

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the fiscal year ended December 31, 2019
OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission file number: 001-14901

CNX Resources Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

51-0337383
(I.R.S. Employer
Identification No.)

CNX Center
1000 CONSOL Energy Drive Suite 400
Canonsburg, PA 15317-6506
(724) 485-4000

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of exchange on which registered</u>
Common Stock (\$.01 par value)	CNX	New York Stock Exchange
Preferred Share Purchase Rights	--	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically, if any, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):
Large accelerated filer Accelerated filer Non-accelerated filer Smaller Reporting Company Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of voting stock held by nonaffiliates of the registrant as of June 30, 2019, the last business day of the registrant's most recently completed second fiscal quarter, based on the closing price of the common stock on the New York Stock Exchange on such date was \$800,152,980.

The number of shares outstanding of the registrant's common stock as of January 20, 2020 is 186,642,962 shares.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of CNX's Proxy Statement for the Annual Meeting of Shareholders to be held on May 6, 2020, are incorporated by reference in Items 10, 11, 12, 13 and 14 of Part III.

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GLOSSARY OF CERTAIN OIL AND GAS TERMS

The following are certain terms and abbreviations commonly used in the oil and gas industry and included within this Form 10-K:

Bbl - One stock tank barrel, or 42 U.S. gallons liquid volume, used in reference to oil or other liquid hydrocarbons.

Bcf - One billion cubic feet of natural gas.

Bcfe - One billion cubic feet of natural gas equivalents, with one barrel of oil being equivalent to 6,000 cubic feet of gas.

Btu - One British Thermal unit.

BBtu - One billion British Thermal units.

Mbbls - One thousand barrels of oil or other liquid hydrocarbons.

Mcf - One thousand cubic feet of natural gas.

Mcfe - One thousand cubic feet of natural gas equivalents, with one barrel of oil being equivalent to 6,000 cubic feet of gas.

MMbtu - One million British Thermal units.

MMcfe - One million cubic feet of natural gas equivalents, with one barrel of oil being equivalent to 6,000 cubic feet of gas.

Tcfe - One trillion cubic feet of natural gas equivalents, with one barrel of oil being equivalent to 6,000 cubic feet of gas.

NGL - Natural gas liquids - those hydrocarbons in natural gas that are separated from the gas as liquids through the process.

net - "net" natural gas or "net" acres are determined by adding the fractional ownership working interests the Company has in gross wells or acres.

TIL - turn-in-line; a well turned to sales.

blending - process of mixing dry and damp gas in order to meet downstream pipeline specifications.

lease operating expense - costs of operating wells and equipment on a producing lease, many of which are recurring. Includes items such as water disposal, repairs and maintenance, equipment rental, and operating supplies among others.

proved reserves - quantities of oil, natural gas, and NGLs which, by analysis of geological and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

proved developed reserves (PDPs) - proved reserves which can be expected to be recovered through existing wells with existing equipment and operating methods.

proved undeveloped reserves (PUDs) - proved reserves that can be estimated with reasonable certainty to be recovered from new wells on undrilled proved acreage or from existing wells where a relatively major expenditure is required for completion.

reservoir - a porous and permeable underground formation containing a natural accumulation of producible natural gas and/or oil that is confined by impermeable rock or water barriers and is separate from other reservoirs.

development well - a well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

exploratory well - a well drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil or gas in another reservoir. Generally, an exploratory well is any well that is not a development well, an extension well, a service well or a stratigraphic test well.

gob well - a well drilled or vent hole converted to a well which produces or is capable of producing coalbed methane or other natural gas from a distressed zone created above and below a mined-out coal seam by any prior full seam extraction of the coal.

service well - a well drilled or completed for the purpose of supporting production in an existing field. Specific purposes of service wells include, among other things, gas injection, water injection and salt-water disposal.

play - a proven geological formation that contains commercial amounts of hydrocarbons.

royalty interest - the land owner's share of oil or gas production, typically 1/8.

throughput - the volume of natural gas transported or passing through a pipeline, plant, terminal, or other facility during a particular period.

transportation, gathering and compression - cost incurred related to transporting natural gas to the ultimate point of sale. These costs also include costs related to physically preparing natural gas, natural gas liquids and condensate for ultimate sale which include costs related to processing, compressing, dehydrating and fractionating among others.

working interest - an interest that gives the owner the right to drill, produce and conduct operating activities on a property and receive a share of any production.

wet gas - natural gas that contains significant heavy hydrocarbons, such as propane, butane and other liquid hydrocarbons.

FORWARD-LOOKING STATEMENTS

We are including the following cautionary statement in this Annual Report on Form 10-K to make applicable and take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 for any forward-looking statements made by, or on behalf of us. With the exception of historical matters, the matters discussed in this Annual Report on Form 10-K are forward-looking statements (as defined in Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act)) that involve risks and uncertainties that could cause actual results to differ materially from projected results. Accordingly, investors should not place undue reliance on forward-looking statements as a prediction of actual results. The forward-looking statements may include projections and estimates concerning the timing and success of specific projects and our future production, revenues, income and capital spending. When we use the words “believe,” “intend,” “expect,” “may,” “should,” “anticipate,” “could,” “estimate,” “plan,” “predict,” “project,” “will,” or their negatives, or other similar expressions, the statements which include those words are usually forward-looking statements. When we describe strategy that involves risks or uncertainties, we are making forward-looking statements. The forward-looking statements in this Annual Report on Form 10-K speak only as of the date of this Annual Report on Form 10-K; we disclaim any obligation to update these statements unless required by securities law, and we caution you not to rely on them unduly. We have based these forward-looking statements on our current expectations and assumptions about future events. While our management considers these expectations and assumptions to be reasonable, they are inherently subject to significant business, economic, competitive, regulatory and other risks, contingencies and uncertainties, most of which are difficult to predict and many of which are beyond our control. These risks, contingencies and uncertainties relate to, among other matters, the following:

- prices for natural gas and NGLs are volatile and can fluctuate widely based upon a number of factors beyond our control including oversupply relative to the demand for our products, weather and the price and availability of alternative fuels;
- our dependence on gathering, processing and transportation facilities and other midstream facilities owned by CNX Midstream Partners LP (NYSE: CNXM) (CNXM) and others;
- uncertainties in estimating our economically recoverable natural gas reserves, and inaccuracies in our estimates;
- the high-risk nature of drilling, developing and operating natural gas wells;
- our identified drilling locations are scheduled out over multiple years, making them susceptible to uncertainties that could materially alter the occurrence or timing of their development or drilling;
- challenges associated with strategic determinations, including the allocation of capital and other resources to strategic opportunities;
- the substantial capital expenditures required for our development and exploration projects, as well as CNXM’s midstream system development;
- the impact of potential, as well as any adopted, environmental regulations, including those relating to greenhouse gas emissions;
- environmental regulations can increase costs and introduce uncertainty that could adversely impact the market for natural gas with potential short and long-term liabilities;
- decreases in the availability of, or increases in the price of, required personnel, services, equipment, parts and raw materials in sufficient quantities or at reasonable costs to support our operations;
- if natural gas prices decrease or drilling efforts are unsuccessful, we may be required to record write-downs of our proved natural gas properties, and;
- changes in assumptions impacting management’s estimates of future financial results as well as other assumptions such as movement in our stock price, weighted-average cost of capital, terminal growth rates and industry multiples, could cause goodwill and other intangible assets we hold to become impaired and result in material non-cash charges to earnings;
- a loss of our competitive position because of the competitive nature of the natural gas industry, consolidation within the industry or overcapacity in the industry adversely affecting our ability to sell our products and midstream services;
- deterioration in the economic conditions in any of the industries in which our customers operate, a domestic or worldwide financial downturn, or negative credit market conditions;
- hedging activities may prevent us from benefiting from price increases and may expose us to other risks;
- existing and future government laws, regulations and other legal requirements and judicial decisions that govern our business may increase our costs of doing business and may restrict our operations;
- significant costs and liabilities may be incurred as a result of pipeline operations and related increase in the regulation of gas gathering pipelines;
- our ability to find adequate water sources for our use in shale gas drilling and production operations, or our ability to dispose of, transport or recycle water used or removed in connection with our gas operations at a reasonable cost and within applicable environmental rules;
- failure to successfully estimate the rate of decline or existing reserves or to find or acquire economically recoverable natural gas reserves to replace our current natural gas reserves;

- risks associated with our current long-term debt obligations;
- a decrease in our borrowing base, which could decrease for a variety of reasons including lower natural gas prices, declines in natural gas proved reserves, asset sales and lending requirements or regulations;
- changes in federal or state income tax laws;
- cyber-incidents could have a material adverse effect on our business, financial condition or results of operations;
- construction of new gathering, compression, dehydration, treating or other midstream assets by CNXM may not result in revenue increases and may be subject to regulatory, environmental, political, legal and economic risks;
- our success depends on key members of our management and our ability to attract and retain experienced technical and other professional personnel;
- terrorist activities could materially adversely affect our business and results of operations;
- we may operate a portion of our business with one or more joint venture partners or in circumstances where we are not the operator, which may restrict our operational and corporate flexibility and we may not realize the benefits we expect to realize from a joint venture;
- acquisitions and divestitures, we anticipate may not occur or produce anticipated benefits;
- the outcomes of various legal proceedings, including those which are more fully described in our reports filed under the Exchange Act;
- there is no guarantee that we will continue to repurchase shares of our common stock under our current or any future share repurchase program at levels undertaken previously or at all;
- negative public perception regarding our industry could have an adverse effect on our operations;
- CONSOL Energy may not be able to satisfy its indemnification obligations in the future and such indemnities may not be sufficient to hold us harmless from the full amount of liabilities for which CONSOL Energy will be allocated responsibility; and
- other factors discussed in this 2019 Form 10-K under “Risk Factors,” as updated by any subsequent Forms 10-Q, which are on file with the Securities and Exchange Commission.

PART I

ITEM 1. Business

General

CNX Resources Corporation ("CNX," the "Company," or "we," "us," or "our") is a premiere independent oil and gas company focused on the exploration, development, production, gathering, processing and acquisition of natural gas properties primarily in the Appalachian Basin. Our operations are centered on unconventional shale formations, primarily the Marcellus Shale and Utica Shale.

CNX's wholly owned subsidiary, CNX Gathering LLC, which holds the general partner interest and limited partner interest (previously incentive distribution rights - See Note 25 - Subsequent Events in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K for more information) in CNX Midstream Partners LP (a public master limited partnership), which was formed to own, operate, and develop midstream energy assets to service CNX and third-party production, drilling, and completion activities under long-term service contracts. CNX's consolidated financial statements include CNX Gathering LLC's financial position and results of operations beginning after January 3, 2018 (see Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K).

CNX was incorporated in Delaware in 1991, but its predecessors had been mining coal, primarily in the Appalachian Basin, since 1864. In November 2017, CNX completed the tax-free spin-off of its coal business (see Note 5 - Discontinued Operations in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K). CNX entered the natural gas business in the 1980s initially to increase the safety and efficiency of its Virginia coal mines by capturing methane from coal seams prior to mining, which makes the mining process safer and more efficient. The natural gas business grew from the coalbed methane production in Virginia into other unconventional production, including hydraulic fracturing in the Marcellus Shale and Utica Shale in the Appalachian Basin. This growth was accelerated with the 2010 asset acquisition of the Appalachian Exploration & Production business of Dominion Resources, Inc.

CNX currently operates, develops and explores for natural gas in Appalachia (Pennsylvania, West Virginia, Ohio, and Virginia). Our primary focus is the continued development of our Marcellus Shale acreage and delineation and development of our unique Utica Shale acreage and stacked pay opportunity set. We believe that our concentrated operating area, legacy surface acreage position, regional operating expertise, extensive data set from development, as well as from non-operated participation wells and our held-by-production acreage position, provides us a significant competitive advantage over our competitors. Over the past ten years, CNX's natural gas production has grown by approximately 471% to produce a total of 539.1 net Bcfe in 2019.

Our land holdings in the Marcellus and Utica Shale plays cover large areas, provide multi-year drilling opportunities and, collectively, have sustainable lower-risk growth profiles. We currently control approximately 519,000 net acres in the Marcellus Shale and approximately 608,000 net acres that have Utica Shale potential in Ohio, West Virginia, and Pennsylvania. We also have approximately 2.4 million net acres in our coalbed methane play.

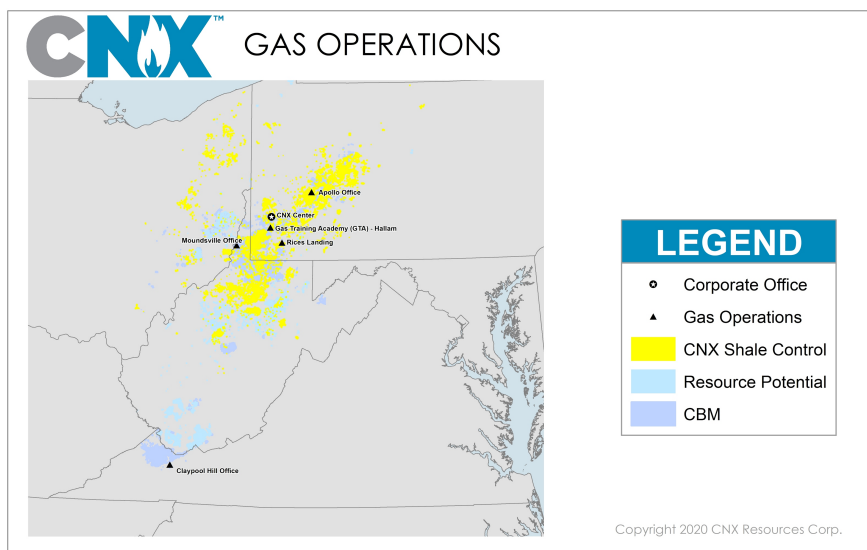
Highlights of our 2019 production include the following:

- Total average production of 1,477,120 Mcfe per day;
- 94% Natural Gas, 6% Liquids; and
- 69% Marcellus, 21% Utica, and 10% coalbed methane.

At December 31, 2019, our proved natural gas, NGL, condensate and oil reserves (collectively, "natural gas reserves") had the following characteristics:

- 8.4 Tcfe of proved reserves;
- 94.2% natural gas;
- 57.43% proved developed;
- 98.6% operated; and
- A reserve life ratio of 15.63 years (based on 2019 production).

The following map provides the location of CNX's E&P operations by region:



CNX's Strategy and Corporate Values

CNX's strategy is to increase shareholder value through the development and growth of its existing natural gas assets and selective acquisition of natural gas acreage leases within its footprint. Our mission is to empower our team to embrace and drive innovative change that creates long-term per share value for our investors, enhances our communities and delivers energy solutions for today and tomorrow. We will also continue to focus on the monetization of non-core assets to accelerate value creation and to minimize any shortfall between operating cash flows and our capital growth requirements.

CNX defines itself through its corporate values which serve as the compass for our road map and guide every aspect of our business as we strive to achieve our corporate mission:

- Responsibility: Be a safe and compliant operator; be a trusted community partner and respected corporate citizen; act with pride and integrity;
- Ownership: Be accountable for our actions and learn from our outcomes, both positive and negative; be calculated risk-takers and seek creative ways to solve problems; and
- Excellence: Be prudent capital allocators; be a lean, efficient, nimble organization; be a disciplined, reliable, performance-driven company.

These values are the foundation of CNX's identity and are the basis for how management defines continued success. We believe CNX's rich resource base, coupled with these core values, allows management to create value for the long-term. CNX also believes that natural gas is central to a low-cost, reliable, secure, lower-carbon energy future. Widespread and immediate fuel switching to natural gas is the fastest and most cost-effective means to addressing climate concerns, improving air quality in the developing world, and meeting the increasing demand for cleaner forms of energy. More than a short-term "bridge" fuel that is useful in the transition from more carbon-intensive energy sources to renewable, natural gas is inextricably linked to the long-term success of renewable energy. The EIA forecasts that global natural gas consumption is expected to increase by more than 40% from current levels by the year 2050. Increasing demand for natural gas comes with a variety of economic, environmental, and social benefits, including: reduced emissions, improved energy security, industrial applications and reliable heat.

CNX's Capital Expenditure Budget

In 2020, CNX expects capital expenditures of approximately \$530-\$610 million. The 2020 budget currently includes \$360-\$410 million of drilling and completion ("D&C") capital, approximately \$95 million of capital associated with land, midstream, and water infrastructure and \$80-\$100 million of capital for CNX Midstream Partners LP ("CNXM"). The Company continuously evaluates multiple factors to determine incremental activity throughout the year, and as such, may update guidance accordingly.

DETAIL OF OPERATIONS

Our operations are located throughout Appalachia and include the following plays:

Marcellus Shale

We have the rights to extract natural gas in Pennsylvania, West Virginia, and Ohio from approximately 519,000 net Marcellus Shale acres at December 31, 2019.

The Upper Devonian Shale formation, which includes both the Burkett Shale and Rhinestreet Shale, lies above the Marcellus Shale formation in southwestern Pennsylvania and northern West Virginia. The Company holds approximately 44,000 acres of incremental Upper Devonian acres; however, these acres have historically not been disclosed separately as they generally coincide with our Marcellus acreage.

On January 3, 2018, the Company acquired the remaining 50% membership interest in CONE Gathering LLC (which has since been renamed CNX Gathering LLC), which holds the general partner interest and limited partner interests (previously incentive distribution rights - See Note 25 - Subsequent Events in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Annual Report on Form 10-K for more information) in CNXM, the entity that constructs and operates the gathering system for most of our Marcellus shale production. See "**Midstream Gas Services**" below for a more detailed explanation.

Utica Shale

We have the rights to extract natural gas in Pennsylvania, West Virginia, and Ohio from approximately 608,000 net Utica Shale acres at December 31, 2019. Approximately 349,000 Utica acres coincide with Marcellus Shale acreage in Pennsylvania, West Virginia, and Ohio. During the third quarter of 2018, CNX closed on the sale of substantially all of its Ohio Utica Joint Venture Assets, including approximately 35,000 net acres in the wet gas Utica Shale areas of Belmont, Guernsey, Harrison, and Noble Counties (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information).

Coalbed Methane (CBM)

We have the rights to extract CBM in Virginia from approximately 308,000 net CBM acres in Central Appalachia. We produce CBM natural gas primarily from the Pocahontas #3 seam and still have a nominal drilling program.

We also have the rights to extract CBM from approximately 2,122,000 net CBM acres in other states including West Virginia, Pennsylvania, Ohio, Illinois, Indiana and New Mexico with no current plans to drill CBM wells in these areas.

Other Gas

We have the rights to extract natural gas from other shale and shallow oil and gas positions primarily in Illinois, Indiana, New York, Ohio, Pennsylvania, Virginia, and West Virginia from approximately 981,700 net acres at December 31, 2019. The majority of our shallow oil and gas leasehold position is held by production and all of it is extensively overlain by existing third-party gas gathering and transmission infrastructure. In March 2018, CNX Gas completed the sale of substantially all of its shallow oil and gas assets in Pennsylvania and West Virginia, including approximately 833,000 net acres (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information).

Summary of Properties as of December 31, 2019

	Marcellus Segment	Utica Segment	CBM Segment	Other Gas Segment	Total
Estimated Net Proved Reserves (MMcfe)	6,401,288	910,667	1,103,724	9,988	8,425,667
Percent Developed	55%	49%	77%	100%	57%
Net Producing Wells (including oil and gob wells)	397	55	3,943	115	4,510
Net Acreage Position:					
Net Proved Developed Acres	46,701	14,101	274,512	2,386	337,700
Net Proved Undeveloped Acres	22,737	6,179	—	—	28,916
Net Unproved Acres(1)	494,251	238,720	2,156,231	979,331	3,868,533
Total Net Acres(2)	563,689	259,000	2,430,743	981,717	4,235,149

(1) Net acres include acreage attributable to our working interests in the properties. Additional adjustments (either increases or decreases) may be required as we further develop title to and further confirm our rights with respect to our various properties in anticipation of development. We believe that our assumptions and methodology in this regard are reasonable.

(2) Acreage amounts are only included under the target strata CNX expects to produce with the exception of certain CBM acres governed by separate leases, although the reported acres may include rights to multiple gas seams (e.g. we have rights to the Marcellus segment that are disclosed under the Utica segment and we have rights to Utica segment that are disclosed under the Marcellus segment). We have reviewed our drilling plans, and our acreage rights and have used our best judgment to reflect the acres in the strata we expect to primarily produce. As more information is obtained or circumstances change, the acreage classification may change.

Producing Wells and Acreage

Most of our development wells and proved acreage are located in Virginia, West Virginia, Ohio and Pennsylvania. Some leases are beyond their primary term, but these leases are extended in accordance with their terms as long as certain drilling commitments or other term commitments are satisfied.

The following table sets forth, at December 31, 2019, the number of producing wells, developed acreage and undeveloped acreage:

	Gross	Net(1)
Producing Gas Wells (including gob wells)	6,512	4,510
Producing Oil Wells	151	—
Net Acreage Position:		
Proved Developed Acreage	337,700	337,700
Proved Undeveloped Acreage	28,916	28,916
Unproved Acreage	5,192,777	3,868,533
Total Acreage	5,559,393	4,235,149

(1) Net acres include acreage attributable to our working interests in the properties. Additional adjustments (either increases or decreases) may be required as we further develop title to and further confirm our rights with respect to our various properties in anticipation of development. We believe that our assumptions and methodology in this regard are reasonable.

The following table represents the terms under which we hold these acres:

	Gross Unproved Acres	Net Unproved Acres	Net Proved Undeveloped Acres
Held by Production/Fee	4,354,734	3,305,639	21,874
Expiration Within 2 Years	43,468	24,102	4,235
Expiration Beyond 2 Years	47,137	26,176	6,325
Total Acreage	4,445,339	3,355,917	32,434

The leases reflected above as Gross and Net Unproved Acres with expiration dates are included in our current drill plan or active land program. Leases with expiration dates within two years represent approximately 1% of our total net unproved acres and leases with expiration dates beyond two years represent approximately 1% of our total net unproved acres. In each case, we deemed this acreage to not be material to our overall acreage position. Additionally, based on our current drill plans and lease management we do not anticipate any material impact to our consolidated financial statements from the expiration of such leases.

Development Wells (Net)

During the years ended December 31, 2019, 2018 and 2017, we drilled 75.7, 83.9 and 90.0 net development wells, respectively. Gob wells and wells drilled by operators other than our primary joint venture partners at that time are excluded from net development wells. In 2019, there were 35.0 net development wells and 1.0 exploratory well drilled but uncompleted. There was 1.0 net dry development well in 2019 and no net dry development wells in 2018 or 2017. As of December 31, 2019, there are 7.0 gross completed developmental wells ready to be turned in-line. The following table illustrates the net wells drilled by well classification type:

	For the Year Ended December 31,		
	2019	2018	2017
Marcellus Segment	47.0	65.9	9.0
Utica Segment	17.7	12.0	17.0
CBM Segment	11.0	6.0	64.0
Other Gas Segment	—	—	—
Total Development Wells (Net)	75.7	83.9	90.0

Exploratory Wells (Net)

There were 5.0 and 4.0 net exploratory wells drilled during the years ended December 31, 2019 and 2017, respectively. There were no net exploratory wells drilled during the year ended December 31, 2018. As of December 31, 2019, there is 1.0 net exploratory well in process. The following table illustrates the exploratory wells drilled by well classification type:

	For the Year Ended December 31,								
	2019			2018			2017		
	Producing	Dry	Still Eval*	Producing	Dry	Still Eval.	Producing	Dry	Still Eval.
Marcellus Segment	—	—	—	—	—	—	—	—	—
Utica Segment	4.0	—	1.0	—	—	—	4.0	—	—
CBM Segment	—	—	—	—	—	—	—	—	—
Other Gas Segment	—	—	—	—	—	—	—	—	—
Total Exploratory Wells (Net)	4.0	—	1.0	—	—	—	4.0	—	—

* Still evaluating includes wells that were drilled and uncompleted or in the process of being completed at the end of the year.

Reserves

The following table shows our estimated proved developed and proved undeveloped reserves. Reserve information is net of royalty interest. Proved developed and proved undeveloped reserves are reserves that could be commercially recovered under current economic conditions, operating methods and government regulations. Proved developed and proved undeveloped reserves are defined by the Securities and Exchange Commission (SEC).

Net Reserves (Million of Cubic Feet Equivalent)

	As of December 31,		
	2019	2018	2017
Proved Developed Reserves	4,838,858	4,494,878	4,409,065
Proved Undeveloped Reserves	3,586,809	3,386,457	3,172,547
Total Proved Developed and Undeveloped Reserves(1)	8,425,667	7,881,335	7,581,612

(1) For additional information on our reserves, see Other Supplemental Information–Supplemental Gas Data (unaudited) to the Consolidated Financial Statements in Item 8 of this Form 10-K.

Discounted Future Net Cash Flows

The following table shows our estimated future net cash flows and total standardized measure of discounted future net cash flows at 10%:

	As of December 31,		
	2019	2018	2017
	(Dollars in millions)		
Future Net Cash Flows	\$ 7,744	\$ 13,132	\$ 7,841
Total PV-10 Measure of Pre-Tax Discounted Future Net Cash Flows (1)	\$ 4,176	\$ 6,172	\$ 4,140
Total Standardized Measure of After-Tax Discounted Future Net Cash Flows	\$ 3,070	\$ 4,655	\$ 3,131

(1) We calculate our present value at 10% (PV-10) in accordance with the following table. Management believes that the presentation of the non-Generally Accepted Accounting Principles (GAAP) financial measure of PV-10 provides useful information to investors because it is widely used by professional analysts and sophisticated investors in evaluating oil and gas companies. Because many factors that are unique to each individual company impact the amount of future income taxes estimated to be paid, the use of a pre-tax measure is valuable when comparing companies based on reserves. PV-10 is not a measure of the financial or operating performance under GAAP. PV-10 should not be considered as an alternative to the standardized measure as defined under GAAP. We have included a reconciliation of the most directly comparable GAAP measure-after-tax discounted future net cash flows.

Reconciliation of PV-10 to Standardized Measure

	As of December 31,		
	2019	2018	2017
	(Dollars in millions)		
Future Cash Inflows	\$ 19,490	\$ 26,610	\$ 19,262
Future Production Costs	(7,903)	(7,730)	(7,234)
Future Development Costs (including Abandonments)	(1,121)	(1,600)	(1,711)
Future Net Cash Flows (pre-tax)	10,466	17,280	10,317
10% Discount Factor	(6,290)	(11,108)	(6,177)
PV-10 (Non-GAAP Measure)	4,176	6,172	4,140
Undiscounted Income Taxes	(2,721)	(4,147)	(2,476)
10% Discount Factor	1,615	2,630	1,467
Discounted Income Taxes	(1,106)	(1,517)	(1,009)
Standardized GAAP Measure	\$ 3,070	\$ 4,655	\$ 3,131

Gas Production

The following table sets forth net sales volumes produced for the periods indicated:

	For the Year		
	Ended December 31,		
	2019	2018	2017
Natural Gas			
Sales Volume (MMcf)			
Marcellus	335,993	255,127	209,687
Utica	113,676	148,117	70,708
CBM	55,445	60,268	65,373
Other	241	4,714	19,125
Total	505,355	468,226	364,893
NGL			
Sales Volume (Mbbls)			
Marcellus	5,423	5,227	4,604
Utica	5	853	1,851
Other	—	1	1
Total	5,428	6,081	6,456
Oil and Condensate			
Sales Volume (Mbbls)			
Marcellus	186	286	346
Utica	9	78	204
Other	8	35	39
Total	203	399	589
Total Sales Volume (MMcfe)			
Marcellus	369,652	288,203	239,387
Utica	113,761	153,704	83,038
CBM	55,445	60,268	65,373
Other	291	4,929	19,368
Total	539,149	507,104	407,166

*Oil, NGLs, and Condensate are converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas.

