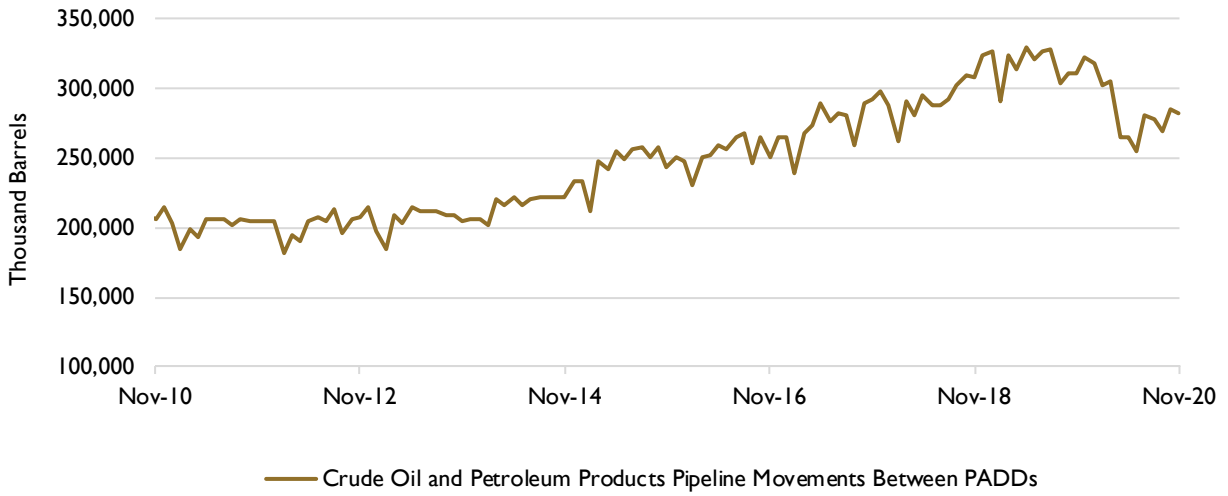
DATA CENTER

LOGISTICS - PIPELINES

CRUDE OIL AND NATURAL GAS PIPELINE MILEAGE (ANNUAL) (59)



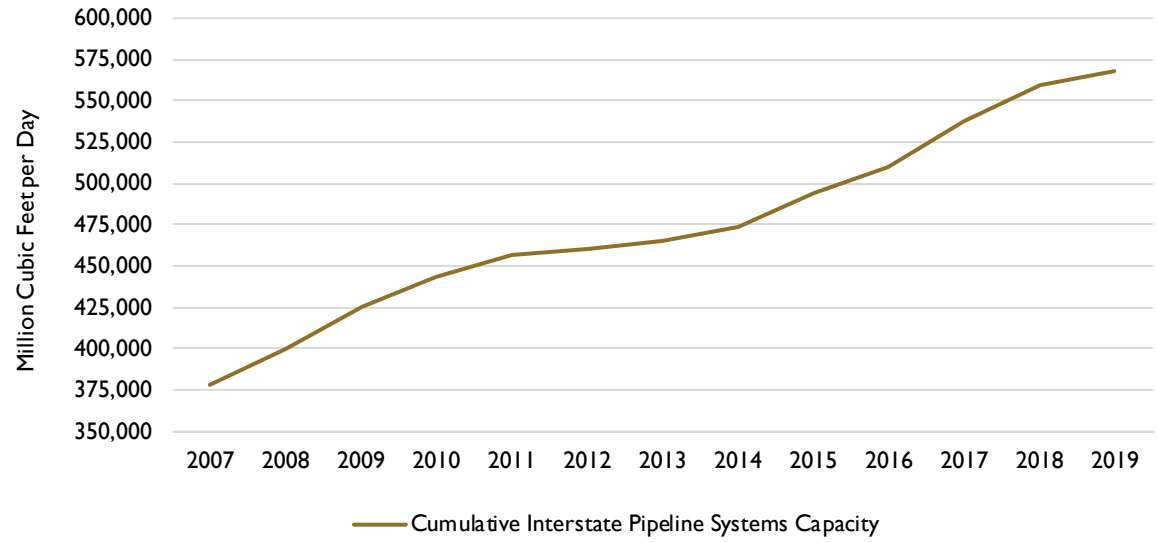
CRUDE OIL AND PETROLEUM PRODUCTS PIPELINE MOVEMENTS BETWEEN PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICTS (PADDS) (MONTHLY) (60)



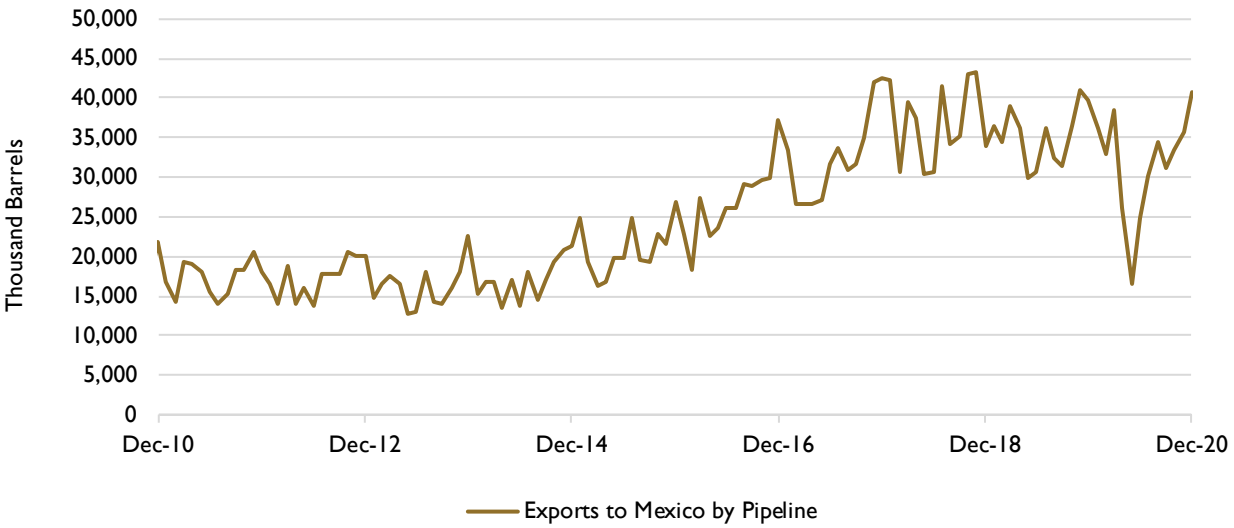
DATA CENTER

LOGISTICS - PIPELINES

NATURAL GAS CUMULATIVE INTERSTATE PIPELINE SYSTEMS CAPACITY (ANNUAL) (61)



CRUDE OIL AND PETROLEUM PRODUCTS EXPORTS TO MEXICO (MONTHLY) (62)

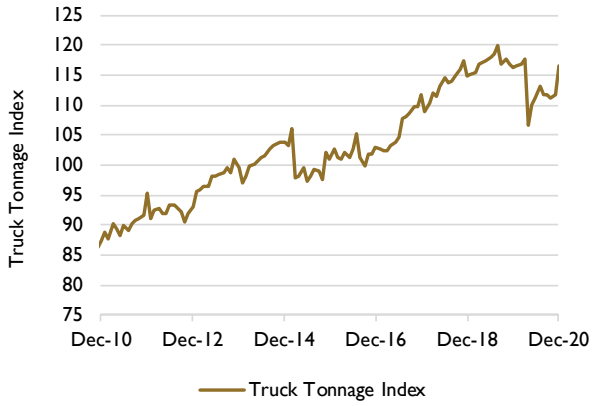


DATA CENTER

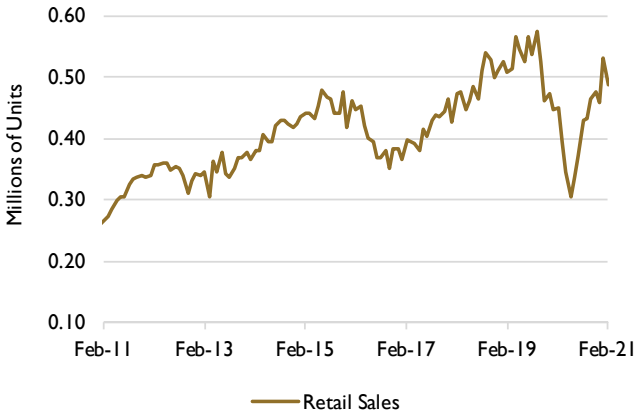
LOGISTICS - TRUCKERS

TRUCK TONNAGE INDEX (MONTHLY) (63)

MEASURES GROSS TONNAGE OF FREIGHT

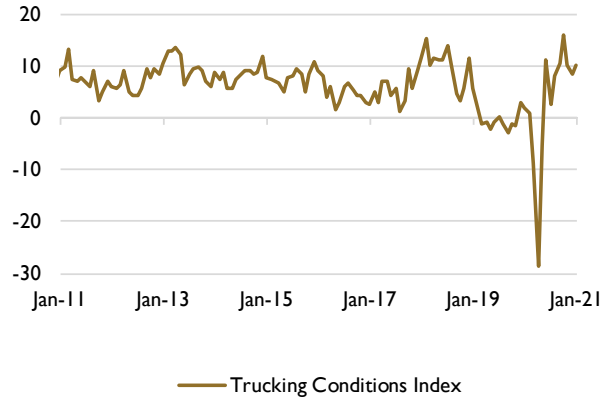


HEAVY TRUCK SALES (MONTHLY) (64)



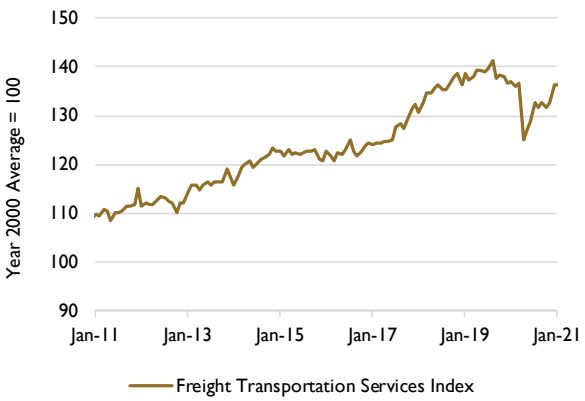
TRUCKING CONDITIONS INDEX (MONTHLY) (65)

INCLUDES FRIGHT VOLUMES, RATES, FLEET CAPACITY, BANKRUPTCIES, FUEL PRICE AND FINANCING



FREIGHT TRANSPORTATION SERVICES INDEX (MONTHLY) (66)

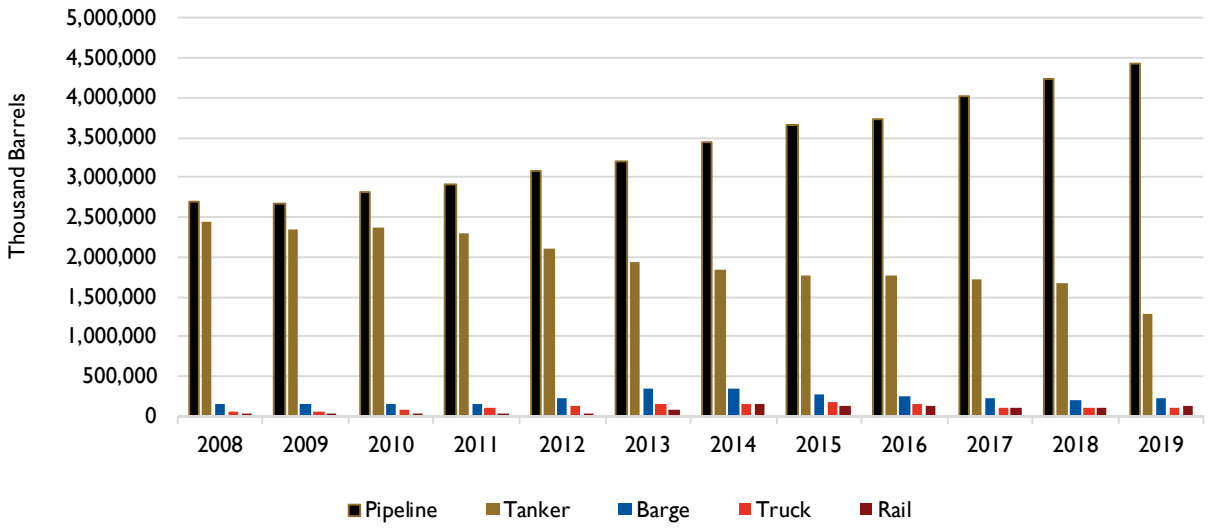
INCLUDES TRUCKING, RAIL, WATERWAYS, PIPELINES AND AIR FRIGHT



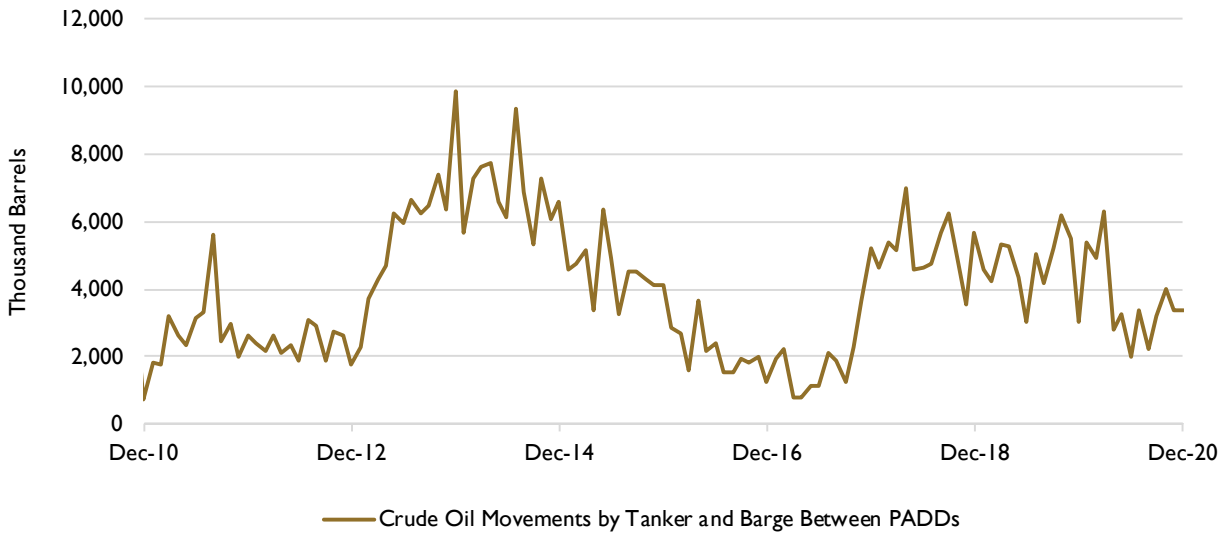
DATA CENTER

LOGISTICS - SHIPPING

Crude Oil Refinery Receipts by Transportation Method (Annual) (67)



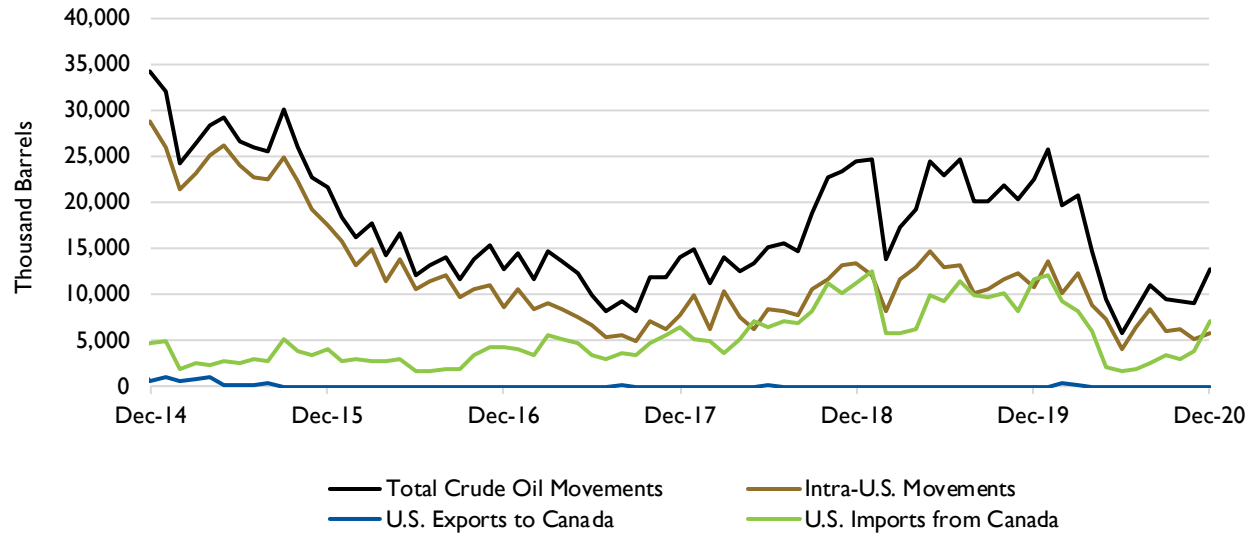
Crude Oil Movements by Tanker and Barge Between Petroleum Administration for Defense Districts (PADDs) (Monthly) (68)



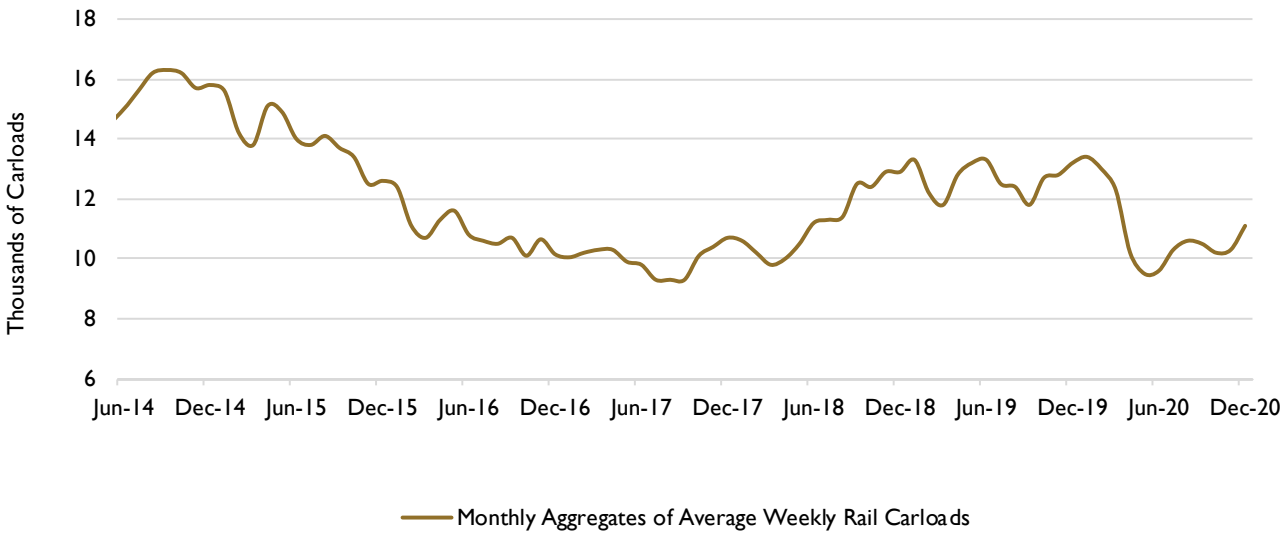
DATA CENTER

LOGISTICS - RAIL

MOVEMENTS OF CRUDE OIL BY RAIL (MONTHLY) (69)



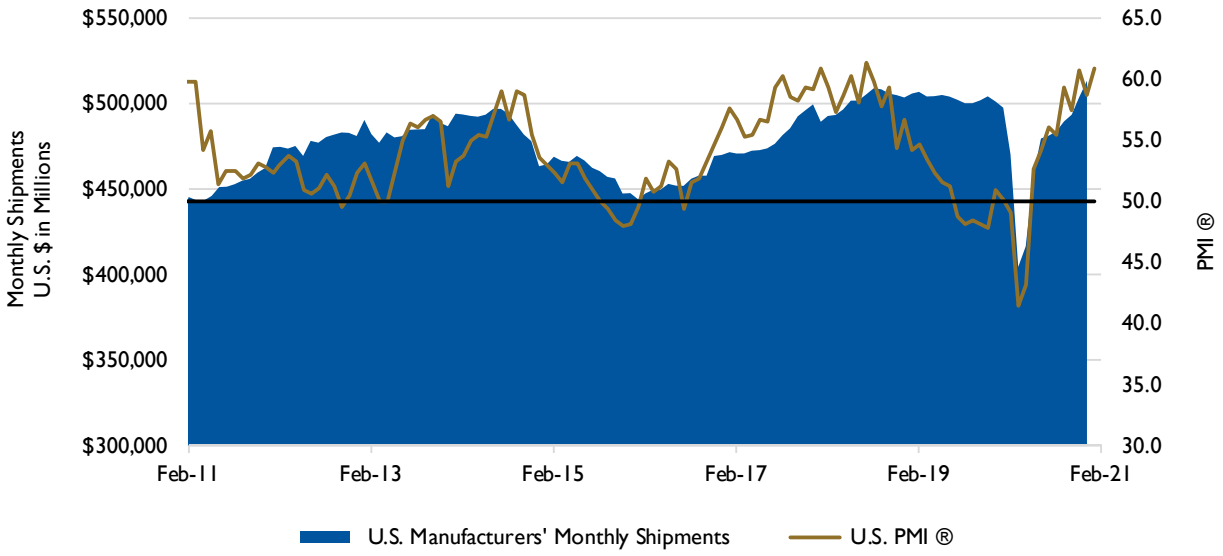
AVERAGE WEEKLY RAIL CARLOADS OF PETROLEUM AND PETROLEUM PRODUCTS (MONTHLY AGGREGATE) (70)



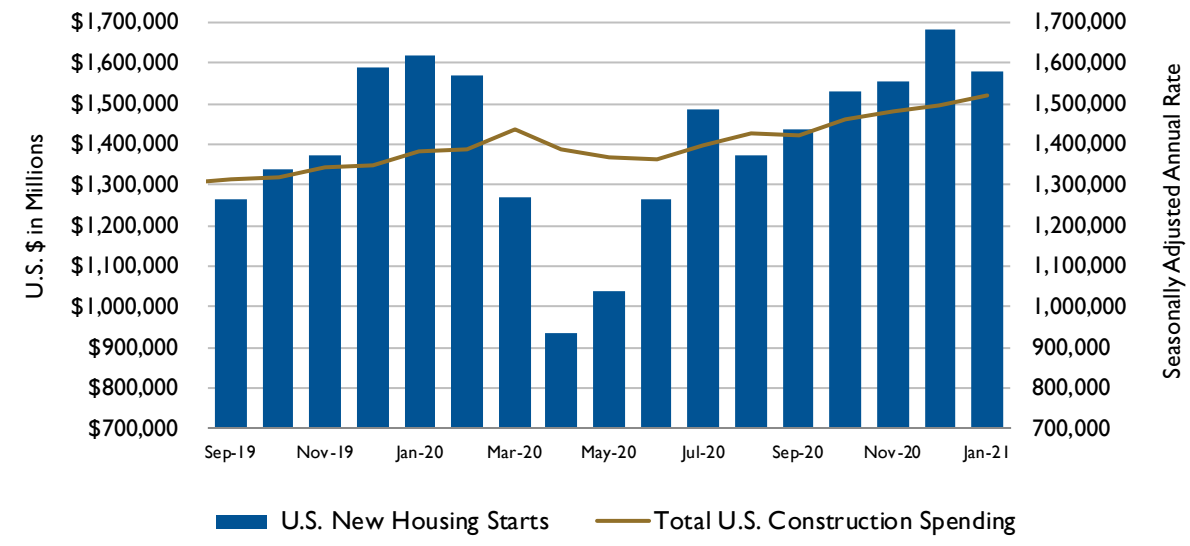
DATA CENTER

ECONOMIC / FINANCIAL

U.S. MANUFACTURERS' MONTHLY SHIPMENTS AND U.S. PURCHASING MANAGERS' INDEX (PMI®) (MONTHLY) (71)



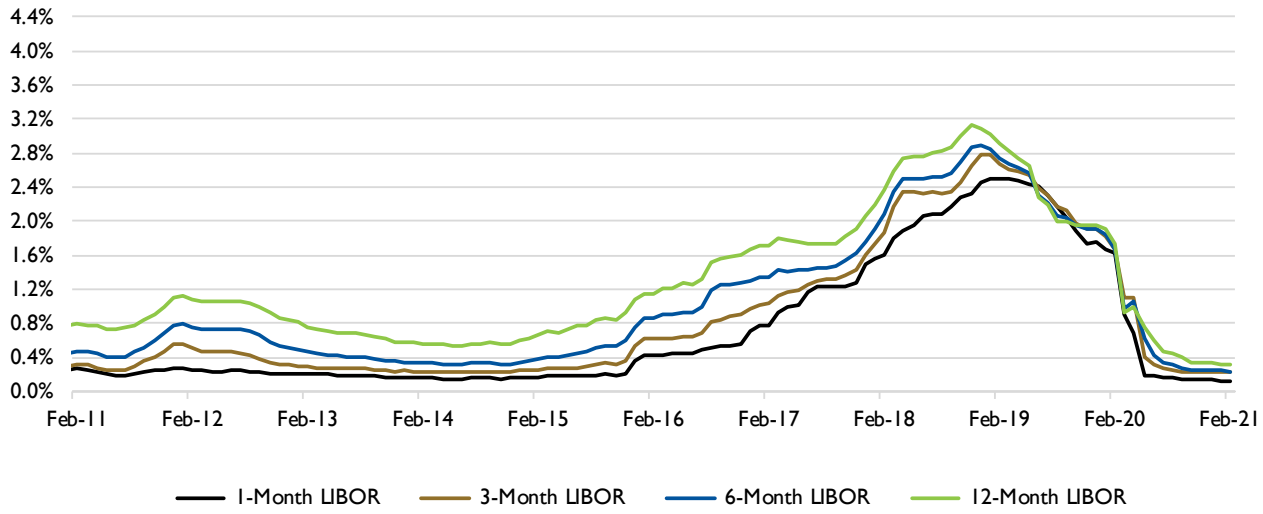
U.S. NEW HOUSING STARTS AND TOTAL U.S. CONSTRUCTION SPENDING (MONTHLY) (72)



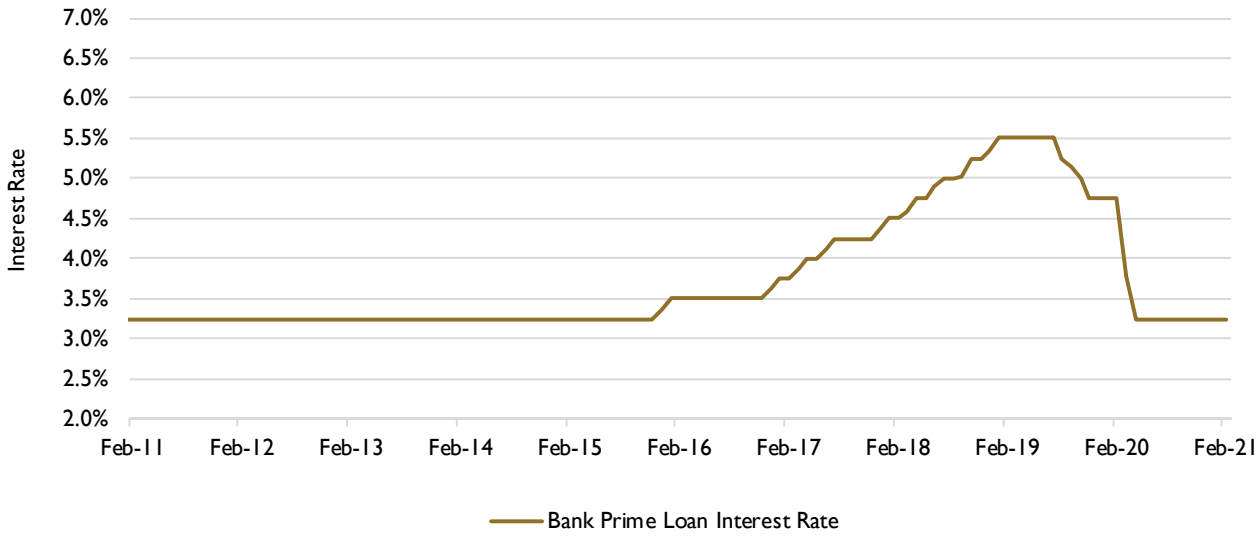
DATA CENTER

ECONOMIC / FINANCIAL

LONDON INTERBANK OFFERED RATE (LIBOR) (MONTHLY AVERAGE) BASED ON U.S. DOLLAR (73)



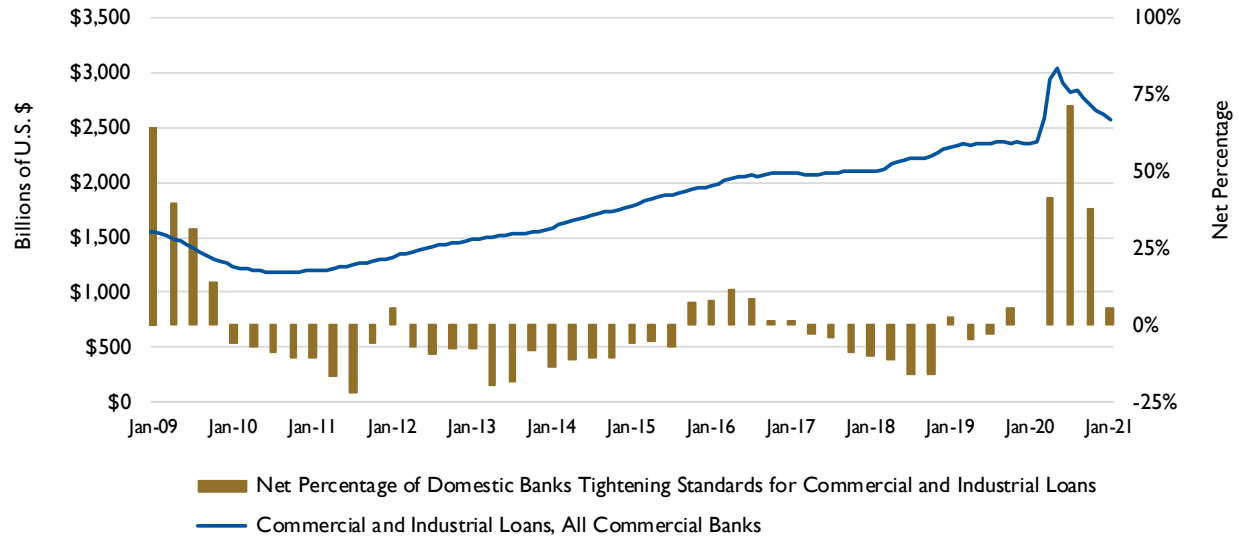
BANK PRIME LOAN INTEREST RATES (MONTHLY AVERAGE) (74)



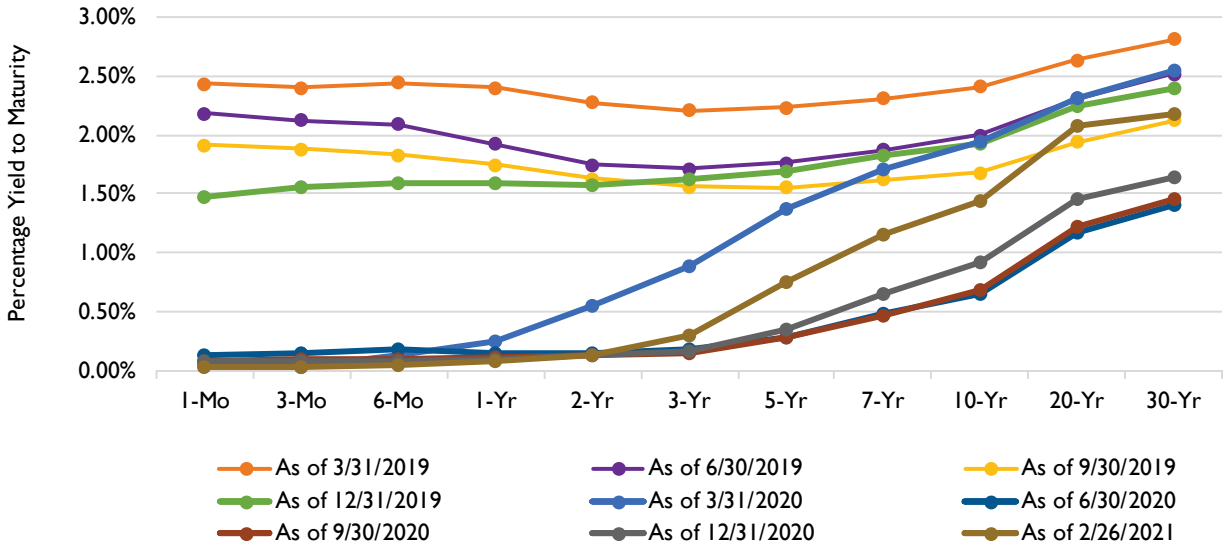
DATA CENTER

ECONOMIC / FINANCIAL

COMMERCIAL AND INDUSTRIAL LOANS VS. BANKING STANDARDS (QUARTERLY, MONTHLY) (75)



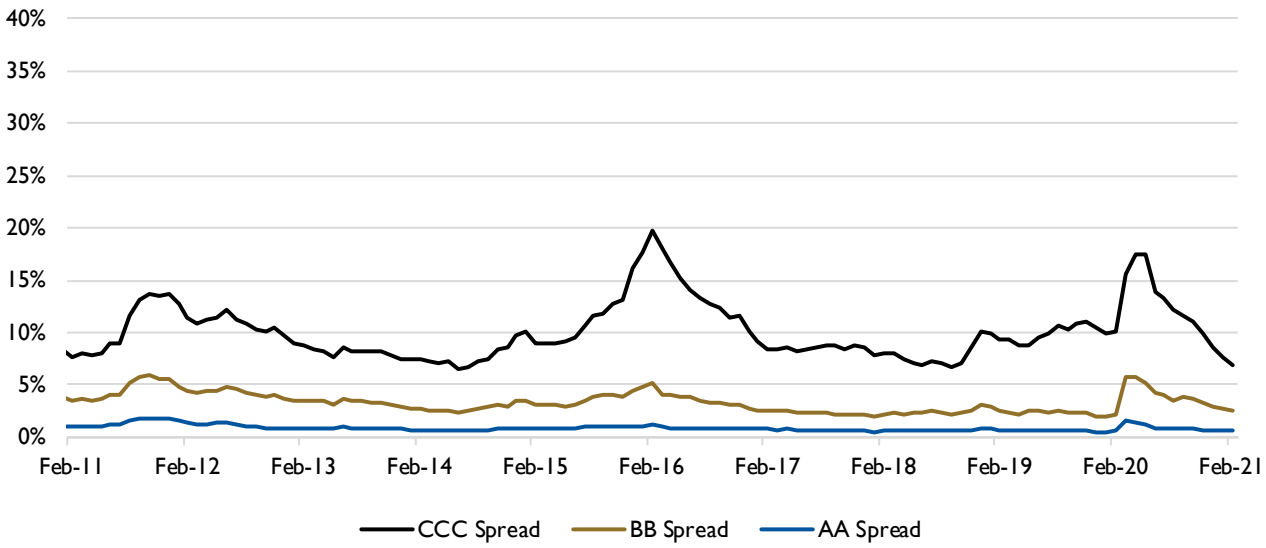
U.S. TREASURY YIELD CURVE (MONTHLY, ANNUAL) (76)



DATA CENTER

ECONOMIC / FINANCIAL

CORPORATE SPREADS TO TREASURIES BY QUALITY (MONTHLY AVERAGE) (77)



DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

ABBREVIATIONS & ACRONYMS

AECO – Alberta Energy Company
ARAMCO – Saudi Arabian Oil Company, formerly the Arabian-American Oil Company
BCF – Billion cubic feet
BTU – British thermal unit
CIF – Costs, insurance and freight
CMT – Constant maturity treasury
DUC – Drilled but uncompleted wells
EBITDA – Earnings before interest, taxes, depreciation and amortization
IFO – Intermediate fuel oil
ITC – Investment Tax Credit
LCOE – Levelized cost of energy
LIBOR – London Interbank Offered Rate
LNG – Liquefied natural gas
LPG – Liquefied petroleum gas
mmBTU – Millions of British Thermal Units
MTBE – Methyl tertiary butyl ether
MW – Megawatt
NBP – National Balancing Point
NGPL – Natural gas plant liquids
NYMEX – New York Mercantile Exchange
OAS – Option-adjusted spread
OPEC – The Organization of Petroleum Exporting Countries
PADD – Petroleum Administration for Defense District
PG&E – Pacific Gas & Electric
PMI ® – U.S. Purchasing Managers Index ®
PV – Photovoltaic
SoCal – Southern California
SPR – Strategic Petroleum Reserve
TETCO-M3 – Texas Eastern Transmission Corporation Pipeline Zone M3
TTF – Title Transfer Facility
UAE – United Arab Emirates
WTI – West Texas Intermediate crude oil

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

DEFINITIONS

Biofuels – liquid fuels and blending components produced from biomass feedstocks, used primarily for transportation.

British Thermal Unit (BTU) – A traditional unit of heat; it is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

Ending Stocks – A proxy for inventory, defined as the total volume of a given commodity held in storage (leases, refineries, processing plants, pipelines, terminals, tank farms) at the end of the last day of a given month.

Distillate Fuel Oil – A general classification for a variety of petroleum fractions produced in petroleum distillation operations. Included within this classification are No. 1, No. 2 and No. 4 diesel fuels (used in on-highway and off-highway diesel engines), as well as No. 1, No. 2 and No. 4 fuel oils (used primarily for space heating and electric power generation).