Note: 2018 production includes approximately 27 Bcfe of production related to assets that were sold during the year. For additional information, see Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K, which is incorporated herein by reference.

CNX expects a minimum base for 2020 annual natural gas production volumes of 525-555 Bcfe, which is consistent with 2019 volumes, based on the midpoint of guidance.

Average Sales Price and Average Lifting Cost

The following table sets forth the total average sales price and the total average lifting cost for all of our natural gas and NGL production for the periods indicated. Total lifting cost is the cost of raising gas to the gathering system and does not include depreciation, depletion or amortization. See Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Form 10-K for a breakdown by segment.

	For the Year		
	Ended December 31,		
	2019	2018	2017
Average Sales Price - Gas (Mcf)	\$ 2.48	\$ 2.97	\$ 2.59
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement- Gas (Mcf)	\$ 0.14	\$ (0.15)	\$ (0.11)
Average Sales Price - NGLs (Mcf)*	\$ 3.20	\$ 4.55	\$ 4.03
Average Sales Price - Oil (Mcf)*	\$ 8.13	\$ 9.89	\$ 7.56
Average Sales Price - Condensate (Mcf)*	\$ 7.47	\$ 8.43	\$ 6.59
Total Average Sales Price (per Mcfe) Including Effect of Derivative Instruments	\$ 2.66	\$ 2.97	\$ 2.66
Total Average Sales Price (per Mcfe) Excluding Effect of Derivative Instruments	\$ 2.53	\$ 3.11	\$ 2.76
Average Lifting Costs Excluding Ad Valorem and Severance Taxes (per Mcfe)	\$ 0.12	\$ 0.19	\$ 0.22
Average Sales Price - NGLs (Bbl)	\$ 19.20	\$ 27.30	\$ 24.18
Average Sales Price - Oil (Bbl)	\$ 48.78	\$ 59.34	\$ 45.36
Average Sales Price - Condensate (Bbl)	\$ 44.82	\$ 50.58	\$ 39.54

*Oil, NGLs, and Condensate are converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas.

Sales of NGLs, condensates and oil enhance our reported natural gas equivalent sales price. Across all volumes, when excluding the impact of hedging, sales of liquids added \$0.05 per Mcfe, \$0.14 per Mcfe, and \$0.17 per Mcfe for 2019, 2018, and 2017, respectively, to average gas sales prices. CNX expects to continue to realize a liquids uplift benefit as additional wells are turned-in-line, primarily in the liquid-rich areas of the Marcellus shale. We continue to sell the majority of our NGLs through the large midstream companies that process our natural gas. This approach allows us to take advantage of the processors' transportation efficiencies and diversified markets. Certain of CNX's processing contracts provide for the ability to take our NGLs "in-kind" and market them directly if desired. The processed purity products are ultimately sold to industrial, commercial, and petrochemical markets.

We enter into physical natural gas sales transactions with various counterparties for terms varying in length. Reserves and production estimates are believed to be sufficient to satisfy these obligations. In the past, we have delivered quantities required under these contracts. We also enter into various natural gas swap transactions. These gas swap transactions exist parallel to the underlying physical transactions and represented approximately 389.2 Bcf of our produced gas sales volumes for the year ended December 31, 2019 at an average price of \$2.70 per Mcf. The notional volumes associated with these gas swaps represented approximately 356.3 Bcf of our produced gas sales volumes for the year ended December 31, 2018 at an average price of \$2.76 per Mcf. As of January 8, 2020, these physical and swap transactions represent approximately 497.5 Bcf of our estimated 2020 production at an average price of \$2.55 per Mcf, 443.3 Bcf of our estimated 2021 production at an average price of \$2.42 per Mcf, 305.2 Bcf of our estimated 2022 production at an average price of \$2.44 per Mcf, approximately 174.1 Bcf of our estimated 2023 production at an average price of \$2.29 per Mcf, and approximately 151.5 Bcf of our estimated 2024 production at an average price of \$2.32 per Mcf.

CNX's hedging strategy and information regarding derivative instruments used are outlined in Part II, Item 7A, "Qualitative and Quantitative Disclosures About Market Risk" and in Note 21 - Derivative Instruments in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K.

Midstream Gas Services

E&P Midstream Gas Services

CNX has traditionally designed, built and operated natural gas gathering systems to move gas from the wellhead to interstate pipelines or other local sales points. In addition, over time CNX has acquired extensive gathering assets. CNX now owns or operates approximately 2,600 miles of natural gas gathering pipelines as well as a number of natural gas processing facilities. These assets are part of the E&P Division (See Note 24 - Segment Information in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information).

CNX's Midstream Division (see below) owns substantially all of CNX's Marcellus Shale gathering systems which also transports CNX's Utica Shale volumes in Pennsylvania. With respect to the Utica Shale in Ohio, CNX primarily contracts with third-party gathering services.

CNX has developed a diversified portfolio of firm transportation capacity options to support its production growth plan. CNX plans to selectively acquire firm capacity on an as-needed basis, while minimizing transportation costs and long-term financial obligations. Optimization of our firm transportation portfolio may also include, from time to time and as appropriate, releasing firm transportation to others. CNX also benefits from the strategic location of our primary production areas in southwestern Pennsylvania, northern West Virginia, and eastern Ohio. These areas are currently served by a large concentration of major pipelines that provide us with access to major gas markets without the necessity of transporting our gas out of the region, and it is expected that recently-approved and pending pipeline projects will increase the take-away capacity from our region. In addition to firm transportation capacity, CNX has developed a processing portfolio to support the projected volumes from its wet gas production areas and has the operational and contractual flexibility to potentially convert a portion of currently processed wet gas volumes to be marketed as dry gas volumes, or vice-versa, as economically appropriate.

CNX has the advantage of having natural gas production from CBM and lower Btu Utica wells in close proximity to higher Btu Marcellus wells. Separately, the low Btu CBM gas and the high Btu Marcellus gas may need processing in order to meet downstream pipeline specifications. However, the geographic proximity and interconnected gathering system servicing these wells allow CNX to blend this gas together and in some cases eliminate the need for the costly processing of gas that does not meet pipeline specification. These different gas types allow us more flexibility in bringing Marcellus and Utica shale wells online at qualities that meet interstate pipeline specifications.

Midstream Division

In January 2018, CNX acquired Noble Energy's ("Noble") 50% membership interest in CNX Gathering LLC (then named CONE Gathering) ("CNX Gathering"), which holds the general partner interest and limited partner interests (previously incentive distribution rights) in CNX Midstream Partners LP (then named CONE Midstream Partners LP) ("CNX Midstream" or "CNXM"). See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information. As part of the transaction, CNX Midstream amended its gas gathering agreement with CNX Gas Company LLC, a wholly-owned subsidiary of CNX.

CNX Gathering develops, operates and owns substantially all of CNX's Marcellus Shale gathering systems. Prior to its acquisition of Noble's interest, CNX accounted for its interest in CNX Gathering under the equity method of accounting. Subsequent to the acquisition, CNX is the single sponsor of CNXM, and beginning in the first quarter of 2018 CNX Gathering was consolidated into the Company's financial statements as the Midstream Division (See Note 24 - Segment Information in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information). We believe that the network of rights-of-way, vast surface holdings, experience in building and operating gathering systems in the Appalachian basin, and increased control and flexibility will give CNX Gathering an advantage in building the midstream assets required to execute our future development plans.

Natural Gas Competition

The United States natural gas industry is highly competitive. CNX competes with other large producers, as well as a myriad of smaller producers and marketers. CNX also competes for pipeline and other services to deliver its products to customers. According to data from the Natural Gas Supply Association and the Energy Information Agency (EIA), the five largest U.S. producers of natural gas produced about 14% of dry natural gas production during the first ten months of 2019. The EIA reported 522,631 producing natural gas wells in the United States at December 31, 2018 (the latest year for which government statistics are available), which is approximately 3% lower than 2017.

CNX expects natural gas to continue to be a significant contributor to the domestic electric generation mix in the long-term, as well as to fuel industrial growth in the U.S. economy. According to the EIA, natural gas represented 38% of U.S. electricity generation during the twelve months ended October 31, 2019, up from 35% in 2018. Estimates from EIA indicate that an average of 31.0 billion cubic feet per day (Bcf/d) was consumed by electric generation in 2019, up 7% from 2018. EIA also reports that the United States exported 5.3 Bcf/d in 2019 which is up 2.0 Bcf/d, or about 61% from 2018. EIA expects this trend to persist with estimates pointing towards an increase to 7.3 Bcf/d in 2020 and 8.9 Bcf/d in 2021. The United States became a net exporter of natural gas on an annual basis in 2016 for the first time in almost 60 years. U.S. natural gas exports have increased primarily with the addition of new LNG export facilities in the Lower 48 states. EIA reported that in 2019, the United States averaged LNG exports of 5.0 Bcf/d with expectations of steady increases to 6.5 Bcf/d and 7.7 Bcf/d in 2020 and 2021, respectively. CNX expects the high level of U.S. gas exports to continue in the future. In addition, there is potential for natural gas to become a significant contributor to the transportation market. The EIA currently expects overall demand for U.S. natural gas in 2020 to increase 1.7% from 2019. Our increasing gas production will allow CNX to participate in growing markets.

CNX gas operations are primarily located in the eastern United States, specifically the Appalachian Basin. The gas market is highly fragmented and not dominated by any single producer. We believe that competition among producers is based primarily on acreage position, low drilling and operating costs as well as pipeline transportation availability to the various markets.

Continued demand for CNX's natural gas and the prices that CNX obtains are affected by natural gas use in the production of electricity, pipeline capacity, weather, U.S. manufacturing and the overall strength of the economy, environmental and government regulation, technological developments, the availability and price of competing alternative fuel supplies, and national and regional supply/demand dynamics.

Non-Core Mineral Assets and Surface Properties

CNX owns significant natural gas assets that are not in our short-term or medium-term development plans. We continually explore the monetization of these non-core assets by means of sale, lease, contribution to joint ventures, or a combination of the foregoing in order to bring the value of these assets forward for the benefit of our shareholders. We also control a significant amount of surface acreage. This surface acreage is valuable to us in the development of the gathering system for our Marcellus Shale and Utica Shale production. We also derive value from this surface control by granting rights of way or development rights to third-parties when we are able to derive appropriate value for our shareholders.

Water Division

CNX Water Assets LLC ("CNX Water") is a wholly-owned subsidiary of CNX and supplies turnkey solutions for water sourcing, delivery and disposal for our natural gas operations, and supplies solutions for water sourcing as well as delivery and disposal for third parties. In coordination with our midstream operations, CNX Water works to develop solutions that coincide with our midstream operations to offer gas gathering and water delivery solutions in one package to third parties.

Employee and Labor Relations

At December 31, 2019, CNX had 467 employees, none of whom are subject to a collective bargaining agreement.

Industry Segments

Financial information concerning industry segments, as defined by GAAP, for the years ended December 31, 2019, 2018 and 2017 is included in Note 24 - Segment Information in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K and is incorporated herein by reference.

Financial Information about Geographic Areas

All of the Company's assets and operations are located in the continental United States.

Laws and Regulations

General

Our natural gas and midstream operations are subject to various federal, state and local (including county and municipal level) laws and regulations. These laws and regulations cover virtually every aspect of our operations including, among other things: use of public roads; construction of well pads, impoundments, tanks and roads; pooling and unitizations; water withdrawal and procurement for well stimulation purposes; well drilling, casing and hydraulic fracturing; stormwater management; well production; well plugging; venting or flaring of natural gas; pipeline construction and the compression and transmission of natural gas and liquids; reclamation and restoration of properties after natural gas operations are completed; handling, storage, transportation and disposal of materials used or generated by natural gas operations; the calculation, reporting and payment of taxes on gas production; and gathering of natural gas production. Numerous governmental permits, authorizations and approvals under these laws and regulations are required for natural gas and midstream operations. These laws and regulations, and the permits, authorizations and approvals issued pursuant to those laws and regulations, are intended to protect, among other things: air quality; ground water and surface water resources, including drinking water supplies; wetlands; waterways; endangered plants and wildlife; state natural resources and the health and safety of our employees and the communities in which we operate.

Additionally, the electric power generation industry, which consumes significant quantities of natural gas, remains subject to extensive regulation regarding the environmental impact of its power generation activities, which could impact demand for our natural gas.

We endeavor to conduct our natural gas and midstream operations in compliance with all applicable federal, state and local laws and regulations. However, because of extensive and comprehensive regulatory requirements against a backdrop of variable geologic and seasonal conditions, permit exceedances and violations during operations can and do occur. Such exceedances and violations generally result in fines or penalties but could make it more difficult for us to obtain necessary permits in the future. The possibility exists that new legislation or regulations may be adopted which would have a significant impact on our natural gas or midstream operations or on our customers' ability to use our natural gas and may require us or our customers to change their operations significantly or incur substantial costs. See "Risk Factors - *Existing and future governmental laws, regulations and other legal requirements and judicial decisions that govern our business may increase our costs of doing business and may restrict our operations*" for additional discussion regarding additional laws and regulations affecting our business, operations and industry.

Environmental Laws

Many of the laws and regulations referred to above are state level environmental laws and regulations, which vary according to the state in which we are conducting operations. However, our natural gas and midstream operations are also subject to numerous federal level environmental laws and regulations.

In addition to routine reviews and inspections by regulators to confirm compliance with applicable regulatory requirements, CNX has established protocols for ongoing assessments to identify potential environmental exposures. These assessments take into account industry and internal best management practices and evaluate compliance with laws and regulations and include reviews of our third-party service providers, including, for instance, waste management facilities.

Hydraulic Fracturing Activities. Hydraulic fracturing is typically regulated by state oil and natural gas commissions and similar agencies, but the U.S. Environmental Protection Agency ("EPA") has asserted certain regulatory authority over hydraulic fracturing and has moved forward with various regulatory actions, including the issuance of new regulations requiring green completions for hydraulically fractured wells, and has disclosed its intent to develop regulations to require companies to disclose information regarding the chemicals used in hydraulic fracturing. Some states, including states in which we operate, have adopted regulations that could impose more stringent disclosure and/or well construction requirements on hydraulic fracturing operations, or otherwise seek to ban some or all of these activities. Additionally, these federal requirements and proposals may be subject to further review and revision by the EPA.

Scrutiny of hydraulic fracturing activities also continues in other ways at the federal and local levels. For example, in June 2015, the EPA issued its draft report on the potential impacts of hydraulic fracturing on drinking water and groundwater. The draft report found no systemic negative impacts from hydraulic fracturing. In December 2016, the EPA released its final report on the impacts of hydraulic fracturing on drinking water. While the language was changed and included the possibility of negative impacts from hydraulic fracturing, it also included the guidance to industry and regulators on how the process can be performed safely. We cannot predict whether any other legislation or regulations will be enacted and, if so, what its provisions will be.

Clean Air Act. The federal Clean Air Act and corresponding state laws and regulations regulate air emissions primarily through permitting and/or emissions control requirements. This affects natural gas production and processing operations. Various activities in our operations are subject to air quality regulation, including pipeline compression, venting and flaring of natural gas, and hydraulic fracturing and completion processes, as well as fugitive emissions from operations. We obtain permits, typically from state or local authorities, to conduct these activities. Additionally, we are required to obtain pre-approval for construction or modification of certain facilities, to meet stringent air permit requirements, or to use specific equipment, technologies or best management practices to control emissions. Further, some states and the federal government have proposed that emissions from certain proximate and related sources should be aggregated to provide for regulation and permitting of a single, major source. Federal and state governmental agencies continue to investigate the potential for emissions from oil and natural gas activities, and further regulation could increase our cost or temporarily restrict our ability to produce. For example, the EPA sets National Ambient Air Quality Standards for certain pollutants and changes to such standards could cause us to make additional capital expenditures or alter our business operations in some manner. See *“Risk Factors - Regulation of greenhouse gas emissions at the federal or state level may increase our operating costs and reduce the value of our natural gas assets and such regulation, as well as uncertainty concerning such regulation, could adversely impact the market for natural gas, as well as for our securities.”* for additional discussion regarding certain laws and regulations related to air emissions and related matters.

Clean Water Act. The federal Clean Water Act (“CWA”) and corresponding state laws affect our natural gas operations by regulating storm water or other regulated substance discharges, including pollutants, sediment, and spills and releases of oil, brine and other substances, into surface waters, and in certain instances imposing requirements to dispose of produced wastes and other oil and gas wastes at approved disposal facilities. The discharge of pollutants into jurisdictional waters is prohibited, except in accordance with the terms of a permit issued by the EPA, the U.S. Army Corps of Engineers, or a delegated state agency. These permits require regular monitoring and compliance with effluent limitations and reporting requirements and govern the discharge of pollutants into regulated waters. Federal and state regulatory agencies can impose administrative, civil and/or criminal penalties for non-compliance with discharge permits or other requirements of the CWA and analogous state laws and regulations. See *“Risk Factors -Environmental regulations can increase costs and introduce uncertainty that could adversely impact the market for natural gas with potential short and long-term liabilities.”* for additional discussion regarding certain laws and regulations related to clean water, the disposal or use of water and related matters.

Endangered Species Act. The Endangered Species Act and related state regulation protect plant and animal species that are threatened or endangered. Some of our operations are located in areas that are or may be designated as protected habitats for endangered or threatened species, including the Northern Long-Eared and Indiana bats, which has a seasonal impact on our construction activities and operations. New or additional species that may be identified as requiring protection or consideration may lead to delays in permits and/or other restrictions.

Safety of Gas Transmission and Gathering Pipelines. Natural gas pipelines serving our operations are subject to regulation by the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (“PHMSA”) pursuant to the Natural Gas Pipeline Safety Act of 1968, (“NGPSA”), as amended by the Pipeline Safety Act of 1992, the Accountable Pipeline Safety and Partnership Act of 1996, the Pipeline Safety Improvement Act of 2002 (“PSIA”), the Pipeline Inspection, Protection, Enforcement and Safety Act of 2006, and the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (the “2011 Pipeline Safety Act”). The NGPSA regulates safety requirements in the design, construction, operation and maintenance of natural gas pipeline facilities, while the PSIA establishes mandatory inspections for all U.S. oil and natural gas transmission pipelines in high-consequence areas. Additionally, certain states, such as West Virginia, also maintain jurisdiction over intrastate natural gas lines. See *“Risk Factors -- We may incur significant costs and liabilities as a result of pipeline operations and related increase in the regulation of gas gathering pipelines.”* for additional discussion regarding gas transmission and gathering pipelines.

Resource Conservation and Recovery Act. The federal Resource Conservation and Recovery Act (RCRA) and corresponding state laws and regulations affect natural gas operations by imposing requirements for the management, treatment, storage and disposal of hazardous and non-hazardous wastes, including wastes generated by natural gas operations. Facilities at which hazardous wastes have been treated, stored or disposed of are subject to corrective action orders issued by the EPA that could adversely affect our financial results, financial condition and cash flows. On December 28, 2016 the EPA entered into a consent order to resolve outstanding litigation brought by environmental and citizen groups regarding the applicability of RCRA to wastes from oil and gas development activities. In April 2019, the EPA issued a report concluding that revisions to the federal regulations for the management of exploration and production wastes under RCRA were not necessary at the time the report was issued. We cannot predict whether the EPA may change its conclusion at some point, or whether any other legislation or regulations will be enacted and if so, what its provisions will be.

Federal Regulation of the Sale and Transportation of Natural Gas

Federal Energy Regulatory Commission. Regulations and orders issued by the Federal Energy Regulatory Commission (FERC) impact our natural gas business to a certain degree. Although the FERC does not directly regulate our natural gas production activities, the FERC has stated that it intends for certain of its orders to foster increased competition within all phases of the natural gas industry. Additionally, the FERC has jurisdiction over the transportation of natural gas in interstate commerce, and regulates the terms, conditions of service, and rates for the interstate transportation of our natural gas production. The FERC possesses regulatory oversight over natural gas markets, including anti-market manipulation regulation. The FERC has the ability to assess civil penalties, order disgorgement of profits and recommend criminal penalties for violations of the Natural Gas Act or the FERC's regulations and policies thereunder.

Section 1(b) of the Natural Gas Act exempts natural gas gathering facilities from regulation by the FERC. However, the distinction between federally unregulated gathering facilities and FERC-regulated transmission facilities is a fact-based determination, and the classification of such facilities may be the subject of dispute and, potentially, litigation. We own certain natural gas pipeline facilities that we believe meet the traditional tests which the FERC has used to establish a pipeline's status as a gatherer not subject to the FERC jurisdiction.

Natural gas prices are currently unregulated, but Congress historically has been active in the area of natural gas regulation. We cannot predict whether new legislation to regulate natural gas sales might be enacted in the future or what effect, if any, any such legislation might have on our operations.

Health and Safety Laws

Occupational Safety and Health Act. Our natural gas operations are subject to regulation under the federal Occupational Safety and Health Act (OSHA) and comparable state laws in some states, all of which regulate health and safety of employees at our natural gas operations. Additionally, OSHA's hazardous communication standard, the EPA community right-to-know regulations under Title III of the federal Superfund Amendment and Reauthorization Act and comparable state laws require that information be maintained about hazardous materials used or produced by our natural gas operations and that this information be provided to employees, state and local governments and the public.

Climate Change Laws and Regulations

Climate change continues to be a legislative and regulatory focus. There are a number of proposed and final laws and regulations that limit greenhouse gas emissions, and regulations that restrict emissions could increase our costs should the requirements necessitate the installation new equipment or the purchase of emission allowances. These laws and regulations could also impact our customers, including the electric generation industry, making alternative sources of energy more competitive. Additional regulation could also lead to permitting delays and additional monitoring and administrative requirements, as well as to impacts on electricity generating operations. See "*Risk Factors - Regulation of greenhouse gas emissions at the federal or state level may increase our operating costs and reduce the value of our natural gas assets and such regulation, as well as uncertainty concerning such regulation, could adversely impact the market for natural gas, as well as for our securities.*" for additional discussion regarding certain laws and regulations related to climate change, greenhouse gas and related matters.

Title to Properties

CNX acquires ownership or leasehold rights to oil and natural gas properties prior to conducting operations on those properties. The legal requirements of such ownership or leasehold rights generally are established by state statutory or common law. As is customary in the natural gas industry, we have generally conducted only a summary review of the title to oil and gas rights that are not yet in our development plans, but which we believe we control. This summary review is conducted at the time of acquisition or as part of a review of our land records. Prior to the commencement of development operations on natural gas and coalbed methane properties, we conduct a thorough title examination and perform curative work with respect to significant title defects. Our discovering title defects which we are unable to cure may adversely impact our ability to develop those properties and we may have to reduce our estimated gas reserves including our proved undeveloped reserves. In accordance with the foregoing, we have completed title work on substantially all of our natural gas and coalbed methane properties that are currently producing and believe that we have satisfactory title to our producing properties in accordance with standards generally accepted in the industry.

Available Information

CNX maintains a website at www.cnx.com. CNX makes available, free of charge on its website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished

pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after such reports are electronically filed with, or furnished to the SEC. Those reports are also available at the SEC's website www.sec.gov. Apart from SEC filings, we also use our website to publish information which may be important to investors, such as presentations to analysts.

Information About Our Executive Officers

Incorporated by reference into this Part I is the information set forth in Part III. Item 10 under the caption "Information About Our Executive Officers" (included herein pursuant to Item 401(b) of Regulation S-K).

ITEM 1A. Risk Factors

Investment in our securities is subject to various risks, including risks and uncertainties inherent in our business. In addition to the other information contained in this Annual Report on Form 10-K, the following risk factors related to our business, operations, investments, financial position or future financial performance or cash flows should be considered in evaluating our company. If any of the following risks were to occur, it could cause an investment in our securities to decline and result in a loss.

Prices for natural gas and NGLs are volatile and can fluctuate widely based upon a number of factors beyond our control, including oversupply relative to the demand for our products, weather and the price and availability of alternative fuels. An extended decline in the prices we receive for our natural gas and NGLs will adversely affect our business, operating results, financial condition and cash flows.

Our financial results are significantly affected by the prices we receive for our natural gas and NGLs. Natural gas, NGLs, oil and condensate prices are very volatile and can fluctuate widely based upon supply from energy producers relative to demand for these products and other factors beyond our control. In particular, the U.S. natural gas industry continues to face concerns of oversupply due to the success of Marcellus and other new shale plays. The oversupply of natural gas beginning in 2012 has resulted in domestic prices continuing to hover around ten-year lows, and drilling has continued in these plays, despite these lower gas prices, to meet drilling commitments. Natural gas prices have continued to decrease, and continued volatility remains a strong possibility.

Our producing properties are geographically concentrated in the Appalachian Basin, which exacerbates the impact of regional supply and demand factors on our business, including the pricing of our gas. The success of the Marcellus Shale and Utica Shale plays has resulted in growth in natural gas production in this region, with production per day in the Appalachian Basin increasing by more than 500 percent since 2011. Not all of the natural gas produced in this region can be consumed by regional demand and must therefore be exported to other regions, which causes gas produced and sold locally to be priced at a discount to many other market hubs, such as the benchmark Louisiana Henry Hub price. This discount, or negative basis, to the Henry Hub price is forecasted to continue in future years. While we expect many of the planned interstate pipeline projects to reduce this discount, it could widen further if these projects to move gas out of the basin are delayed or denied for any reason, such as permitting issues or environmental lawsuits.

An extended period of lower natural gas prices can negatively affect us in several other ways, including reduced cash flow, which decreases funds available for capital expenditures to replace reserves or increase production. Also, our access to other sources of capital, such as equity or long-term debt markets, could be severely limited or unavailable.

Our drilling plans also include some activity in areas of shale formations that may also contain NGLs, condensate and/or oil. The prices for NGLs, condensate and oil are also volatile for reasons similar to those described above regarding natural gas. As a result of increasing supply, condensate and oil prices have exhibited great volatility. Although the Company is able to hedge natural gas benchmarks and local basis differentials, it has not found acceptable instruments to hedge its relatively minor quantities of NGL, condensate and oil. In addition, similar to the oversupply of natural gas, increased drilling activity by third-parties in formations containing NGLs has led to a significant decline in the price we receive for our NGLs. Further, an oversupply of NGLs in the local market where we operate requires excess NGLs to be transported out of our region and into the broader market, including international exports. NGLs are transported by a variety of methods, including pipeline, rail, boat and truck. Any disruption in those means of transportation could have a further detrimental impact on the price we receive for our NGLs. Our results of operations may be adversely affected by a continued depressed level of, or further downward fluctuations in, NGLs, condensate and oil prices.