Distributed Solar Energy – Refers to solar energy generated by small-scale photovoltaic generation plants. Small-scale is defined as a plant with capacity below one megawatt.

Index – A figure in a system or scale representing the average value of specified prices, shares, or other items as compared with some reference figure.

Intermediate Fuel Oil – Also known as IFO and Bunker Fuel, fuel utilized by ships and barges to facilitate international exchange of various commodities across an array of industries.

Investment Tax Credit – A federal policy tax incentive that supports the deployment of solar energy in the United States.

LIBOR – The London Interbank Offered Rate is the average interest rate at which leading banks borrow funds of a sizeable amount from other banks in the London market.

Liquefied Natural Gas – Natural gas that has been cooled to a liquid state, at about -260°Fahrenheit, for shipping and storage.

Liquefied Petroleum Gas – A group of hydrocarbon gases, primarily propane, normal butane and isobutene, derived from crude oil refining or natural gas processing.

Natural Gas Liquids – A group of hydrocarbons including ethane, propane, normal butane, isobutene and natural gasoline. Generally include natural gas plant liquids and all liquefied refinery gases except olefins.

Natural Gas Plant Liquids – Ethane, propane, butane, isobutane, pentane and pentane plus.

Petroleum Administration for Defense District (PADD) – A geographic aggregation of the 50 States and the District of Columbia into five Districts. PADD 1 is the East Coast region, PADD 2 is the Midwest region, PADD 3 is the Gulf Coast region and PADD 5 is the West Coast region.

Petroleum Products – Obtained from the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas and miscellaneous products.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

DEFINITIONS

Product Supplied – A widely utilized proxy for consumption of petroleum products, measuring the disappearance of said products from primary sources. Primary sources include, among others, refineries, processing plants, blending plants, pipelines and bulk terminals.

Propylene – Petrochemical feedstock that is recovered from refinery or petrochemical processes. It is an olefinic hydrocarbon that is gaseous at standard temperature and pressure.

Residual Fuel Oil – The general classification for heavy oils that remain after lighter oils are distilled away in the process of petroleum refining.

Spot vs. Wholesale Price – "Spot" prices are defined by the U.S. Energy Information Administration as, "the price for a one-time open market transaction for immediate delivery of a specific quantity of a product at a specific location where the commodity is purchased 'on the spot' at current market rates."

In this report, certain charts contain both "spot" and "wholesale" prices for given commodities alongside each other within the same chart. In these instances, the wholesale prices shown are, in fact, wholesale market "spot" prices. Thus, the terms are interchangeable in charts where both terms are present in describing respective price series.

Strategic Petroleum Reserve (SPR) – An emergency fuel storage of crude oil maintained by the United States Department of Energy for use during periods of major supply interruption.

Virtual Trading Point – Commodity trading center created to service a specific geographic region but does not have a physical location.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

DESCRIPTIONS

General Conversion Information

- International pricing data for various commodities were converted by JKC from the units utilized by the original data source (in the form of currency value per unit of energy content or volume) to appropriate domestic units (in the form of U.S. dollars per common domestic unit of energy content or volume) in order to allow for convenient, informative comparison of international and domestic commodity price series through displaying them on a singular chart in consistent units. Appropriate domestic units for a given commodity are determined by whatever units are most commonly utilized in the United States to denote prices of that commodity, per the U.S. Energy Information Administration.
- International currency units were converted to U.S. dollars using historical exchange rates published by x-rates.com.
- Energy content and volume conversion factors differ by commodity. International energy content or volume units were converted using the various sources listed below:
  - Google.com In-Browser Unit Converter
    - Alberta Energy Co. Hub Natural Gas – gigajoules to mmBTU
    - Dutch TTF Hub Natural Gas – megawatt hours to mmBTU
    - Houston; Los Angeles; Rotterdam; Singapore; Port of Fujairah, UAE IFO 380, IFO 180 Bunker Fuel – liters/kilogram to gallons per metric ton
  - Iowa State University Liquid Fuel Measurements and Conversions
    - Netherlands Retail LPG – liters to metric tons, metric tons to barrels
    - Saudi ARAMCO Propane – metric tons to barrels
    - Japan Propane Imports – metric tons to barrels
    - Holland Retail Gasoline – liters to gallons
    - Singapore Retail Gasoline – liters to gallons
    - UAE Gasoline – liters to gallons
    - Edmonton Diesel Fuel – liters to gallons
    - Singapore Retail Diesel – liters to gallons
    - Holland Retail Diesel – liters to gallons
    - UAE Diesel – liters to gallons
  - Official Nebraska Government Website
    - Netherlands Retail LPG – barrels to gallons
    - Saudi ARAMCO Propane – barrels to gallons
    - Japan Propane Imports – barrels to gallons
  - Lanka IOC Oil Company
    - Houston; Los Angeles; Rotterdam; Singapore; Port of Fujairah, UAE IFO 380, IFO 180 Bunker Fuel – density, in liters per kilogram

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

CHART NOTES

All charts in this report are updated to the latest information available at the time of publication. Due to differing reporting dates for various data used throughout the report, all charts are not updated to the same ending period.

(1) Crude Oil Prices

- Sources: U.S. Energy Information Administration (Brent, West Texas Intermediate), IndexMundi via WorldBank (Dubai Fateh), Alberta.ca Economic Dashboard (Western Canadian Select), OPEC.org and Quandl.com (OPEC Reference Basket).
- The Organization of Petroleum Exporting Countries (OPEC) reference basket is a composite of the following blends of crude oil: Saharan Blend (Algeria), Girassol (Angola), Oriente (Ecuador), Zafiro (Equatorial Guinea), Rabi Light (Gabon), Iran Heavy (Islamic Republic of Iran), Basra Light (Iraq), Kuwait Export (Kuwait), Es Sider (Libya), Bonny Light (Nigeria), Qatar Marine (Qatar), Arab Light (Saudi Arabia), Murban (United Arab Emirates), Merey (Venezuela).
- All prices are spot or wholesale.

(2) Gasoline Prices

- Sources: U.S. Energy Information Administration (New York Harbor, U.S. Gulf Coast), Trading Economics (Singapore, Netherlands Retail), United Arab Emirates Ministry of Energy (UAE Retail).
- New York Harbor Spot, U.S. Gulf Coast Spot, Netherlands Retail and Singapore Retail all represent the price history of conventional gasoline in their respective locations. United Arab Emirates Retail represents an aggregate of unleaded 95, unleaded 98 and unleaded 91 prices in the United Arab Emirates.

(3) Diesel Prices

- Sources: U.S. Energy Information Administration (U.S. Gulf Coast, New York Harbor, Los Angeles, CA), Ec.euopa.eu European Commission (Netherlands Retail), Knoema.com (Singapore Retail), United Arab Emirates (UAE Retail).
- New York Harbor, U.S. Gulf Coast and Los Angeles, CA prices represent ultra-low sulfur No. 2 diesel.
- Edmonton, Canada price represents low-sulfur diesel.
- Singapore Retail, United Arab Emirates Retail and Netherlands Retail prices represent conventional gasoil found at the pump. Gasoil is an alternative term for diesel commonly used throughout Europe.
- Netherlands Retail prices exclude taxes, Singapore Retail prices include taxes.

(4) Jet Fuel Prices

- Source: U.S. Energy Information Administration.
- All prices are spot or wholesale prices.

(5) U.S. Crude Oil and Petroleum Products Supply, Inventory and Consumption

- Source: U.S. Energy Information Administration.
- Crude Oil and Petroleum Products consist of natural gas plant liquids (ethane, propane, butane, isobutane, pentane), other liquids (hydrogen, oxygenates and renewable fuels like fuel ethanol, motor and aviation gasoline blending components, unfinished oils) and finished petroleum products (motor gasoline, aviation gasoline, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, napthas, lubricants, waxes, petroleum cokes, asphalt and road oil, still gas, miscellaneous products).
- Supply is comprised of field production, renewable fuels and oxygenate plant net production, refinery and blender net production, imports and net Petroleum Administration for Defense District (PADD) receipts. Net PADD receipts represent the net volume of product movement into and out of each PADD by tanker, barge and pipeline.
- Ending Stocks is a proxy for inventory and is defined as primary stocks held in storage as of midnight on the last day of the month. Primary stocks include products held in storage at, or in, leases, refineries, natural gas processing plants, pipelines, tank farms and bulk terminals with the capacity to store at least 50,000 barrels or that can receive product by tanker, barge or pipeline. Ending Stocks include volumes in the Strategic Petroleum Reserve (SPR) maintained by the Federal Government for use during periods of major supply interruption.
- Product Supplied is a proxy for consumption as it measures the disappearance of said product from primary sources, including refineries, processing plants, blending plants, pipelines and bulk terminals.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(6) U.S. Refinery Volumes and Wholesale Prices of Petroleum Products

- Source: U.S. Energy Information Administration Petroleum Marketing Monthly.

(7) U.S. Crude Oil Refinery Input, Distillation Capacity and Refinery Utilization

- Source: U.S. Energy Information Administration Petroleum Supply Weekly.
- Net Input is defined as gross inputs less gross production. Crude Oil Refinery Net Input values are monthly aggregates of weekly net input averages, measured in thousands of barrels per day. The resulting values are represented as monthly average refinery inputs, measured in thousands of barrels per day.
- Refinery Capacity refers to the maximum amount of crude oil designed to flow into the distillation (or crude) unit of the refinery. Operable Capacity is equal to the sum of operating and idle capacity. Idle Capacity is capacity that is not in operation, not under active repair, and can be placed in operation within 30 days.

(8) U.S. Crude Oil and Petroleum Products Imports and Exports

- Source: U.S. Energy Information Administration Petroleum Supply Monthly.
- U.S. Net Imports of Petroleum Products data fall below zero at which point the U.S. becomes a net exporter.

(9) Domestic Natural Gas Citygate Prices per Region

- Source: U.S. Energy Information Administration.
- The prices shown are "Citygate" prices. A Citygate is defined as "a point or measuring station at which a distributing gas utility receives gas from a natural gas pipeline company or transmission system." The Citygate price represents the benchmark price for a given region, accounting for all costs of acquisition, storage, and transportation of gas as well as other charges associated with local distribution companies obtaining the gas for sale to end-users.
- The Western market contains Oregon, Washington, California, Nevada, Arizona, New Mexico, Utah, Wyoming, Colorado, Montana, and Idaho.
- The Midwestern market contains North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Minnesota, Iowa, Missouri, Arkansas, Wisconsin, Michigan, Illinois, and Indiana.
- The Gulf market contains Texas and Louisiana; the Southeastern market contains Florida, Mississippi, Alabama, Georgia, Tennessee, North Carolina, and South Carolina.
- The Northeastern market contains Kentucky, Virginia, West Virginia, Ohio, Pennsylvania, New York, Vermont, New Hampshire, Maine, Massachusetts, Rhode Island, Connecticut, Delaware, New Jersey, and Maryland.

(10) International Natural Gas Prices

- Sources: U.S. Energy Information Administration (Henry Hub), NGX Clearinghouse (AECO Hub), BP Statistical Review of World Energy 2017 (United Kingdom NBP), World Bank via Index Mundi (Russian NG European Import Price), Knoema via World Bank (Japan LNG Import), my.Elexys.be Market Information (Dutch TTF).
- Henry Hub serves as the primary global pricing benchmark.
- Alberta Energy Company (AECO) Hub serves North America.
- United Kingdom National Balancing Point (NBP) serves the British Isles.
- Dutch Title Transfer Facility (TTF) serves continental Europe.
- Virtual Trading Point (Virtual) does not have a physical location and was created to serve a specific region.
- Japan LNG Import Price represents aggregate import prices of liquefied natural gas in Japan and is a price benchmark serving the Asia-Pacific region. The price includes costs, insurance and freight (CIF).
- All price benchmarks above represent gaseous state natural gas transported by pipeline, with the exception of Japan LNG Import Price, which represents liquid state natural gas transported by ship.
- All prices are spot or wholesale.

(11), (12), (13) and (14) Liquefied Natural Gas Prices

- Sources: Federal Energy Regulatory Commission (U.S., Mexico, Belgium, India), World Bank via Bluegold Research (Brazil/Argentina, Japan/Korea, China, United Kingdom).
- All prices are "landed" prices. Landed price is the price received at the regasification terminal and is based on a netback calculation that removes the costs of pipeline transportation, regasification, waterborne shipping and liquefaction, so as to best represent the effective price to the producer or seller at a specific location or defined point.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(15) U.S. Import / Export Liquefied Natural Gas Prices
- Source: U.S. Energy Information Administration.
- All prices are spot or wholesale.

(16) Natural Gas Plant Liquids Prices
- Source: U.S. Energy Information Administration.
- Natural gas liquids spot prices at Mont Belvieu, TX.
- Natural Gas Plant Liquids (NGPL) Composite price includes ethane, propane, butane, isobutane and natural gasoline. Daily closing spot prices for each component are averaged into a monthly series, then weighted according to the portion of a representative natural gas plant liquids barrel that they occupy. The NGPL Composite price excludes natural gas liquids produced at crude oil refineries.

(17) U.S. Natural Gas Production and Consumption
- Source: U.S. Energy Information Administration.
- Marketed Production is equal to gross withdrawals of natural gas from production reservoirs, less gas used for reservoir re-pressuring, nonhydrocarbon gases removed in treating and processing operations, and quantities vented and flared (gas that is disposed of by release into the atmosphere).

(18) U.S. Natural Gas Supply and Inventory
- Source: U.S. Energy Information Administration.
- Working Gas is defined as the total amount of natural gas in storage less the amount of base gas. Base gas is the amount of gas intended as permanent inventory.

(19) U.S. Natural Gas Consumption by End Use
- Source: U.S. Energy Information Administration.

(20) U.S. Natural Gas Plant Liquids Production
- Source: U.S. Energy Information Administration.
- Natural Gas Plant Liquids Production refers to the sum of all production of ethane, propane, butane, isobutane, pentane and pentane plus.

(21) U.S. Liquefied Natural Gas Import and Export Volumes
- Source: U.S. Energy Information Administration.

(22), (23) and (24) North American LNG Import / Export Terminals – Proposed, Approved and Existing
- Source: Federal Energy Regulatory Commission.

(25) Heating Oil Prices
- Source: U.S. Energy Information Administration.
- Spot prices of No 2. heating oil at New York Harbor, alongside the spot prices of West Texas Intermediate crude oil for comparison purposes.

(26) Intermediate Fuel Oil aka "Bunker Fuel" Prices
- Source: Ship & Bunker.
- Intermediate Fuel Oil, also known as IFO and Bunker Fuel, is fuel utilized by ships and barges to facilitate international exchange of various commodities across an array of industries, including energy. It is classified in the maritime field by its viscosity, measured in centistokes. IFO 380 has a maximum viscosity of 380 centistokes and is comprised of 98% residual fuel oil and 2% distillate fuel oil. Under new regulations from the International Maritime Organization, ships must burn fuel with a sulfur content of not more than 0.5 percent or install costly emissions-cleaning scrubbers. Very Low Sulfur Fuel Oil (VLSFO) contains a maximum sulfur content of 0.5 percent.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(27) Propane Prices

- Sources: U.S. Energy Information Administration (Conway, KS and Mont Belvieu, TX spot prices), Government of Canada National Energy Board (Edmonton, Canada trading hub prices), Ec.euopa.eu European Commission (Netherlands Retail prices), LPG Australia and news articles (Saudi ARAMCO contract prices), Knoema.com and Petroleum Association of Japan (Japan Imports prices).
- Conway, KS and Mont Belvieu, TX retail prices are propane prices, while Saudi ARAMCO Contracts and Japan Imports are liquefied petroleum gas (LPG) prices. Netherlands Retail and Edmonton, Canada retail prices are auto propane and exclude taxes.
- Propane and LPG prices are represented on the same chart due to the fact that propane is dealt in international marketplaces as LPG, and is referred to as LPG in many European and Asian countries. LPG is comprised of a mixture of propane and butane.
- Conway, KS wholesale prices are typically available only for the winter months (October through March), during which propane demand is driven by cold weather, therefore, the data series displayed is intermittent.

(28) No. 1 Distillate Fuel Oil, Residual Fuel Oil Wholesale, Retail Sales Volume by Refiners

- Source: U.S. Energy Information Administration.
- No. 1 Distillate Fuel Oil consists of No. 1 diesel fuel and No. 1 fuel oil. The former is used in high-speed diesel engines, including those used by metropolitan buses and smaller automobiles. No. 1 fuel oil is utilized primarily as fuel for portable outdoor stoves and heaters.
- Residual Fuel Oil is the general classification for heavy oils that remain after lighter oils are distilled away in the process of petroleum refining. Residual Fuel Oil includes No. 5 and No. 6 fuel oils. The former is used in steam-powered vessels, and the latter is used for electric power generation, space heating, vessel bunkering and industrial processes.
- All wholesale and retail sales volumes refer to those sold by refiners only.

(29) No. 2 Distillate Fuel Oil Wholesale, Retail Sales Volume by Refiners

- Source: U.S. Energy Information Administration.
- No. 2 Distillate Fuel Oil consists of No. 2 diesel fuel and No. 2 fuel oil (heating oil). No. 2 diesel fuel is utilized in on-and-off highway diesel engines, including those used by railroad locomotives, trucks, automobiles and agricultural machinery. No. 2 fuel oil (heating oil) is used for space heating and moderate capacity industrial/commercial burner units.
- All wholesale and retail sales volumes refer to those sold by refiners only.

(30) Propane & Propylene and Distillate Fuel Oil Production and Consumption

- Source: U.S. Energy Information Administration.
- Distillate Fuel Oil is a general classification for a variety of petroleum fractions produced in petroleum distillation operations. Included within this classification are No. 1, No. 2 and No. 4 diesel fuels (used in on-highway and off-highway diesel engines), as well as No. 1, No. 2 and No. 4 fuel oils (used primarily for space heating and electric power generation).
- Propylene is an important petrochemical feedstock that is recovered from refinery or petrochemical processes. It is an olefinic hydrocarbon that is gaseous at standard temperature and pressure.
- Product Supplied is a proxy for consumption as it measures the disappearance of said product from primary sources, including refineries, processing plants, blending plants, pipelines and bulk terminals.

(31) U.S. Ending Stocks of Propane & Propylene and Distillate Fuel Oil

- Source: U.S. Energy Information Administration.
- Distillate Fuel Oil is a general classification for a variety of petroleum fractions produced in petroleum distillation operations. Included within this classification are No. 1, No. 2 and No. 4 diesel fuels (used in on-highway and off-highway diesel engines), as well as No. 1, No. 2 and No. 4 fuel oils (used primarily for space heating and electric power generation).
- Propylene is an important petrochemical feedstock that is recovered from refinery or petrochemical processes. It is an olefinic hydrocarbon that is gaseous at standard temperature and pressure.
- Ending Stocks are defined as the total volume of a propane and propylene/distillate fuel oil held in storage as of the last day of the period. Ending Stocks are monthly averages of Ending Stocks reported at the end of each week during that month, not the amount of Ending Stocks reported at the end of the month. The resulting values are represented as monthly average inventory levels.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(32) U.S. Well Starts by Depth

- Source: Platts RigData.
- Total number of well starts by depth on U.S. Land, U.S. Inland Waters and U.S. Offshore, respectively.

(33) Percentage of Crude Oil and Natural Gas Production per Shale Region

- Source: U.S. Energy Information Administration Drilling Productivity Report.
- Percentage of total U.S. crude oil and natural gas production from each of the shale regions.

(34) Drilled but Uncompleted Wells vs. Crude Oil Price

- Source: U.S. Energy Information Administration Drilling Productivity Report.
- Drilled but Uncompleted (DUC) Wells are oil and gas wells that have been drilled but haven't gone through the process of completion (the process of installing well casing, tubing and other equipment that prepares a well for production). The number of DUC wells has significant implications on the domestic supply response to crude oil price changes. If crude oil prices decrease, it is theoretically likely that the amount of DUC wells will increase, and vice versa in an increasing crude oil price scenario. Therefore, the West Texas Intermediate Crude price is tracked for comparative purposes.

(35) Hydraulic Fracturing Sand Consumption and Producer Price Index

- Sources: IHS Markit (consumption), U.S. Bureau of Labor Statistics (producer price index).
- Hydraulic Fracturing Sand is sand utilized as a proppant in the process of hydraulic fracturing to help facilitate the extraction of oil and gas from subsurface rock formations.
- Total 2017 Hydraulic Fracturing Sand Consumption contains actual data for January through April 2017, while May through December 2017 consumption data is projected based on IHS Markit's ProppantIQ research.
- The Producer Price Index for Hydraulic Fracturing Sand measures the weighted average period-to-period change in the selling prices received by domestic producers of hydraulic fracturing sand.
- 2017 Producer Price Index shows annual average as of 9/29/2017.
- Hydraulic Fracturing Sand Producer Price Index Base = 100 at December 2012.

(36) and (37) Crude Oil and Natural Gas Production, Rig Count and Production per Rig

- Sources: U.S. Energy Information Administration Drilling Productivity Report (new-well crude oil and natural gas production per rig), Baker Hughes Inc. (rig count).
- New-Well Crude Oil or Natural Gas Production per Rig in each quarter represents the average of each month's value. New-well production per rig is estimated by dividing several trailing months of data on total production from new wells in each region by that region's monthly rig count, lagged by two months. New-well production per rig is intended to indicate an average rig's contribution to total crude oil production from new wells.
- The determination between a crude oil rig and a natural gas rig is made by the operating company at the time of issuance of the rig permit by the relevant state's permitting authority. The classification of a given rig as an oil or gas rig is based solely upon the operator's judgment after drilling an appraisal well and determining its specific hydrocarbon content. For example, if a well's production comes 50% from gas, 20% from Natural Gas Liquids and 30% from oil, it could either be listed as a gas rig, because gas comprises the largest share of hydrocarbons, or an oil rig because oil drives the well's economics. This determination is at the judgment of the operator.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(38) U.S. Drilling Rigs by Type

- Source: Baker Hughes North America Rotary Rig Count.
- A vertical well is a well that penetrates the earth vertically below the surface-mounted drilling platform, or the surface location of the well.
- A directional well is classified as one in which the surface location of the well is not vertically above the target reservoir. Thus, the well deviates horizontally from its surface location in order to reach the target reservoir, at a specific azimuth and incline. Azimuth measures the cardinal direction of the well's path relative to the surface location, and incline measures degrees of deviation from vertical.
- Per Baker Hughes methodology, a horizontal well is a type of directional well that deviates from vertical by greater than 80 degrees, or one in which the lower part of the wellbore is parallel to the "pay zone." The pay zone is the section of a reservoir that contains hydrocarbons that can be produced economically.

(39) Wind and Solar Prices

- Source: Lazard's Levelized Cost of Energy Analysis 2012-2020.
- The Levelized Cost of Energy (LCOE) is the net present value of the per-megawatt hour cost of building and operating a generating plant over an assumed financial life and duty cycle. It is utilized as a means of comparing the cost-competitiveness of various energy-generating technologies of unequal life spans, project sizes, capital profiles and capacities.
- The respective levelized costs of each generation technology for each year are a simple average of the high and low values of the cost range associated with that generating technology during that year.
- Solar PV refers to solar photovoltaic.
- Solar PV – Community refers to a solar power plant whose electricity is shared by more than one household.
- Solar PV – Rooftop Residential refers to a Solar PV system that has its solar panels mounted on the rooftop of a residential structure.
- Solar PV – Crystalline Rooftop refers to crystalline solar panels mounted on rooftops. Crystalline panels are a type of solar panel that achieves the photoelectric effect, the chemical process that converts solar (light) energy to electricity, through use of crystalline silicone solar cells.
- Solar PV – Crystalline Utility-Scale refers to a solar power plant that uses crystalline panels to generate power that is fed into the grid, supplying a utility with energy.
- Solar PV – Thin Film Utility-Scale refers to a solar power plant that uses thin-film solar panels to generate power that is fed into the grid, supplying a utility with energy. Thin-film panels differ from crystalline panels in that the photoemissive materials, those which produce an electric current when contacted by sufficient solar energy, are not cut from crystals.
- Solar Thermal refers to solar technology that generates thermal energy to heat water or other fluids, rather than generating electricity.

(40) U.S. Total Renewable Energy Consumption

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Total Renewable Energy Consumption is comprised of hydroelectric, geothermal, solar, wind, wood, waste and biofuels.
- Waste refers to biomass waste and is organic non-fossil material of biological origin that is a byproduct or a discarded product. Biomass waste includes municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural crop byproducts, straw and other biomass solids, liquids and gases.
- Biofuels are liquid fuels and blending components produced from biomass feedstocks, used primarily for transportation. Biomass is organic, non-fossil material comprised of decayed biological matter.

(41) U.S. Solar, Wind and Hydroelectric Energy Consumption

- Source: U.S. Energy Information Administration Monthly Energy Review.

(42) U.S. Wood, Waste, Biofuels and Geothermal Energy Consumption

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Biofuels are liquid fuels and blending components produced from biomass feedstocks, used primarily for transportation. Biomass is organic, non-fossil material comprised of decayed biological matter.

(43) Corn and Ethanol Prices and Corn Cost per Gallon of Ethanol

- Source: U.S. Department of Agriculture Economic Research Service (corn and ethanol price).

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(44) U.S. Solar Energy Consumption

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Utility-scale solar energy refers to solar energy generated by plants with a capacity of at least one megawatt that is transmitted via the transmission grid to a high volume of consumers. Thus, Utility-Scale Solar Energy Consumption represents consumption of solar energy generated at plants with capacity of at least one megawatt.
- Distributed solar energy refers to solar energy generated by small-scale generating plants with capacity below one megawatt that is distributed over a specific locality with a small volume of consumers relative to utility-scale energy consumers. Thus, Distributed Solar Energy Consumption represents consumption of solar energy generated at small-scale generating plants.

(45) U.S. Solar Energy Net Generation

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Distributed Solar Photovoltaic Generation refers to energy generated by small-scale photovoltaic generation plants. Small-scale is defined as a plant with capacity below one megawatt. Photovoltaic generation refers to solar energy generated by photovoltaic solar panels.
- Utility-Scale Solar Electricity Net Generation refers to generation of solar energy by plants with capacity equal to or above one megawatt. Net generation is defined as the amount of gross generation less electrical energy consumed by the generating plant for service or auxiliaries.

(46) Distributed Solar Photovoltaic Generation by Sector

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Distributed Solar Photovoltaic Generation refers to energy generated by small-scale photovoltaic generation plants. Small-scale is defined as a plant with capacity below one megawatt. Photovoltaic generation refers to solar energy generated by photovoltaic solar panels.

(47) Utility-Scale Solar Electricity Net Generation by Sector

- Source: U.S. Energy Information Administration Monthly Energy Review.
- Utility-Scale Solar Electricity Net Generation refers to generation of solar energy by plants with capacity equal to or above one megawatt. Net generation is defined as the amount of gross generation less electrical energy consumed by the generating plant for service or auxiliaries.
- Gaps in the data represent periods for which there was no data reported, or the data value was trivially small and thus deemed unnecessary to report.

(48) U.S. Solar Capacity Installations

- Source: Solar Energy Industries Association Q1 2017 Solar Market Insight Report.
- The Investment Tax Credit (ITC) is a federal policy tax incentive that supports the deployment of solar energy in the United States. The ITC allows those who install a solar system to claim up to 30% of the price paid to install the system as a tax credit when filing Federal taxes, thereby significantly discounting the cost associated with transitioning to solar energy.

(49) U.S. Wind Power Capacity Installations

- Source: American Wind Energy Association U.S. Wind Energy Quarterly Market Report.
- Wind Power Generation Capacity Installations refers to non-utility-scale wind power capacity additions. Utility-scale is defined as installations of wind turbines larger than 100 kilowatts.

(50) Utility-Scale Wind Power Capacity Installations

- Source: American Wind Energy Association U.S. Wind Energy Quarterly Market Report.
- Utility-Scale Wind Capacity includes installations of wind turbines larger than 100 kilowatts. Capacity installations may not always equate to an equal increase in cumulative wind power capacity due to decommissioned, uprated and repowered wind turbines.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(51) Wind Power Under Construction or in Advanced Development

- Source: American Wind Energy Association (AWEA) U.S. Wind Energy Quarterly Market Report.
- AWEA defines projects as being "in advanced development" if it has not yet begun construction, but has either signed a power purchase agreement, announced a firm turbine order, or been announced to proceed under utility ownership.

(52) U.S. Aggregated Energy Consumption by Sector

- Source: U.S. Energy Information Administration.
- Energy consumed by the electric power sector is primary energy only. Primary energy is energy in its original form, before any transformation to secondary or tertiary forms of energy. For example, coal can be converted to synthetic gas and then to electricity. Under these circumstances, coal is primary energy, synthetic gas is secondary energy and electricity is tertiary energy.

(53) U.S. Aggregated Energy Consumption by Source

- Source: U.S. Energy Information Administration.
- Total consumption of each category of energy is as accurate as possible. However, some data is unavailable or unreported and, thus, some total consumption values may be understated.
- Fossil Fuels includes coal, petroleum-based products, natural gas and natural gas-based products.
- Renewable Energy includes conventional hydroelectric, solar, biomass, nuclear, geothermal and wind.
- Biomass is a renewable energy source derived from organic matter such as wood, crop waste, or garbage, with wood being the largest contributor.
- Fossil Fuels and Renewable Energy consumption represent consumption of primary energy, which is energy in its original form, before transformation to secondary or tertiary forms of energy. Thus, to arrive at total energy consumption, Electricity Retail Sales (representing consumption of secondary and tertiary forms of energy) is added alongside consumption of Fossil Fuels and Renewable Energy.
- Electrical System Energy Losses are a deduction from total energy consumption, and are incorrectly represented as positively contributing to total energy consumption. Thus, total energy consumption figures in each year are overstated by the amount of electrical system energy losses.

(54) Electricity Prices by Sector

- Source: U.S. Energy Information Administration.

(55) Commercial Crude Oil Inventory

- Source: U.S. Energy Information Administration.
- U.S. Ending Stocks of Commercial Crude Oil represents stocks (inventory) of crude oil held in storage for commercial use. This figure excludes both lease stock and volumes in the Strategic Petroleum Reserve (SPR). Lease stock is crude oil stored in tanks at sites where producers are drilling on leased land. They're excluded from total commercial crude oil inventory because they aren't yet available for commercial use. The SPR is petroleum maintained by the Federal Government for use during periods of major supply interruption.
- Ending stocks (inventory) are primary stocks of crude oil held in storage as of midnight on the last day of the month. Primary stocks include crude oil held in storage at, or in, leases, refineries, natural gas processing plants, pipelines, tank farms and bulk terminals with the capacity to store a minimum of 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge or pipeline.

(56) Petroleum and Other Liquids Commercial Inventory

- Source: U.S. Energy Information Administration.
- Hydrocarbon Gas Liquids (HGLs) are molecules of carbon and hydrogen in various combinations. HGLs include alkanes, or paraffins (ethane, propane, butane, isobutene, natural gasoline) and alkenes, or olefins (ethylene, propylene, butylene, isobutylene).
- Unfinished Oils are all oils that require further processing and are produced by partial refining of crude oil. Unfinished Oils include napthas and lighter oils, kerosene and light gas oils, heavy gas oils and residuum.
- Other Hydrocarbons/Oxygenates are substances that increase the amount of oxygen in various gasoline blends when added to them. This category includes fuel ethanol, methanol and methyl tertiary butyl ether (MTBE).
- Total Motor Gasoline includes finished motor gasoline and motor gasoline blending components.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

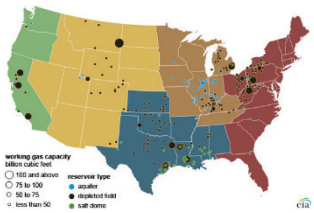
(56) Petroleum and Other Liquids Commercial Inventory (continued)

- Distillate Fuel Oil is a general classification for a variety of petroleum fractions produced in petroleum distillation operations. Included within this classification are No. 1, No. 2 and No. 4 diesel fuels (used in on-highway and off-highway diesel engines), as well as No. 1, No. 2 and No. 4 fuel oils (used primarily for space heating and electric power generation).
- Residual Fuel Oil is the general classification for heavy oils that remain after lighter oils are distilled away in the process of petroleum refining. Residual Fuel Oil includes No. 5 and No. 6 fuel oils. The former is used in steam-powered vessels, and the latter is used for electric power generation, space heating, vessel bunkering and industrial processes.
- Other Oils include aviation gasoline blending components, finished aviation gasoline, kerosene, petrochemical feedstocks, special napthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas and miscellaneous products.

(57) Natural Gas Underground Storage Capacity

- Source: U.S. Energy Information Administration.
- Underground Storage Capacity refers to total natural gas storage capacity in underground storage facilities called "salt domes," which are caverns hollowed out in subsurface salt formations. Salt domes are the primary means of natural gas storage in the United States.

U.S. Underground Natural Gas Storage Facilities by Type (July 2015)



(58) Commercial Crude Oil Refinery, Tank and Underground Storage Capacity and Utilization

- Source: U.S. Energy Information Administration.
- Commercial Crude Oil Storage Capacity refers to working storage capacity. Working capacity is the volume difference between a crude oil storage tank's maximum safe fill capacity and the volume below which pump suction is ineffective, called tank bottoms.
- Crude Oil Shell Storage Capacity is the design capacity of a petroleum storage tank. It includes tank bottoms, working storage capacity and contingency space. Contingency space is defined as available storage space above the defined maximum operating inventory level that remains empty during normal operations. Shell Storage Capacity is always greater than or equal to working storage capacity.
- Crude Oil Storage Capacity data is released only twice per year for the months of March and September. Thus, the data series excludes inventory levels for all months other than March and September of each year.

(59) Crude Oil and Natural Gas Pipeline Mileage

- Source: Pipeline and Hazardous Materials Safety Administration.
- The chart includes information from only Federal Energy Regulatory Commission-regulated pipeline companies.
- Crude Oil Pipeline Mileage represents total mileage of pipelines dedicated to the transport of crude oil and those dedicated to the transport of petroleum products. Pipeline Mileage for crude oil includes trunk lines only.
- Pipeline Mileage for natural gas includes both trunk and gathering lines.
- Trunk lines are synonymous with transmission lines, which are large, cross-country pipelines that move oil or gas from producing areas to refineries. Gathering lines are pipelines that transport oil or gas from the area in which it was produced to a storage facility which acts as an intermediate stop before transportation by truck, railcar, or trunk line.

(60) Crude Oil and Petroleum Products Pipeline Movements Between Petroleum Administration for Defense Districts (PADDs)

- Source: Federal Reserve Bank of St. Louis, with data provided by the U.S. Energy Information Administration.
- Crude Oil and Petroleum Products Pipeline Movements Between PADDs represents the total volume of crude oil and petroleum products transported between each PADD. The data does not include movements within each PADD.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(61) Natural Gas Cumulative Interstate Pipeline Systems Capacity

- Source: U.S. Energy Information Administration.
- Cumulative Interstate Capacity refers to capacity of natural gas pipelines crossing between states. Thus, capacity of intrastate pipelines is not included and the data should not be interpreted as representing total capacity of natural gas pipelines.

(62) Crude Oil and Petroleum Products Exports to Mexico

- Source: U.S. Energy Information Administration.
- Petroleum Products include pentanes plus, liquefied petroleum gases, unfinished oils, finished motor gasoline, motor gasoline blending components, oxygenates, fuel ethanol, distillate fuel oil, kerosene, kerosene-type jet fuel, special napthas, residual fuel oil, waxes, petroleum coke, asphalt and road oil, lubricants and miscellaneous products.

(63) Truck Tonnage Index

- Source: U.S. Department of Transportation, Bureau of Transportation Statistics.
- The Truck Tonnage Index measures the gross tonnage of freight that is transported by motor carriers for a given month. The Index serves as an indicator of shipping activity in the United States.
- Created by the U.S. Department of Transportation, Bureau of Transportation Statistics via information published in the American Trucking Association (ATA) Monthly Truck Tonnage Report.
- In January 2018, ATA revised the seasonally adjusted index back five years as part of its annual revision. In addition, ATA re-indexed the seasonally adjusted and not seasonally adjusted tonnage indexes to 2015 = 100 back to 1973.

(64) Heavy Truck Sales

- Source: Federal Reserve Bank of St. Louis.
- Heavy Trucks are trucks with more than 14,000 pounds gross vehicle weight.

(65) Trucking Conditions Index

- Source: FTR Transportation Intelligence.
- The Trucking Conditions Index summarizes the status of the trucking industry through tracking changes in six major conditions including freight volumes, freight rates, fleet capacity, fleet bankruptcies, fuel price and financing.
- An index value greater than zero represents a positive environment in the truck market, and an index value below zero represents a negative environment. An index value above 10 is a sign that volumes, prices and margin are in a solidly favorable range.

(66) Freight Transportation Services Index

- Source: Federal Reserve Bank of St. Louis.
- The Freight Transportation Services Index measures the output of the for-hire freight transportation industry and consists of data from for-hire trucking, rail, inland waterways, pipelines and air freight.

(67) Crude Oil Refinery Receipts by Transportation Method

- Source: U.S. Energy Information Administration.
- Refinery Receipts by Pipeline, Tanker, Barge, Truck and Rail refer to total volumes of crude oil of domestic and international origin that are in transit to, or received by, domestic refineries. Volumes of crude oil in transit via pipeline are excluded from receipts. Foreign crude oil is included in receipts only after entry through customs.
- Refinery inputs track volumes of crude oil that are entered into refining processes (e.g., distillation units, cokers, etc.).
- The volume difference between refinery receipts and refinery inputs is that which is in transit but not yet received by refineries plus that which has been received and is held in bonded storage, awaiting entry into refining processes.

(68) Crude Oil Movements by Tanker and Barge Movements Between Petroleum Administration for Defense Districts (PADDs)

- Source: U.S. Energy Information Administration.
- The data series shown on the chart is an aggregate of all crude oil movements between Petroleum Administration for Defense Districts (PADDs). This includes crude oil movement from PADD 1 to PADD 2 and PADD 3; PADD 2 to PADD 1 and PADD 3; and PADD 3 to PADD 1, PADD 2 and PADD 5.
- PADD 1 is the East Coast region, PADD 2 is the Midwest region, PADD 3 is the Gulf Coast region and PADD 5 is the West Coast region.