Apart from issues with respect to the supply of products we produce, demand can fluctuate widely due to a number of matters beyond our control, including:

- weather conditions in our markets that affect the demand for natural gas;
- changes in the consumption pattern of industrial consumers, electricity generators and residential users of electricity and natural gas;
- with respect to natural gas, the price and availability of alternative fuel sources used by electricity generators;
- technological advances affecting energy consumption and conservation measures reducing demand;
- the costs, availability and capacity of transportation infrastructure;
- proximity and capacity of natural gas pipelines and other transportation facilities;
- changes in levels of international demand and tariffs associated with international export; and
- the impact of domestic and foreign governmental laws and regulations, including environmental and climate change regulations and delays.

Our business depends on gathering, processing and transportation facilities and other midstream facilities owned by CNXM and others. The disruption of, capacity constraints in, or proximity to pipeline systems could limit sales of our natural gas and NGLs and cash flows from operations, and any decrease in availability of pipelines or other midstream facilities could adversely affect our operations or our investment in CNXM.

We gather, process and transport our natural gas to market by utilizing pipelines and facilities owned by others, including CNXM. If pipeline or facility capacity is limited or is unexpectedly disrupted for any reason, our sales of natural gas and/or NGLs could be reduced, which could negatively affect our profitability. If CNX cannot access processing pipeline transportation facilities, we may have to reduce our production of natural gas, reducing our sales and revenues, and causing our unit costs to increase. If pipeline quality standards change or CNX cannot meet applicable standards, we might be required to install additional processing equipment which could increase our costs. Pipelines could also curtail our flows until the natural gas delivered to their pipeline is in compliance with predetermined gas quality specifications. Any reduction in our production of natural gas or increase in our costs could materially adversely affect our business, financial condition, results of operations and cash flows.

Further, a significant portion of our natural gas is sold on or through a single pipeline, Texas Eastern Transmission, which could experience capacity issues, operational disruptions and unexpected downtime, and either no or little alternative transportation options are available for our natural gas. Reductions in capacity on the Texas Eastern pipeline, which have occurred in the past, may result in curtailments and reduce our production of natural gas. A reduction in capacity on any downstream pipelines could also reduce the demand for our natural gas, which would reduce the price we receive for our production.

In addition to our relationship with CNXM, we have various third-party firm transportation, natural gas processing, gathering and other agreements in place, many of which have minimum volume delivery commitments that obligate us to pay fees on minimum volumes regardless of actual volume throughput. Reductions in our drilling program may result in insufficient production to utilize our full firm transportation and processing capacity, reducing our cash flow from operations, which may require us to reduce or delay our planned investments and capital expenditures or seek alternative means of financing, all of which may have a material adverse effect our business, financial condition, results of operations and cash flows.

Our investment in midstream infrastructure development and maintenance programs through CNXM is intended, among other items, to connect our wells to other existing gathering and transmission pipelines and can involve significant risks, including those relating to timing, cost overruns and operational efficiency. Significant portions of our natural gas production are dependent on a small number of key CNXM compression and processing stations. An operational issue at any of those stations would materially impact CNX's production, cash flow and results of operation. CNXM's assets connect to other pipelines or facilities owned and operated by unaffiliated third parties, the continuing operation of which is not within our or CNXM's control. These third-party pipelines and facilities may become unavailable because of testing, turnarounds, line repair, maintenance, changes to operating conditions, delivery or receipt parameters, unavailability of firm transportation, lack of operating capacity, force majeure events, regulatory requirements and curtailments of receipt or deliveries due to insufficient capacity or because of damage from severe weather conditions or other operational issues.

We face uncertainties in estimating our economically recoverable natural gas reserves, and inaccuracies in our estimates could result in lower than expected revenues, higher than expected costs and decreased profitability.

Natural gas reserves are economically recoverable when the price at which they are expected to be sold exceeds their expected cost of production and sales. Reserves require estimates of underground accumulations of oil and natural gas, and the use of assumptions concerning natural gas prices, production levels, recoverable reserve quantities and operating and development costs. For example, a significant amount of our proved undeveloped reserves booked during the last nine years were due to the addition of undeveloped wells on our Marcellus Shale acreage more than one offset location away from existing production through the use of reliable, industry standard applications, which may be more susceptible to positive and negative changes in reserve estimates than our proved developed reserves. Also, we make certain assumptions regarding natural gas prices, production levels, and

operating and development costs that may prove to be incorrect. Any significant variance from these assumptions to actual figures could greatly affect our estimates of our natural gas reserves, the economically recoverable quantities of natural gas attributable to any particular group of properties, the classifications of natural gas reserves based on risk of recovery and estimates of the future net cash flows. The PV-10 measure of pre-tax discounted future net cash flows and the standardized measure of after tax discounted future net cash flows from our proved reserves included within this Annual Report on Form 10-K are not necessarily the same as the current market value of our estimated natural gas and liquid reserves. We base the estimated discounted future net cash flows from our proved natural gas and liquid reserves on historical average prices and costs. However, actual future net cash flows from our proved and unproved natural gas and liquid properties will also be affected by factors such as:

- geological conditions;
- our acreage position, and our ability to acquire additional acreage, including purchases and third-party swaps to develop our position efficiently;
- changes in governmental regulations and taxation;
- the amount and timing of actual production;
- future prices and our hedging position;
- future operating costs;
- operational risks and results; and
- capital costs of drilling, completion and gathering assets.

The timing of both our production and our incurrence of expenses in connection with the development and production of natural gas and liquid properties will affect the timing of actual future net cash flows from proved reserves and thus their actual present value. In addition, the 10% discount factor we use when calculating discounted future net cash flows may not be the most appropriate discount factor based on interest rates in effect from time to time and risks associated with us or the oil and natural gas industry in general. If natural gas prices decline by \$0.10 per Mcf, then the pre-tax present value using a 10% discount rate of our proved natural gas reserves as of December 31, 2019 would decrease from \$4.18 billion to \$3.96 billion.

Developing, producing and operating natural gas wells is a high-risk activity, and is subject to operating risks and hazards that could increase expenses, decrease our production levels and expose us to losses or liabilities.

Our financial results are materially dependent upon the success of our drilling program. Drilling for natural gas involves numerous risks, including the risk that an encountered well does not produce in sufficient quantities to make the well economically viable. The cost of drilling, completing and operating wells is substantial and uncertain, and drilling operations may be curtailed, delayed or canceled as a result of a variety of factors beyond our control. Our future drilling activities may not be successful, and if they are unsuccessful, such failure will have an adverse effect on our future results of operations and financial condition. CNX may be unable to drill identified or budgeted wells within our expected time frame, or at all for various reasons, and a final determination with respect to the drilling of any scheduled or budgeted wells will be dependent on a number of factors, including:

- the results of delineation efforts and the acquisition, review and analysis of data, including seismic data;
- the availability of sufficient capital resources to us and any other participants in a well for the drilling of the well;
- whether we are able to acquire on a timely basis all of the leasehold interests required for the well, including through swap transactions with other operators;
- whether we are able to obtain, on a timely basis or at all, the permits required to drill the wells;
- whether production levels align with estimates; and
- economic and industry conditions at the time of drilling, including prevailing and anticipated prices for natural gas and oil and the availability and cost of oilfield services.

Our business strategy focuses on horizontal drilling and production in the Marcellus and Utica Shale plays in the Appalachian Basin. Drilling and stimulating horizontal wells is technologically complex, expensive and involves a higher risk of failure when compared to vertical wells. Due to the higher costs, the risks of our drilling program are spread over a smaller number of wells, and in order to be profitable, each horizontal well will need to produce at a higher level. In addition, we use multi-well pads instead of single-well sites. The use of multi-well pad drilling increases some operational risks because problems affecting the pad, or a single well could adversely affect production from all of the wells on the pad. Pad drilling can also make our overall production, and therefore our revenue and cash flows, more volatile, because production from multiple wells on a pad will typically commence simultaneously. While we believe that we are better served by drilling horizontal wells using multi-well pads, the risk component involved in such drilling will be increased in some respects, with the result that CNX might find it more difficult to achieve economic success in our drilling program.

Our exploration and production of natural gas and CNXM's gathering, compression and transportation operations involve

numerous operational risks. The cost of drilling, completing and operating a shale gas well, a shallow oil and gas well or a coalbed methane (CBM) well is often uncertain, and a number of factors can delay, suspend, or prevent drilling operations, decrease production and/or increase the cost of our natural gas operations at particular sites for varying lengths of time. The operational factors that are most likely to negatively impact our operations include unexpected drilling and production conditions (pressure or irregularities in geologic formations or wells, material and equipment failures, fires, ruptures, loss of well control, landslides, mine subsidence, explosions or other accidents and environmental concerns and adverse weather conditions), which conditions and risks may be amplified as we increase the vertical and horizontal length of drilling endeavors; similar operational or design issues relating to pipelines, compressor stations, pump stations, related equipment and surrounding properties; challenges relating to transportation, pipeline infrastructure and capacity for treatment or disposal of waste water generated in operations and failure to obtain, or delays in the issuance of, permits at the state or local level and the resolution of regulatory concerns.

The realization of any of these risks could adversely affect our ability to conduct our operations, materially increase our costs, or result in substantial loss to us as a result of claims for:

- personal injury or loss of life;
- damage to and destruction of property, natural resources and equipment, including our properties and our natural gas production or transportation facilities;
- pollution and other environmental damage to our properties or the properties of others;
- potential legal liability and monetary losses;
- damage to our reputation within the industry or with customers;
- regulatory investigations and penalties;
- suspension of our operations; and
- repair and remediation costs.

The occurrence of any operational event that prevents delivery of natural gas to a customer and is not excusable as a force majeure event under our supply agreement, could result in economic penalties, suspension or ultimately termination of the supply agreement.

Although CNX and CNXM maintain insurance for a number of risks and hazards, CNX and CNXM may not be adequately insured against the losses or liabilities that could arise from a significant accident or disruption in our operations. The occurrence of an event that is not fully covered by insurance, such as pollution or environmental issues, could materially adversely affect our business, financial condition, results of operations and cash flows.

Our identified drilling locations are scheduled out over multiple years, making them susceptible to uncertainties that could materially alter the occurrence or timing of their development and/or drilling.

Our management team has specifically identified and scheduled certain drilling locations as an estimation of our future multi-year drilling activities on our existing acreage. These drilling locations represent a significant part of our development strategy. Our ability to drill and develop these locations may be dependent on a number of factors, including natural gas and oil prices, the availability and cost of capital, drilling and production costs, the acquisition on acceptable terms of any leasehold interests we do not control but that are necessary to complete the drilling unit, including potentially through third-party swap transactions, availability of drilling services and equipment, drilling results, lease expirations, transportation constraints, regulatory and zoning approvals and other factors. Because of these uncertain factors, we do not know if the numerous drilling locations we have identified will ever be drilled. CNX may require significant additional capital over a prolonged period in order to pursue the development of these locations, and we may not be able to raise or generate the capital required to do so. Any drilling activities we are able to conduct on these locations may not be successful or result in our ability to add additional proved reserves or may result in a downward revision of our estimated proved reserves, which could materially adversely affect our business and results of operations.

Strategic determinations, including the allocation of capital and other resources to strategic opportunities, are challenging, and our failure to appropriately allocate capital and resources among our strategic opportunities may adversely affect our financial condition.

Our future growth prospects are dependent upon our ability to identify optimal strategies for investing our capital resources to produce superior rates of return. In developing our business plan, we consider allocating capital and other resources to various aspects of our businesses including well development (primarily completions), reserve acquisitions, exploratory activity, corporate items (including share and debt repurchases) and other alternatives. We also consider our likely sources of capital, including cash generated from operations and borrowings under our credit facilities. Notwithstanding the determinations made in the development of our business plan, business opportunities not previously identified periodically come to our attention, including possible acquisitions and dispositions. If CNX fails to identify optimal business strategies or fail to optimize our capital investment and

capital raising opportunities and the use of our other resources in furtherance of our business strategies, our financial condition and future growth may be adversely affected. Moreover, economic or other circumstances may change from those contemplated by our business plan, and our failure to recognize or respond to those changes may limit our ability to achieve our objectives.

Our development and exploration projects, as well as CNXM's midstream development projects, require substantial capital expenditures and if we fail to generate sufficient cash flow or obtain required capital or financing on satisfactory terms, our natural gas reserves may decline, and financial results may suffer.

As part of our strategic determinations, CNX expects to continue to make substantial capital expenditures in the development and acquisition of natural gas reserves and CNXM expects to fund its share of growth capital expenditures associated with its Anchor Systems, its 5% controlling interests in the Additional Systems or to purchase or construct new midstream systems. If CNX or CNXM are unable to make sufficient or effective capital expenditures, we will be unable to maintain and grow our respective businesses.

CNXM's amended gathering agreement with us, CNXM's largest customer, includes minimum well commitments; however, that gas gathering agreement and those CNXM has with other third-parties impose obligations on CNXM to invest capital which is not fully protected against volumetric risks associated with lower-than-forecast volumes flowing through its gathering systems. To the extent CNXM's customers are not contractually obligated to, and determine not to, develop their properties in the areas covered by CNXM's acreage dedications, the resulting decrease in the development of reserves by CNXM customers could result in reduced volumes serviced by CNXM and a commensurate decline in revenues and cash flows.

There is no assurance that CNX or CNXM will have sufficient cash from operations, borrowing capacity under each company's respective credit facilities, or the ability to raise additional funds in the capital markets to meet our respective capital requirements. If cash flow generated by our operations or available borrowings under either company's credit facilities are not sufficient to meet our capital requirements, or we are unable to obtain additional financing, CNX could be required to curtail the pace of the development of our natural gas properties and midstream activities, which in turn could lead to a decline in our reserves and production, and could adversely affect our business, financial condition and results of operations.

Regulation of greenhouse gas emissions at the federal or state level may increase our operating costs and reduce the value of our natural gas assets and such regulation, as well as uncertainty concerning such regulation, could adversely impact the market for natural gas, as well as for our securities.

The issue of global climate change continues to attract considerable public and scientific attention with underlying concern about the impacts of human activity, especially the emissions of greenhouse gases ("GHGs") such as carbon dioxide ("CO2") and methane, on the environment.

The EPA, under the Climate Action Plan, elected to regulate GHGs under the Clean Air Act ("CAA") to limit emissions of CO2 from natural gas-fired power plants. In April 2017, the EPA announced that it was initiating a review of the Clean Power Plan consistent with President Trump's Executive Order 13783, and in October 2017 published a proposed rule to formally repeal the Clean Power Plan. On August 20, 2018, the EPA issued the proposed "Affordable Clean Energy Rule." On June 19, 2019, the EPA issued the final Affordable Clean Energy Rule, replacing the Clean Power Plan.

The EPA has adopted regulations under existing provisions of the federal Clean Air Act that establish Prevention of Significant Deterioration, or PSD, construction and Title V operating permits for large stationary sources. Facilities requiring PSD permits may also be required to meet "best available control technology" (BACT) standards. Rulemaking related to GHG could alter or delay our ability to obtain new and/or modified source permits.

The EPA has also adopted, changed and amended rules to control volatile organic compound emissions from certain oil and gas equipment and operations as part of its initiative to reduce methane emissions. In response to subsequent judicial involvement, the EPA issued a proposed rule in July 2017 that would stay the methane rule for two years that was vacated by the United States Court of Appeals for the D.C. Circuit. Thereafter in September 2018, the EPA proposed revisions to the 2016 New Source Performance Standards for the oil and gas industry. Additional revisions were proposed in August 2019. As these rules are adopted, changed or modified, these rules may result in increased costs for permitting, equipping, and monitoring methane emissions or otherwise restrict operations.

Additionally, some states have issued mandates to reduce emissions of GHGs, primarily through the planned development of GHG emission inventories and potential cap-and-trade programs. For example, Pennsylvania has recently taken initial steps to bring Pennsylvania into a nine-state consortium of Northeastern and Mid-Atlantic States - the Regional Greenhouse Gas Initiative -- that set price and declining limits on CO2 emissions from power plants, and Virginia is also considering this issue. Most of these

types of programs require major source of emissions or major producers of fuels to acquire and surrender emission allowances, with the number of allowances available being reduced each year until a target goal is achieved. The cost of these allowances could increase over time. While new laws and regulations that are aimed at reducing GHG emissions will increase demand for natural gas, they may also result in increased costs for permitting, equipping, monitoring and reporting GHGs associated with natural gas production and use.

Environmental regulations can increase costs and introduce uncertainty that could adversely impact the market for natural gas with potential short and long-term liabilities.

CNX and CNXM are subject to various stringent federal, state, and local laws and regulations relating to the discharge of materials into, and protection of, the environment. These laws and regulations may impose numerous obligations that are applicable to our, CNXM's, and our respective customers' operations. Failure to comply with these laws, regulations and related permit requirements may result in joint and several or strict liability or the assessment of administrative, civil and criminal penalties, the imposition of remedial obligations, and/or the issuance of injunctions limiting or preventing some or all of our operations. Private parties, including the owners of the properties through which CNXM's gathering systems pass, and some local municipalities may also have the right to pursue legal actions to enforce compliance, challenge governmental actions, as well as seek damages for non-compliance, with environmental laws and regulations or for personal injury or property damage. CNX may not be able to recover all or any of these costs from insurance. There is no assurance that changes in or additions to public policy regarding the protection of the environment will not have a significant impact on our operations and profitability.

Our operations, and those of CNXM, also pose risks of environmental liability due to leakage, migration, releases or spills from our operations to surface or subsurface soils, and surface water or groundwater. Certain environmental laws impose strict as well as joint and several liability for costs required to investigate, remediate, and restore sites where regulated substances have been stored or released, as well as fines and penalties for such releases. CNX may be required to remediate contaminated properties currently or formerly operated by us regardless of the cause of contamination or whether such contamination resulted from the conduct of others. In addition, claims for damages to persons or property, including natural resources, may result from the environmental, health and safety impacts of our operations. Additionally, the Federal Endangered Species Act (ESA) and similar state laws protect species endangered or threatened with extinction and may cause us to modify gas well pad siting or pipeline right of ways or routes, or to develop and implement species-specific protection and enhancement plans and schedules to avoid or minimize impacts to endangered species or their habitats during construction or operations.

CNX utilizes pipelines extensively for its natural gas, midstream and water businesses. Stream encroachment and crossing permits from the Army Corps of Engineers (ACOE) are often required for the location of or certain impacts these pipelines cause to streams and wetlands. The EPA and the ACOE have been developing a proposed rule that would revise the definition of "waters of the United States" under the Clean Water Act. The EPA moved forward with the first step on December 11, 2018, when it issued a proposed, revised rule which would replace a prior 2015 rule with pre-2015 regulations, and which narrowed language defining "waters of the United States" under the Clean Water Act that existed prior to that time. In September 2019, the EPA and the ACOE announced that the agencies were repealing the 2015 rule. This second step will be a notice-and-comment rulemaking in which federal agencies will conduct a substantive reevaluation of such definition. While CNX cannot at this time predict the final form that the rule will ultimately take, such rulemaking could lead to additional mitigation costs and severely limit CNX's operations.

The foregoing and other regulations applicable to the natural gas industry are under constant review for amendment or expansion at both the federal and state levels. Any future changes may increase the costs of producing natural gas and other hydrocarbons, which would adversely impact our cash flows and results of operations. For example, hydraulic fracturing is an important and common practice that is used to stimulate production of hydrocarbons from tight unconventional shale formations. The process involves the injection of water, sand and chemicals under pressure into formations to fracture the surrounding rock and stimulate production. The process is typically regulated by state oil and gas agencies. The disposal of produced water and other wastes in underground injection disposal wells is regulated by the EPA under the federal Safe Drinking Water Act or by various states in which we conduct operations under counterpart state laws and regulations. The imposition of new environmental initiatives and regulations could include restrictions on our ability to conduct hydraulic fracturing operations or to dispose of waste resulting from such operations.

Public interest in the protection of the environment has increased dramatically in recent years. The trend of more expansive and stringent environmental legislation and regulations applied to the crude oil and natural gas industry could continue, potentially resulting in increased costs of doing business and consequently affecting profitability. Please read "Business - Regulation of Environmental and Occupational Safety and Health Matters" under Item 1 of Part I of this Annual Report on Form 10-K.

CNX may not be able to obtain required personnel, services, equipment, parts and raw materials in a timely manner, in sufficient quantities or at reasonable costs to support our operations.

We rely on third-party contractors to provide key services and equipment for our operations. CNX contracts with third-parties for well services, related equipment, and qualified experienced field personnel to drill wells, construct pipelines and conduct field operations. We also utilize third-party contractors to provide land acquisition and related services to support our land operational needs. The demand for these services, equipment and field personnel to drill wells, construct pipelines and conduct field operations, and other professionals in the oil and natural gas industry can fluctuate significantly, often in correlation with natural gas and oil prices, causing periodic shortages. Weather may also play a role with respect to the relative availability of certain materials. Historically, there have been shortages of drilling and workover rigs, pipe, compressors and other equipment as demand for rigs and equipment has increased along with the number of wells being drilled. The costs and delivery times of equipment and supplies are substantially greater in periods of peak demand, including increased demand for plays outside of our area of geographic focus. Accordingly, CNX cannot be assured that we will be able to obtain necessary services, drilling equipment and supplies in a timely manner or on satisfactory terms, and CNX may experience shortages of, or increases in the costs of, drilling equipment, crews and associated supplies, equipment and field services in the future.

Shortages may lead to escalating prices, poor service, and inefficient drilling operations and increase the possibility of accidents due to the hiring of less experienced personnel and overuse of equipment by contractors. A decrease in the availability of these services, equipment or personnel could lead to a decrease in our natural gas production levels, increase our costs of natural gas production, and decrease our anticipated profitability. Such shortages could delay or cause us to incur significant expenditures that are not provided for in our capital budget, which events could materially adversely affect our business, financial condition, results of operations, or cash flows.

We attempt to mitigate the risks involved with increased natural gas production activity by entering into "take or pay" contracts with well service providers which commit them to provide field services to us at specified levels and commit us to pay for field services at specified levels even if we do not use those services. However, these types of contracts expose us to economic risk during a downturn in demand or during periods of oversupply. For example, in the year ended December 31, 2019 and 2018, due to the oversupply of gas in our markets, CNX made payments under these types of contracts of approximately \$12 million and \$7 million, respectively, for field services that we did not use. Having to pay for services we do not use decreases our cash flow and increases our costs.

If natural gas prices decrease or drilling efforts are unsuccessful, we may be required to record write-downs of our proved natural gas properties. Additionally, changes in assumptions impacting management's estimates of future financial results as well as other assumptions related to the Company's stock price, weighted-average cost of capital, terminal growth rates and industry multiples, could cause goodwill and other intangible assets we hold to become impaired and result in material non-cash charges to earnings.

Lower natural gas prices or wells that produce less than expected quantities of natural gas may reduce the amount of natural gas that CNX can produce economically. This may result in our having to make substantial downward adjustments to our estimated proved reserves. If this occurs, or if our estimates of development costs increase, production data factors change or our exploration results deteriorate, accounting rules may require us to write down, as a non-cash charge to earnings, the carrying value of our natural gas properties. We are required to perform impairment tests on our assets whenever events or changes in circumstances lead to a reduction of the estimated useful life or estimated future cash flows that would indicate that the carrying amount may not be recoverable or whenever management's plans change with respect to those assets, and in the past have had to take an impairment charge for certain of our assets. CNX may incur impairment charges in the future, which could have an adverse effect on our results of operations in the period taken.

For the year ended December 31, 2019, as a result of the annual impairment test, an impairment of \$327 million was recognized within the Central Pennsylvania Marcellus proved properties. This impairment was related to 56 operated wells and approximately 51,000 acres within our Central Pennsylvania Marcellus proved properties in Armstrong, Indiana, Jefferson and Westmoreland counties. The majority of these properties were developed prior to 2013 and the last of these properties were developed in 2015.

Future acquisitions may lead to the acquisition of additional goodwill or other intangible assets. At least annually, or whenever events or changes in circumstances indicate a potential impairment in the carrying value as defined by GAAP, we will evaluate this goodwill and other intangible assets for impairment by first assessing qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of the reporting unit is less than the carrying amount. Estimated fair values could change if, for example, there are changes in the business climate, unanticipated changes in the competitive environment, adverse legal or regulatory actions or developments, changes in capital structure, cost of debt, interest rates, capital expenditure levels, operating cash flows, or market capitalization. The future impairment of these assets

could require material non-cash charges to our results of operations, which could materially adversely affect our reported earnings and results of operations for the affected periods.

Competition and consolidation within the natural gas industry may adversely affect our ability to sell our products and midstream services. Increased competition or a loss of our competitive position could adversely affect our sales of, or our prices for, our products, which could impair our profitability.

The natural gas, exploration, production and midstream industries are intensely competitive with companies from various regions of the United States and, increasingly, competition in the international markets. The industry has been experiencing increased competitive pressures as a result of both consolidation within the exploration and production space, along with the continued proliferation of stand-alone midstream companies. Midstream, transmission and processing consolidation in the industry could lead to a less competitive environment for CNX to find partners for projects needed to support development, which could increase costs. Many of the companies with which CNX and CNXM compete are larger and have greater financial, technological, human and other resources. If we are unable to compete, our company, our operating results and financial position may be adversely affected. In addition, larger companies may be able to pay more to acquire new natural gas properties for future exploration, limiting our ability to replace the natural gas we produce or to grow our production. There is also increased competition within the industry as a result of oil-focused drilling, where natural gas is produced as an ancillary byproduct and may be sold at prices below market. Some of such “byproduct” gas could be transported to our key markets, thereby affecting regional supply. The highly competitive environment in which we operate may negatively impact our ability to acquire additional properties at prices or upon terms we view as favorable. Any reduction in our ability to compete in current or future natural gas markets could materially adversely affect our business, financial condition, results of operations and cash flows.

In addition, potential third-party customers who are significant producers of natural gas and condensate may develop their own midstream systems in lieu of using CNXM’s systems. All of these competitive pressures could materially adversely affect CNXM’s business, results of operations, financial condition, cash flows and ability to make cash distributions and therefore, could materially adversely affect our investment in CNXM.

Deterioration in the economic conditions in any of the industries in which our customers operate, a domestic or worldwide financial downturn, or negative credit market conditions may have a material adverse effect on our liquidity, results of operations, business and financial condition that CNX cannot predict.

Economic conditions in a number of industries in which our customers operate, such as electric power generation, have experienced substantial deterioration in the past, resulting in reduced demand for natural gas. Renewed or continued weakness in the economic conditions of any of the industries we serve or that are served by our customers could adversely affect our business, financial condition, results of operation and liquidity in a number of ways. For example:

- demand for natural gas and electricity in the United States is impacted by industrial production, which if weakened would negatively impact the revenues, margins and profitability of our natural gas business;
- A decrease in international demand for natural gas or NGLs produced in the United States could adversely affect the pricing for such products, which could adversely affect our results of operations and liquidity;
- the tightening of credit or lack of credit availability to our customers could adversely affect our liquidity, as our ability to receive payment for our products sold and delivered depends on the continued creditworthiness of our customers;
- our ability to refinance our existing senior notes may be limited and the terms on which we are able to do so may be less favorable to us depending on the strength of the capital markets, our credit ratings and/or whether we successfully complete various financing transactions the proceeds of which would be used to pay down or repurchase our senior notes;
- our ability to access the capital markets may be restricted at a time when CNX would like, or need, to raise capital for our business including for exploration and/or development of our natural gas reserves; and
- a decline in our creditworthiness may require us to post letters of credit, cash collateral, or surety bonds to secure certain obligations, all of which would have an adverse effect on our liquidity.