DATA CENTER: ABBREVIATIONS & ACRONYMS, DEFINITIONS, DESCRIPTIONS AND CHART NOTES

(69) Movements of Crude Oil by Rail
- Source: U.S. Energy Information Administration.

(70) Average Weekly Rail Carloads of Petroleum and Petroleum Products
- Source: Association of American Railroads.
- Monthly aggregates of the average weekly number of rail carloads transporting petroleum and petroleum products in the United States.
- Excludes the U.S. operations of Canadian railroads.

(71) U.S. Manufacturers' Monthly Shipments and U.S. Purchasing Managers' Index (PMI®)
- Sources: For Manufacturers' Monthly Shipments - U.S. Census Bureau Manufacturers' Shipments, Inventories and Orders Survey; and for U.S. Purchasing Managers' Index (PMI®) – Institute for Supply Management Manufacturing Report on Business®.
- A PMI® above 50 represents expansion within the manufacturing sector compared with the prior month.

(72) U.S. New Housing Starts and Total U.S. Construction Spending
- Source: U.S. Census Bureau.

(73) London Interbank Offered Rate (LIBOR), Based on U.S. Dollar
- Source: ICE Benchmark Administration Limited via the Federal Reserve Bank of St. Louis.
- The London Interbank Offered Rate is the average interest rate at which leading banks borrow funds of a sizeable amount from other banks in the London market. LIBOR is the most widely used benchmark or reference rate for short term interest rates. The chart values are monthly percent averages of daily figures and are not seasonally adjusted.

(74) Bank Prime Loan Interest Rates
- Source: Federal Reserve Bank of St. Louis.
- The Bank Prime Loan Interest Rate is that posted by a majority of top 25 (by assets in domestic offices) insured, U.S.-chartered commercial banks. Prime is one of several base rates used by banks to price short-term business loans.
- The chart values are monthly percent averages of daily figures and are not seasonally adjusted.

(75) Commercial and Industrial Loans vs. Banking Standards
- Source: Federal Reserve Bank of St. Louis.
- Net Percentage of Domestic Banks Tightening Standards for Commercial and Industrial Loans to large and middle-market firms. Quarterly, not seasonally adjusted.
- Commercial and Industrial Loans, All Commercial Banks. Monthly, seasonally adjusted.

(76) U.S. Treasury Yield Curve
- Source: U.S. Treasury.
- U.S. Treasury Yield Curve rates are commonly referred to as Constant Maturity Treasury (CMT) rates. Yields are interpolated by the U.S. Treasury from the daily yield curve.
- The curve, which relates the yield on a security to its time to maturity, is based on the closing market bid yields on actively traded U.S. Treasury securities in the over-the-counter market.

(77) Corporate Spreads to Treasuries by Quality
- Source: Federal Reserve Bank of St. Louis.
- Corporate Spreads to Treasuries represent the spread, or difference, between the yield curve of an index of corporate bonds of a given rating category and the spot rate U.S. Treasury curve. The spot rate U.S. Treasury curve is a yield curve that uses U.S. Treasury spot rates rather than yields, and represents the rate for a zero-coupon U.S. Treasury bond.
- The corporate bond yield indexes are Bank of America Merrill Lynch Option-Adjusted Spread (OAS) Indexes for all bonds with a given investment rating of AA, BB or CCC or below that are publically issued in the U.S. domestic market. Each respective OAS index is calculated using each constituent bond's OAS, weighted by market capitalization. A bond's OAS is the bond's yield spread relative to the risk-free rate of return, typically the U.S. Treasury securities yield, adjusted to account for an embedded option.

HOT TOPICS

CO2 PIPELINE INFRASTRUCTURE GETTING LEGS

The Energy Equipment & Infrastructure Alliance (EEIA) has been keeping a close eye on carbon capture, use and storage (CCUS), because of its potential to (1) drive investment in a major new CO2 pipeline network, and (2) cement the role of natural gas in the U.S. energy mix indefinitely. Although actual project initiations remain limited, there are signs that this scenario is poised to play out.

Recent marketplace developments referenced below support this outlook. Equally important, there is a new broadly bipartisan effort underway in Congress that could jumpstart a CO2 pipeline building boom over the next five years.

The SCALE Act (which stands for "Storing CO2 and Lowering Emissions") was recently introduced in both the House and Senate with a significant lineup of Republican and Democrat leaders as co-sponsors. It is designed to overcome significant obstacles to widespread investment in new carbon capture projects and CO2 pipelines.

The biggest obstacle is what is known as the "Chicken and Egg Challenge". CO2 pipelines and storage infrastructure must exist, or at least be certain to be built, before CO2 capture projects can be committed. But the CO2 capture projects must also exist or be certain before the pipeline infrastructure can be committed.

The next obstacle is that the pipeline and storage network must be built with initial excess capacity to realize economies of scale and enable future growth. But initial CO2 capture projects must bear the costs of the infrastructure and cannot pay for the oversized, initially excess capacity.

Finally, while new IRS 45Q carbon capture tax credits may fund the capture projects, they are not sufficient to fund the new pipelines needed. New funding directed specifically at pipelines is required.

The SCALE Act addresses all three obstacles by directing substantial Federal funding to CO2 pipeline development that would itself generate over $14 billion of public/private investment over the next five years, while it would

HOT TOPICS

CO2 PIPELINE INFRASTRUCTURE GETTING LEGS (CONTINUED)

jumpstart additional private investment. An estimated 13,000 construction and supply chain jobs would be created per year by the Federal investment alone.

The EEIA is conducting a campaign to marshal the voices of the supply chain to help move this important legislation forward, and will be reaching out in the coming weeks and months for support.

Co-sponsors of the Senate bill are Joe Manchin (D-WV), Lisa Murkowski (R-AK), Shelly Moore Capito (R-WV), John Hoeven (R-ND), Chris Coons (D-DE), Bill Cassidy (R-LA), Sheldon Whitehouse (D-RI), Mike Braun (R-IN), John Tester (D-MT) and Tammy Duckworth (D-IL). House Co-sponsors are David McKinley (R-WV), Mark Veasey (D-TX), Cheri Bustos (D-IL), Pete Stauber (R-MN), Terri Sewell (D-AL) and Liz Cheney (R-WY).

As of this writing, we are watching to see if the SCALE Act will be incorporated into the expected larger infrastructure legislation, or if it will move forward as a stand-alone measure. Either way, we will be advocating for its passage.

Meanwhile, for a deeper dive into significant CCUS developments, below are links to some recent announcements:

- Bipartisan group introduces SCALE Act, nation's first comprehensive CO2 infrastructure bill (Senator Chris Coons Press Release).
- Analysis of the SCALE Act Clean Air Task Force Website.
- Kinder Morgan forms energy transition ventures group to pursue commercial opportunities in the lower carbon arena including CCUS (Pipeline & Gas Journal, March 12, 2021).
- Exxon Mobil to invest $3 billion in carbon capture and other projects to lower emissions (New York Times, February 1, 2021).

HOT TOPICS

CO2 PIPELINE INFRASTRUCTURE GETTING LEGS (CONTINUED)

- Exxon Mobil bets big on expected $2 trillion carbon capture market (Forbes, March 9, 2021).
- Occidental Petroleum's Oxy Low Carbon Ventures committed to a major CO2 direct air capture (DAC) project in the Permian Basin to feed its enhanced oil recovery (EOR) (Company Website).
- Carbon capture is key to companies' net zero pledges (Wall Street Journal, March 17, 2021).
- Summit Agricultural Group announces creation of Summit Carbon Solutions and world's largest carbon capture and storage project (Company Website).
- NextDecade pursuing carbon capture project tied to proposed Rio Grande LNG (S&P Platts, March 8, 2021).
- Wyoming 2,000-mile CO2 pipeline system granted federal EIS (Oil & Gas Journal, November 4, 2020).
- Cheaper carbon capture is on the way (Phys.org, March 11, 2021).

HOT TOPICS

WHY DID THE U.S. AND CANADA WANT THE KEYSTONE XL PIPELINE?

Few domestic policy issues have created more controversy than the Keystone XL pipeline. Proponents contend that it would enhance access to Canadian oil, significantly increasing U.S. and North American energy security. Environmentalists, farmers, ranchers and Native American groups along the proposed route have been fighting the pipeline for much of its history, due to the perceived risks of oil spills, its contribution to climate change, and infringements of treaty rights. Because the pipeline would cross the Canadian-U.S. border, construction requires approval by the U.S. State Department, and ultimately the president.

North America is experiencing a boom in crude oil supply due to growing production in the Canadian oil sands, the recent expansion of shale oil production from the Bakken fields in North Dakota and Montana, as well as the developments of the Eagle Ford and Permian Basins in Texas. The rapid expansion of North American oil production has led to significant challenges in transporting oil efficiently and safely to domestic markets -- principally refineries -- using the nation's existing pipeline infrastructure.

The Keystone XL pipeline is an expansion of the existing Keystone pipeline that carries Canadian crude into the U.S (see figure). The proposed pipeline would take a more direct route than the existing pipeline, boosting the flow of oil from Canada. Canada already sends 550,000 barrels of oil per day to the U.S. via the existing Keystone pipeline.(1)

Proposed Keystone XL Pipeline

HOT TOPICS

WHY DID THE U.S. AND CANADA WANT THE KEYSTONE XL PIPELINE? (CONTINUED)

The Keystone XL pipeline was first proposed in July 2008 by TC Energy Corporation, then known as TransCanada Corporation, a pipeline company based in Calgary, Alberta, and ConocoPhillips, which was a joint owner until 2009. The expansion was originally conceived when oil prices were at historic highs to transport oil 1,210 miles from the Canadian oil sands to Steele City, Nebraska, where it would link to existing pipelines heading to Gulf Coast refineries. The Keystone XL pipeline would add to the capacity of the existing system to deliver up to 830,000 barrels of Canadian oil each day.[2]

It has been a complicated 12 years since the Keystone XL project was first proposed. President Obama approved the southern leg of the pipeline in 2012. A section running south from Cushing, Oklahoma, to the Gulf of Mexico opened in January 2014. Access to the Gulf Coast provides additional refineries and ports from which the oil can be exported globally.

In 2015, after an outpouring of grassroots activism and advice from the Environmental Protection Agency, President Obama rejected the construction of the northern leg. President Obama said at the time that the project would not:

- lower gas prices,
- create long-term jobs, or
- increase North American energy independence

The decision was reversed by President Trump during his early days in office in 2017. Construction was halted the following year when a Montana U.S. District Judge ruled that the State Department needed to give further consideration to the pipeline's potential for environmental damage. Despite additional court challenges in Montana and Nebraska, President Trump issued a new permit in 2019 allowing construction to proceed without environmental review, bypassing the State Department entirely.

On January 20, 2021, President Joe Biden signed an executive order revoking Trump's presidential permit for the Keystone XL pipeline border crossing. While TC Energy Corporation has suspended work on the project, it has not yet announced what legal options the company will pursue in response to the executive order. The province of Alberta jump started construction of the pipeline last year with a $1.1 billion investment. Given the amount of money invested in the pipeline, it would be surprising to see the company and Alberta fail to at least try to obtain some form of recourse. Canada's Prime Minister, Justin Trudeau, he will keep pushing President Biden for pipeline approval.

HOT TOPICS

WHY DID THE U.S. AND CANADA WANT THE KEYSTONE XL PIPELINE? (CONTINUED)

Canada ranks third in proven oil reserves, trailing only Venezuela and Saudi Arabia, and the Alberta tar sands comprise 98% of these projected reserves.[3] An estimated 170 billion barrels of oil is thought to be recoverable, which is enough to accommodate anticipated U.S. demand for at least 30 years.[3] Despite the recent push to develop renewable energy sources and move away from fossil fuels, the amount of oil produced in northern Alberta is projected to double by 2030.[1]

As the world's fourth-largest oil exporter, Canada sells almost all of its oil to one customer: the United States.[4] Canada's government and oil industry see Keystone XL as an important export opportunity for the country. Canada has battled with pipeline bottlenecks that squeezed regional oil prices and forced producers to transport more of their oil south by rail.

The U.S, which has benefited from the rise of its domestic shale oil industry, still gets half of its oil imports from Canada (56% in 2019) because it's cheaper to get it from our next-door neighbor than from Venezuela, OPEC or Russia.[5] In addition, refiners in the Midwest and the Gulf Coast generally use the type of heavy oil that Canada produces. The lack of additional Canadian imports could force refiners to buy more oil from adversarial states.

The U.S. will likely continue to be an important and growing final destination for Canadian oil -- if not by the Keystone XL pipeline -- most by truck and rail, both avenues being more carbon-intensive means of transport. America's rail capacity, which is also needed for other types of freight, could be stretched, possibly raising the cost of all rail capacity. The amount of crude oil shipped via rail from Canada to the U.S. increased from 7.8 million barrels in 2012 to over 110 million barrels in 2019.[6] It can cost up to three times as much to ship oil by rail than by pipeline.[5] It is projected that without the Keystone XL pipeline, at least 400,000 barrels per day will have to travel by rail.[5]

Market demand for crude oil, not pipeline capacity, determines how much is produced and transported to refineries. Stopping the pipeline's construction will not reduce the production or consumption of the additional market demand.

Sources:
1) BBC, "Keystone XL Pipeline: Why is it so Disputed?" January 21, 2021.
2) TC Energy Corporation, Keystone XL Project Overview.
3) Harvard Magazine, "The Keystone XL Pipeline, Should the President Approve Construction?" December 2013.
4) Dow Jones, "What Is the Keystone XL Pipeline and Why Did President Biden Issue an Executive Order to Block It?" January 21, 2021.
5) Energy Equipment and Infrastructure Alliance, "President Biden's Keystone XL Carbon Footprint," February 16, 2021.
6) U.S. Energy Information Administration.

PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

PETROLEUM PRODUCTS

EQUITY COMPARABLES (1)

Petroleum Products (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Calumet Specialty Products Partners, L.P.	$2,268	$108	4.7%	$3.13	66.6%	$244	$1,617	0.7x	15.0x	13.0x
Chevron Corporation	94,471	14,064	14.9	84.45	68.8	162,594	190,774	2.0x	13.6x	3.0x
CVR Energy, Inc.	3,930	(7)	(0.2)	14.90	36.5	1,498	2,656	0.7x	NM	NM
EnLink Midstream, LLC	3,916	1,028	26.3	3.71	57.3	1,819	8,242	2.1x	8.0x	4.5x
Gibson Energy Inc.	3,875	297	7.7	16.14	72.5	2,363	3,465	0.9x	11.7x	4.0x
Exxon Mobil Corporation	179,784	9,258	5.1	41.22	57.8	174,288	241,467	1.3x	26.1x	7.4x
HollyFrontier Corporation	11,184	184	1.6	25.85	50.0	4,161	6,790	0.6x	36.9x	12.0x
Keyera Corp.	2,364	641	27.1	17.75	61.9	3,924	6,502	2.8x	10.1x	4.2x
Marathon Petroleum Corporation	69,897	775	1.1	41.36	66.8	26,911	67,878	1.0x	87.6x	42.2x
Parkland Corporation	10,996	695	6.3	31.70	82.1	4,746	7,718	0.7x	11.1x	4.2x
Phillips 66	64,171	(119)	(0.2)	69.94	61.8	30,550	46,197	0.7x	NM	NM
NuStar Energy L.P.	1,482	717	48.4	14.41	49.1	1,574	6,472	4.4x	9.0x	4.9x
Valero Energy Corporation	60,115	804	1.3	56.57	57.7	23,069	36,233	0.6x	45.1x	15.6x
Median			**5.1%**		**61.8%**			**0.9x**	**13.6x**	**4.9x**
Mean			**11.1%**		**60.7%**			**1.4x**	**24.9x**	**10.5x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
4/24/2019	Anadarko Petroleum Corporation (NYSE:APC)	Occidental Petroleum Corporation (NYSE:OXY)	$57,809.2	4.4x	7.6x
10/22/2018	EnLink Midstream Partners, LP (NYSE:ENLK)	EnLink Midstream, LLC (NYSE:ENLC)	$12,923.5	1.7x	12.2x
8/27/2018	Blue Ridge Mountain Resources, Inc. (OTCPK:BRMR)	Eclipse Resources Corporation (NYSE:ECR)	$348.0	3.6x	12.8x
8/1/2018	Energy Transfer Operating, LP	Energy Transfer, LP (NYSE:ET)	$69,430.8	2.1x	10.9x
5/17/2018	Enbridge Energy Partners, LP (NYSE:EEP)	Enbridge Inc. (TSX:ENB)	$15,925.8	6.6x	10.1x
4/30/2018	Andeavor (NYSE:ANDV)	Marathon Petroleum Corporation (NYSE:MPC)	$35,103.0	0.9x	12.7x
11/8/2017	Alon USA Partners, LP	Delek US Holdings, Inc. (NYSE:DK)	$1,050.4	0.5x	5.9x
4/5/2017	Houghton International Inc.	Quaker Chemical Corporation (NYSE:KWR)	$1,415.4	-	11.8x
2/2/2017	ONEOK Partners, LP	ONEOK, Inc. (NYSE:OKE)	$23,722.4	2.7x	12.9x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

NATURAL GAS

EQUITY COMPARABLES (1)