Our hedging activities may prevent us from benefiting from price increases and may expose us to other risks.

To manage our exposure to fluctuations in the price of natural gas, we enter into hedging arrangements with respect to a portion of our expected production. As of January 8, 2020, we expect these transactions will represent approximately 497.5 Bcf of our estimated 2020 production at an average price of \$2.55 per Mcf, 443.3 Bcf of our estimated 2021 production at an average price of \$2.42 per Mcf, 305.2 Bcf of our estimated 2022 production at an average price of \$2.44 per Mcf, 174.1 Bcf of our estimated 2023 production at an average price of \$2.29 per Mcf, and 151.5 Bcf of our estimated 2024 production at an average price of \$2.32

per Mcf. To the extent that we engage in hedging activities, CNX may be prevented from realizing the near-term benefits of price increases above the levels of the hedges. If we choose not to engage in or otherwise reduce our future use of hedging arrangements or are unable to engage in hedging arrangements due to lack of acceptable counterparties, CNX may be more adversely affected by changes in natural gas prices than we have historically performed, and then our competitors who engage in hedging arrangements to a greater extent than we do. Increases or decreases in forward market prices could result in material unrealized (non-cash) losses or gains on commodity derivative instruments resulting in volatility in reported earnings. Future legislation regarding derivatives could have an adverse effect on our ability to use derivative instruments to reduce the effect of commodity price risks associated with our business.

In addition, such transactions may expose us to the risk of financial loss in certain circumstances, including instances in which:

- our production is less than expected;
- we are unable to find available counterparties in the future with which to enter into hedges and counterparties able to enter into basis hedge contracts;
- the creditworthiness of our counterparties or their guarantors is substantially impaired; and
- counterparties have credit limits that may constrain our ability to hedge additional volumes.

Existing and future governmental laws, regulations and other legal requirements and judicial decisions that govern our business may increase our costs of doing business and may restrict our operations.

There are numerous federal and state governmental regulations applicable to the natural gas industry that are not directly related to environmental regulation, many of which are under perpetual review for amendment or expansion, future modifications to which may adversely affect, among other things, our ability to develop the resource, obtain permits, as well as pricing or marketing of natural gas production.

For example, currently CNXM's gathering operations are exempt from regulation by the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act (NGA). Although FERC has not made any formal determinations with respect to any of CNXM's facilities considered to be gathering facilities, CNXM believes that the natural gas pipelines in its gathering systems meet the traditional tests FERC has used to establish that a natural gas pipeline is a gathering pipeline not subject to FERC jurisdiction. However, this issue has been the subject of substantial litigation, and if FERC were to consider the status of an individual facility and determine that it is not exempt from FERC regulation under the NGA, the rates for, and terms and conditions of, services provided by such facility would become subject to regulation by FERC. Such regulation could decrease revenue, increase operating costs, and, depending upon the facility in question, could adversely affect results of operations and cash flows for CNXM.

Additionally, some states have adopted more stringent regulation and oversight of natural gas gathering lines than is currently required by federal standards. Pennsylvania, under Act 127, authorized Public Utility Commission (PUC) oversight of Class I gathering lines, and required standards and fees for Class II and Class III pipelines. The State of Ohio also moved to regulate natural gas gathering lines in a similar manner pursuant to Ohio Senate Bill 315 (SB315). SB315 expanded the Ohio PUC's authority over rural natural gas gathering lines. These changes in interpretation and regulation affect midstream activities of CNXM and other third-party providers with whom we interact, requiring changes in reporting, as well as increased costs. Various judicial decisions that may directly or indirectly impact natural gas drilling could also serve to increase our cost of doing business or restrict our operations. Pennsylvania courts are considering cases involving concepts of landowner rights, trespass claims and the historic common law concept of "rule of capture" as well as the role that Pennsylvania's Environmental Rights Amendment may play in natural gas drilling activities. While these cases are still pending, the ultimate judicial outcomes could negatively impact future shale drilling and hydraulic fracturing within the Commonwealth of Pennsylvania if the court finds that fracking could violate the constitutional or property rights of Pennsylvania citizens and residents.

CNX may incur significant costs and liabilities as a result of pipeline operations and related increase in the regulation of gas gathering pipelines.

Pipeline and Hazardous Materials Safety Administration (PHMSA) has adopted safety, transportation and operational regulations applicable to pipeline operators. Should our or CNXM's operations fail to comply with PHMSA or comparable state regulations, CNX could be subject to substantial penalties and fines. In October 2019, PHMSA issued a final rule, effective July 2020, regarding hazardous pipeline safety regulations that significantly extends the integrity management requirements to previously exempt pipelines and imposes additional obligations on hazardous liquid pipeline operators that are already subject to the integrity management requirements.

PHMSA also issued a separate regulatory proposal in July 2015 that would impose pipeline incident prevention and response

measures on natural gas and hazardous liquid pipeline operators. In October 2019, PMHSA published a final rule that significantly modifies existing regulations related to reporting, impact, design, construction, maintenance, operations and integrity management of gas transmission and gathering pipelines. Compliance with the rule could materially adversely affect our or CNXM's operations. The adoption of these regulations, which apply more comprehensive or stringent safety standards than we are currently subject to, could require us to install new or modified safety controls, pursue new capital projects, or conduct maintenance programs on an accelerated basis, all of which could require us to incur increased operational costs that could be significant. While CNX cannot predict the outcome of legislative or regulatory initiatives, such legislative and regulatory changes could have a material effect on our cash flow.

We require adequate sources of water to use in the fracturing process, as well as the ability to dispose of, transport or recycle the water after hydraulic fracturing. Our CBM gas drilling and production operations also require the removal and disposal of water from the coal seams from which we produce gas. If CNX cannot find adequate sources of water for our use or we are unable to dispose of or recycle the water at a reasonable cost and within applicable environmental rules, our ability to produce natural gas economically and in sufficient quantities could be impaired.

As part of our drilling and production in shale formations, we use hydraulic fracturing processes that require access to adequate sources of water, which may not be available in proximity to our operations or at certain times of the year. To ensure adequate water for our operations, CNX may be required to invest substantial amounts of capital in water pipelines which are used for relatively short periods of time. Increased regulation of these water pipelines could cause us to invest additional capital, alter our disposal or transportation method or affect our operations in other manners. Alternatively, CNX may be required to truck water, and CNX may not be able to contract for sufficient water hauling trucks to meet our needs.

Further, our operations generate significant volumes of wastewater that must be treated, reused or disposed. This waste can be generated from various aspects of our operations, including from drilling fluids, completions activities and over the life of the well during normal production and are associated with all types of natural gas wells, including CBM wells and shale wells. A significant portion of this water can be recycled for use in other hydraulic fracturing operations. To the extent we must dispose of water rather than recycle it, our costs may increase, which will detrimentally affect our cash flows. We attempt to minimize the expense associated with the transportation of wastewater by optimizing the transportation between the sources of this water and locations where the water can be reused or disposed. Various interruptions in our planned transportation of this wastewater, including operational issues and regulatory matters, could increase our operating costs, which would detrimentally affect our cash flows. The risk of pollution also exists while handling, transferring, storage, and in development or production of a well.

Our inability to obtain sufficient amounts of water with respect to our shale operations or to dispose of or recycle water and other wastes produced from our shale and our CBM operations in an economically efficient manner, could increase our costs and delay our operations, which will adversely impact our cash flow and results of operations.

Failure to successfully estimate the rate of decline of existing reserves and find or acquire economically recoverable natural gas or liquid reserves to replace our current natural gas and liquid reserves will cause our levels of natural gas and liquid reserves and production to decline, which would adversely affect our business, financial condition, results of operations, liquidity and cash flows.

Producing natural gas reservoirs generally are characterized by declining production rates that vary depending upon reservoir characteristics and other factors. The rate of decline can change if production from our existing wells is different than what has been estimated or other circumstances arise that affect our ability to produce the wells. Thus, our future natural gas and liquid reserves and production and, therefore, our cash flow and income are highly dependent on our estimates and our success in efficiently developing, exploiting and selling our current reserves and economically finding or acquiring additional economically recoverable reserves. CNX may not be able to develop, find or acquire additional economically recoverable reserves to replace our current and future production at acceptable costs.

In addition, the level of natural gas and condensate volumes handled through the CNXM midstream systems depends on the level of production from natural gas wells dedicated to such midstream systems, which may be less than expected and which will naturally decline over time. In order to maintain or increase throughput levels on CNXM's midstream systems, CNXM must obtain production from new wells completed by us and any third-party customers on acreage dedicated to the CNXM midstream systems or in CNXM's areas of operation. CNXM has no control over producers' levels of development and completion activity in its areas of operations, the amount of reserves associated with wells connected to CNXM's systems or the rate at which production from a well declines.

Our current long-term debt obligations, and the terms of the agreements that govern that debt and those of CNXM, and the risks associated therewith, could adversely affect our business, financial condition, liquidity and results of operations.

As of December 31, 2019, CNX's total long-term indebtedness, excluding CNXM, was approximately \$2.1 billion of which approximately (i) \$894.3 million was under our 5.875% senior unsecured notes due 2022 plus \$1.0 million of unamortized bond premium, (ii) \$661.0 million was under our senior secured credit facility, (iii) \$500.0 million was under our 7.25% senior unsecured notes due 2027, and (iv) \$7.7 million of finance leases due through 2024. The degree to which we are leveraged could have important consequences, including, but not limited to:

- increasing our vulnerability to general adverse economic and industry conditions;
- requiring us to dedicate a substantial portion of our cash flow from operations to the payment of interest and principal due under our outstanding debt, which will limit our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions, development of our natural gas reserves or other general corporate requirements;
- limiting our flexibility in planning for, or reacting to, changes in our business and in the natural gas industry;
- placing us at a competitive disadvantage compared to our competitors with lower leverage and better access to capital resources; and
- limiting our ability to implement our business strategy.

The one-month LIBOR rate may be used under our secured credit facility. The transition from LIBOR to a replacement interest rate “benchmark” is ongoing, and the effects of this transition remains unclear. The discontinuation of LIBOR is not expected to occur until the end of 2021, beyond which the United Kingdom’s Financial Conduct Authority will no longer mandate publication of LIBOR, but banks and other financial institutions are being encouraged to make the transition to a replacement rate sooner rather than later. In the U.S., the Alternative Reference Rates Committee (ARRC) was convened to identify a suitable alternative to LIBOR. The ARRC has chosen the Secured Overnight Financing Rate (SOFR) as its preferred alternative, which is based on rates for overnight loans, collateralized by U.S. treasury securities, and is based on directly observable Treasury-backed repurchase transactions, which is a liquid market with daily volumes regularly in excess of \$800 billion. While many financial industry experts consider SOFR to be a reliable alternative to LIBOR, CNX cannot predict the effects of this transition, and our ability to borrow on favorable terms may be adversely affected.

Our senior secured credit facility and the indentures governing our 5.875% senior unsecured notes and our 7.25% senior notes limit the incurrence of additional indebtedness unless specified tests or exceptions are met, compliance with certain financial covenants on a quarterly basis, and impose a number of restrictions upon us, such as restrictions on granting liens on our assets, making investments, paying dividends, stock repurchases, selling assets and engaging in acquisitions. Failure to comply with these covenants could result in an event of default that, if not cured or waived, could materially adversely affect us. Further, CNXM’s existing \$600 million revolving credit facility and CNXM’s \$400 million of 6.50% senior notes, neither of which are guaranteed by CNX, subjects CNXM to similar financial and/or other restrictive covenants and other restrictions.

If CNX’s or CNXM’s cash flows and capital resources are insufficient to fund their respective debt service obligations, including repayment of such obligations at maturity, CNX or CNXM, as the case may be, may be forced to sell assets, seek additional capital or seek to restructure or refinance our indebtedness. These alternative measures may not be successful and may not permit us to meet our respective scheduled debt service obligations. In the absence of such operating results and resources, both CNX and CNXM could face substantial liquidity problems and might be required to sell material assets or operations to attempt to meet their debt service and other obligations; however, our existing debt documents restrict our ability to sell assets and the use of the proceeds from the sales, such that we may not be able to consummate those sales or to obtain the proceeds which we could realize from them and these proceeds may not be adequate to meet any debt service obligations then due.

Our borrowing base under our senior secured credit facility could decrease for a variety of reasons including lower natural gas prices, declines in natural gas proved reserves, asset sales and lending requirements or regulations. Significant reductions in our borrowing base below \$2.3 billion could materially adversely affect our results of operations, financial condition and liquidity

Our ability to borrow and have letters of credit issued under our \$2.3 billion senior secured credit facility is generally limited to a borrowing base. Our borrowing base is determined by the required number of lenders in good faith calculating a loan value of the Company’s proved natural gas reserves. The borrowing base under our senior secured credit facility is currently \$2.3 billion. Our borrowing base is redetermined by the lenders twice per year, and the next scheduled borrowing base redetermination is expected to occur in the Spring of 2020. The various matters which we describe in other risk factors that can decrease our proved natural gas reserves including lower natural gas prices, operating difficulties, and failure to replace our proved reserves could also decrease our borrowing base. Our borrowing base could also decrease as a result of new lending requirements or regulations or the issuance of new indebtedness. If our borrowing base declined significantly below \$2.3 billion, CNX may be unable to implement our drilling and development plans, make acquisitions or otherwise carry out our business plan which could materially adversely

affect our financial condition and results of operations. CNX also could be required to repay any outstanding indebtedness in excess of the redetermined borrowing base. CNX could face substantial liquidity problems, might not be able to access the equity or debt capital markets and might be required to sell material assets or operations to attempt to meet our debt service and other obligations. CNX may not be able to consummate those sales or to obtain the proceeds which CNX could realize from them and those proceeds may not be adequate to meet any debt service obligations then due.

Changes in federal or state income tax laws focused on natural gas exploration and development could cause our financial position and profitability to deteriorate.

The passage of legislation or any other changes in U.S. federal income tax law could eliminate or postpone certain tax deductions that are currently available with respect to natural gas exploration and development. Any such change could negatively affect our financial condition and results of operations. For instance, recent tax law changes decreased the regular income tax rate, limited the ability of corporations to take certain interest deductions, increased the limitation on deductibility of executive compensation, and have eliminated a corporation's ability to take deductions for income attributable to domestic production activities. Any future tax law changes could adversely impact our current and deferred federal and state income tax liabilities.

Additionally, legislation has been proposed from time to time in the states in which we operate - primarily Pennsylvania, Ohio, Virginia and West Virginia - that would impose additional taxes or increase taxes on the production from our wells. The proposed tax rates have varied but would represent a greater financial burden on the economics of the wells we drill in these states. Such changes in the rates of existing production taxes could adversely impact our earnings, cash flows and financial position.

Cyber-incidents could materially adversely affect our business, financial condition or results of operations.

Cyber-incidents, including cyber-attacks, may significantly affect us or the operations of our customers and business partners, as well as impact general economic conditions, consumer confidence and spending and market liquidity. Strategic targets, including energy-related assets, may be at greater risk of future incidents than other targets in the United States. A cyber incident could result in information theft, data corruption, operational disruption, including environmental and safety issues resulting from a loss of control of field equipment and assets, and/or financial loss. Consequently, it is possible that any of these occurrences, or a combination of them, could materially adversely affect our business, financial condition and results of operations. Our insurance may not protect us against such occurrences.

The oil and natural gas industry has become increasingly dependent upon digital technologies, including information systems, infrastructure and cloud applications and services, to operate our businesses, process and record financial and operating data, communicate with our employees and business partners, analyze seismic and drilling information, estimate quantities of natural gas reserves, monitor and control our field equipment and assets, and perform other activities related to our businesses. Our business partners, including vendors, service providers, and financial institutions, are also dependent on digital technology.

As dependence on digital technologies has increased the threat of cyber incidents, including deliberate attacks or unintentional events, have also increased. A cyber-incident could include gaining unauthorized access to digital systems for purposes of misappropriating assets or sensitive information, corrupting data, or causing operational disruption, or result in denial-of-service on websites. SCADA (supervisory control and data acquisition) based systems are potentially vulnerable to targeted cyber-attacks due to their critical role in operations.

Our technologies, systems, networks, data centers and those of our business partners may become the target of cyber-incidents or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of proprietary and other information, or other disruption of our business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period.

Deliberate attacks on our assets, or security breaches in our systems or infrastructure, the systems or infrastructure of third-parties or the cloud could lead to corruption or loss of our proprietary data and potentially sensitive data, delays in production or delivery, difficulty in completing and settling transactions, challenges in maintaining our books and records, environmental damage, communication interruptions, damage to our reputation, other operational disruptions and third-party liability, including the following:

- a cyber-incident impacting one of our vendors or service providers could result in supply chain disruptions, loss or corruption of our information or other negative consequences, any of which could delay or halt development of additional infrastructure, effectively delaying the start of cash flows from the project;
- a cyber-incident related to our facilities may result in equipment damage or failure;

- a cyber-incident impacting a communications network or power grid could cause operational disruption resulting in loss of revenues;
- a deliberate corruption of our financial or operational data could result in events of non-compliance which could lead to regulatory fines or penalties; and
- business interruptions could result in expensive remediation efforts, distraction of management, damage to our reputation, or a negative impact on the price of our units.

Our implementation of various internal and externally-facing controls and processes, including appropriate internal risk assessment and internal policy implementation, globally incorporating a risk-based cyber security framework to monitor and mitigate security threats and other strategies to increase security for our information, facilities and infrastructure is costly and labor intensive. Moreover, there can be no assurance that such measures will be sufficient to prevent security breaches or other cyber-incidents from occurring. As cyber threats continue to evolve, CNX may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities.

Construction of new gathering, compression, dehydration, treating or other midstream assets by CNXM may not result in revenue increases and may be subject to regulatory, environmental, political, legal and economic risks, which could adversely affect CNXM's cash flows, results of operations and our financial condition.

The construction of additions or modifications to CNXM's existing systems involves numerous regulatory, environmental, political and legal uncertainties beyond its control and may require the expenditure of significant amounts of capital. Financing may not be available on economically acceptable terms or at all. If these projects are undertaken, they may not be completed on schedule, at the budgeted cost or at all. The construction of additions to CNXM's existing assets may require it to obtain new land rights and regulatory permits prior to constructing new pipelines or facilities, which may not be obtained in a timely fashion or in a way that allows CNXM to connect new natural gas supplies to existing gathering pipelines or capitalize on other attractive expansion opportunities. Additionally, it may become more expensive to obtain new rights-of-way or to expand or renew existing rights-of-way. If the cost of renewing or obtaining new rights-of-way increases, cash flows could be adversely affected.

Revenues may not increase immediately (or at all) upon the expenditure of funds on a particular project. For instance, if a processing facility is built, the construction may occur over an extended period of time, and CNXM may not receive any material increases in revenues until the project is completed. Additionally, facilities may be constructed to capture anticipated future production growth in an area in which such growth does not materialize. As a result, new gathering, compression, dehydration, treating or other midstream assets may not be able to attract enough throughput to achieve the expected investment return, which could adversely affect CNXM's business, financial condition, results of operations, cash flows and ability to make cash distributions.

Our success depends on key members of our management and our ability to attract and retain experienced technical and other professional personnel.

Our future success depends to a large extent on the services of our key employees. The loss of one or more of these individuals could materially adversely affect our business. Furthermore, competition for experienced technical and other professional personnel remains strong. If CNX cannot retain our current personnel or attract additional experienced personnel, our ability to compete could be adversely affected. Also, the loss of experienced personnel could lead to a loss of technical expertise.

Terrorist activities could materially adversely affect our business and results of operations.

Terrorist attacks, including eco-terrorism, and the threat of terrorist attacks, whether domestic or foreign, as well as military or other actions taken in response to these acts, could affect the energy industry, the environment and industry related economic conditions, including our operations and the operations of our customers, as well as general economic conditions, consumer confidence and spending and market liquidity. Strategic targets, including energy-related assets, may be at greater risk of future attacks than other targets in the United States. The occurrence or threat of terrorist attacks in the United States or other countries could adversely affect the global economy in unpredictable ways, including the disruption of energy supplies and markets, increased volatility in commodity prices or the possibility that the infrastructure on which we rely could be a direct target or an indirect casualty of an act of terrorism, and, in turn, could materially adversely affect our business and results of operations. Our insurance may not protect us against such occurrences.

CNX may operate a portion of our business with one or more joint venture partners or in circumstances where we are not the operator, which may restrict our operational and corporate flexibility; actions taken by the other partner or third-party operator may materially impact our financial position and results of operations; and we may not realize the benefits we expect to realize from a joint venture.

As is common in the natural gas industry, CNX may operate one or more of our properties with a joint venture partner, or contract with a third-party to control operations. These relationships could require us to share operational and other control, such that CNX may no longer have the flexibility to control completely the development of these properties. If we do not timely meet our financial commitments in such circumstances, our rights to participate may be adversely affected. If a joint venture partner is unable or fails to pay its portion of development costs or if a third-party operator does not operate in accordance with our expectations, our costs of operations could be increased. CNX could also incur liability as a result of actions taken by a joint venture partner or third-party operator. Disputes between us and the other party may result in litigation or arbitration that would increase our expenses, delay or terminate projects and distract our officers and directors from focusing their time and effort on our business.

We do not completely control the timing of divestitures that we plan to engage in, and they may not provide anticipated benefits. Additionally, CNX may be unable to acquire additional properties in the future and any acquired properties may not provide the anticipated benefits.

Our business and financing plans include divesting certain assets over time. However, we do not completely control the timing of divestitures, and delays in completing divestitures may reduce the benefits CNX may receive from them, such as elimination of management distraction by selling non-core assets and the receipt of cash proceeds that contribute to our liquidity. Additionally, if assets are held jointly with another party, CNX may not be permitted to dispose of these assets without the consent of our joint interest partner. Also, there can be no assurance that the assets we divest will produce anticipated proceeds. In addition, the terms of divestitures may cause a substantial portion of the benefits we anticipate receiving from them to be subject to future matters that we do not control. Further, the terms of our existing indentures may place restrictions on our ability to divest or sell certain assets.

In the future CNX may make acquisitions of assets or businesses that complement or expand our current business. No assurance can be given that CNX will be able to identify suitable acquisition opportunities, negotiate acceptable terms, obtain financing for acquisitions on acceptable terms or successfully acquire the identified targets. The success of any completed acquisition will depend on our ability to effectively integrate the acquired business into our existing operations and to identify and appropriately manage any liabilities assumed as part of the acquisition. The process of integrating acquired businesses or assets may involve unforeseen difficulties and may require a disproportionate amount of our managerial and financial resources. Our failure to make acquisitions in the future and successfully integrate the acquired businesses or assets into our existing operations could materially adversely affect our financial condition and results of operations.

CNX and its subsidiaries are subject to various legal proceedings and investigations, which may have an adverse effect on our business.

We are party to a number of legal proceedings and, from time to time, investigations, in the normal course of business activities. Responding to investigations or defending these actions, especially purported class actions, can be costly and can distract management. For example, we are a defendant in pending purported class action lawsuits dealing with claimants' alleged entitlements to, and accounting for, natural gas royalties. There is also the possibility that CNX may become involved in future investigations or suits, including, for example, those being brought by communities against fossil fuel producers relating to climate change, which are beginning to gain prevalence in the courts. There is the potential that the costs of defending litigation in an individual matter or the aggregation of many matters could have an adverse effect on our cash flows, results of operations or financial position. See Note 22 - Commitments and Contingent Liabilities in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for further discussion of pending legal proceedings.

There is no guarantee that CNX will continue to repurchase shares of our common stock under our current or any future share repurchase program at levels undertaken previously or at all. Any determinations to repurchase shares of our common stock will be at the discretion of our board of directors based upon a review of all relevant considerations.

CNX previously announced a one-year \$200 million share repurchase program that was authorized by our board of directors in September 2017, amended to increase the program to \$450 million on October 30, 2017 and extended on July 30, 2018 to December 31, 2018. On October 26, 2018, our board of directors approved an additional \$300 million share repurchase authorization, which is not subject to an expiration date. The repurchase program does not require us to acquire any specific number of shares. Our board of director's determination to repurchase shares of our common stock will depend upon market conditions,

applicable legal requirements, contractual obligations and other factors that the board of directors deems relevant. Based on an evaluation of these factors, our board of directors may determine not to repurchase shares or to repurchase shares at reduced levels from those anticipated by our shareholders.

Negative public perception regarding our industry could have an adverse effect on our operations.

Negative public perception regarding our industry resulting from, among other things, operational incidents or concerns raised by advocacy groups, related to environmental, health, or community impacts could result in increased regulatory scrutiny, which could then result in additional laws, regulations, guidelines and enforcement interpretations, at the federal or state level. These actions may cause operational delays or restrictions, increased operating costs, additional regulatory burdens and increased risk of litigation. Moreover, governmental authorities exercise considerable discretion in the timing and scope of permit issuance and the public may engage in the permitting process, including through intervention in the courts. Negative public perception could cause the permits we need to conduct our operations to be withheld, delayed, or burdened by requirements that restrict our ability to profitably conduct our business.

In connection with the separation of our coal business, CONSOL Energy has agreed to indemnify us for certain liabilities, and we have agreed to indemnify CONSOL Energy for certain liabilities. If we are required to pay under these indemnities to CONSOL Energy, our financial results could be negatively impacted. The CONSOL Energy indemnity may not be sufficient to hold us harmless from the full amount of liabilities for which CONSOL Energy has been allocated responsibility, and CONSOL Energy may not be able to satisfy its indemnification obligations in the future.

Pursuant to the Separation and Distribution Agreement and certain other agreements with CONSOL Energy, CNX and CONSOL Energy have agreed to indemnify the other for certain liabilities in each case for uncapped amounts. We remain liable as a guarantor on certain liabilities that were assumed by CONSOL Energy in connection with the separation. The estimated value of these guarantees was approximately \$192 million at the time of the separation. Although CONSOL Energy agreed to indemnify us to the extent that we are called upon to pay any of these liabilities, there is no assurance that CONSOL Energy will satisfy its obligations to indemnify us in these situations. For example, we could be liable for liabilities assumed by Murray Energy and its subsidiaries (Murray Energy) in connection with the disposition of certain mines to Murray Energy in 2013 in the event that both Murray Energy and CONSOL Energy are unable to satisfy those liabilities.

Indemnities that CNX may be required to provide CONSOL Energy are not subject to any cap, may be significant and could negatively impact our business. Third-parties could also seek to hold us responsible for any of the liabilities that CONSOL Energy has agreed to retain. Any amounts we are required to pay pursuant to these indemnification obligations and other liabilities could require us to divert cash that would otherwise have been used in furtherance of our operating business. Further, the indemnity from CONSOL Energy may not be sufficient to protect us against the full amount of such liabilities, and CONSOL Energy may not be able to fully satisfy its indemnification obligations. Moreover, even if we ultimately succeed in recovering from CONSOL Energy any amounts for which we are held liable, CNX may be temporarily required to bear such losses. Each of these risks could negatively affect our business, results of operations and financial condition.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

See "Detail Operations" in Part I. Item 1 of this Form 10-K for a description of CNX's properties.

ITEM 3. Legal Proceedings

Note 22—Commitments and Contingent Liabilities in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K is incorporated herein by reference.

ITEM 4. Mine Safety and Health Administration Safety Data

Not applicable.

PART II

ITEM 5. Market for Registrant's Common Equity and Related Stockholder Matters and Issuer Purchases of Equity Securities

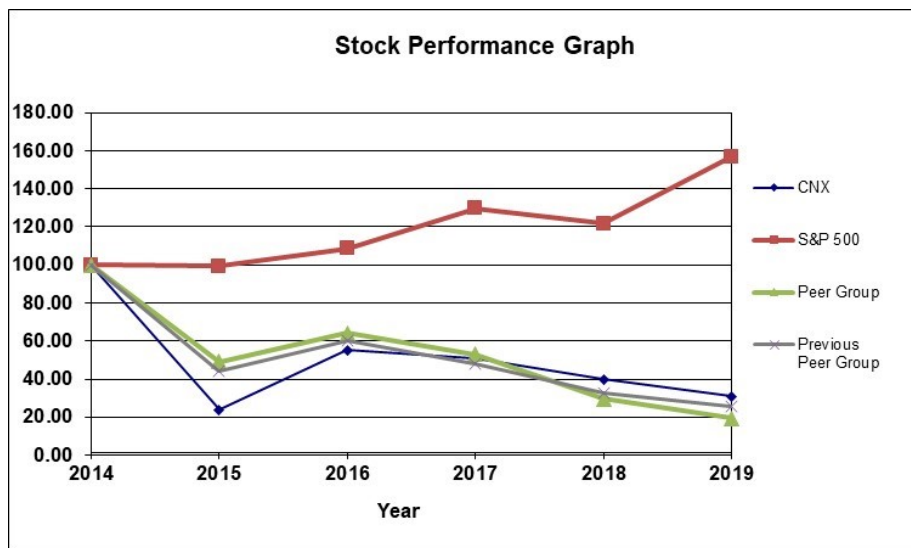
The Company's common stock is listed on the New York Stock Exchange under the symbol CNX.

As of December 31, 2019, there were 108 holders of record of our common stock.

The following performance graph compares the yearly percentage change in the cumulative total shareholder return on the common stock of CNX to the cumulative shareholder return for the same period of a peer group and the Standard & Poor's 500 Stock Index. The peer group has changed from the prior year in order to benchmark CNX against core peers found in the Appalachian Basin. The current peer group is comprised of CNX, Antero Resources Corporation, Cabot Oil & Gas Corporation, EQT Corporation, Gulfport Energy Corporation, Range Resources Corporation and Southwestern Energy Co. The graph assumes that the value of the investment in CNX common stock and each index was \$100 at December 31, 2014. The graph also assumes that all dividends were reinvested and that the investments were held through December 31, 2019.

	2014	2015	2016	2017	2018	2019
CNX Resources Corporation	100.0	23.9	55.2	51.2	40.0	31.0
Peer Group	100.0	49.2	64.0	52.8	29.7	19.2
S&P 500 Stock Index	100.0	99.3	108.7	129.8	121.8	157.0
Previous Peer Group	100.0	43.9	60.2	47.9	32.7	25.6

Cumulative Total Shareholder Return Among CNX Resources Corporation, Peer Group and S&P 500 Stock Index



The above information is being furnished pursuant to Regulation S-K, Item 201 (e) (Performance Graph).

The declaration and payment of dividends by CNX is subject to the discretion of CNX's Board of Directors, and no assurance can be given that CNX will pay dividends in the future. CNX's Board of Directors determines whether dividends will be paid quarterly. CNX suspended its quarterly dividend in March 2016 to further reflect the Company's increased emphasis on growth. The determination to pay dividends in the future will depend upon, among other things, general business conditions, CNX's financial results, contractual and legal restrictions regarding the payment of dividends by CNX, planned investments by CNX, and such other factors as the Board of Directors deems relevant. The Company's Credit Facility limits CNX's ability to pay dividends in excess of an annual rate of \$0.10 per share when the Company's net leverage ratio exceeds 3.00 to 1.00 and is subject to availability under the Credit Facility of at least 15% of the aggregate commitments. The net leverage ratio was 2.64 to 1.00 at December 31, 2019. The Credit Facility does not permit dividend payments in the event of default. The indentures to the 5.875% Senior Notes due in April 2022 and the 7.25% Senior Notes due in March 2027 limit dividends to \$0.50 per share annually unless several conditions are met. These conditions include no defaults, ability to incur additional debt and other payment limitations under the indentures. There were no defaults in the year ended December 31, 2019.

Unregistered Sales of Equity Securities and Use of Proceeds

There were no issuer purchases of equity securities in the fourth quarter of fiscal 2019. Since the October 30, 2017 inception of the current stock repurchase program, CNX's Board of Directors has approved a \$750 million stock repurchase program, which is not subject to an expiration date. As of December 31, 2019, approximately \$148.5 million remained available under the stock repurchase program. The stock repurchase program does not obligate the Company to repurchase any dollar amount or number of shares and the Board may modify, suspend, or discontinue its authorization of the program at any time. See Note 7 - Stock Repurchase in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

See Part III, Item 12. "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" for information relating to CNX's equity compensation plans.

ITEM 6. Selected Financial Data

The following table presents our selected consolidated financial and operating data for, and as of the end of, each of the periods indicated. The selected consolidated financial data for, and as of the end of, each of the years ended December 31, 2019, 2018, 2017, 2016 and 2015 are derived from our audited Consolidated Financial Statements. Certain reclassifications of prior year data have been made to conform to the year ended December 31, 2019 presentation. The selected consolidated financial and operating data are not necessarily indicative of the results that may be expected for any future period. The selected consolidated financial and operating data should be read in conjunction with Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes included in this Annual Report.

	For the Years Ended December 31,				
	2019	2018	2017	2016	2015
(Dollars in thousands, except per share data)					
Revenue and Other Operating Income from Continuing Operations	\$ 1,922,449	\$ 1,730,434	\$ 1,455,131	\$ 759,968	\$ 1,198,737
Income (Loss) from Continuing Operations	\$ 31,948	\$ 883,111	\$ 295,039	\$ (550,945)	\$ (650,198)
Net (Loss) Income Attributable to CNX Resources Shareholders	\$ (80,730)	\$ 796,533	\$ 380,747	\$ (848,102)	\$ (374,885)
Earnings per share:					
Basic:					
(Loss) Income from Continuing Operations	\$ (0.42)	\$ 3.75	\$ 1.29	\$ (2.40)	\$ (2.84)
Income (Loss) from Discontinued Operations	—	—	0.37	(1.30)	1.20
Net (Loss) Income	\$ (0.42)	\$ 3.75	\$ 1.66	\$ (3.70)	\$ (1.64)
Diluted:					
(Loss) Income from Continuing Operations	\$ (0.42)	\$ 3.71	\$ 1.28	\$ (2.40)	\$ (2.84)
Income (Loss) from Discontinued Operations	—	—	0.37	(1.30)	1.20
Net (Loss) Income	\$ (0.42)	\$ 3.71	\$ 1.65	\$ (3.70)	\$ (1.64)
Assets from Continuing Operations	\$ 9,060,806	\$ 8,592,170	\$ 6,931,913	\$ 6,682,770	\$ 7,302,119
Assets from Discontinued Operations	—	—	—	2,496,921	3,627,783
Total Assets	\$ 9,060,806	\$ 8,592,170	\$ 6,931,913	\$ 9,179,691	\$ 10,929,902
Long-Term Debt from Continuing Operations (including current portion)	\$ 2,769,313	\$ 2,398,501	\$ 2,214,484	\$ 2,456,354	\$ 2,460,633
Long-Term Debt from Discontinued Operations (including current portion)	—	—	—	317,715	294,222
Total Long-Term Debt (including current portion)	\$ 2,769,313	\$ 2,398,501	\$ 2,214,484	\$ 2,774,069	\$ 2,754,855
Cash Dividends Declared Per Share of Common Stock	\$ —	\$ —	\$ —	\$ 0.010	\$ 0.145

See Part 1, Item 1A, "Risk Factors" and Part II, Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for a discussion of an adjustment to operating income for all periods and other matters that affect the comparability of the selected financial data as well as uncertainties that might affect the Company's future financial condition.

**OTHER OPERATING DATA
(unaudited)**

	Years Ended December 31,					
	2019	2018	2017	2016	2015	
Gas:						
Net Sales Volumes Produced (in Bcfe)		539.1	507.1	407.2	394.4	328.7
Average Sales Price (\$ per Mcfe) (A)	\$ 2.66	\$ 2.97	\$ 2.66	\$ 2.63	\$ 2.81	
Average Cost (\$ per Mcfe)	\$ 2.00	\$ 1.98	\$ 2.23	\$ 2.32	\$ 2.62	
Proved Reserves (in Bcfe) (B)		8,426	7,881	7,582	6,252	5,643

(A) Represents average net sales price including the effect of derivative transactions.

(B) Represents proved developed and undeveloped gas reserves at period end.

ITEM 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this Form 10-K. The information provided below supplements, but does not form part of, CNX's financial statements. This discussion contains forward-looking statements that are based on the views and beliefs of management, as well as assumptions and estimates made by management. Actual results could differ materially from such forward-looking statements as a result of various risk factors, including those that may not be in the control of management. For further information on items that could impact future operating performance or financial condition, please see "Part I. Item 1A. Risk Factors" and the section entitled "Forward-Looking Statements." CNX does not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law.

The Company has applied the Fast Act Modernization and Simplification of Regulation S-K, which limits the discussion to the two most recent fiscal years. This section of this Form 10-K generally discusses 2019 and 2018 items and year-to-year comparisons between 2019 and 2018. Discussions of 2017 items and year-to-year comparisons between 2018 and 2017 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II. Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

General**2019 Highlights:**

- Record total gas production of 539.1 Bcfe in 2019, 6.3% higher than 2018.
- Record Marcellus Shale production of 369.7 Bcfe in 2019, 28.3% higher than 2018.
- Increased proved reserves to 8.4 Tcfe, 6.9% higher than 2018.
- Repurchased \$115 million of CNX common stock on the open market.
- Repurchased \$400 million of 5.875% notes due in 2022.

2020 Outlook:

- Our 2020 annual gas production is expected to be approximately 525-555 Bcfe.
- Our 2020 E&P capital expenditures are expected to be approximately \$530-\$610 million.

Results of Operations: Year Ended December 31, 2019 Compared with the Year Ended December 31, 2018**Net (Loss) Income Attributable to CNX Resources Shareholders**

CNX reported a net loss attributable to CNX Resources shareholders of \$81 million, or a loss per diluted share of \$0.42, for the year ended December 31, 2019, compared to net income attributable to CNX Resources shareholders of \$797 million, or earnings per diluted share of \$3.71, for the year ended December 31, 2018.

(Dollars in thousands)

	For the Years Ended December 31,		
	2019	2018	Variance
Net Income	\$ 31,948	\$ 883,111	\$ (851,163)
Less: Net Income Attributable to Noncontrolling Interests	112,678	86,578	26,100
Net (Loss) Income Attributable to CNX Resources Shareholders	\$ (80,730)	\$ 796,533	\$ (877,263)

CNX consists of two principal business divisions: Exploration and Production (E&P) and Midstream.

The principal activity of the E&P Division is to produce pipeline quality natural gas for sale primarily to gas wholesalers. The E&P division's reportable segments are Marcellus Shale, Utica Shale, Coalbed Methane and Other Gas.

CNX's E&P Division had a loss before income tax of \$140 million for the year ended December 31, 2019, compared to earnings before income tax of \$245 million for the year ended December 31, 2018. Included in the 2019 loss was a \$327 million non-cash impairment charge related to exploration and production properties and a \$119 million non-cash impairment charge related to unproved properties and expirations, both of which were associated with the Company's Central Pennsylvania (CPA) acreage (See the Other Gas Segment for more information). There were no such transactions in the 2018 period. Offsetting the loss for the 2019 period was an unrealized gain on commodity derivative instruments of \$306 million compared to an unrealized gain of \$40 million for the year ended December 31, 2018.

CNX's Midstream Division's principal activity is the ownership, operation, development and acquisition of natural gas gathering and other midstream energy assets, through CNX Gathering and CNXM, which provide natural gas gathering services for the Company's produced gas, as well as for other independent third parties in the Marcellus Shale and Utica Shale in Pennsylvania and West Virginia. Excluded from the Midstream Division are the gathering assets and operations of CNX that have not been contributed to CNX Gathering and CNXM.

As a result of the Midstream Acquisition (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information), CNX owns and controls 100% of CNX Gathering, making CNXM a single-sponsor master limited partnership and thus the Company began consolidating CNXM on January 3, 2018. The resulting gain on remeasurement to fair value of the previously held equity interest in CNX Gathering and CNXM of \$624 million was included in the Gain on Previously Held Equity Interest line of the Consolidated Statements of Income in the 2018 period and was part of CNX's unallocated expenses. No such transactions occurred in the current period. Prior to the acquisition, CNX accounted for its interests in CNX Gathering and CNXM as an equity-method investment.

CNX's Midstream Division had earnings before income tax of \$167 million for the year ended December 31, 2019, compared to earnings before income tax of \$134 million for the period from January 3, 2018 through December 31, 2018.

E&P Division Summary

Sales volumes, average sales prices (including the effects of settled derivatives instruments), and average costs for the E&P Division were as follows:

	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Sales Volume (Bcfe)	539.1	507.1	32.0	6.3 %
Average Sales Price - Gas (per Mcf)	\$ 2.48	\$ 2.97	\$ (0.49)	(16.5)%
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement- Gas (per Mcf)	\$ 0.14	\$ (0.15)	\$ 0.29	193.3 %
Average Sales Price - NGLs (per Mcfe)*	\$ 3.20	\$ 4.55	\$ (1.35)	(29.7)%
Average Sales Price - Oil (per Mcfe)*	\$ 8.13	\$ 9.89	\$ (1.76)	(17.8)%
Average Sales Price - Condensate (per Mcfe)*	\$ 7.47	\$ 8.43	\$ (0.96)	(11.4)%
Average Sales Price (per Mcfe)	\$ 2.66	\$ 2.97	\$ (0.31)	(10.4)%
Lease Operating Expense (per Mcfe)	0.12	0.19	(0.07)	(36.8)%
Production, Ad Valorem, and Other Fees (per Mcfe)	0.05	0.06	(0.01)	(16.7)%
Transportation, Gathering and Compression (per Mcfe)	0.96	0.84	0.12	14.3 %
Depreciation, Depletion and Amortization (DD&A) (per Mcfe)	0.87	0.89	(0.02)	(2.2)%
Average Costs (per Mcfe)	\$ 2.00	\$ 1.98	\$ 0.02	1.0 %
Average Margin (per Mcfe)	\$ 0.66	\$ 0.99	\$ (0.33)	(33.3)%

* NGLs and Condensate are converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas, which is not indicative of the relationship of oil, NGLs, condensate, and natural gas prices.

Excluding the effects of settled derivative instruments, natural gas, NGLs, and oil revenue was \$1,364 million for the year ended December 31, 2019, compared to \$1,578 million for the year ended December 31, 2018. The decrease was primarily due to the 10.4% decrease in the average sales price driven by lower natural gas and NGL prices offset in-part by the 6.3% increase in total sales volumes.

The 6.3% increase in total sales volumes was primarily due to additional natural gas wells that were turned-in-line in the latter half of the 2018 period as well as throughout the 2019 period.

The decrease in average sales price was primarily the result of a \$0.49 per Mcf decrease in general natural gas prices, when excluding the impact of hedging, in the markets in which CNX sells its natural gas. There was also a \$0.09 per Mcfe decrease in the uplift from NGLs and condensate sales volumes when excluding the impact of hedging. Both decreases were offset, in part,

by a \$0.29 per Mcf increase in the realized gain (loss) on commodity derivative instruments related to the Company's hedging program.

Changes in the average costs per Mcfe were primarily related to the following items:

- Transportation, gathering and compression expense increased on a per unit basis primarily due to an increase in CNXM gathering fees related to an increase in our Marcellus production and an increase in firm transportation expense, primarily as a result of new contracts that give CNX the ability to move and sell gas outside of the Appalachian basin. The decrease in production from CNX's lower cost dry Utica volumes as well as the third quarter 2018 sale of CNX's Ohio JV assets also contributed to the increase on a per unit basis. See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.
- Lease operating expense decreased on a per unit basis primarily due to a decrease in water disposal costs in the period-to-period comparison due to an increase in the reuse of produced water in well completions in the current period, and also due to the sale of the majority of CNX's shallow oil and gas assets and the sale of substantially all of CNX's Ohio Utica JV assets in 2018.

The following table presents a breakout of net liquid and natural gas sales information to assist in the understanding of the Company's natural gas production and sales portfolio.

<i>in thousands (unless noted)</i>	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
LIQUIDS				
NGLs:				
Sales Volume (MMcfe)	32,571	36,489	(3,918)	(10.7)%
Sales Volume (Mbbbls)	5,428	6,081	(653)	(10.7)%
Gross Price (\$/Bbl)	\$ 19.20	\$ 27.30	\$ (8.10)	(29.7)%
Gross Revenue	\$ 104,139	\$ 165,883	\$ (61,744)	(37.2)%
Oil:				
Sales Volume (MMcfe)	52	307	(255)	(83.1)%
Sales Volume (Mbbbls)	9	51	(42)	(82.4)%
Gross Price (\$/Bbl)	\$ 48.78	\$ 59.34	\$ (10.56)	(17.8)%
Gross Revenue	\$ 422	\$ 3,036	\$ (2,614)	(86.1)%
Condensate:				
Sales Volume (MMcfe)	1,171	2,082	(911)	(43.8)%
Sales Volume (Mbbbls)	195	347	(152)	(43.8)%
Gross Price (\$/Bbl)	\$ 44.82	\$ 50.58	\$ (5.76)	(11.4)%
Gross Revenue	\$ 8,751	\$ 17,559	\$ (8,808)	(50.2)%
GAS				
Sales Volume (MMcf)	505,355	468,226	37,129	7.9%
Sales Price (\$/Mcf)	\$ 2.48	\$ 2.97	\$ (0.49)	(16.5)%
Gross Revenue	\$ 1,251,013	\$ 1,391,459	\$ (140,446)	(10.1)%
Hedging Impact (\$/Mcf)	\$ 0.14	\$ (0.15)	\$ 0.29	193.3%
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement	\$ 69,780	\$ (69,720)	\$ 139,500	200.1%

Selling, General and Administrative ("SG&A") - Total Company

SG&A costs include costs such as overhead, including employee labor and benefit costs, short-term incentive compensation, costs of maintaining our headquarters, audit and other professional fees, and legal compliance expenses. SG&A costs also include non-cash long-term equity-based compensation expense.

<i>(in millions)</i>	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
SG&A				
Long-Term Equity-Based Compensation (Non-Cash)	\$ 38	\$ 21	\$ 17	81.0 %
Salaries and Wages	40	40	—	— %
Short-Term Incentive Compensation	21	24	(3)	(12.5)%
Other	45	50	(5)	(10.0)%
Total SG&A	<u>\$ 144</u>	<u>\$ 135</u>	<u>\$ 9</u>	<u>6.7 %</u>

- Long-term equity-based compensation increased \$17 million in the period-to-period comparison due to the Company incurring an additional \$20 million of long-term equity-based compensation (non-cash) expense during the year ended December 31, 2019. The additional expense was a result of the acceleration of vesting of certain pre-2019 restricted stock units and performance share units held by certain employees related to the trigger of a contractual change in control event. See Note 17 - Stock-Based Compensation in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information. The remaining variance was due to various items that occurred throughout both periods, none of which were individually material.
- Short-term incentive compensation decreased \$3 million due to a reduction in the number of employees and lower projected payouts in the current period.

Unallocated Expense

Certain costs and expenses, such as other expense (income), gain on asset sales related to non-core assets, gain on previously held equity interest, loss on debt extinguishment, impairment of other intangible assets and income taxes are unallocated expenses and therefore are excluded from the per unit costs above as well as segment reporting. Below is a summary of these costs and expenses:

Other Expense (Income)

<i>(in millions)</i>	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Other Income				
Royalty Income	\$ 4	\$ 15	\$ (11)	(73.3)%
Right of Way Sales	9	14	(5)	(35.7)%
Interest Income	2	—	2	100.0 %
Other	4	8	(4)	(50.0)%
Total Other Income	<u>\$ 19</u>	<u>\$ 37</u>	<u>\$ (18)</u>	<u>(48.6)%</u>
Other Expense				
Bank Fees	\$ 9	\$ 11	\$ (2)	(18.2)%
Professional Services	4	7	(3)	(42.9)%
Other Land Rental Expense	4	4	—	— %
Other Corporate Expense	3	—	3	100.0 %
Total Other Expense	<u>\$ 20</u>	<u>\$ 22</u>	<u>\$ (2)</u>	<u>(9.1)%</u>
Total Other Expense (Income)	<u>\$ 1</u>	<u>\$ (15)</u>	<u>\$ 16</u>	<u>106.7 %</u>

Also refer to Other Expense contained in the section "Total Midstream Division Analysis" of this item of this Form 10-K for additional items that are not part of Unallocated Expense.

Gain on Asset Sales and Abandonments, net

A gain on asset sales of \$42 million related to non-core assets was recognized in the year ended December 31, 2019 compared to a gain of \$155 million in the year ended December 31, 2018, primarily due to the \$131 million gain that was recognized related

to the sale of substantially all of CNX's Ohio Utica JV assets as well as the sale of various other non-core assets in the 2018 period. See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

Also refer to the discussion of Loss (Gain) on Asset Sales and Abandonments, net contained in the section "Total Midstream Division Analysis" below for additional items that are not part of Unallocated Expense.

Gain on Previously Held Equity Interest

CNX recognized a gain on previously held equity interest of \$624 million in the year ended December 31, 2018 due to the Midstream Acquisition that occurred in January 2018. No such transactions occurred in the current period. See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

Loss on Debt Extinguishment

A loss on debt extinguishment of \$8 million was recognized in the year ended December 31, 2019 compared to a loss on debt extinguishment of \$54 million in the year ended December 31, 2018. During the year ended December 31, 2019, CNX purchased \$400 million of its 5.875% senior notes due in April 2022 at an average price equal to 101.5% of the principal amount. During the year ended December 31, 2018, CNX purchased \$411 million of its 5.875% senior notes due in April 2022 at an average price equal to 103.5% of the principal amount and redeemed the \$500 million 8.00% senior notes due in April 2023 at a call price equal to 106.0% of the principal amount. See Note 14 - Long-Term Debt in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

Impairment of Other Intangible Assets

Intangible assets are tested for impairment whenever events or circumstances indicate that the carrying amount of an asset may not be recoverable. An impairment loss would be recognized when the carrying amount of the asset exceeds the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition. The impairment loss to be recorded would be the excess of the asset's carrying value over its fair value.

In connection with the AEA with HG Energy (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information) that occurred during the year ended December 31, 2018, CNX determined that the carrying value of the other intangible asset - customer relationship exceeded its fair value, and an impairment of \$19 million was included in Impairment of Other Intangible Assets in the Consolidated Statement of Income. No such transactions occurred in the current period.

Income Taxes

The effective income tax rate was 46.5% for the year ended December 31, 2019, compared to 19.6% for the year ended December 31, 2018. The effective rate for the year ended December 31, 2019 differs from the U.S. federal statutory rate of 21% primarily due to state income taxes, equity compensation and state valuation allowances partially offset by the benefit from non-controlling interest. During the year ended December 31, 2018, CNX obtained a controlling interest in CNX Gathering LLC and, through CNX Gathering's ownership of the general partner, control over CNXM. All of CNXM's income is included in the Company's pre-tax income. However, the Company is not required to record income tax expense with respect to the portions of CNXM's income allocated to the noncontrolling public limited partners of CNXM, which reduces the Company's effective tax rate in periods when the Company has consolidated pre-tax income and increases the Company's effective tax rate in periods when the Company has consolidated pre-tax loss. The effective rate for the year ended December 31, 2018 differs from the U.S. federal statutory 21% primarily due to a benefit from the filing of a Federal 10-year net operating loss ("NOL") carryback which resulted in the Company being able to utilize previously valued tax attributes at a tax rate differential of 14%, noncontrolling interest, the reversal of the alternative minimum tax ("AMT") credit sequestration valuation allowance, and the release of certain state valuation allowances as a result of a corporate reorganization during the year.

See Note 8 - Income Taxes in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

For the Years Ended December 31,

(in millions)

	2019	2018	Variance	Percent Change
Total Company Earnings Before Income Tax	\$ 60	\$ 1,099	\$ (1,039)	(94.5)%
Income Tax Expense	\$ 28	\$ 216	\$ (188)	(87.0)%
Effective Income Tax Rate	46.5%	19.6%	26.9%	

TOTAL E&P DIVISION ANALYSIS for the year ended December 31, 2019 compared to the year ended December 31, 2018:

The E&P division had a loss before income tax of \$140 million for the year ended December 31, 2019 compared to earnings before income tax of \$245 million for the year ended December 31, 2018. Variances by individual operating segment are discussed below.

	For the Year Ended					Difference to Year Ended				
	December 31, 2019					December 31, 2018				
(in millions)	Marcellus	Utica	CBM	Other Gas	Total	Marcellus	Utica	CBM	Other Gas	Total
Natural Gas, NGLs and Oil Revenue	\$ 935	\$ 264	\$ 164	\$ 1	\$ 1,364	\$ 32	\$ (182)	\$ (49)	\$ (15)	\$ (214)
Gain on Commodity Derivative Instruments	47	15	7	307	376	87	35	16	268	406
Purchased Gas Revenue	—	—	—	94	94	—	—	—	28	28
Other Operating Income	—	—	—	14	14	—	—	—	(13)	(13)
Total Revenue and Other Operating Income	982	279	171	416	1,848	119	(147)	(33)	268	207
Lease Operating Expense	33	16	16	—	65	(8)	(14)	(6)	(2)	(30)
Production, Ad Valorem, and Other Fees	15	6	7	(1)	27	(3)	(1)	—	(2)	(6)
Transportation, Gathering and Compression	444	33	40	—	517	124	(19)	(8)	(4)	93
Depreciation, Depletion and Amortization	256	136	73	9	474	26	(7)	(4)	(2)	13
Impairment of Exploration and Production Properties	—	—	—	327	327	—	—	—	327	327
Impairment of Unproved Properties and Expirations	—	—	—	119	119	—	—	—	119	119
Exploration and Production Related Other Costs	—	—	—	44	44	—	—	—	32	32
Purchased Gas Costs	—	—	—	91	91	—	—	—	26	26
Other Operating Expense	—	—	—	79	79	—	—	—	7	7
Selling, General and Administrative Costs	—	—	—	124	124	—	—	—	12	12
Total Operating Costs and Expenses	748	191	136	792	1,867	139	(41)	(18)	513	593
Interest Expense	—	—	—	121	121	—	—	—	(1)	(1)
Total E&P Division Costs	748	191	136	913	1,988	139	(41)	(18)	512	592
Earnings (Loss) from Continuing Operations Before Income Tax	\$ 234	\$ 88	\$ 35	\$ (497)	\$ (140)	\$ (20)	\$ (106)	\$ (15)	\$ (244)	\$ (385)

Note: Included in the table above is a related party transportation, gathering and compression charge of \$233 million that is offset in the Midstream Division in Midstream Revenue - Related Party. Of this charge, \$227 million related to Marcellus and \$6 million related to Utica. See Note 24 - Segment Information in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

MARCELLUS SEGMENT

The Marcellus segment had earnings before income tax of \$234 million for the year ended December 31, 2019 compared to earnings before income tax of \$254 million for the year ended December 31, 2018.