Natural Gas (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Alliant Energy Corporation	$3,416	$1,331	39.0%	$51.53	85.5%	$12,870	$19,884	5.8x	14.9x	5.4x
AltaGas Ltd.	4,385	937	21.4	14.69	82.3	4,106	10,962	2.5x	11.7x	7.2x
Atmos Energy Corporation	2,860	1,303	45.6	95.43	78.8	12,028	16,776	5.9x	12.9x	3.5x
Avista Corporation	1,322	450	34.1	40.14	75.7	2,759	5,136	3.9x	11.4x	5.4x
Baytex Energy Corp.	637	301	47.2	0.54	32.9	304	1,729	2.7x	5.7x	4.7x
Calumet Specialty Products Partners, L.P.	2,268	108	4.7	3.13	66.6	244	1,617	0.7x	15.0x	13.0x
Cenovus Energy Inc.	10,381	286	2.8	6.08	56.7	7,474	14,822	1.4x	51.9x	24.6x
Chesapeake Utilities Corporation	488	180	36.9	108.21	97.1	1,889	2,650	5.4x	14.7x	3.9x
Corning Natural Gas Holding Corporation	33	10	30.9	15.44	71.8	48	121	3.7x	12.1x	7.0x
Crestwood Equity Partners LP	2,254	430	19.1	18.98	57.6	1,396	5,026	2.2x	11.7x	6.0x
Dominion Energy, Inc.	14,172	6,435	45.4	75.20	82.7	61,350	103,979	7.3x	16.2x	5.8x
EnLink Midstream, LLC	3,916	1,028	26.3	3.71	57.3	1,819	8,242	2.1x	8.0x	4.5x
Enbridge Inc.	30,676	9,273	30.2	31.95	71.0	64,705	126,282	4.1x	13.6x	5.8x
Enterprise Products Partners L.P.	27,200	7,567	27.8	19.59	67.0	42,763	73,259	2.7x	9.7x	3.9x
Epsilon Energy Ltd.	25	14	54.3	3.71	95.4	89	77	3.0x	5.6x	(0.8)x
Eversource Energy	8,904	3,026	34.0	86.51	87.0	29,658	45,498	5.1x	15.0x	5.9x
Genesis Energy, L.P.	1,825	365	20.0	6.21	28.0	761	5,044	2.8x	13.8x	9.7x
National Fuel Gas Company	1,543	790	51.2	41.13	88.1	3,743	6,402	4.1x	8.1x	3.2x
New Jersey Resources Corporation	1,793	351	19.6	35.55	79.6	3,418	5,814	3.2x	16.5x	7.2x
Northwest Natural Holding Company	774	268	34.6	45.99	59.5	1,406	2,630	3.4x	9.8x	4.9x
MDU Resources Group, Inc.	5,533	835	15.1	26.34	81.8	5,282	7,682	1.4x	9.2x	2.8x
OGE Energy Corp.	2,122	898	42.3	31.86	68.6	6,373	9,835	4.6x	11.0x	4.0x
ONE Gas, Inc.	1,530	493	32.2	76.77	79.2	4,076	5,960	3.9x	12.1x	4.1x
ONEOK, Inc.	8,542	2,527	29.6	38.38	48.9	17,056	31,227	3.7x	12.4x	5.6x
RGC Resources, Inc.	63	22	34.3	23.78	74.4	194	320	5.1x	14.9x	6.2x
South Jersey Industries, Inc.	1,541	451	29.3	21.55	64.5	2,162	5,452	3.5x	12.1x	7.8x
Southwest Gas Holdings, Inc.	3,299	731	22.2	60.75	74.4	3,452	6,320	1.9x	8.6x	3.9x
Summit Midstream Partners, LP	384	197	51.3	12.49	22.7	47	1,878	4.9x	9.5x	6.8x
Targa Resources Corp.	8,260	2,128	25.8	26.38	62.6	6,041	17,253	2.1x	8.1x	3.6x
TC Energy Corporation	10,202	6,588	64.6	40.61	67.6	38,179	81,451	8.0x	12.4x	5.7x
Median			**31.6%**		**71.4%**			**3.6x**	**12.1x**	**5.5x**
Mean			**32.4%**		**68.8%**			**3.7x**	**13.0x**	**6.0x**

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

NATURAL GAS

SELECTED TRANSACTIONS (1)

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
2/17/2021	Enable Midstream Partners, LP (NYSE:ENBL)	Energy Transfer LP (NYSE:ET)	$7,329.7	3.1x	9.5x
1/13/2021	Corning Natural Gas Holding Corporation (OTCPK:CNIG)	Argo Infrastructure Partners LP	$172.0	4.6x	17.2x
7/27/2020	CNX Midstream Partners LP (NYSE:CNXM)	CNX Resources Corporation (NYSE:CNX)	$764.2	5.1x	6.6x
2/27/2020	EQM Midstream Partners, LP	Equitrans Midstream Corporation (NYSE:ETRN)	$4,395.8	7.6x	8.1x
10/21/2019	AltaGas Canada Inc. (TSX:ACI)	Alberta Teachers' Retirement Fund Board; Public Sector Pension Investment	$1,278.2	5.2x	15.2x
9/16/2019	SemGroup Corporation	Energy Transfer LP (NYSE:ET)	$5,007.4	1.9x	11.2x
8/27/2019	Tallgrass Energy, LP (NYSE:TGE)	The Blackstone Group Inc. (NYSE:BX)	$9,337.3	9.9x	9.9x
5/8/2019	Andeavor Logistics LP	MPLX LP (NYSE:MPLX)	$14,804.7	5.6x	10.6x
4/24/2019	Anadarko Petroleum Corporation (NYSE:APC)	Occidental Petroleum Corporation (NYSE:OXY)	$57,809.2	4.4x	7.6x
11/8/2018	Western Gas Partners, LP (NYSE:WES)	Western Gas Equity Partners, LP (NYSE:WGP)	$13,427.9	6.5x	12.0x
10/22/2018	EnLink Midstream Partners, LP (NYSE:ENLK)	EnLink Midstream, LLC (NYSE:ENLC)	$12,923.5	1.7x	12.2x
10/9/2018	Antero Midstream Partners LP (NYSE:AM)	Antero Midstream GP LP (NYSE:AMGP)	$7,359.7	7.7x	11.5x
9/28/2018	American Midstream Partners, LP (NYSE:AMID)	ArcLight Capital Partners, LLC	$1,595.1	2.0x	14.2x
8/27/2018	Blue Ridge Mountain Resources, Inc. (OTCPK:BRMR)	Eclipse Resources Corporation (NYSE:ECR)	$348.0	3.6x	12.8x
8/1/2018	Energy Transfer Operating, LP	Energy Transfer, LP (NYSE:ET)	$69,430.8	2.1x	10.9x
5/17/2018	Williams Partners LP (NYSE:WPZ)	The Williams Companies, Inc. (NYSE:WMB)	$57,052.1	7.0x	14.1x
4/25/2018	Rice Midstream Partners LP (NYSE:RMP)	EQM Midstream Partners, LP (NYSE:EQM)	$2,443.1	7.7x	9.9x
11/1/2017	Southcross Energy Partners, LP (NYSE:SXE)	American Midstream Partners, LP (NYSE:AMID)	$624.1	1.0x	14.8x
7/19/2017	Avista Corporation (NYSE:AVA)	Hydro One Limited (TSX:H)	$5,332.4	3.7x	11.3x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

PROPANE AND HEATING/FUEL OIL

EQUITY COMPARABLES (1)

Propane and Heating/Fuel Oil (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Ferrellgas Partners, L.P.	$1,548	$263	17.0%	$0.26	36.5%	$25	$2,399	1.6x	9.1x	9.3x
NGL Energy Partners LP	5,156	506	9.8	2.40	19.9	309	4,664	0.9x	9.2x	6.8x
Spire Inc.	1,801	567	31.5	64.04	72.8	3,308	6,743	3.7x	11.9x	5.9x
Star Group, L.P.	1,332	135	10.2	9.41	94.3	390	559	0.4x	4.1x	2.0x
Suburban Propane Partners, L.P.	1,079	253	23.4	14.86	65.0	929	2,255	2.1x	8.9x	5.4x
UGI Corporation	6,484	1,705	26.3	34.96	77.2	7,287	13,762	2.1x	8.1x	3.6x
Median			**20.2%**		**68.9%**			**1.8x**	**9.0x**	**5.6x**
Mean			**19.7%**		**60.9%**			**1.8x**	**8.6x**	**5.5x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
2/11/2021	Assets of Highlands Propane Inc.	Superior Plus Corp. (TSX:SPB)	$10.9	-	-
2/11/2021	Miller Propane Inc.	Superior Plus Corp. (TSX:SPB)	$5.9	-	-
1/26/2021	All of the Assets of Holden Oil, Inc.	Superior Plus Corp. (TSX:SPB)	$17.8	-	-
11/11/2020	Assets of Petroleum Heat and Power Co., Inc.	Superior Plus Corp. (TSX:SPB)	$6.1	-	-
10/15/2020	Central Coast Propane, Inc.	Superior Plus Corp. (TSX:SPB)	$12.9	-	-
9/1/2020	Simmons Energy Solutions Inc.	MFA Oil Company	-	-	-
8/25/2020	Rymes Propane & Oils, Inc.	Superior Plus Corp. (TSX:SPB)	$159.0	-	-
7/28/2020	Champagne's Energy, Inc.	Superior Plus Corp. (TSX:SPB)	$27.3	-	-
2/6/2020	All American Propane, Inc.	ThompsonGas LLC	-	-	-
1/9/2020	Evelyn Jeanne, Inc., d/b/a Western Propane Service	Superior Plus Corp. (TSX:SPB)	-	-	-
11/13/2019	Propane Distribution Assets in New Brunswick and Quebec	Superior Plus Corp. (TSX:SPB)	$3.7	-	-
11/13/2019	Propane Distribution Assets in North Carolina	Superior Plus Corp. (TSX:SPB)	$1.2	-	-
5/9/2019	Sheldon Gas Company/Sheldon Oil Company	Superior Plus Corp. (TSX:SPB)	$15.9	-	-
4/2/2019	AmeriGas Partners, LP (NYSE:APU)	UGI Corporation (NYSE:UGI)	$6,149.2	2.2x	10.5x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

DRILLING

EQUITY COMPARABLES (1)

Drilling (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
AKITA Drilling Ltd.	$94	$12	12.6%	$0.38	39.3%	$15	$71	0.8x	6.0x	4.6x
Baker Hughes Company	20,705	2,353	11.4	20.85	80.2	14,299	23,594	1.1x	10.0x	1.2x
CES Energy Solutions Corp.	697	42	6.0	1.00	53.6	262	491	0.7x	11.8x	5.6x
Diamond Offshore Drilling, Inc.	693	19	2.8	0.17	2.2	24	2,178	3.1x	112.8x	112.5x
Ensign Energy Services Inc.	735	178	24.2	0.71	29.5	115	1,244	1.7x	7.0x	6.0x
Halliburton Company	14,445	1,635	11.3	18.90	74.2	16,708	25,417	1.8x	15.5x	5.1x
Helmerich & Payne, Inc.	1,406	199	14.1	23.16	48.9	2,492	2,441	1.7x	12.3x	(0.2)x
Independence Contract Drilling, Inc.	83	5	5.5	2.94	12.4	18	147	1.8x	32.3x	29.7x
NOV Inc.	6,090	(182)	(3.0)	13.73	53.2	5,331	6,475	1.1x	NM	NM
Precision Drilling Corporation	734	221	30.1	16.43	48.7	225	1,202	1.6x	5.4x	4.2x
Secure Energy Services Inc.	1,431	67	4.7	1.93	47.3	306	690	0.5x	10.3x	5.0x
Valaris plc	1,427	(225)	(15.8)	0.05	0.6	10	(120)	(0.1)x	NM	NM
Median			**8.6%**		**48.0%**			**1.4x**	**11.1x**	**5.1x**
Mean			**8.7%**		**40.8%**			**1.3x**	**22.3x**	**17.4x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
5/4/2020	Quintana Energy Services Inc.	KLX Energy Services Holdings, Inc. (NasdaqGS:KLXE)	$49.6	0.1x	2.1x
10/8/2018	Rowan Companies plc (NYSE:RDC)	Ensco plc (NYSE:ESV) / Valaris plc (NYSE:VAL)	$3,139.1	3.8x	43.9x
10/1/2018	Sidewinder Drilling LLC	Independence Contract Drilling Inc. (NYSE:ICD)	$291.8	2.6x	45.1x
8/27/2018	Blue Ridge Mountain Resources, Inc. (OTCPK:BRMR)	Eclipse Resources Corporation (NYSE:ECR)	$347.9	3.6x	12.8x
8/13/2018	Trinidad Drilling Ltd. (TSX:TDG)	Ensign Energy Services Inc. (TSX:ESI)	$714.0	1.5x	5.1x
6/5/2018	Xtreme Drilling Corp.	AKITA Drilling Ltd. (TSX:AKT.A)	$155.0	2.8x	162.4x
2/15/2018	Layne Christensen Company (NasdaqGS:LAYN)	Granite Construction Incorporated (NYSE:GVA)	$491.9	1.0x	16.5x
5/30/2017	Atwood Oceanics, Inc. (NYSE:ATW)	Ensco plc (NYSE:ESV)	$1,759.6	2.2x	4.7x
5/19/2017	Savanna Energy Services Corp.	Total Energy Services Inc. (TSX:TOT)	$458.2	1.4x	16.6x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

LUBRICANTS AND GREASES

EQUITY COMPARABLES (1)

Lubricants and Greases (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Albemarle Corporation	$3,129	$782	25.0%	$147.52	96.1%	$15,705	$18,882	6.0x	24.2x	3.7x
Ashland Global Holdings Inc.	2,345	474	20.2	79.20	95.1	4,798	6,344	2.7x	13.4x	3.2x
Clean Harbors, Inc.	3,144	502	16.0	76.10	86.1	4,204	5,414	1.7x	10.8x	2.5x
CSW Industrials, Inc.	384	82	21.3	111.91	95.4	1,752	1,734	4.5x	21.1x	3.7x
FMC Corporation	4,642	1,250	26.9	114.93	94.0	14,913	18,045	3.9x	14.4x	2.3x
Ingevity Corporation	1,216	394	32.4	75.73	86.0	3,126	4,292	3.5x	10.9x	2.8x
Kraton Corporation	1,563	196	12.5	27.79	88.4	886	1,889	1.2x	9.6x	4.8x
NewMarket Corporation	2,011	421	21.0	398.29	81.5	4,350	4,899	2.4x	11.6x	1.3x
Ocean Bio-Chem, Inc.	52	13	25.3	13.36	59.2	126	124	2.4x	9.4x	(0.1)x
Quaker Chemical Corporation	1,418	195	13.7	253.39	93.1	4,518	5,292	3.7x	27.2x	3.8x
Stepan Company	1,870	240	12.9	119.32	92.1	2,680	2,618	1.4x	10.9x	(0.4)x
Synalloy Corporation	256	5	1.8	7.80	54.7	71	176	0.7x	38.8x	20.9x
Trecora Resources	209	19	9.1	6.99	90.9	173	186	0.9x	9.8x	0.4x
Valvoline Inc.	2,399	630	26.3	23.14	97.4	4,280	5,820	2.4x	9.2x	2.8x
Median			**20.6%**		**91.5%**			**2.4x**	**11.3x**	**2.8x**
Mean			**18.9%**		**86.4%**			**2.7x**	**15.8x**	**3.7x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
12/7/2020	Gabriel Performance Products, LLC	Huntsman Corporation (NYSE:HUN)	$250.0	2.4x	11.0x
7/12/2019	Milacron Holdings Corp. (NYSE:MCRN)	Hillenbrand, Inc. (NYSE:HI)	$2,051.1	1.7x	12.9x
4/23/2019	Synalloy Corporation (NasdaqGM:SYNL)	Privet Fund Management, LLC	$308.8	1.0x	10.9x
9/13/2018	MPM Holdings Inc. (OTCPK:MPMQ)	KCC Corporation (KOSE:A002380); SJL Partners; Wonik QnC Corporation (KOSDAQ:A074600)	$2,664.9	1.0x	7.4x
8/15/2018	KMG Chemicals, Inc.	Cabot Microelectronics Corporation (NasdaqGS:CCMP)	$1,606.5	3.5x	13.5x
4/5/2017	Houghton International Inc.	Quaker Chemical Corporation (NYSE:KWR)	$1,415.4	1.8x	11.8x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

SOLAR

EQUITY COMPARABLES (1)

Solar (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Boralex Inc.	$497	$310	62.4%	$37.07	98.8%	$3,802	$6,143	12.4x	19.8x	9.1x
Capital Power Corporation	1,406	713	50.7	27.45	90.0	2,903	6,464	4.6x	9.1x	3.8x
NextEra Energy Partners, LP	917	627	68.4	67.05	97.0	4,895	14,260	15.6x	22.7x	6.6x
NRG Energy, Inc.	9,093	1,798	19.8	37.55	93.3	9,170	14,634	1.6x	8.1x	2.9x
Sunrun Inc.	922	(169)	(18.3)	69.38	84.2	13,705	17,343	18.8x	NM	NM
Median			**50.7%**	**93.3%**				**12.4x**	**14.4x**	**5.2x**
Mean			**36.6%**	**92.6%**				**10.6x**	**14.9x**	**5.6x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
1/13/2020	TerraForm Power, Inc. (NasdaqGS:TERP)	Brookfield Renewable Partners L.P. (TSX:BEP.UN)	$10,880.5	9.5x	13.0x
11/4/2019	Pattern Energy Group Inc. (NasdaqGS:PEGI)	Canada Pension Plan Investment Board	$6,293.7	11.5x	16.1x
2/5/2018	8point3 Energy Partners LP (NasdaqGS:CAFD)	Capital Dynamics, Inc.	$1,671.3	23.8x	17.0x
5/4/2017	Up to 20 Megawatts of Solar Energy Power Generation Assets	Kontrol Energy Corp. (CNSX:KNR)	$22.6	-	4.1x
3/7/2017	TerraForm Global, Inc. (NasdaqGS:GLBL)	Orion US Holdings 1 LP	$1,651.8	6.6x	17.2x
1/20/2016	Capstone Infrastructure Corporation	Irving Infrastructure Corp.	$1,435.1	-	12.7x
12/3/2014	Hawaiian Electric Industries, Inc. (NYSE:HE)	NextEra Energy, Inc. (NYSE:NEE)	$4,398.8	1.3x	8.5x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

WIND

EQUITY COMPARABLES (1)

Wind (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Algonquin Power & Utilities Corp.	$1,677	$669	39.9%	$16.44	93.6%	$9,816	$14,794	8.8x	22.1x	6.9x
Avangrid, Inc.	6,320	1,807	28.6	45.45	79.4	14,066	23,545	3.7x	13.0x	5.3x
Boralex Inc.	497	310	62.4	37.07	98.8	3,802	6,143	12.4x	19.8x	9.1x
Brookfield Renewable Partners L.P.	3,830	2,321	60.6	43.13	98.5	20,410	49,644	13.0x	21.4x	7.8x
Innergex Renewable Energy Inc.	481	327	67.9	21.48	99.1	3,750	7,505	15.6x	23.0x	11.6x
NextEra Energy Partners, LP	917	627	68.4	67.05	97.0	4,895	14,260	15.6x	22.7x	6.6x
Northland Power Inc.	1,617	1,112	68.7	35.84	95.9	7,236	13,911	8.6x	12.5x	5.5x
TransAlta Renewables Inc.	338	206	61.0	17.08	96.2	4,557	5,202	15.4x	25.2x	1.2x
Median			**61.7%**		**96.6%**			**12.7x**	**21.7x**	**6.7x**
Mean			**57.2%**		**94.8%**			**11.6x**	**20.0x**	**6.7x**

SELECTED TRANSACTIONS

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
1/13/2020	TerraForm Power, Inc. (NasdaqGS:TERP)	Brookfield Renewable Partners L.P. (TSX:BEP.UN)	$10,880.5	9.5x	13.0x
11/4/2019	Pattern Energy Group Inc. (NasdaqGS:PEGI)	Canada Pension Plan Investment Board	$6,293.7	11.5x	16.1x
10/21/2019	AltaGas Canada Inc. (TSX:ACI)	Alberta Teachers' Retirement Fund Board; Public Sector Pension Investment	$1,278.2	5.2x	15.2x
10/30/2017	Alterra Power Corp. (TSX:AXY)	Innergex Renewable Energy Inc. (TSX:INE)	$745.0	10.6x	31.0x
7/27/2017	Boralex Inc. (TSX:BLX)	Caisse de dépôt et placement du Québec	$3,436.5	12.5x	20.3x
6/19/2017	Pattern Energy Group Inc. (NasdaqGS:PEGI)	Public Sector Pension Investment Board	$4,313.7	12.2x	18.6x
3/7/2017	TerraForm Global, Inc. (NasdaqGS:GLBL)	Orion US Holdings 1 LP	$1,651.8	6.6x	17.2x
1/20/2016	Capstone Infrastructure Corporation	Irving Infrastructure Corp.	$1,435.1	-	12.7x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

OIL AND GAS FIELD SERVICES

EQUITY COMPARABLES (1)

Oil and Gas Field Services (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Archrock, Inc.	$875	$393	44.9%	$8.66	83.1%	$1,324	$3,080	3.5x	7.8x	4.4x
Baker Hughes Company	20,705	2,353	11.4	20.85	80.2	14,299	23,594	1.1x	10.0x	1.2x
Blueknight Energy Partners, L.P.	110	56	51.1	1.99	90.5	82	(28)	(0.3)x	(0.5)x	4.6x
Cathedral Energy Services Ltd.	32	(4)	(11.9)	0.15	53.6	7	22	0.7x	NM	NM
CES Energy Solutions Corp.	697	42	6.0	1.00	53.6	262	491	0.7x	11.8x	5.6x
Cypress Environmental Partners, L.P.	259	15	5.9	2.30	23.9	28	106	0.4x	6.9x	3.6x
Dawson Geophysical Company	86	4	4.5	2.12	72.4	50	10	0.1x	2.6x	(9.1)x
ENGlobal Corporation	64	0	0.0	3.20	74.1	88	84	1.3x	NM	NM
Enservco Corporation	21	(6)	(27.2)	1.87	32.0	10	35	1.6x	NM	NM
Ensign Energy Services Inc.	735	178	24.2	0.71	29.5	115	1,244	1.7x	7.0x	6.0x
Enterprise Group, Inc.	12	4	31.3	0.17	64.7	9	17	1.4x	4.4x	2.6x
Essential Energy Services Ltd.	75	6	8.3	0.17	54.4	24	30	0.4x	4.7x	0.7x
High Arctic Energy Services Inc	71	7	9.3	0.91	50.4	44	34	0.5x	5.1x	(1.6)x
Hyduke Energy Services Inc.	6	(5)	(83.7)	0.01	50.0	1	0	0.0x	NM	NM
Innospec Inc.	1,193	126	10.5	90.73	84.1	2,230	2,194	1.8x	17.5x	(0.5)x
Matrix Service Company	794	15	1.9	11.02	47.7	292	244	0.3x	16.4x	(4.7)x
Mullen Group Ltd.	914	162	17.7	8.55	92.1	829	1,235	1.4x	7.6x	2.4x
Newpark Resources, Inc.	493	(20)	(4.0)	1.92	30.0	174	279	0.6x	NM	NM
North American Construction Group Ltd.	393	125	31.8	9.88	80.2	284	629	1.6x	5.0x	2.5x
Parkland Corporation	10,996	695	6.3	31.70	82.1	4,746	7,718	0.7x	11.1x	4.2x
Precision Drilling Corporation	734	221	30.1	16.43	48.7	225	1,202	1.6x	5.4x	4.2x
Profire Energy, Inc.	21	(2)	(8.9)	0.85	55.7	41	30	1.4x	NM	NM
ProPetro Holding Corp.	789	132	16.8	7.39	61.0	746	692	0.9x	5.2x	(0.5)x
Secure Energy Services Inc.	1,431	67	4.7	1.93	47.3	306	690	0.5x	10.3x	5.0x
Select Energy Services, Inc.	605	5	0.9	4.10	42.8	356	364	0.6x	67.5x	(18.0)x
Shawcor Ltd.	925	20	2.2	2.76	26.6	195	520	0.6x	25.7x	11.3x
Smart Sand, Inc.	122	14	11.2	1.72	67.2	75	127	1.0x	9.3x	3.8x
STEP Energy Services Ltd.	318	9	2.7	0.58	43.5	39	211	0.7x	24.1x	18.8x
USA Compression Partners, LP	668	405	60.7	13.60	74.2	1,318	3,771	5.6x	9.3x	4.8x
Median			**6.3%**		**54.4%**			**0.7x**	**7.8x**	**3.6x**
Mean			**8.9%**		**58.5%**			**1.1x**	**11.9x**	**2.2x**

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

EQUIPMENT AND PHYSICAL TECHNOLOGY

EQUITY COMPARABLES (1)

Equipment and Physical Technology (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
AKITA Drilling Ltd.	$94	$12	12.6%	$0.38	39.3%	$15	$71	0.8x	6.0x	4.6x
CSI Compressco LP	302	94	31.0	1.06	38.7	50	719	2.4x	7.7x	7.1x
Enerflex Ltd.	955	144	15.1	5.15	52.9	462	765	0.8x	5.3x	1.9x
Exterran Corporation	613	138	22.6	4.42	49.5	146	672	1.1x	4.9x	4.0x
Forum Energy Technologies, Inc.	512	(142)	(27.8)	11.90	29.6	66	384	0.7x	NM	NM
Geospace Technologies Corporation	99	13	12.7	8.56	50.5	117	84	0.9x	6.7x	(2.7)x
Gulf Island Fabrication, Inc.	273	(28)	(10.4)	3.06	51.1	47	(5)	(0.0)x	NM	NM
Halliburton Company	14,445	1,635	11.3	18.90	74.2	16,708	25,417	1.8x	15.5x	5.1x
Hanwei Energy Services Corp.	5	(2)	(35.1)	0.02	80.0	3	6	1.2x	NM	NM
Helix Energy Solutions Group, Inc.	734	138	18.8	4.20	42.9	631	897	1.2x	6.5x	1.5x
ION Geophysical Corporation	123	18	14.4	2.43	27.5	36	177	1.4x	10.0x	8.6x
Key Energy Services, Inc.	238	(15)	(6.5)	5.52	15.8	76	132	0.6x	NM	NM
McCoy Global Inc.	31	2	5.7	0.38	71.6	10	14	0.5x	8.0x	2.0x
MIND Technology, Inc.	36	(10)	(27.3)	2.24	67.2	29	51	1.4x	NM	NM
Nabors Industries Ltd.	2,134	564	26.4	58.23	34.8	425	3,753	1.8x	6.7x	4.5x
NOV Inc.	6,090	(182)	(3.0)	13.73	53.2	5,331	6,475	1.1x	NM	NM
Natural Gas Services Group, Inc.	71	22	31.6	9.48	72.1	127	101	1.4x	4.5x	(1.2)x
Parker Drilling Company	630	129	20.4	3.25	14.2	49	151	0.2x	1.2x	0.8x
PHX Energy Services Corp.	183	21	11.5	1.99	87.8	100	117	0.6x	5.6x	0.5x
RigNet, Inc.	225	25	11.2	5.89	85.7	121	221	1.0x	8.8x	4.0x
RPC, Inc.	598	(6)	(1.0)	3.15	58.9	670	556	0.9x	NM	NM
Schlumberger Limited	23,601	4,222	17.9	21.83	53.1	30,388	44,742	1.9x	10.6x	3.5x
SEACOR Holdings Inc.	754	92	12.3	41.45	86.9	848	1,117	1.5x	12.1x	3.5x
Solaris Oilfield Infrastructure, Inc.	103	17	16.4	8.14	55.7	241	306	3.0x	18.1x	(3.1)x
Superior Drilling Products, Inc.	10	(1)	(9.6)	0.60	57.6	15	21	2.0x	NM	NM
TechnipFMC plc	13,051	1,102	8.4	9.40	43.0	4,225	4,649	0.4x	4.2x	0.2x
TerraVest Industries Inc.	234	43	18.3	12.54	92.6	232	320	1.4x	7.5x	1.9x
TETRA Technologies, Inc.	378	29	7.8	0.86	41.7	109	1,053	2.8x	35.7x	6.1x
Weatherford International plc	3,685	275	7.5	6.00	16.2	420	2,204	0.6x	8.0x	6.6x
Median			**11.5%**		**52.9%**			**1.1x**	**7.5x**	**3.5x**
Mean			**7.4%**		**53.3%**			**1.2x**	**9.2x**	**2.8x**

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

OIL AND GAS FIELD SERVICES AND EQUIPMENT AND PHYSICAL TECHNOLOGY

SELECTED TRANSACTIONS (1)

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
3/9/2021	Tervita Corporation (TSX:TEV)	Secure Energy Services Inc. (TSX:SES)	$1,022.9	0.9x	6.7x
12/21/2020	RigNet, Inc. (NasdaqGS:RNET)	Viasat, Inc. (NasdaqGS:VSAT)	$235.7	1.0x	8.6x
12/7/2020	SEACOR Holdings Inc. (NYSE:CKH)	American Industrial Partners	$845.5	1.5x	11.1x
9/1/2020	OneStim Business	Liberty Oilfield Services Inc. (NYSE:LBRT)	$427.8	0.1x	1.5x
9/1/2020	Calfrac Well Services Ltd. (TSX:CFW)	THRC Holdings, LP	$675.7	0.8x	34.9x
5/3/2020	Quintana Energy Services Inc. (NYSE:QES)	KLX Energy Services Holdings, Inc. (NasdaqGS:KLXE)	$49.6	0.1x	2.1x
2/23/2020	Strad Inc. (TSX:SDY)	Management	$116.6	1.1x	3.5x
11/20/2019	W&W Energy Services, Inc.	Petrofac Limited (LSE:PFC)	$24.8	-	-
6/17/2019	C&J Energy Services, Inc. (NYSE:CJ)	Keane Group, Inc. (NYSE:FRAC)	$699.2	0.3x	2.9x
3/20/2019	Red Bone Services LLC/Tecton Energy Services Ltd.	KLX Energy Services Holdings, Inc. (NasdaqGS:KLXE)	$82.5	-	4.8x
1/20/2019	ZCL Composites Inc. (TSX:ZCL)	Shawcor Ltd. (TSX:SCL)	$233.7	1.7x	12.5x
10/29/2018	Adler Hot Oil Service, LLC.	Enservco Corporation (AMEX:ENSV)	$12.5	0.7x	4.3x
6/5/2018	Xtreme Drilling Corp.	AKITA Drilling Ltd. (TSX:AKT.A)	$155.0	2.8x	162.4x
5/1/2018	KLX Inc. (NasdaqGS:KLXI)	Aviall Inc.	$4,482.9	-	15.7x
4/16/2018	Aveda Transportation and Energy Services Inc. (TSXV:AVE)	Daseke Companies, Inc.	$2,139.8	0.7x	4.8x
1/16/2018	USA Compression Partners, LP (NYSE:USAC)	Energy Transfer Partners, LP (NYSE:ETP); Energy Transfer Equity, LP (NYSE:ETE)	$2,033.4	7.3x	14.3x
1/2/2018	Archrock Partners, LP	Archrock, Inc. (NYSE:AROC)	$2,405.5	4.3x	10.5x
12/11/2017	Pure Technologies Ltd.	Xylem Inc. (NYSE:XYL)	$395.2	4.0x	26.5x
5/19/2017	Savanna Energy Services Corp.	Total Energy Services Inc. (TSX:TOT)	$458.2	1.8x	16.6x
5/15/2017	Ceiba Energy Services Inc.	Secure Energy Services Inc. (TSX:SES)	$27.2	4.5x	29.2x
4/24/2017	Flowchem Ltd.	KMG Chemicals, Inc. (NYSE:KMG)	$495.0	N/A	11.5x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

STORAGE AND TERMINALS

EQUITY COMPARABLES (1)

Storage and Terminals (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Alliant Energy Corporation	$3,416	$1,331	39.0%	$51.53	85.5%	$12,870	$19,884	5.8x	14.9x	5.4x
AltaGas Ltd.	4,385	937	21.4	14.69	82.3	4,106	10,962	2.5x	11.7x	7.2x
Blueknight Energy Partners, L.P.	110	56	51.1	1.99	90.5	82	(28)	(0.3)x	(0.5)x	4.6x
Chart Industries, Inc.	1,177	210	17.8	117.79	95.6	4,248	4,870	4.1x	23.2x	1.7x
EnLink Midstream, LLC	3,916	1,028	26.3	3.71	57.3	1,819	8,242	2.1x	8.0x	4.5x
Equitrans Midstream Corporation	1,511	1,227	81.2	8.04	58.2	3,477	11,672	7.7x	9.5x	5.8x
Gibson Energy Inc.	3,875	297	7.7	16.14	72.5	2,363	3,465	0.9x	11.7x	4.0x
Green Plains Partners LP	83	53	63.9	7.95	53.7	185	336	4.0x	6.3x	2.6x
Magellan Midstream Partners, L.P.	2,428	1,134	46.7	42.44	65.0	9,494	14,535	6.0x	12.8x	4.5x
MPLX LP	8,505	4,726	55.6	21.65	79.1	22,520	45,211	5.3x	9.6x	4.4x
NuStar Energy L.P.	1,482	717	48.4	14.41	49.1	1,574	6,472	4.4x	9.0x	4.9x
Median			**46.7%**		**72.5%**			**4.1x**	**9.6x**	**4.5x**
Mean			**41.7%**		**71.7%**			**3.9x**	**10.6x**	**4.5x**

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

STORAGE AND TERMINALS

SELECTED TRANSACTIONS (1)

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
2/17/2021	Enable Midstream Partners, LP (NYSE:ENBL)	Energy Transfer LP (NYSE:ET)	$7,329.7	3.1x	9.5x
8/24/2020	Cheniere Energy Partners, LP (AMEX:CQP)	Brookfield Infrastructure Partners LP (NYSE:BIP) and Blackstone Infrastructure Partners, LP	$17,027.5	5.1x	11.3x
7/27/2020	CNX Midstream Partners LP (NYSE:CNXM)	CNX Resources Corporation (NYSE:CNX)	$764.2	5.1x	6.6x
2/27/2020	EQM Midstream Partners, LP	Equitrans Midstream Corporation (NYSE:ETRN)	$4,395.8	7.6x	8.1x
9/16/2019	SemGroup Corporation (NYSE:SEMG)	Energy Transfer LP (NYSE:ET)	$4,991.7	2.1x	13.5x
8/27/2019	Tallgrass Energy, LP (NYSE:TGE)	The Blackstone Group Inc. (NYSE:BX)	$9,337.3	8.9x	11.2x
8/21/2019	Kinder Morgan Canada Limited (TSX:KML)	Pembina Pipeline Corporation (TSX:PPL)	$2,294.7	4.4x	16.3x
5/10/2019	Buckeye Partners, LP (NYSE:BPL)	IFM Global Infrastructure Fund	$10,500.3	2.7x	18.6x
11/8/2018	Western Gas Partners, LP (NYSE:WES)	Western Gas Equity Partners, LP (NYSE:WGP)	$13,427.9	6.5x	12.0x
10/22/2018	EnLink Midstream Partners, LP (NYSE:ENLK)	EnLink Midstream, LLC (NYSE:ENLC)	$12,923.5	1.7x	12.2x
10/18/2018	Valero Energy Partners LP	Valero Energy Corporation (NYSE:VLO)	$4,069.8	7.6x	10.5x
9/19/2018	Dominion Energy Midstream Partners, LP (NYSE:DM)	Dominion Energy, Inc. (NYSE:D)	$10,405.4	13.6x	19.7x
8/1/2018	Energy Transfer Partners, LP (NYSE:ETP)	Energy Transfer Equity, LP (NYSE:ETE)	$69,412.3	2.1x	10.8x
7/30/2018	Four Corners Area Assets	Harvest Midstream Company	$1,125.0	-	13.2x
7/10/2018	Transmontaigne Partners LP (NYSE:TLP)	TLP Acquisition Holdings LLC	$1,254.3	6.1x	11.5x
6/29/2018	Boardwalk Pipeline Partners, LP	Boardwalk GP LP	$6,792.1	5.3x	8.3x
5/17/2018	Enbridge Energy Partners, LP (NYSE:EEP)	Enbridge Inc. (TSX:ENB)	$15,925.8	6.6x	10.1x
4/30/2018	Andeavor (NYSE:ANDV)	Marathon Petroleum Corporation (NYSE:MPC)	$35,101.9	0.9x	12.7x
4/26/2018	Rice Midstream Partners LP (NYSE:RMP)	EQM Midstream Partners, LP (NYSE:EQM)	$2,443.1	7.7x	9.9x
3/26/2018	Tallgrass Energy Partners, LP (NYSE:TEP)	Tallgrass Equity, LLC	$4,176.5	6.4x	6.9x

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

PIPELINES

EQUITY COMPARABLES (1)

Oil and Gas Pipelines (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Antero Midstream Corporation	$971	$739	76.0%	$7.71	89.2%	$3,675	$6,794	7.0x	9.2x	4.2x
ATCO Ltd.	3,095	1,272	41.1	28.64	66.4	3,288	12,985	4.2x	10.2x	5.3x
Blueknight Energy Partners, L.P.	110	56	51.1	1.99	90.5	82	(28)	(0.3)x	(0.5)x	4.6x
Crestwood Equity Partners LP	2,254	430	19.1	18.98	57.6	1,396	5,026	2.2x	11.7x	6.0x
Enable Midstream Partners, LP	2,463	913	37.1	5.26	48.7	2,291	6,982	2.8x	7.6x	4.6x
Enbridge Inc.	30,676	9,273	30.2	31.95	71.0	64,705	126,282	4.1x	13.6x	5.8x
Energy Transfer LP	38,954	9,538	24.5	6.18	44.6	16,672	82,552	2.1x	8.7x	5.4x
Enterprise Products Partners L.P.	27,200	7,567	27.8	19.59	67.0	42,763	73,259	2.7x	9.7x	3.9x
Equitrans Midstream Corporation	1,511	1,227	81.2	8.04	58.2	3,477	11,672	7.7x	9.5x	5.8x
Genesis Energy, L.P.	1,825	365	20.0	6.21	28.0	761	5,044	2.8x	13.8x	9.7x
Gibson Energy Inc.	3,875	297	7.7	16.14	72.5	2,363	3,465	0.9x	11.7x	4.0x
Inter Pipeline Ltd.	1,884	745	39.5	9.32	52.2	3,998	9,711	5.2x	13.0x	7.3x
Kinder Morgan, Inc.	11,700	5,610	47.9	13.67	60.5	30,946	66,119	5.7x	11.8x	6.0x
ONEOK, Inc.	8,542	2,527	29.6	38.38	48.9	17,056	31,227	3.7x	12.4x	5.6x
Plains All American Pipeline, L.P.	23,290	1,745	7.5	8.24	42.5	6,003	19,347	0.8x	11.1x	6.1x
Evolve Transition Infrastructure LP	61	27	45.0	0.61	38.4	12	479	7.9x	17.5x	17.0x
Summit Midstream Partners, LP	384	197	51.3	12.49	22.7	47	1,878	4.9x	9.5x	6.8x
Targa Resources Corp.	8,260	2,128	25.8	26.38	62.6	6,041	17,253	2.1x	8.1x	3.6x
The Williams Companies, Inc.	7,719	4,281	55.5	20.05	83.0	24,332	49,513	6.4x	11.6x	5.2x
TC Energy Corporation	10,202	6,588	64.6	40.61	67.6	38,179	81,451	8.0x	12.4x	5.7x
Western Midstream Partners, LP	2,773	1,795	64.7	13.82	62.5	5,752	13,609	4.9x	7.6x	4.2x
Median			**39.5%**		**60.5%**			**4.1x**	**11.1x**	**5.6x**
Mean			**40.3%**		**58.8%**			**4.1x**	**10.5x**	**6.0x**