	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Marcellus Gas Sales Volumes (Bcf)	336.1	255.1	81.0	31.8 %
NGLs Sales Volumes (Bcf)*	32.5	31.4	1.1	3.5 %
Condensate Sales Volumes (Bcf)*	1.1	1.7	(0.6)	(35.3)%
Total Marcellus Sales Volumes (Bcf)*	369.7	288.2	81.5	28.3 %
Average Sales Price - Gas (per Mcf)	\$ 2.45	\$ 2.93	\$ (0.48)	(16.4)%
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement- Gas (per Mcf)	\$ 0.14	\$ (0.16)	\$ 0.30	187.5 %
Average Sales Price - NGLs (per Mcfe)*	\$ 3.20	\$ 4.55	\$ (1.35)	(29.7)%
Average Sales Price - Condensate (per Mcfe)*	\$ 7.41	\$ 8.32	\$ (0.91)	(10.9)%
Total Average Marcellus Sales Price (per Mcfe)	\$ 2.66	\$ 2.99	\$ (0.33)	(11.0)%
Average Marcellus Lease Operating Expenses (per Mcfe)	0.09	0.14	(0.05)	(35.7)%
Average Marcellus Production, Ad Valorem, and Other Fees (per Mcfe)	0.04	0.07	(0.03)	(42.9)%
Average Marcellus Transportation, Gathering and Compression Costs (per Mcfe)	1.20	1.11	0.09	8.1 %
Average Marcellus Depreciation, Depletion and Amortization Costs (per Mcfe)	0.70	0.79	(0.09)	(11.4)%
Total Average Marcellus Costs (per Mcfe)	\$ 2.03	\$ 2.11	\$ (0.08)	(3.8)%
Average Margin for Marcellus (per Mcfe)	\$ 0.63	\$ 0.88	\$ (0.25)	(28.4)%

* NGLs and Condensate are converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas, which is not indicative of the relationship of oil, NGLs, condensate, and natural gas prices.

The Marcellus segment had natural gas, NGLs and oil revenue of \$935 million for the year ended December 31, 2019 compared to \$903 million for the year ended December 31, 2018. The \$32 million increase was due to a 28.3% increase in total Marcellus sales volumes. The increase in sales volumes was primarily due to additional wells being turned in-line throughout 2018 and 2019 as part of the Company's ongoing drilling and completions program.

The decrease in the total average Marcellus sales price was primarily due to a \$0.48 per Mcf decrease in average sales price for natural gas and a \$1.35 per Mcfe decrease in the average NGL sales price, offset in part by a \$0.30 per Mcf increase in the realized gain (loss) on commodity derivative instruments resulting from the Company's hedging program. The notional amounts associated with these financial hedges represented approximately 264.8 Bcf of the Company's produced Marcellus gas sales volumes for the year ended December 31, 2019 at an average gain of \$0.18 per Mcf. For the year ended December 31, 2018, these financial hedges represented approximately 206.7 Bcf at an average loss of \$0.20 per Mcf.

Total operating costs and expenses for the Marcellus segment were \$748 million for the year ended December 31, 2019 compared to \$609 million for the year ended December 31, 2018. The increase in total dollars and decrease in unit costs for the Marcellus segment were due primarily to the following items:

- Marcellus lease operating expenses were \$33 million for the year ended December 31, 2019 compared to \$41 million for the year ended December 31, 2018. The decrease in total dollars was primarily due to a decrease in water disposal costs in the current period due to an increase in the reuse of produced water in well completions activity, as well as a reduction in employee costs. The decrease in unit costs was driven by the decrease in total dollars, along with the 28.3% increase in total Marcellus sales volumes.

- Marcellus production, ad valorem, and other fees were \$15 million for the year ended December 31, 2019 compared to \$18 million for the year ended December 31, 2018. The decrease in total dollars was primarily related to a decrease in CNX's severance tax liability due to the production mix by state and lower natural gas prices. The decrease in unit costs was driven by the decreased total dollars, along with the 28.3% increase in total Marcellus sales volumes.

• Marcellus transportation, gathering and compression costs were \$444 million for the year ended December 31, 2019 compared to \$320 million for the year ended December 31, 2018. The \$124 million increase in total dollars was primarily related to an increase in both CNX Midstream fees as well as an increase in utilized firm transportation expense. The increase in firm transportation total dollars was related to new contracts undertaken in 2019 that give CNX the ability to move and sell natural gas outside of the Appalachian basin. The increase in CNXM fees was due to annual rate escalation as well as additional compression. These increases were offset by lower processing costs due to a drier production mix. The increase in unit costs was driven by the increased total dollars described above.

• Depreciation, depletion and amortization costs attributable to the Marcellus segment were \$256 million for the year ended December 31, 2019 compared to \$230 million for the year ended December 31, 2018. These amounts included depletion on a unit of production basis of \$0.68 per Mcfe and \$0.79 per Mcfe, respectively. The decrease in units of production depreciation, depletion and amortization rate is the result of positive reserve revisions within the Company's core development area in the current year. The remaining depreciation, depletion and amortization costs were either recorded on a straight-line basis or related to asset retirement obligations.

UTICA SEGMENT

The Utica segment had earnings before income tax of \$88 million for the year ended December 31, 2019 compared to earnings before income tax of \$194 million for the year ended December 31, 2018.

	For the Years Ended December 31,			Percent Change
	2019	2018	Variance	
Utica Gas Sales Volumes (Bcf)	113.7	148.1	(34.4)	(23.2)%
NGLs Sales Volumes (Bcfe)*	—	5.1	(5.1)	(100.0)%
Oil Sales Volumes (Bcfe)*	—	0.1	(0.1)	(100.0)%
Condensate Sales Volumes (Bcfe)*	0.1	0.4	(0.3)	(75.0)%
Total Utica Sales Volumes (Bcfe)*	113.8	153.7	(39.9)	(26.0)%
Average Sales Price - Gas (per Mcf)	\$ 2.32	\$ 2.82	\$ (0.50)	(17.7)%
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement- Gas (per Mcf)	\$ 0.13	\$ (0.13)	\$ 0.26	200.0 %
Average Sales Price - NGLs (per Mcfe)*	\$ —	\$ 4.54	\$ (4.54)	(100.0)%
Average Sales Price - Oil (per Mcfe)*	\$ —	\$ 9.46	\$ (9.46)	(100.0)%
Average Sales Price - Condensate (per Mcfe)*	\$ 8.80	\$ 8.96	\$ (0.16)	(1.8)%
Total Average Utica Sales Price (per Mcfe)	\$ 2.46	\$ 2.77	\$ (0.31)	(11.2)%
Average Utica Lease Operating Expenses (per Mcfe)	0.14	0.19	(0.05)	(26.3)%
Average Utica Production, Ad Valorem, and Other Fees (per Mcfe)	0.05	0.05	—	— %
Average Utica Transportation, Gathering and Compression Costs (per Mcfe)	0.29	0.34	(0.05)	(14.7)%
Average Utica Depreciation, Depletion and Amortization Costs (per Mcfe)	1.21	0.93	0.28	30.1 %
Total Average Utica Costs (per Mcfe)	\$ 1.69	\$ 1.51	\$ 0.18	11.9 %
Average Margin for Utica (per Mcfe)	\$ 0.77	\$ 1.26	\$ (0.49)	(38.9)%

*NGLs and Condensate are converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas, which is not indicative of the relationship of oil, NGLs, condensate, and natural gas prices.

The Utica segment had natural gas, NGLs and oil revenue of \$264 million for the year ended December 31, 2019 compared to \$446 million for the year ended December 31, 2018. The \$182 million decrease was due to the 26.0% decrease in total Utica sales volumes and a 17.7% decrease in the average sales price for natural gas. The decrease in total Utica sales volumes was primarily due to the sale of substantially all of CNX's Ohio Utica JV assets in the third quarter of 2018 (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information) as well as normal production declines in the remaining dry Utica wells.

The decrease in total average Utica sales price was primarily due to a \$0.50 per Mcf decrease in average gas sales price. Additionally, there was a \$0.07 per Mcfe decrease in the uplift from NGLs and condensate sales volumes when excluding the

impact of hedging due to the sale of the previously mentioned Ohio JV assets in the third quarter of 2018, which consisted primarily of wet Utica production. The decreases were partially offset by a \$0.26 per Mcf increase in the realized gain (loss) on commodity derivative instruments. The notional amounts associated with these financial hedges represented approximately 83.3 Bcf of the Company's produced Utica gas sales volumes for the year ended December 31, 2019 at an average gain of \$0.18 per Mcf. For the year ended December 31, 2018, these financial hedges represented approximately 101.6 Bcf at an average loss of \$0.20 per Mcf.

Total operating costs and expenses for the Utica segment were \$191 million for the year ended December 31, 2019 compared to \$232 million for the year ended December 31, 2018. The decrease in total dollars and increase in unit costs for the Utica segment were due to the following items:

- Utica lease operating expenses were \$16 million for the year ended December 31, 2019, compared to \$30 million for the year ended December 31, 2018. The decrease in total dollars was primarily due to a decrease in water disposal costs due to lower production volumes, an increase in reuse of produced water in well completions and a reduction in well operating costs due to the overall decrease in Utica volumes described above. The decrease in unit costs was driven by the decrease in total dollars.
- Utica transportation, gathering and compression costs were \$33 million for the year ended December 31, 2019 compared to \$52 million for the year ended December 31, 2018. The \$19 million decrease in total dollars and \$0.05 per Mcfe decrease in unit costs were both due to the overall decrease in Utica volumes as well as the shift to lower cost dry Utica production.
- Depreciation, depletion and amortization costs attributable to the Utica segment were \$136 million for the year ended December 31, 2019 compared to \$143 million for the year ended December 31, 2018. These amounts included depletion on a unit of production basis of \$1.17 per Mcfe and \$0.93 per Mcfe, respectively. The increase in the units of production depreciation, depletion and amortization rate was due to negative reserve revisions, an increase in capital expenditures and a higher depreciation, depletion and amortization rate on deep dry Utica wells compared to the lower capital cost Utica wells which were part of the Ohio JV asset sale in 2018. The remaining depreciation, depletion and amortization costs were either recorded on a straight-line basis or related to asset retirement obligations.

COALBED METHANE (CBM) SEGMENT

The CBM segment had earnings before income tax of \$35 million for the year ended December 31, 2019 compared to earnings before income tax of \$50 million for the year ended December 31, 2018.

	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
CBM Gas Sales Volumes (Bcf)	55.4	60.3	(4.9)	(8.1)%
Average Sales Price - Gas (per Mcf)	\$ 2.96	\$ 3.53	\$ (0.57)	(16.1)%
Gain (Loss) on Commodity Derivative Instruments - Cash Settlement- Gas (per Mcf)	\$ 0.13	\$ (0.15)	\$ 0.28	186.7 %
Total Average CBM Sales Price (per Mcf)	\$ 3.09	\$ 3.39	\$ (0.30)	(8.8)%
Average CBM Lease Operating Expenses (per Mcf)	0.29	0.37	(0.08)	(21.6)%
Average CBM Production, Ad Valorem, and Other Fees (per Mcf)	0.12	0.12	—	— %
Average CBM Transportation, Gathering and Compression Costs (per Mcf)	0.73	0.80	(0.07)	(8.8)%
Average CBM Depreciation, Depletion and Amortization Costs (per Mcf)	1.32	1.28	0.04	3.1 %
Total Average CBM Costs (per Mcf)	\$ 2.46	\$ 2.57	\$ (0.11)	(4.3)%
Average Margin for CBM (per Mcf)	\$ 0.63	\$ 0.82	\$ (0.19)	(23.2)%

The CBM segment had natural gas revenue of \$164 million for the year ended December 31, 2019 compared to \$213 million for the year ended December 31, 2018. The \$49 million decrease was due to an 8.1% decrease in total CBM sales volumes and the 16.1% decrease in the average gas sales price. The decrease in CBM sales volumes was primarily due to normal well declines, as well as the sale of certain CBM assets that were sold along with the majority of CNX's shallow oil and gas assets in 2018 (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information).

The total average CBM sales price decreased \$0.30 per Mcf due to a \$0.57 per Mcf decrease in average gas sales price, offset in part by a \$0.28 per Mcf increase in the gain (loss) on commodity derivative instruments resulting from the Company's hedging program. The notional amounts associated with these financial hedges represented approximately 40.9 Bcf of the Company's produced CBM sales volumes for the year ended December 31, 2019 at an average gain of \$0.18 per Mcf. For the year ended December 31, 2018, these financial hedges represented approximately 44.8 Bcf at an average loss of \$0.20 per Mcf.

Total operating costs and expenses for the CBM segment were \$136 million for the year ended December 31, 2019 compared to \$154 million for the year ended December 31, 2018. The decrease in total dollars and decrease in unit costs for the CBM segment were due to the following items:

- CBM lease operating expense was \$16 million for the year ended December 31, 2019 compared to \$22 million for the year ended December 31, 2018. The \$6 million decrease was primarily due to reductions in contract services, a decrease in repairs and maintenance costs, and a reduction in employee costs. The decrease in unit costs was also due to the decrease in total dollars.
- CBM transportation, gathering and compression costs were \$40 million for the year ended December 31, 2019 compared to \$48 million for the year ended December 31, 2018. The \$8 million decrease in total dollars as well as the \$0.07 per Mcf decrease in unit costs were primarily related to a decrease in electrical power expense as well as a decrease in contractor services.
- Depreciation, depletion and amortization costs attributable to the CBM segment were \$73 million for the year ended December 31, 2019 compared to \$77 million for the year ended December 31, 2018. These amounts each included depletion on a unit of production basis of \$0.70 per Mcfe. The remaining depreciation, depletion and amortization costs were either recorded on a straight-line basis or related to asset retirement obligations.

OTHER GAS SEGMENT

The Other Gas segment had a loss before income tax of \$497 million for the year ended December 31, 2019 compared to a loss before income tax of \$253 million for the year ended December 31, 2018.

	For the Years Ended December 31,			Percent Change
	2019	2018	Variance	
Other Gas Sales Volumes (Bcf)	0.3	4.7	(4.4)	(93.6)%
Oil Sales Volumes (Bcfe)*	—	0.2	(0.2)	(100.0)%
Total Other Sales Volumes (Bcfe)*	0.3	4.9	(4.6)	(93.9)%

*Oil is converted to Mcfe at the rate of one barrel equals six Mcf based upon the approximate relative energy content of oil and natural gas, which is not indicative of the relationship of oil and natural gas prices.

The Other Gas segment includes activity not assigned to the Marcellus, Utica, or CBM segments. This segment also includes unrealized gain or loss on commodity derivative instruments, purchased gas activity, exploration and production related other costs, impairment of exploration and production properties, impairment of unproved properties and expirations, and other operational activity not assigned to a specific segment.

Other Gas sales volumes were primarily related to shallow oil and gas production. CNX sold substantially all of these assets on March 30, 2018 (See Note 6 - Acquisitions and Dispositions of the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information). There was \$1 million of natural gas and oil revenue related to the Other Gas segment for the year ended December 31, 2019 compared to \$16 million for the year ended December 31, 2018. Total operating costs and expenses related to these other gas sales volumes were \$5 million for the year ended December 31, 2019 compared to \$18 million for the year ended December 31, 2018. The decrease in natural gas and oil revenue was due to the asset sale.

Unrealized Gain or Loss on Commodity Derivative Instruments

The Other Gas segment recognized an unrealized gain on commodity derivative instruments of \$306 million as well as cash settlements received of \$1 million for the year ended December 31, 2019. For the year ended December 31, 2018, the Company recognized an unrealized gain on commodity derivative instruments of \$40 million as well as cash settlements paid of \$1 million. The unrealized gain or loss on commodity derivative instruments represents changes in the fair value of all the Company's existing commodity hedges on a mark-to-market basis.

Purchased Gas

Purchased gas volumes represent volumes of gas purchased at market prices from third-parties and then resold in order to fulfill contracts with certain customers and to balance supply. Purchased gas revenues were \$94 million for the year ended December 31, 2019 compared to \$66 million for the year ended December 31, 2018. Purchased gas costs were \$91 million for the year ended December 31, 2019 compared to \$65 million for the year ended December 31, 2018. The period-to-period increase in purchased gas revenue was due to an increase in purchased gas sales volumes, offset in part by a decrease in average sales price.

	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Purchased Gas Sales Volumes (in Bcf)	40.6	20.5	20.1	98.0%
Average Sales Price (per Mcf)	\$ 2.32	\$ 3.23	\$ (0.91)	(28.2)%
Average Cost (per Mcf)	\$ 2.23	\$ 3.17	\$ (0.94)	(29.7)%

Other Operating Income

Other operating income was \$14 million for the year ended December 31, 2019 compared to \$27 million for the year ended December 31, 2018. The \$13 million decrease was due to the following items:

(in millions)	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Water Income	\$ 2	\$ 11	\$ (9)	(81.8)%
Equity in Earnings of Affiliates	2	5	(3)	(60.0)%
Gathering Income	10	10	—	—%
Other	—	1	(1)	(100.0)%
Total Other Operating Income	\$ 14	\$ 27	\$ (13)	(48.1)%

- Water income decreased \$9 million due to nominal sales of freshwater to third parties for hydraulic fracturing in 2019 compared to 2018.

Impairment of Exploration and Production Properties

During the fourth quarter of 2019, CNX identified certain indicators of impairment specific to our CPA Marcellus asset group and determined that carrying value of that asset group was not recoverable. The fair value of the asset group was estimated by discounting the estimated future cash flows using discount rates and other assumptions that market participants would use in their estimates of fair value. As a result, an impairment of \$327 million was recognized within the CPA Marcellus proved properties and is included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income. This impairment was related to 56 operated wells and approximately 51,000 acres within our CPA Marcellus proved properties in Armstrong, Indiana, Jefferson and Westmoreland counties. The majority of these properties were developed prior to 2013 and the last of these properties were developed in 2015.

Impairment of Unproved Properties and Expirations

Capitalized costs of unproved oil and gas properties are evaluated periodically for indicators of potential impairment. Indicators of potential impairment include, but are not limited to, changes brought about by economic factors, commodity price outlooks, our geologists' evaluation of the property, favorable or unfavorable activity on the property being evaluated and/or adjacent properties, potential shifts in business strategy employed by management and historical experience. The likelihood of an impairment of unproved oil and gas properties increases as the expiration of a lease term approaches if drilling activity has not commenced. If it is determined that the Company does not intend to drill on the property prior to expiration or does not have the intent and ability to extend, renew, trade, or sell the lease prior to expiration, an impairment is recorded. Expense for lease expirations that were not previously impaired are recorded as the leases expire.

For the year ended December 31, 2019, CNX recorded an impairment related to unproved properties of \$119 million that was included in Impairment of Unproved Properties and Expirations in the Consolidated Statements of Income. These unproved

properties are within CNX's CPA operating region and east of the acreage associated with the proved property impairment described above.

Exploration and Production Related Other Costs

Exploration and production related other costs were \$44 million for the year ended December 31, 2019 compared to \$12 million for the year ended December 31, 2018. The \$32 million increase was due to the following items:

(in millions)	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Lease Expiration Costs	\$ 31	\$ 5	\$ 26	520.0 %
Seismic Activity	8	—	8	100.0 %
Land Rentals	3	4	(1)	(25.0)%
Other	2	3	(1)	(33.3)%
Total Exploration and Production Related Other Costs	<u>\$ 44</u>	<u>\$ 12</u>	<u>\$ 32</u>	<u>266.7 %</u>

- Lease Expiration Costs relate to leases where the primary term expired or will expire within the next 12 months. The \$26 million increase in the period-to-period comparison is due to an increase in the number of leases that were allowed to expire in the year ended December 31, 2019, or will expire within the next 12 months, because they were no longer in the Company's future drilling plan. Additionally, approximately \$15 million of the \$26 million increase is associated with leases which have ceased production.
- Seismic activity increased in the period-to-period comparison due to additional geophysical research in the current period related to the Utica segment.

Other Operating Expenses

Other operating expense was \$79 million for the year ended December 31, 2019 compared to \$72 million for the year ended December 31, 2018. The \$7 million increase was due to the following items:

	For the Years Ended December 31,			
	2019	2018	Variance	Percent Change
Unutilized Firm Transportation and Processing Fees	\$ 55	\$ 42	\$ 13	31.0 %
Idle Equipment and Service Charges	12	5	7	140.0 %
Insurance Expense	4	3	1	33.3 %
Severance Expense	1	1	—	— %
Litigation Expense	—	4	(4)	(100.0)%
Water Expense	—	6	(6)	(100.0)%
Other	7	11	(4)	(36.4)%
Total Other Operating Expense	<u>\$ 79</u>	<u>\$ 72</u>	<u>\$ 7</u>	<u>9.7 %</u>

- Unutilized Firm Transportation and Processing Fees represent pipeline transportation capacity obtained to enable gas production to flow uninterrupted as sales volumes increase, as well as additional processing capacity for NGLs. The increase in the period-to-period comparison was primarily due to previously-acquired capacity which was not utilized during the current period to transport the Company's flowing production. In some instances, the Company may have the opportunity to realize more favorable net pricing by strategically choosing to sell natural gas into a market or to a customer that does not require the use of the Company's own firm transportation capacity. Such sales would increase unutilized firm transportation expense. The Company attempts to minimize this expense by releasing (selling) unutilized firm transportation capacity to other parties when possible and when beneficial. The revenue received when this capacity is released (sold) is included in Gathering Income in Total Other Operating Income above. There were no unutilized fees related to the Midstream Division for 2018 or 2019.
- Idle Equipment and Service Charges primarily relate to the temporary idling of some of the Company's natural gas drilling rigs as well as related equipment and other services that may be needed in the natural gas drilling and completions process. The increase of \$7 million in the period-to-period comparison was primarily the result CNX terminating one of its drilling

rig contracts early, as well as additional idle service expense related to the Shaw 1G Utica Shale well that occurred in the first quarter of 2019.

- Water Expense decreased \$6 million due to the associated costs related to the sales of freshwater to third-parties for hydraulic fracturing during 2018 in Total Other Operating Income above. There were nominal sales during 2019.

Selling, General and Administrative

SG&A costs represent direct charges for the management and operation of CNX's E&P division. SG&A costs were \$124 million for the year ended December 31, 2019 compared to \$112 million for the year ended December 31, 2018. Refer to the discussion of total Company SG&A costs contained in the section "Net (Loss) Income Attributable to CNX Resources Shareholders" within this Item 7 of this Form 10-K for a detailed cost explanation.

Interest Expense

Interest expense of \$121 million was recognized in the year ended December 31, 2019 compared to \$122 million in the year ended December 31, 2018. The \$1 million decrease was primarily due to the reduction in higher cost long-term debt, resulting from the \$500 million purchase of the outstanding 8.00% senior notes due in April 2023 and the \$411 million purchase of the outstanding 5.875% senior notes due in April 2022 during the year ended December 31, 2018. Additionally, the Company purchased \$400 million of its outstanding 5.875% senior notes due in April 2022 during the year ended December 31, 2019. These decreases were partially offset by a completed private offering of \$500 million of 7.25% senior notes due March 2027 during the year ended December 31, 2019, as well as additional borrowings on the CNX credit facility. See Note 14 - Long-Term Debt in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.

TOTAL MIDSTREAM DIVISION ANALYSIS for the year ended December 31, 2019 compared to the period January 3, 2018 through December 31, 2018:

CNX's Midstream Division's principal activity is the ownership, operation, development and acquisition of natural gas gathering and other midstream energy assets of CNX Gathering and CNXM, which provide natural gas gathering services for the Company's produced gas, as well as for other independent third-parties in the Marcellus Shale and Utica Shale in Pennsylvania and West Virginia. Excluded from the Midstream Division are the gathering assets and operations of CNX that have not been contributed to CNX Gathering and CNXM.

On January 3, 2018, CNX completed the Midstream Acquisition (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information). CNX Gathering holds all of the interests in CNX Midstream GP LLC, which holds both the general partner and limited partner interests in CNXM. As a result of this transaction, CNX owns and controls 100% of CNX Gathering, making CNXM a single-sponsor master limited partnership and thus the Company began consolidating CNXM on January 3, 2018.

<i>(in millions)</i>	For the Year Ended December 31, 2019	For the period January 3, 2018 through December 31, 2018	Variance
Midstream Revenue - Related Party	\$ 233	\$ 168	\$ 65
Midstream Revenue - Third Party	74	90	(16)
Total Revenue	<u>\$ 307</u>	<u>\$ 258</u>	<u>\$ 49</u>
Transportation, Gathering and Compression	\$ 47	\$ 47	\$ —
Depreciation, Depletion and Amortization	34	32	2
Selling, General and Administrative Costs	20	23	(3)
Total Operating Costs and Expenses	<u>101</u>	<u>102</u>	<u>(1)</u>
Other Expense	2	—	2
Loss (Gain) on Asset Sales and Abandonments, net	7	(2)	9
Interest Expense	30	24	6
Total Midstream Division Costs	<u>140</u>	<u>124</u>	<u>16</u>
Earnings from Continuing Operations Before Income Tax	<u>\$ 167</u>	<u>\$ 134</u>	<u>\$ 33</u>

Midstream Revenue

Midstream revenue consists of revenue related to volumes gathered on behalf of CNX and other third-party natural gas producers. CNXM charges a higher fee for natural gas that is shipped on its wet system compared to gas shipped through its dry system. CNXM revenue can also be impacted by the relative mix of gathered volumes by area, which may vary dependent upon delivery point and may change dynamically depending on commodity prices at time of shipment. Total midstream revenue increased \$49 million primarily due to a 21.3% increase in the average rate for related party volumes as well as a 14.2% increase in gathered volumes of both dry and wet gas in the period-to-period comparison.

The table below summarizes volumes gathered by gas type:

	For the Year Ended December 31, 2019	For the period January 3, 2018 through December 31, 2018	Variance
Dry Gas (BBtu/d) (*)	889	740	149
Wet Gas (BBtu/d) (*)	719	661	58
Other (BBtu/d) (**)(**)	221	73	148
Total Gathered Volumes	<u>1,829</u>	<u>1,474</u>	<u>355</u>

(*) Classification as dry or wet is based upon the shipping destination of the related volumes. Because CNXM's customers have the option to ship a portion of their natural gas to destinations associated with either our wet system or our dry system, due to any number of factors, volumes may be classified as "wet" in one period and as "dry" in the comparative period.

(**) Includes condensate handling and third-party volumes under high-pressure short-haul agreements.

Transportation, Gathering and Compression

Transportation, Gathering and Compression costs were \$47 million for both the year ended December 31, 2019 and the period January 3, 2018 through December 31, 2018 and are comprised of items directly related to the cost of gathering natural gas at the wellhead and transporting it to interstate pipelines or other local sales points. These costs include items such as electrically-powered compression, compressor rental, repairs and maintenance, supplies, treating and contract services.