(1) Matching public companies to middle-market companies is an imperfect comparable analysis due to the variables of size, equipment, markets, etc. Nonetheless JKC's research has yielded this list as the closest available.
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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

PIPELINES

SELECTED TRANSACTIONS (1)

Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
2/17/2021	Enable Midstream Partners, LP (NYSE:ENBL)	Energy Transfer LP (NYSE:ET)	$7,329.7	3.1x	9.5x
10/5/2020	TC PipeLines, LP (NYSE:TCP)	TC Energy Corporation (TSX:TRP)	$2,213.6	7.4x	9.0x
7/27/2020	CNX Midstream Partners LP (NYSE:CNXM)	CNX Resources Corporation (NYSE:CNX)	$764.2	5.1x	6.6x
2/27/2020	EQM Midstream Partners, LP	Equitrans Midstream Corporation (NYSE:ETRN)	$4,395.8	7.6x	8.1x
9/16/2019	SemGroup Corporation (NYSE:SEMG)	Energy Transfer LP (NYSE:ET)	$4,991.7	2.1x	13.5x
8/27/2019	Tallgrass Energy, LP (NYSE:TGE)	The Blackstone Group Inc. (NYSE:BX)	$9,337.3	8.9x	11.2x
8/21/2019	Kinder Morgan Canada Limited (TSX:KML)	Pembina Pipeline Corporation (TSX:PPL)	$2,294.7	4.4x	16.3x
5/10/2019	Buckeye Partners, LP (NYSE:BPL)	IFM Global Infrastructure Fund	$10,500.3	2.7x	18.6x
11/8/2018	Western Gas Partners, LP (NYSE:WES)	Western Gas Equity Partners, LP (NYSE:WGP)	$13,427.9	6.5x	12.0x
10/18/2018	Valero Energy Partners LP	Valero Energy Corporation (NYSE:VLO)	$4,069.8	7.6x	10.5x
10/9/2018	Antero Midstream Partners LP (NYSE:AM)	Antero Midstream GP LP (NYSE:AMGP)	$7,359.7	7.7x	11.5x
9/28/2018	American Midstream Partners, LP (NYSE:AMID)	ArcLight Capital Partners, LLC	$1,595.1	2.0x	14.2x
7/10/2018	Transmontaigne Partners LP (NYSE:TLP)	TLP Acquisition Holdings LLC	$1,254.3	6.1x	11.5x
5/17/2018	Williams Partners LP	The Williams Companies, Inc. (NYSE:WMB)	$57,090.5	7.0x	14.1x
5/17/2018	Enbridge Energy Partners, LP (NYSE:EEP)	Enbridge Inc. (TSX:ENB)	$15,925.8	6.6x	10.1x
5/10/2018	Amberjack Pipeline Company LLC	Shell Midstream Partners, LP (NYSE:SHLX)	$1,928.7	8.2x	9.4x
3/26/2018	Tallgrass Energy Partners, LP (NYSE:TEP)	Tallgrass Equity, LLC	$4,176.5	6.4x	6.9x
8/15/2017	Western Refining Logistics, LP (NYSE:WNRL)	Andeavor Logistics LP (NYSE:ANDX)	$1,843.8	0.8x	14.4x
12/20/2016	Howard Midstream Partners, LP	Alberta Investment Management Corporation	$1,394.7	4.3x	14.4x
11/21/2016	Sunoco Logistics Partners LP	Energy Transfer Partners, LP (NYSE:ETP)	$15,527.3	1.5x	13.7x

(1) Total Enterprise Value is defined as market capitalization plus total debt less cash and cash equivalents.

PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

TRUCKERS

EQUITY COMPARABLES (1)

Truckers (United States & Canada)

Company	LTM[2] Revenues	LTM[2] EBITDA	LTM[2] Margin	Stock Price 12/31/20	% of 52-Week High	Market Cap	Total Enterprise Value[3]	TEV / LTM Revenues	TEV / LTM EBITDA	Net Debt[4]/ EBITDA
Adams Resources & Energy, Inc.	$1,022	$13	1.3%	$24.10	61.0%	$102	$64	0.1x	4.9x	(1.2)x
ArcBest Corporation	2,940	213	7.3	42.67	92.3	1,084	1,144	0.4x	5.4x	0.2x
Covenant Logistics Group, Inc.	839	70	8.4	14.81	71.5	254	407	0.5x	5.8x	1.5x
Daseke, Inc.	1,454	157	10.8	5.81	77.5	378	1,067	0.7x	6.8x	4.0x
Heartland Express, Inc.	645	189	29.3	18.10	79.6	1,462	1,381	2.1x	7.3x	(0.6)x
Hess Corporation	4,543	4,117	90.6	52.79	73.7	16,104	24,730	5.4x	6.0x	1.8x
J.B. Hunt Transport Services, Inc.	9,637	1,253	13.0	136.65	94.7	14,441	15,565	1.6x	12.4x	0.9x
Knight-Swift Transportation Holdings Inc.	4,674	1,080	23.1	41.82	88.2	7,102	7,870	1.7x	7.3x	0.8x
Landstar System, Inc.	4,136	314	7.6	134.66	95.9	5,169	5,048	1.2x	16.1x	(0.4)x
Marten Transport, Ltd.	874	192	22.0	17.23	85.6	1,425	1,337	1.5x	7.0x	(0.3)x
Old Dominion Freight Line, Inc.	4,015	1,168	29.1	195.18	91.4	22,901	22,522	5.6x	19.3x	(0.4)x
P.A.M. Transportation Services, Inc.	487	90	18.6	49.00	83.6	281	528	1.1x	5.8x	3.0x
Patriot Transportation Holding, Inc.	84	9	10.6	8.78	41.3	30	17	0.2x	1.9x	(0.5)x
Parkland Corporation	10,996	695	6.3	31.70	82.1	4,746	7,718	0.7x	11.1x	4.2x
Roadrunner Transportation Systems, Inc.	1,848	(68)	(3.7)	2.07	19.8	78	489	0.3x	NM	NM
Ryder System, Inc.	8,420	2,286	27.1	61.76	95.4	3,328	10,330	1.2x	4.5x	2.9x
Saia, Inc.	1,822	312	17.1	180.80	93.2	4,680	4,895	2.7x	15.7x	0.5x
Schneider National, Inc.	4,553	596	13.1	20.70	73.6	3,671	3,164	0.7x	5.3x	(0.1)x
TFI International Inc.	3,781	556	14.7	51.43	95.1	4,802	5,878	1.6x	10.6x	2.2x
Titanium Transportation Group Inc.	158	15	9.2	1.96	100.0	72	120	0.8x	8.3x	3.1x
Universal Logistics Holdings, Inc.	1,391	154	11.0	20.59	86.0	554	1,102	0.8x	7.2x	2.9x
USA Truck, Inc.	551	55	10.1	8.93	69.5	75	256	0.5x	4.6x	3.3x
Werner Enterprises, Inc.	2,372	484	20.4	39.22	82.7	2,710	2,855	1.2x	5.9x	0.4x
Yellow Corporation	4,514	152	3.4	4.43	67.5	236	1,221	0.3x	8.0x	7.0x
Median			**12.0%**		**83.1%**			**0.9x**	**7.0x**	**0.9x**
Mean			**16.7%**		**79.2%**			**1.4x**	**8.1x**	**1.5x**

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PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

TRUCKERS

SELECTED TRANSACTIONS (1)

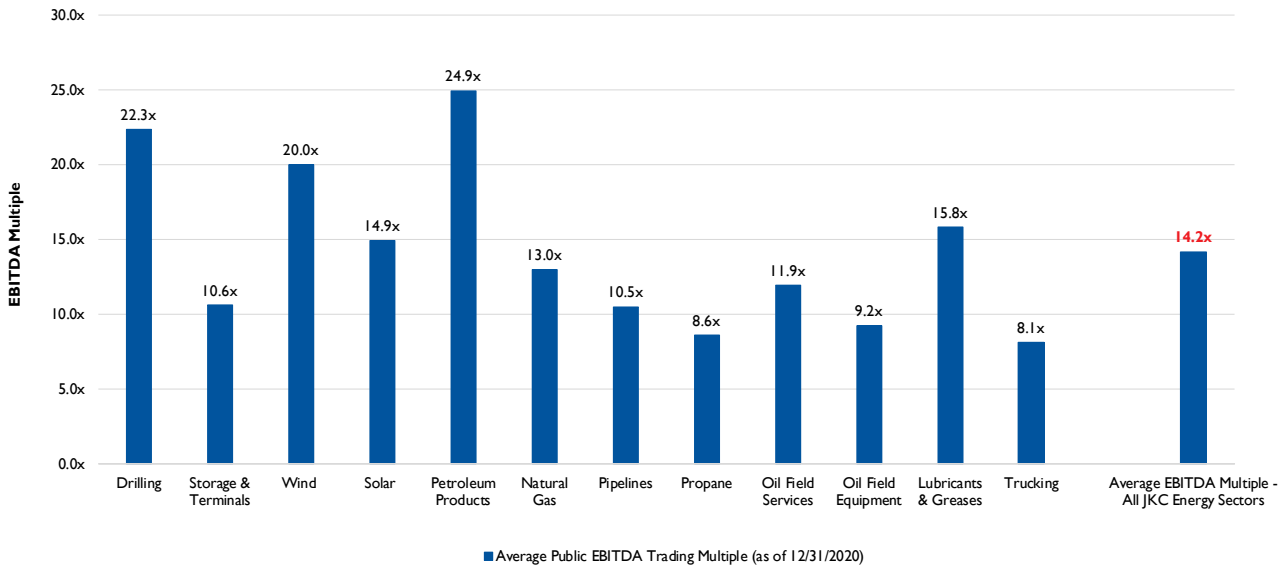
Announced / Closed Date	Target(s)	Acquirer	Total Enterprise Value (TEV)	TEV / Revenues	TEV / EBITDA
2/19/2020	Performance Team LLC	A.P. Møller - Mærsk A/S (CPSE:MAERSK B)	$545.0	1.0x	6.1x
11/5/2018	CaseStack, Inc.	Hub Group, Inc. (NasdaqGS:HUBG)	$255.0	1.1x	11.6x
8/31/2018	Mode Transportation, LLC	York Capital Management	$238.5	-	10.0x
12/7/2017	Keen Transport, Inc.	Wallenius Wilhelmsen ASA (OB:WALWIL)	$64.0	0.8x	6.4x
7/19/2016	Span-Alaska Transportation, Inc.	Matson Logistics, Inc.	$197.6	-	9.4x
5/2/2016	Trimac Transportation Ltd.	Trimac Corporation	$215.9	-	5.9x
9/9/2015	Con-way Inc.	XPO Logistics, Inc. (NYSE:XPO)	$3,057.0	-	6.2x
8/17/2015	Liberty International Inc.	Janel Corporation (OTCPK:JANL)	$2.3	-	26.6x
7/28/2015	Stagecoach Cartage and Distribution, LLC	Roadrunner Transportation Systems, Inc. (NYSE:RRTS)	$40.0	-	5.7x
5/25/2015	Hodges Trucking Company, LLC	Rodan Transport (U.S.A.) Ltd.	$42.0	-	3.0x
5/6/2015	Quality Distribution Inc.	Apax Partners LLP	$823.3	-	12.0x
5/4/2015	Bridge Terminal Transport Inc.	XPO Logistics, Inc. (NYSE:XPO)	$100.0	-	8.1x
4/21/2015	Command Transportation, LLC	Echo Global Logistics, Inc. (NasdaqGS:ECHO)	$391.0	-	10.6x
1/20/2015	Wheels Group Inc.	Radiant Global Logistics Ltd.	$80.1	-	13.5x

(1) Total Enterprise Value is defined as market capitalization plus total debt less cash and cash equivalents.

PUBLIC AND TRANSACTION COMPARABLES BY SEGMENT

AVERAGE PUBLIC EBITDA TRADING MULTIPLES

ALL JKC ENERGY SECTORS (AS OF 12/31/2020)



FACTOIDS: LITTLE-KNOWN FACTS AND STATS

Petroleum Products (1)

- Anticipating weaker demand, the Organization of the Petroleum Exporting Countries, and its non-OPEC partner countries (OPEC+) decided in January to delay a further easing of cuts and Saudi Arabia announced an additional 1 million barrel per day supply reduction in February and March.
- Prices of crude oil and other commodities started to move together in recent years. However, the historically strong correlation between oil and natural gas prices has recently ceased in North America, as natural gas prices have been kept down by the rapid development of shale gas.
- Crude oil prices are expected to average near $50 per barrel through 2022.

Natural Gas (2)

- Henry Hub natural gas spot prices averaged $2.03 per million British thermal units (MMBtu) in 2020. Henry Hub prices are expected to rise to an annual average of $3.01/MMBtu in 2021 and an average of $3.27/MMBtu in 2022.
- Renewable natural gas (RNG) is any pipeline compatible gaseous fuel derived from biogenic or other renewable sources that has lower lifecycle CO2e emissions than geological natural gas. The majority of RNG comes from capturing emissions from existing waste streams found in landfills, wastewater treatment plants and animal manure. This gas must be treated and cleaned, so that it can be injected into existing gas pipelines.

Propane and Heating/Fuel Oil (3)

- From the winter of 2010–11 through the winter of 2019–20, the cost of crude oil accounted for 50% of the average price of a gallon of heating oil during the winter months. Distribution and marketing costs accounted for about 34% of the cost, and refinery processing costs accounted for 16% of the price.
- Retail propane prices are affected by several factors, including wholesale propane prices, levels of available supply sources relative to demand and transportation costs.
- Propane prices have historically been higher for consumers in states located in the U.S. East Coast region because they are farthest from sources of propane supply.

(1) U.S. Energy Information Administration and Oil & Gas Journal.
(2) U.S. Energy Information Administration and American Gas Association.
(3) U.S. Energy Information Administration.

FACTOIDS: LITTLE-KNOWN FACTS AND STATS

Lubricants and Greases (1)

- On May 1, 2020, the automobile and oil industries introduced API SP and ILSAC GF-6, a major update to engine oil performance standards for light-duty vehicles manufactured in North America. ILSAC specification GF-6B applied to 0W-16 oils – a viscosity grade that was added for the first time – while 6A applied to legacy grades.
- The National Lubricating Grease Institute introduced a major new standard in December 2020 – its High Performance Multiuse specification defined higher levels of performance than the existing GC-LB specification while also defining several other areas of performance.

Solar (2)

- Solar has ranked first or second in new electric capacity additions in each of the last 7 years. In 2019, 40% of all new electric capacity added to the grid came from solar, the largest such share in history.
- Homeowners and businesses are increasingly demanding solar systems that are paired with battery storage. By 2025, more than 25% of all behind-the-meter solar systems will be paired with storage, compared to under 5% in 2019.
- The utility-scale market is also recognizing the benefits of pairing solar with storage, with over 8 GW of commissioned projects including storage, representing nearly one in five contracted projects.

Wind (3)

- Wind is bipartisan as 77% of Republicans and 62% of Democrats in Congress have a wind industry presence in their district.
- The U.S. now has enough installed wind capacity to power over 32 million American homes.
- Wind projects pay more than $1.6 billion every year in taxes to state and local governments and private landowners in lease payments.

(1) Lubes N Grease Magazine.
(2) Conserve Energy Future.
(3) Clean Power for America.

FACTOIDS: LITTLE-KNOWN FACTS AND STATS

Oil and Gas Field Services (1)

- Drilling oil wells occurs in two phases: drilling down to below the water table and then encasing the well hole in cement to prevent groundwater and soil contamination, and then drilling to the required depth and taking the necessary steps to stimulate upward oil flow.
- Using horizontal well drilling instead of standard vertical drilling, can often double the total cost of drilling and the time required to move from drilling to production. On the positive side, horizontal drilling can potentially enable the oil producer to recover up to four times more oil than could have been accessed with conventional vertical drilling.

Equipment and Physical Technology (2)

- Researchers have developed a new family of cathodes with the potential to replace the costly cobalt-based cathodes typically found in today's lithium-ion batteries that power electric vehicles and consumer electronics.
- Measurement-While-Drilling (MWD) systems allow for the collection of data from the bottom of a well as it is being drilled. This allows engineers and drilling teams access to up-to-the-second information on the exact nature of the rock formations being encountered by the drill bit. This improves drilling efficiency and accuracy in the drilling process, allows better formation evaluation as the drill bit encounters the underground formation, and reduces the chance of formation damage and blowouts.

Storage and Terminals (3)

- Should the President order an emergency sale of Strategic Petroleum Reserve (SPR) oil, the Department of Energy can conduct a competitive sale, select offers, award contracts, and begin deliveries of oil into the marketplace within 13 days.
- Oil can be pumped from the SPR at a maximum rate of 4.4 million barrels per day for up to 90 days. At 1 million barrels per day, the SPR can release oil into the market continuously for nearly a year-and-a-half.

(1) Investopedia.
(2) Science Daily and Naturalgas.org.
(3) U.S. Department of Energy.

FACTOIDS: LITTLE-KNOWN FACTS AND STATS

PIPELINES (1)

- Liquid pipeline incidents impacting people or the environment have decreased 36% over the last 5 years, while pipeline mileage increased nearly 10% and barrels delivered increased nearly 35%.
- More than 500 workers are needed to construct each 100-mile section of pipeline. Pipelines also need pumping stations constructed every 50 miles.
- Heavy equipment operators, laborers, welders, foremen, engineers and quality control personnel are all needed to construct a pipeline.

TRUCKERS (2)

- Tires are a fleet's highest operating cost after drivers and fuel. Since quality tires that are properly maintained affect both driver satisfaction and fuel economy, inflation maintenance is tremendously important.
- While operations vary significantly, running tires that are just 10% underinflated may cause them to be removed from service 10% earlier. At 20% underinflated, tread life may be reduced by as much as 25%.
- Some progressive fleets offer driver bonuses for tire wear and proper tire inflation.

(1) Association of Oil Pipelines.
(2) Bulk Transporter.

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ABOUT JORDAN KNAUFF & COMPANY

Jordan Knauff & Company was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs who lead them and the financial entities that transact with them. On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, buyers, sellers and investment bankers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.

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ABOUT THE ENERGY EQUIPMENT & INFRASTRUCTURE ALLIANCE

EEIA is a Washington, D.C.-based trade association representing the North American natural gas and petroleum production, transportation and processing infrastructure supply chain. That supply chain is comprised of 60 industries that provide construction, equipment, materials, services and supplies to energy infrastructure and operations. EEIA advocates for sound legislative and regulatory policies at the federal and state levels. Our members include companies, trade associations and labor organizations operating in the energy sector. We advocate for our industries both directly with policymakers, and through mobilization of business leaders and workers to act and speak for the value and benefits of full and responsible development of our energy resources in their communities and with their political leaders.

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