Selling, General and Administrative Expense

SG&A expense is comprised of direct charges for the management and operation of CNXM assets. SG&A costs were \$20 million for the year ended December 31, 2019 compared to \$23 million for the period January 3, 2018 through December 31, 2018. Refer to the discussion of total Company SG&A costs contained in the section "Net (Loss) Income Attributable to CNX Resources Shareholders" above for a detailed cost explanation.

Depreciation, Depletion and Amortization Expense

Depreciation expense is recognized on gathering and other equipment on a straight-line basis, with useful lives ranging from 25 years to 40 years.

Loss (Gain) on Asset Sales and Abandonments, net

During the year ended December 31, 2019, CNXM abandoned the construction of a compressor station that was designed to support additional production within certain areas of what is referred to as their "Anchor Systems," incurring a loss of \$7 million that is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income. CNXM continues to evaluate projects as CNX's and third-party customer development plans change in order to optimize system design and to actively manage capital investments. During the period January 3, 2018 through December 31, 2018, CNXM sold property and equipment to an unrelated third-party for \$6 million in cash proceeds, resulting in a gain of \$2 million.

Interest Expense

Interest expense is comprised of interest on the outstanding balance under CNXM's senior notes due 2026 and its revolving credit facility. Interest expense was \$30 million for the year ended December 31, 2019 compared to \$24 million for the period January 3, 2018 through December 31, 2018. The increase in the period-to-period comparison was due to additional borrowings on the revolving credit facility.

Critical Accounting Policies

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make judgments, estimates and assumptions that affect reported amounts of assets and liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities in the Consolidated Financial Statements and at the date of the financial statements. See Note 1-Significant Accounting Policies in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for further discussion. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making the judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates on an on-going basis. Actual results could differ from those estimates upon subsequent resolution of identified matters. Management believes that the estimates utilized are reasonable. The following critical accounting policies are materially impacted by judgments, assumptions and estimates used in the preparation of the Consolidated Financial Statements.

Asset Retirement Obligations

Accounting for Asset Retirement Obligations requires that the fair value of an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The present value of the estimated asset retirement costs is capitalized as part of the carrying amount of the long-lived asset. Asset retirement obligations primarily relate to the closure of gas wells and the reclamation of land upon exhaustion of gas reserves. Changes in the variables used to calculate the liabilities can have a significant effect on the gas well closing liability. The amounts of assets and liabilities recorded are dependent upon a number of variables, including the estimated future retirement costs, estimated proved reserves, assumptions involving profit margins, inflation rates and the assumed credit-adjusted risk-free interest rate.

The Company believes that the accounting estimates related to asset retirement obligations are “critical accounting estimates” because the Company must assess the expected amount and timing of asset retirement obligations. In addition, the Company must determine the estimated present value of future liabilities. Future results of operations for any particular quarterly or annual period could be materially affected by changes in the Company’s assumptions.

Income Taxes

Deferred tax assets and liabilities are recognized using enacted tax rates for the estimated future tax effects of temporary differences between the book and tax basis of recorded assets and liabilities. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion of the deferred tax asset will not be realized. All available evidence, both positive and negative, must be considered in determining the need for a valuation allowance. At December 31, 2019, CNX had deferred tax liabilities in excess of deferred tax assets of approximately \$351 million. At December 31, 2019, CNX had a valuation allowance of \$125 million on deferred tax assets.

CNX evaluates all tax positions taken on the state and federal tax filings to determine if the position is more likely than not to be sustained upon examination. For positions that meet the more likely than not to be sustained criteria, an evaluation of the largest amount of benefit, determined on a cumulative probability basis that is more likely than not to be realized upon ultimate settlement is determined. A previously recognized tax position is reversed when it is subsequently determined that a tax position no longer meets the more likely than not threshold to be sustained. The evaluation of the sustainability of a tax position and the probable amount that is more likely than not is based on judgment, historical experience and on various other assumptions that we believe are reasonable under the circumstances. The results of these estimates, that are not readily apparent from other sources, form the basis for recognizing an uncertain tax liability. Actual results could differ from those estimates upon subsequent resolution of identified matters. CNX has no uncertain tax liabilities at December 31, 2019. See Note 8 - Income Taxes in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information regarding the Company’s uncertain tax liabilities.

The Company believes that accounting estimates related to income taxes are “critical accounting estimates” because the Company must assess the likelihood that deferred tax assets will be recovered from future taxable income and exercise judgment regarding the amount of financial statement benefit to record for uncertain tax positions. When evaluating whether or not a valuation allowance must be established on deferred tax assets, the Company exercises judgment in determining whether it is more likely than not (a likelihood of more than 50%) that some portion or all of the deferred tax assets will not be realized. The Company considers all available evidence, both positive and negative, to determine whether, based on the weight of the evidence, a valuation allowance is needed, including carrybacks, tax planning strategies and reversal of deferred tax assets and liabilities. In making the determination related to uncertain tax positions, the Company considers the amounts and probabilities of the outcomes that could be realized upon ultimate settlement of an uncertain tax position using the facts, circumstances and information available at the reporting date to establish the appropriate amount of financial statement benefit. To the extent that an uncertain tax position or

valuation allowance is established or increased or decreased during a period, the Company must include an expense or benefit within tax expense in the income statement. Future results of operations for any particular quarterly or annual period could be materially affected by changes in the Company's assumptions.

Natural Gas, NGL, Condensate and Oil Reserve ("Natural Gas Reserve") Values

Proved oil and gas reserves, as defined by SEC Regulation S-X Rule 4-10, are those quantities of oil and natural gas which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation.

There are numerous uncertainties inherent in estimating quantities and values of economically recoverable natural gas reserves, including many factors beyond our control. As a result, estimates of economically recoverable natural gas reserves are by their nature uncertain. Information about our reserves consists of estimates based on engineering, economic and geological data assembled and analyzed by our staff. Our natural gas reserves are reviewed by independent experts each year. Some of the factors and assumptions which impact economically recoverable reserve estimates include:

- geological conditions;
- historical production from the area compared with production from other producing areas;
- the assumed effects of regulations and taxes by governmental agencies;
- assumptions governing future prices; and
- future operating costs.

Each of these factors may in fact vary considerably from the assumptions used in estimating reserves. For these reasons, estimates of the economically recoverable quantities of gas attributable to a particular group of properties, and classifications of these reserves based on risk of recovery and estimates of future net cash flows, may vary substantially. Actual production, revenues and expenditures with respect to our reserves will likely vary from estimates, and these variances may be material. See "Risk Factors" in Item 1A of this Form 10-K for a discussion of the uncertainties in estimating our reserves.

The Company believes that the accounting estimate related to oil and gas reserves is a "critical accounting estimate" because the Company must periodically reevaluate proved reserves along with estimates of future production rates, production costs and the estimated timing of development expenditures. Future results of operations and strength of the balance sheet for any particular quarterly or annual period could be materially affected by changes in the Company's assumptions. See "Impairment of Long-lived Assets" below for additional information regarding the Company's oil and gas reserves.

Impairment of Long-lived Assets

The carrying values of the Company's proved oil and gas properties are reviewed for impairment whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. Impairment tests require that the Company first compare future undiscounted cash flows by asset group to their respective carrying values. The Company groups its assets by geological and geographical characteristics. If the carrying amount exceeds the estimated undiscounted future cash flows, a reduction of the carrying amount of the natural gas properties to their estimated fair values is required, which is determined based on discounted cash flow techniques using a market-specific weighted average cost of capital. For the year ended December 31, 2019, an impairment of \$327 million was included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income. This impairment was related to 56 operated wells and approximately 51,000 acres within our CPA Marcellus proved properties in Armstrong, Indiana, Jefferson and Westmoreland counties.

In February 2017, the Company approved a plan to sell subsidiaries Knox Energy LLC and Coalfield Pipeline Company (collectively, Knox). As part of the required evaluation under the held for sale guidance, Knox's book value was evaluated, and it was determined that the approximate fair value less costs to sell Knox was less than the carrying value of the net assets to be sold. The resulting impairment of \$138 million was included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income. See Note 1 - Significant Accounting Policies in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information.

There were no other impairments related to proved properties in the years ended December 31, 2019, 2018 or 2017.

CNX evaluates capitalized costs of unproved gas properties for recoverability on a prospective basis. Indicators of potential impairment include, but are not limited to, changes brought about by economic factors, commodity price outlooks, our geologists'

evaluation of the property, favorable or unfavorable activity on the property being evaluated and/or adjacent properties, potential shifts in business strategy employed by management and historical experience. If it is determined that the properties will not yield proved reserves, the related costs are expensed in the period the determination is made. For the year ended December 31, 2019, an impairment of \$119 million was included in Impairment of Unproved Properties and Expirations in the Consolidated Statements of Income. There were no other impairments related to unproved properties in the years ended December 31, 2019, 2018 or 2017.

The Company believes that the accounting estimates related to the impairment of long-lived assets are "critical accounting estimates" because the fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results. In addition, the Company must determine the estimated undiscounted future cash flows as well as the impact of commodity price outlooks. The Company believes the estimates and assumptions used in estimating the fair value are reasonable and appropriate; however, different assumptions and estimates, such as different assumptions in projected revenues, future commodity prices or the weighted average costs of capital, could materially impact the calculated fair value and the resulting determinations about the impairment of long-lived assets which could materially impact the Company's results of operations and financial position. Additionally, future estimates may differ materially from current estimates and assumptions.

Impairment of Goodwill

In connection with the Midstream Acquisition that closed on January 3, 2018, CNX recorded \$796 million of goodwill. See Note 6 - Acquisitions and Dispositions for more information in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information.

Goodwill is not amortized, but rather it is evaluated for impairment annually during the fourth quarter, or more frequently if recent events or prevailing conditions indicate it is more likely than not that the fair value of a reporting unit is less than its carrying value. We may assess goodwill for impairment by first performing a qualitative assessment, which considers specific factors, based on the weight of evidence, and the significance of all identified events and circumstances in the context of determining whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If it is determined that it is more likely than not that the fair value of a reporting unit is less than its carrying amount using the qualitative assessment, we perform a quantitative impairment test. From time to time, we may also bypass the qualitative assessment and proceed directly to the quantitative impairment test. Under the quantitative goodwill impairment test, the fair value of a reporting unit is compared to its carrying amount. If the quantitative goodwill impairment test indicates that the goodwill is impaired, an impairment loss is recorded, which is the difference between carrying value of the reporting unit and its fair value, with the impairment loss not to exceed the amount of goodwill recorded. The estimation of fair value of a reporting unit is determined using the income approach and/or the market approach as described below.

The income approach is a quantitative evaluation to determine the fair value of the reporting unit. Under the income approach we determine the fair value based on estimated future cash flows discounted by an estimated weighted-average cost of capital plus a forecast risk, which reflects the overall level of inherent risk of the reporting unit and the rate of return a market participant would expect to earn. The inputs used for the income approach were significant unobservable inputs, or Level 3 inputs, as described in the accounting fair value hierarchy. CNX determined the fair value based on estimated future cash flows and earnings before deducting net interest expense (interest expense less interest income) and income taxes (EBITDA - a non-GAAP financial measure) and also included estimates for capital expenditures, discounted to present value using a risk-adjusted rate, which management feels reflects the overall level of inherent risk of the reporting unit. Cash flow projections were derived from board approved budgeted amounts, a five-year operating forecast and an estimate of future cash flows. Subsequent cash flows were developed using growth or contraction rates that management believes are reasonably likely to occur.

The market approach measures the fair value of a reporting unit through the analysis of recent transactions and/or financial multiples of comparable businesses. Consideration is given to the financial conditions and operating performance of the reporting unit being valued relative to those publicly-traded companies operating in the same or similar lines of business.

The determination of the fair value requires us to make significant estimates and assumptions. These estimates and assumptions primarily include but are not limited to: the selection of appropriate peer group companies; control premiums appropriate for acquisitions in the industries in which we compete; discount rates; terminal growth rates; and forecasts of revenue, operating income, depreciation and amortization and capital expenditures. The estimates of future cash flows and EBITDA are subjective in nature and are subject to impacts from business risks as described in Part I. Item 1A. "Risk Factors" of this Form 10K. The fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results. Although we believe our estimates of fair value are reasonable, actual financial results could differ from those estimates due to the inherent uncertainty involved in making such

estimates. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting unit, the amount of any goodwill impairment charge, or both.

In connection with our annual assessment of goodwill in the fourth quarter of 2019, we bypassed the qualitative assessment and performed a quantitative test that utilized a combination of the income and market approaches to estimate the fair value of the Midstream reporting unit. As a result of this assessment, we concluded that the estimated fair value exceeded carrying value, and accordingly no adjustment to goodwill was necessary. However, the margin by which the fair value of the Midstream reporting unit exceeded its carrying value was less than 10%. The fair value was estimated using an equal weighting of the income approach and guideline public company market approach. In our income approach analyses, CNX used a production forecast that included, amount other things, estimates of gathered volumes based upon CNX's proved developed and proved undeveloped reserves, as defined by the SEC, as well as forecasted production declines for third-party customers. Revenue contraction was applied to the terminal period. Had CNX used a discount rate that was 160 basis points higher or a terminal growth rate that was 520 basis points lower than those assumed under the income approach, the fair value of this reporting unit would have continued to exceed its carrying amount. Had we more heavily weighed the market approach in estimating the fair value of this reporting unit, the excess fair value over the carrying amount would have increased.

As a result of the small margin by which the Midstream reporting unit's fair value exceeded its carrying value, the reporting unit is susceptible to impairment risk from further adverse macroeconomic conditions or other adverse factors such as future gathering volumes being less than those currently estimated. Any such adverse changes in the future could reduce the underlying cash flows used to estimate fair values and could result in a decline in fair value that could trigger future impairment charges relating to the Midstream reporting unit.

The Company believes that the accounting estimates related to goodwill are "critical accounting estimates" because the fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results. The fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results as well as other assumptions such as movement in the Company's stock price, weighted-average cost of capital, terminal growth rates, changes in the business climate, unanticipated changes in the competitive environment, adverse legal or regulatory actions or developments, changes in capital structure, cost of debt, interest rates, capital expenditure levels, operating cash flows, or market capitalization and industry multiples. The Company believes the estimates and assumptions used in estimating the fair value are reasonable and appropriate; however, different assumptions and estimates could materially impact the calculated fair value and the resulting determinations about goodwill impairment which could materially impact the Company's results of operations and financial position. Additionally, future estimates may differ materially from current estimates and assumptions.

Impairment of Definite-lived Intangible Assets

Definite-lived intangible assets are amortized on a straight-line basis over their estimated economic lives and they are reviewed for impairment when indicators of impairment are present. Impairment tests require that the Company first compare future undiscounted cash flows to their respective carrying values. If the carrying amount exceeds the estimated undiscounted future cash flows, a reduction of the carrying amount of the asset to its estimated fair value is required.

In May 2018, CNX determined that the carrying value of a portion of the customer relationship intangible assets that were acquired in connection with the Midstream acquisition exceeded their fair value in conjunction with the AEA with HG Energy (See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for more information). CNX recognized an impairment on this intangible asset of \$19 million, which is included in Impairment of Other Intangible Assets in the Consolidated Statements of Income.

The Company believes that the accounting estimates related to the impairment of definite-lived intangible assets are "critical accounting estimates" because the fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results. The Company believes the estimates and assumptions used in estimating the fair value are reasonable and appropriate; however, different assumptions and estimates could materially impact the calculated fair value and the resulting determinations about the impairment of definite-lived intangible assets which could materially impact the Company's results of operations and financial position. Additionally, future estimates may differ materially from current estimates and assumptions.

Business Combinations

Accounting for the acquisition of a business requires the identifiable assets and liabilities acquired to be recorded at fair value. The most significant assumptions in a business combination include those used to estimate the fair value of the oil and gas

properties acquired. The fair value of proved natural gas properties is determined using a risk-adjusted after-tax discounted cash flow analysis based upon significant assumptions including commodity prices; projections of estimated quantities of reserves; projections of future rates of production; timing and amount of future development and operating costs; projected reserve recovery factors; and a weighted average cost of capital.

The Company utilizes the guideline transaction method to estimate the fair value of unproved properties acquired in a business combination which requires the Company to use judgment in considering the value per undeveloped acre in recent comparable transactions to estimate the value of unproved properties.

The estimated fair value of midstream facilities and equipment, generally consisting of pipeline systems and compression stations, is estimated using the cost approach, which incorporates assumptions about the replacement costs for similar assets, the relative age of assets and any potential economic or functional obsolescence.

The fair values of the intangible assets are estimated using the multi-period excess earnings model which estimates revenues and cash flows derived from the intangible asset and then deducts portions of the cash flow that can be attributed to supporting assets otherwise recognized. The Company's intangible assets are comprised of customer relationships.

The Company believes that the accounting estimates related to business combinations are "critical accounting estimates" because the Company must, in determining the fair value of assets acquired, make assumptions about future commodity prices; projections of estimated quantities of reserves; projections of future rates of production; projections regarding the timing and amount of future development and operating costs; and projections of reserve recovery factors, per acre values of undeveloped property, replacement cost of and future cash flows from midstream assets, cash flow from customer relationships and non-compete agreements and the pre and post modification value of stock based awards. Different assumptions may result in materially different values for these assets which would impact the Company's financial position and future results of operations.

Liquidity and Capital Resources

CNX generally has satisfied its working capital requirements and funded its capital expenditures and debt service obligations with cash generated from operations and proceeds from borrowings. CNX believes that cash generated from operations, asset sales and the Company's borrowing capacity will be sufficient to meet the Company's working capital requirements, anticipated capital expenditures (other than major acquisitions), scheduled debt payments, anticipated dividend payments and to provide required letters of credit for the next fiscal year. Nevertheless, the ability of CNX to satisfy its working capital requirements, to service its debt obligations, to fund planned capital expenditures, or to pay dividends will depend upon future operating performance, which will be affected by prevailing economic conditions in the natural gas industry and other financial and business factors, some of which are beyond CNX's control.

From time to time, CNX is required to post financial assurances to satisfy contractual and other requirements generated in the normal course of business. Some of these assurances are posted to comply with federal, state or other government agencies' statutes and regulations. CNX sometimes uses letters of credit to satisfy these requirements and these letters of credit reduce the Company's borrowing facility capacity.

Uncertainty in the financial markets brings additional potential risks to CNX. These risks include declines in the Company's stock price, less availability and higher costs of additional credit, potential counterparty defaults, and commercial bank failures. Financial market disruptions may impact the Company's collection of trade receivables. As a result, CNX regularly monitors the creditworthiness of its customers and counterparties and manages credit exposure through payment terms, credit limits, prepayments and security. CNX believes that its current group of customers is financially sound and represents no abnormal business risk.

In order to manage the market risk exposure of volatile natural gas prices in the future, CNX enters into various physical natural gas supply transactions with both gas marketers and end users for terms varying in length. CNX has also entered into various natural gas swap and option transactions, which exist parallel to the underlying physical transactions. The fair value of these contracts was a net asset of \$406 million at December 31, 2019 and a net asset of \$99 million at December 31, 2018. The Company has not experienced any issues of non-performance by derivative counterparties.

CNX frequently evaluates potential acquisitions. CNX has funded acquisitions with cash generated from operations and a variety of other sources, depending on the size of the transaction, including debt and equity financing. There can be no assurance that additional capital resources, including debt and equity financing, will be available to CNX on terms which CNX finds acceptable, or at all.

Cash Flows (in millions)

	For the Years Ended December 31,		
	2019	2018	Change
Cash Provided by Operating Activities	\$ 981	\$ 886	\$ 95
Cash Used in Investing Activities	\$ (1,147)	\$ (895)	\$ (252)
Cash Provided by (Used in) Financing Activities	\$ 166	\$ (483)	\$ 649

Cash provided by operating activities changed in the period-to-period comparison primarily due to the following items:

- Net income decreased \$851 million in the period-to-period comparison.
- Adjustments to reconcile net income to cash provided by operating activities primarily consisted of a \$327 million increase in impairment of exploration and production properties, a \$119 million increase in impairment of unproved properties and expirations, a \$19 million decrease in impairment of other intangible assets, a \$267 million net change in commodity derivative instruments, a \$46 million decrease in the loss on debt extinguishment, \$624 million decrease in gain on previously held equity interest, and a \$266 million change in deferred income taxes.

Cash used in investing activities changed in the period-to-period comparison primarily due to the following items:

- Capital expenditures increased \$76 million in the period-to-period comparison primarily due to increased expenditures in midstream and water operations to support development within Southwest Pennsylvania.
- In January 2018, CNX acquired Noble Energy's interest in CNX Gathering for a net payment of \$299 million. See Note 6 - Acquisitions and Dispositions in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.
- Proceeds from the sale of assets decreased \$467 million primarily due to the 2018 sale of substantially all of the Ohio Utica Joint Venture Assets in the wet gas Utica Shale areas of Belmont, Guernsey, Harrison, and Noble counties along with the 2018 sale of substantially all of CNX's shallow oil and gas assets and certain CBM assets in Pennsylvania and West Virginia. This was partially offset by various 2019 sales of surface land and oil and gas rights.

Cash provided by (used in) financing activities changed in the period-to-period comparison primarily due to the following items:

- In the year ended December 31, 2019, there were net proceeds of \$49 million of borrowings on the CNX credit facility compared to net proceeds of \$612 million in the year ended December 31, 2018.
- In the year ended December 31, 2019, CNX paid \$406 million to repurchase \$400 million of the 5.875% senior notes due in April 2022. In the year ended December 31, 2018, CNX paid \$955 million to repurchase all of the remaining 8.00% senior notes due April 2023 and \$411 million of the 5.875% senior notes due in April 2022. See Note 14 - Long-Term Debt in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.
- During the year ended December 31, 2019, CNX received proceeds of \$500 million from the issuance of senior notes due in 2027. During the year ended December 31, 2018, CNX received proceeds of \$394 million from the issuance of CNXM's senior notes due in 2026. See Note 14 - Long-Term Debt in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional information.
- In the years ended December 31, 2019 and 2018, CNX repurchased \$117 million and \$382 million, respectively, of its common stock on the open market.
- In the year ended December 31, 2019, there were net proceeds of \$228 million of borrowings on the CNXM credit facility compared to net payments of \$66 million in the year ended December 31, 2018.
- In the year ended December 31, 2019, there were \$64 million in distributions to CNXM noncontrolling interest holders compared to distributions of \$55 million in the year ended December 31, 2018.
- In the year ended December 31, 2019, there were \$11 million in debt issuance and financing fees compared to \$21 million in the year ended December 31, 2018.

The following is a summary of the Company's significant contractual obligations at December 31, 2019 (in thousands):

	Payments due by Year				Total
	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	
Purchase Order Firm Commitments	\$ 9,701	\$ 2,185	\$ 323	\$ —	\$ 12,209
Gas Firm Transportation and Processing	246,912	481,622	406,592	1,072,748	2,207,874
Long-Term Debt	—	895,308	972,750	895,375	2,763,433
Interest on Long-Term Debt	147,453	270,825	165,328	130,707	714,313
Finance Lease Obligations	7,164	7,226	480	—	14,870
Interest on Finance Lease Obligations	804	352	80	—	1,236
Operating Lease Obligations	61,670	76,794	7,663	26,009	172,136
Interest on Operating Lease Obligations	6,993	6,405	3,223	4,813	21,434
Long-Term Liabilities—Employee Related (a)	1,788	3,830	4,329	32,120	42,067
Other Long-Term Liabilities (b)	217,858	20,000	12,500	31,877	282,235
Total Contractual Obligations (c)	<u>\$ 700,343</u>	<u>\$ 1,764,547</u>	<u>\$ 1,573,268</u>	<u>\$ 2,193,649</u>	<u>\$ 6,231,807</u>

(a) Employee related long-term liabilities include salaried retirement contributions and work-related injuries and illnesses.

(b) Other long-term liabilities include royalties and other long-term liability costs.

(c) The significant obligation table does not include obligations to taxing authorities due to the uncertainty surrounding the ultimate settlement of amounts and timing of these obligations.

Debt

At December 31, 2019, CNX had total long-term debt of \$2,763 million, excluding unamortized debt issuance costs. This long-term debt consisted of:

- An aggregate principal amount of \$894 million of 5.875% Senior Notes due in April 2022 plus \$1 million of unamortized bond premium. Interest on the notes is payable April 15 and October 15 of each year. Payment of the principal and interest on the notes is guaranteed by most of CNX's subsidiaries but does not include CNXM.
- An aggregate principal amount of \$661 million in outstanding borrowings under the CNX credit facility.
- An aggregate principal amount of \$500 million of 7.25% Senior Notes due in March 2027. Interest on the notes is payable March 14 and September 14 of each year. Payment of the principal and interest on the notes is guaranteed by most of CNX's subsidiaries but does not include CNXM.
- An aggregate principal amount of \$400 million of 6.50% Senior Notes due in March 2026 issued by CNXM, less \$5 million of unamortized bond discount. Interest on the notes is payable March 15 and September 15 of each year. Payment on the principal and interest on the notes is guaranteed by certain of CNXM's subsidiaries. CNX is not a guarantor of these notes.
- An aggregate principal amount of \$312 million in outstanding borrowings under the CNXM revolver. CNX is not a guarantor of CNXM's revolving credit facility.

Total Equity and Dividends

CNX had total equity of \$4,962 million at December 31, 2019 compared to \$5,082 million at December 31, 2018. See the Consolidated Statements of Stockholders' Equity in Item 8 of this Form 10-K for additional details.

The declaration and payment of dividends by CNX is subject to the discretion of CNX's Board of Directors, and no assurance can be given that CNX will pay dividends in the future. CNX's Board of Directors determines whether dividends will be paid quarterly. CNX suspended its quarterly dividend in March 2016 to further reflect the Company's increased emphasis on growth. The determination to pay dividends in the future will depend upon, among other things, general business conditions, CNX's financial results, contractual and legal restrictions regarding the payment of dividends by CNX, planned investments by CNX, and such other factors as the Board of Directors deems relevant. The Company's Credit Facility limits CNX's ability to pay dividends in excess of an annual rate of \$0.10 per share when the Company's net leverage ratio exceeds 3.00 to 1.00 and is subject to availability under the Credit Facility of at least 15% of the aggregate commitments. The net leverage ratio was 2.64 to 1.00 at December 31, 2019. The Credit Facility does not permit dividend payments in the event of default. The indentures to the 5.875% Senior Notes due in April 2022 and the 7.25% Senior Notes due in March 2027 limit dividends to \$0.50 per share annually unless several conditions are met. These conditions include no defaults, ability to incur additional debt and other payment limitations under the indentures. There were no defaults under the year ended December 31, 2019.

On January 23, 2020, the Board of Directors of CNX Midstream GP LLC, the general partner of CNX Midstream Partners LP, announced the declaration of a cash distribution of \$0.4143 per unit with respect to the fourth quarter of 2019. The distribution will be made on February 13, 2020 to unitholders of record as of the close of business on February 5, 2020. The distribution, which equates to an annual rate of \$1.6572 per unit, represents an increase of 3.6% over the prior quarter, and an increase of 15% over the distribution paid with respect to the fourth quarter of 2018.

Off-Balance Sheet Transactions

CNX does not maintain off-balance sheet transactions, arrangements, obligations or other relationships with unconsolidated entities or others that are reasonably likely to have a material current or future effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources which are not disclosed in the Notes to the Audited Consolidated Financial Statements. CNX uses a combination of surety bonds, corporate guarantees and letters of credit to secure the Company's financial obligations for employee-related, environmental, performance and various other items which are not reflected in the Consolidated Balance Sheet at December 31, 2019. Management believes these items will expire without being funded. See Note 22 - Commitments and Contingent Liabilities in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K for additional details of the various financial guarantees that have been issued by CNX.

Recent Accounting Pronouncements

In December 2019, the FASB issued Accounting Standards Update (ASU) 2019-12 - Income Taxes - Simplifying the Accounting for Income Taxes (Topic 740), which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. This ASU removes the following exceptions: (1) exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items; (2) exception to the requirement to recognize a deferred tax liability for equity method investments when a foreign subsidiary becomes an equity method investment; (3) exception to the ability not to recognize a deferred tax liability for a foreign subsidiary when a foreign equity method investment becomes a subsidiary; and (4) exception to the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. The amendments in this ASU also improve consistency and simplify other areas of Topic 740 by clarifying and amending existing guidance. The amendments in this ASU will be applied using different approaches depending on what the specific amendment relates to and, for public entities, are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's financial statements.

In November 2019, the FASB issued ASU 2019-11 - Financial Instruments - Credit Losses (Topic 326), which clarifies and addresses specific issues about certain aspects of the amendments in ASU 2016-13. In May 2019, the FASB issued ASU 2019-05 - Financial Instruments - Credit Losses (Topic 326), which provides optional targeted transition relief to entities adopting ASU 2016-13. ASU 2016-13 replaces the incurred loss impairment methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The measurement of expected credit losses will be based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. ASU 2019-05 provides the option to irrevocably elect the fair value option for certain financial assets previously measured at amortized cost basis. For those entities, the targeted transition relief will increase comparability of financial statement information by providing an option to align

measurement methodologies for similar financial assets. The amendments in the ASU will be applied using the modified-retrospective approach and, for public entities, are effective for fiscal years beginning after December 15, 2019 and interim periods within those annual periods. Early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

In addition to the risks inherent in operations, CNX is exposed to financial, market, political and economic risks. The following discussion provides additional detail regarding CNX's exposure to the risks of changing commodity prices, interest rates and foreign exchange rates.

CNX is exposed to market price risk in the normal course of selling natural gas. CNX uses fixed-price contracts, options and derivative commodity instruments to minimize exposure to market price volatility in the sale of natural gas and NGLs. Under our risk management policy, it is not our intent to engage in derivative activities for speculative purposes.

CNX has established risk management policies and procedures to strengthen the internal control environment of the marketing of commodities produced from its asset base. All of the derivative instruments without other risk assessment procedures are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility and cover underlying exposures. The Company's market risk strategy incorporates fundamental risk management tools to assess market price risk and establish a framework in which management can maintain a portfolio of transactions within pre-defined risk parameters.

CNX believes that the use of derivative instruments, along with our risk assessment procedures and internal controls, mitigates our exposure to material risks. The use of derivative instruments without other risk assessment procedures could materially affect the Company's results of operations depending on market prices; however, we believe that use of these instruments will not have a material adverse effect on our financial position or liquidity due to our risk assessment procedures and internal controls.

For a summary of accounting policies related to derivative instruments, see Note 1 - Significant Accounting Policies in the Notes to the Audited Consolidated Financial Statements in Item 8 of this Form 10-K.

At December 31, 2019 and 2018, our open derivative instruments were in a net asset position with a fair value of \$406 million and \$99 million, respectively. A sensitivity analysis has been performed to determine the incremental effect on future earnings related to open derivative instruments at December 31, 2019 and 2018. A hypothetical 10 percent increase in future natural gas prices would have decreased the fair value by \$383 million and \$427 million at December 31, 2019 and 2018, respectively. A hypothetical 10 percent decrease in future natural gas prices would have increased the fair value by \$402 million and \$453 million at December 31, 2019 and 2018, respectively.

CNX's interest expense is sensitive to changes in the general level of interest rates in the United States. At December 31, 2019 and 2018, CNX had \$1,797 million and \$1,703 million, respectively, aggregate principal amount of debt outstanding under fixed-rate instruments, each including unamortized debt issuance costs of \$9 million. At December 31, 2019 and 2018, CNX had \$973 million and \$696 million, respectively, of debt outstanding under variable-rate instruments. CNX's primary exposure to market risk for changes in interest rates relates to our Credit Facility, under which there were \$661 million of borrowings at December 31, 2019 and \$612 million of borrowings at December 31, 2018, and CNXM's revolving credit facility, under which there were \$312 million of borrowings at December 31, 2019 and \$84 million at December 31, 2018. A hypothetical 100 basis-point increase in the average rate for CNX's and CNXM's revolving credit facilities would decrease pre-tax future earnings as of December 31, 2019 and 2018 by \$10 million and \$7 million, respectively, on an annualized basis.

All of CNX's transactions are denominated in U.S. dollars, and, as a result, it does not have material exposure to currency exchange-rate risks.

Natural Gas Hedging Volumes

As of January 8, 2020, the Company's hedged volumes for the periods indicated are as follows:

	For the Three Months Ended				Total Year
	March 31,	June 30,	September 30,	December 31,	
2020 Fixed Price Volumes					
Hedged Bcf	121.6	126.5	127.9	121.8	497.5*
Weighted Average Hedge Price per Mcf	\$ 2.67	\$ 2.50	\$ 2.49	\$ 2.53	\$ 2.55
2021 Fixed Price Volumes					
Hedged Bcf	108.4	111.8	113.2	109.9	443.3
Weighted Average Hedge Price per Mcf	\$ 2.44	\$ 2.41	\$ 2.41	\$ 2.41	\$ 2.42
2022 Fixed Price Volumes					
Hedged Bcf	76.0	76.8	77.6	74.8	305.2
Weighted Average Hedge Price per Mcf	\$ 2.46	\$ 2.44	\$ 2.44	\$ 2.42	\$ 2.44
2023 Fixed Price Volumes					
Hedged Bcf	42.9	43.4	43.9	43.9	174.1
Weighted Average Hedge Price per Mcf	\$ 2.31	\$ 2.28	\$ 2.28	\$ 2.30	\$ 2.29
2024 Fixed Price Volumes					
Hedged Bcf	39.9	36.9	37.3	37.4	151.5
Weighted Average Hedge Price per Mcf	\$ 2.38	\$ 2.29	\$ 2.29	\$ 2.29	\$ 2.32
2025 Fixed Price Volumes					
Hedged Bcf	5.3	5.3	5.4	5.4	21.4
Weighted Average Hedge Price per Mcf	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08	\$ 2.08

*Quarterly volumes do not add to annual volumes inasmuch as a discrete condition in individual quarters, where basis hedge volumes exceed NYMEX hedge volumes, does not exist for the year taken as a whole.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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To the Stockholders and the Board of Directors of CNX Resources Corporation and Subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CNX Resources Corporation and Subsidiaries (the Company) as of December 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and financial statement schedule listed in the Index at Item 15 (a) (2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Proved property impairment

Description of the Matter

As more fully described in Note 1 to the consolidated financial statements, during 2019, the Company concluded that its Central Pennsylvania Marcellus asset group was impaired and recognized a \$327 million impairment charge. Proved oil and gas properties are reviewed for impairment whenever events or changes in circumstances indicate that an asset group's carrying amount may not be recoverable.

Auditing the Company's impairment analysis involved a high degree of subjectivity due to the significant estimation required to determine the fair value of the Central Pennsylvania Marcellus asset group. In particular, the fair value estimate was sensitive to significant assumptions, including changes in projected revenues, future commodity prices and the weighted average cost of capital, which are affected by expectations about future market and economic conditions.

How We Addressed the Matter in Our Audit

We tested controls that address the risks of material misstatement related to the Company's proved property impairment review process, including controls over management's review of the significant assumptions described above.

To test the estimated fair value of the Company's Central Pennsylvania Marcellus asset group, we performed audit procedures that included, among others, evaluating the significant assumptions discussed above and the underlying data used by the Company in its analysis. We compared the significant assumptions used by management to current industry and economic trends and evaluated whether changes in those trends would affect the significant assumptions. We performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the asset group that would result from changes in the assumptions.

Valuation of Goodwill

Description of the Matter

At December 31, 2019, the Company's goodwill was \$796.4 million and all goodwill was attributed to a single reporting unit in the Midstream reportable segment. As discussed in Note 1 to the consolidated financial statements, goodwill is tested for impairment at least annually, or more frequently if recent events or prevailing conditions indicate it is more likely than not that the fair value of a reporting unit is less than its carrying value.

Auditing management's annual goodwill impairment test was complex and highly judgmental due to the significant estimation required to determine the fair value of the Midstream reporting unit. In particular, the fair value estimate was sensitive to significant assumptions, including changes in projected revenues and the company-specific risk premium component of the weighted average cost of capital, which are affected by expectations about future market, industry and economic conditions.

How We Addressed the Matter in Our Audit

We tested controls that address the risks of material misstatement related to the Company's goodwill impairment review process, including controls over management's review of the significant assumptions described above.

To test the estimated fair value of the Company's midstream reporting unit, we performed audit procedures that included, among others, assessing methodologies and testing the significant assumptions discussed above and the underlying data used by the Company in its analysis. We compared the significant assumptions used by management to current industry and economic trends and evaluated whether changes in those trends would affect the significant assumptions. We assessed the historical accuracy of management's estimates and performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value of the reporting units that would result from changes in the assumptions.

Description of the Matter

Depreciation, Depletion & Amortization

CNX Resources Corporation's exploration and production (E&P) division includes the production of pipeline quality natural gas for sale primarily to gas wholesalers. As described in Note 24 to the consolidated financial statements, the net book value of the Company's E&P assets totaled \$6.7 billion at December 31, 2019, and the Company's E&P division recorded depreciation, depletion and amortization (DD&A) expense of \$474.4 million for the year then ended. As discussed in Note 1, under the successful efforts method of accounting, costs of producing properties (including wells and related equipment and intangible drilling costs) and mineral interests are depleted using the unit-of-production method. DD&A expense is calculated based on the actual produced sales volumes multiplied by the applicable rate per unit, which is derived by dividing the net capitalized costs by the number of units expected to be produced over the life of the reserves. As discussed in Note 26, proved oil and natural gas reserve estimates are based on geological and engineering evaluations of in-place hydrocarbon volumes. The estimates of proved natural gas, natural gas liquids and oil reserves are prepared by internal reserve engineers and are audited by an independent reserve engineering firm.

Auditing the Company's DD&A is complex and judgmental, as it involves testing the method, inputs and assumptions used in the calculation, including for example, assumptions concerning natural gas prices and operating and development costs. These assumptions may have a significant effect on the estimation of reserves and the corresponding calculation of DD&A rates.

How We Addressed the Matter in Our Audit

We tested controls that address the risks of material misstatement related to the Company's process to calculate DD&A, which encompassed the process to estimate proved oil and natural gas reserves, including testing the controls over the data inputs provided to reserve engineers in estimating proved reserve balances used in the DD&A calculations. We also tested management's controls over the accuracy and completeness of the data used in the estimate.

Our audit procedures included, among others, testing the completeness and accuracy of underlying financial data used in the estimation of proved reserves, including testing the significant inputs by agreeing them to source documentation. These inputs include natural gas price assumptions and future operating and development cost assumptions. Additionally, we assessed the historical accuracy of proved oil and natural gas reserves through analytic procedures and retrospective review analyses.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2008.

Pittsburgh, Pennsylvania
February 10, 2020

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME

(Dollars in thousands, except per share data)

	For the Years Ended December 31,		
	2019	2018	2017
Revenue and Other Operating Income:			
Natural Gas, NGLs and Oil Revenue	\$ 1,364,325	\$ 1,577,937	\$ 1,125,224
Gain (Loss) on Commodity Derivative Instruments	376,105	(30,212)	206,930
Purchased Gas Revenue	94,027	65,986	53,795
Midstream Revenue	74,314	89,781	—
Other Operating Income	13,678	26,942	69,182
Total Revenue and Other Operating Income	1,922,449	1,730,434	1,455,131
Costs and Expenses:			
Operating Expense			
Lease Operating Expense	65,443	95,139	88,932
Transportation, Gathering and Compression	330,539	302,933	382,865
Production, Ad Valorem, and Other Fees	27,461	32,750	29,267
Depreciation, Depletion and Amortization	508,463	493,423	412,036
Exploration and Production Related Other Costs	44,380	12,033	48,074
Purchased Gas Costs	90,553	64,817	52,597
Impairment of Exploration and Production Properties	327,400	—	137,865
Impairment of Unproved Properties and Expirations	119,429	—	—
Impairment of Other Intangible Assets	—	18,650	—
Selling, General and Administrative Costs	143,550	134,806	93,211
Other Operating Expense	79,255	72,412	112,369
Total Operating Expense	1,736,473	1,226,963	1,357,216
Other Expense (Income)			
Other Expense (Income)	2,862	(14,571)	3,825
Gain on Asset Sales and Abandonments, net	(35,563)	(157,015)	(188,063)
Gain on Previously Held Equity Interest	—	(623,663)	—
Loss on Debt Extinguishment	7,614	54,118	2,129
Interest Expense	151,379	145,934	161,443
Total Other Expense (Income)	126,292	(595,197)	(20,666)
Total Costs and Expenses	1,862,765	631,766	1,336,550
Earnings from Continuing Operations Before Income Tax	59,684	1,098,668	118,581
Income Tax Expense (Benefit)	27,736	215,557	(176,458)
Income from Continuing Operations	31,948	883,111	295,039
Income from Discontinued Operations, net	—	—	85,708
Net Income	31,948	883,111	380,747
Less: Net Income Attributable to Noncontrolling Interests	112,678	86,578	—
Net (Loss) Income Attributable to CNX Resources Shareholders	\$ (80,730)	\$ 796,533	\$ 380,747

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(CONTINUED)

(Dollars in thousands, except per share data)	For the Years Ended December 31,		
	2019	2018	2017
(Loss) Earnings Per Share			
Basic			
(Loss) Income from Continuing Operations	\$ (0.42)	\$ 3.75	\$ 1.29
Income from Discontinued Operations	—	—	0.37
Total Basic (Loss) Earnings Per Share	\$ (0.42)	\$ 3.75	\$ 1.66
Diluted			
(Loss) Income from Continuing Operations	\$ (0.42)	\$ 3.71	\$ 1.28
Income from Discontinued Operations	—	—	0.37
Total Diluted (Loss) Earnings Per Share	\$ (0.42)	\$ 3.71	\$ 1.65
Dividends Declared Per Share	\$ —	\$ —	\$ —

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Dollars in thousands)

	For the Years Ended December 31,		
	2019	2018	2017
Net Income	\$ 31,948	\$ 883,111	\$ 380,747
Other Comprehensive (Loss) Income:			
Actuarially Determined Long-Term Liability Adjustments (Net of tax: \$1,664, (\$792), (\$7,365))	(4,701)	1,672	12,228
Comprehensive Income	27,247	884,783	392,975
Less: Comprehensive Income Attributable to Noncontrolling Interests	112,678	86,578	—
Comprehensive (Loss) Income Attributable to CNX Resources Shareholders	\$ (85,431)	\$ 798,205	\$ 392,975

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands)

	December 31, 2019	December 31, 2018
ASSETS		
Current Assets:		
Cash and Cash Equivalents	\$ 16,283	\$ 17,198
Accounts and Notes Receivable:		
Trade (Note 19)	133,480	252,424
Other Receivables	13,679	11,077
Supplies Inventories	6,984	9,715
Recoverable Income Taxes (Note 8)	62,425	149,481
Derivative Instruments (Note 21)	247,794	40,240
Prepaid Expenses	17,456	21,551
Total Current Assets	498,101	501,686
Property, Plant and Equipment (Note 10):		
Property, Plant and Equipment	10,572,006	9,567,428
Less—Accumulated Depreciation, Depletion and Amortization	3,435,431	2,624,984
Total Property, Plant and Equipment—Net	7,136,575	6,942,444
Other Assets:		
Operating Lease Right-of-Use Assets (Note 15)	187,097	—
Investment in Affiliates	16,710	18,663
Derivative Instruments (Note 21)	314,096	213,098
Goodwill (Note 11)	796,359	796,359
Other Intangible Assets (Note 11)	96,647	103,200
Other	15,221	16,720
Total Other Assets	1,426,130	1,148,040
TOTAL ASSETS	\$ 9,060,806	\$ 8,592,170

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(Dollars in thousands, except per share data)

	December 31, 2019	December 31, 2018
LIABILITIES AND EQUITY		
Current Liabilities:		
Accounts Payable	\$ 202,553	\$ 229,806
Derivative Instruments (Note 21)	40,971	61,661
Current Portion of Finance Lease Obligations (Note 15)	7,164	6,997
Current Portion of Operating Lease Obligations (Note 15)	61,670	—
Other Accrued Liabilities (Note 13)	216,581	224,511
Total Current Liabilities	528,939	522,975
Non-Current Liabilities:		
Long-Term Debt (Note 14)	2,754,443	2,378,205
Finance Lease Obligations (Note 15)	7,706	13,299
Operating Lease Obligations (Note 15)	110,466	—
Derivative Instruments (Note 21)	115,138	92,221
Deferred Income Taxes (Note 8)	476,108	398,682
Asset Retirement Obligations (Note 9)	63,377	37,479
Other	42,320	67,566
Total Non-Current Liabilities	3,569,558	2,987,452
TOTAL LIABILITIES	4,098,497	3,510,427
Stockholders' Equity:		
Common Stock, \$0.01 Par Value; 500,000,000 Shares Authorized, 186,642,962 Issued and Outstanding at December 31, 2019; 198,663,342 Issued and Outstanding at December 31, 2018	1,870	1,990
Capital in Excess of Par Value	2,199,605	2,264,063
Preferred Stock, 15,000,000 Shares Authorized, None Issued and Outstanding	—	—
Retained Earnings	1,971,676	2,071,809
Accumulated Other Comprehensive Loss	(12,605)	(7,904)
Total CNX Resources Stockholders' Equity	4,160,546	4,329,958
Noncontrolling Interest	801,763	751,785
TOTAL STOCKHOLDERS' EQUITY	4,962,309	5,081,743
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 9,060,806	\$ 8,592,170

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Dollars in thousands, except per share data)

Dollars in Thousands

	For the Years Ended December 31,		
	2019	2018	2017
Total Stockholders' Equity, Beginning Balance	\$ 5,081,743	\$ 3,899,899	\$ 3,940,888
Common Stock and Capital in Excess of Par Value:			
Beginning Balance	2,266,053	2,452,564	2,463,162
Issuance of Common Stock	565	1,713	1,009
Purchase and Retirement of Common Stock	(101,688)	(207,154)	(51,287)
Amortization of Stock-Based Compensation Awards	36,545	18,930	16,983
Distribution of CONSOL Energy, Inc.	—	—	22,697
Ending Balance	2,201,475	2,266,053	2,452,564
Retained Earnings:			
Beginning Balance	2,071,809	1,455,811	1,727,789
Net (Loss) Income	(80,730)	796,533	380,747
Purchase and Retirement of Common Stock	(13,789)	(176,598)	(51,922)
Shares Withheld for Taxes	(5,614)	(5,037)	(6,681)
Distribution of CONSOL Energy, Inc.	—	—	(594,122)
ASU 2018-02 Reclassification	—	1,100	—
Ending Balance	1,971,676	2,071,809	1,455,811
Accumulated Other Comprehensive Loss:			
Beginning Balance	(7,904)	(8,476)	(392,556)
Other Comprehensive (Loss) Income	(4,701)	1,672	12,228
Distribution of CONSOL Energy, Inc.	—	—	371,852
ASU 2018-02 Reclassification	—	(1,100)	—
Ending Balance	(12,605)	(7,904)	(8,476)
Total CNX Resources Corporation Stockholders' Equity	4,160,546	4,329,958	3,899,899
Non-Controlling Interest:			
Beginning Balance	751,785	—	142,493
Net Income	112,678	86,578	—
Shares Withheld for Taxes	(696)	(348)	—
Amortization of Stock-Based Compensation Awards	1,880	2,411	—
Distributions to CNXM Noncontrolling Interest Holders	(63,884)	(55,433)	—
Distribution of CONSOL Energy, Inc.	—	—	(142,493)
Acquisition of CNX Gathering, LLC	—	718,577	—
Ending Balance	801,763	751,785	—
Total Stockholders' Equity, Ending Balance	\$ 4,962,309	\$ 5,081,743	\$ 3,899,899

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Dollars in thousands)

	For the Years Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities:			
Net Income	\$ 31,948	\$ 883,111	\$ 380,747
Adjustments to Reconcile Net Income to Net Cash Provided by Continuing Operating Activities:			
Net Income from Discontinued Operations	—	—	(85,708)
Depreciation, Depletion and Amortization	508,463	493,423	412,036
Amortization of Deferred Financing Costs	7,747	8,361	10,630
Impairment of Exploration and Production Properties	327,400	—	137,865
Impairment of Unproved Properties and Expirations	119,429	—	—
Impairment of Other Intangible Assets	—	18,650	—
Stock-Based Compensation	38,425	21,341	16,983
Gain on Asset Sales and Abandonments, net	(35,563)	(157,015)	(188,063)
Gain on Previously Held Equity Interest	—	(623,663)	—
Loss on Debt Extinguishment	7,614	54,118	2,129
(Gain) Loss on Commodity Derivative Instruments	(376,105)	30,212	(206,930)
Net Cash Received (Paid) in Settlement of Commodity Derivative Instruments	69,780	(69,720)	(41,174)
Deferred Income Taxes	79,092	345,560	(142,829)
Equity in Earnings of Affiliates	(2,103)	(5,363)	(49,830)
Return on Equity Investment	4,056	—	—
Changes in Operating Assets:			
Accounts and Notes Receivable	118,622	(57,734)	(32,792)
Supplies Inventories	2,731	1,027	4,254
Recoverable Income Taxes	87,050	(118,498)	76,196
Prepaid Expenses	3,115	(1,391)	631
Changes in Other Assets	1,000	4,904	22,018
Changes in Operating Liabilities:			
Accounts Payable	(6,405)	12,760	45,669
Accrued Interest	4,529	(5,839)	(2,955)
Other Operating Liabilities	13,242	53,135	81,969
Changes in Other Liabilities	(23,507)	(1,556)	(7,778)
Net Cash Provided by Continuing Operating Activities	<u>980,560</u>	<u>885,823</u>	<u>433,068</u>
Net Cash Provided by Discontinued Operating Activities	<u>—</u>	<u>—</u>	<u>215,619</u>
Net Cash Provided by Operating Activities	<u>980,560</u>	<u>885,823</u>	<u>648,687</u>
Cash Flows from Investing Activities:			
Capital Expenditures	(1,192,599)	(1,116,397)	(632,846)
CNX Gathering LLC Acquisition, Net of Cash Acquired	—	(299,272)	—
Proceeds from Asset Sales	45,160	511,767	414,185
Net Distributions from Equity Affiliates	—	9,250	42,873
Net Cash Used in Continuing Investing Activities	<u>(1,147,439)</u>	<u>(894,652)</u>	<u>(175,788)</u>
Net Cash Used in Discontinued Investing Activities	<u>—</u>	<u>—</u>	<u>(46,133)</u>
Net Cash Used in Investing Activities	<u>(1,147,439)</u>	<u>(894,652)</u>	<u>(221,921)</u>
Cash Flows from Financing Activities:			
Net Proceeds from CNX Revolving Credit Facility	49,000	612,000	—
Payments on Miscellaneous Borrowings	(7,149)	(7,165)	(8,037)
Payments on Long-Term Notes	(405,876)	(955,019)	(239,716)
Proceeds from Issuance of CNX Senior Notes	500,000	—	—
Proceeds from Issuance of CNXM Senior Notes	—	394,000	—
Net Proceeds from (Payments on) CNXM Revolving Credit Facility	227,750	(65,500)	—
Distributions to CNXM Noncontrolling Interest Holders	(63,884)	(55,433)	—
Proceeds from Spin-Off of CONSOL Energy Inc.	—	—	425,000
Proceeds from Issuance of Common Stock	565	1,713	1,009
Shares Withheld for Taxes	(6,310)	(5,385)	(6,681)
Purchases of Common Stock	(117,477)	(381,752)	(103,209)
Debt Issuance and Financing Fees	(10,655)	(20,599)	(361)
Net Cash Provided by (Used in) Continuing Financing Activities	<u>165,964</u>	<u>(483,140)</u>	<u>68,005</u>
Net Cash Used in Discontinued Financing Activities	<u>—</u>	<u>—</u>	<u>(31,903)</u>
Net Cash Provided by (Used in) Financing Activities	<u>165,964</u>	<u>(483,140)</u>	<u>36,102</u>
Net (Decrease) Increase in Cash and Cash Equivalents	(915)	(491,969)	462,868
Cash and Cash Equivalents at Beginning of Period	17,198	509,167	46,299
Cash and Cash Equivalents at End of Period	<u>\$ 16,283</u>	<u>\$ 17,198</u>	<u>\$ 509,167</u>

The accompanying notes are an integral part of these financial statements.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
NOTES TO AUDITED CONSOLIDATED FINANCIAL STATEMENTS
(Dollars in thousands, except per share data)

NOTE 1—SIGNIFICANT ACCOUNTING POLICIES:

A summary of the significant accounting policies of CNX Resources Corporation and subsidiaries ("CNX" or "the Company") is presented below. These, together with the other notes that follow, are an integral part of the Consolidated Financial Statements.

Basis of Consolidation:

The Consolidated Financial Statements include the accounts of CNX Resources Corporation, and its wholly-owned and majority-owned and/or controlled subsidiaries, including certain variable interest entities that the Company is required to consolidate pursuant to the Consolidation topic of the Financial Accounting Standards Board (FASB) Accounting Standards Codification. The portion of these entities that is not owned by the Company is presented as non-controlling interest. Investments in business entities in which CNX does not have control but has the ability to exercise significant influence over the operating and financial policies, are accounted for under the equity method. All significant intercompany transactions and accounts have been eliminated in consolidation. Investments in oil and natural gas producing entities are accounted for under the proportionate consolidation method.

Discontinued Operations:

Businesses divested are classified in the Consolidated Financial Statements as either discontinued operations or held for sale when the provision of Accounting Standards Codification (ASC) Topic 205 or ASC Topic 360 are met. For businesses classified as discontinued operations, the balance sheet amounts and results of operations are reclassified from their historical presentation to assets and liabilities of discontinued operations in the Consolidated Balance Sheets and to discontinued operations in the Consolidated Statements of Income and Cash Flows for all periods presented. The gains or losses associated with these divested businesses are recorded in discontinued operations in the Consolidated Statements of Income. The disclosures outside of Note 5- Discontinued Operations, for all periods presented, in the accompanying notes generally do not include the assets, liabilities, or operating results of businesses classified as discontinued operations.

Use of Estimates:

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, as well as various disclosures. Actual results could differ from those estimates. The most significant estimates included in, but not limited to, the preparation of the consolidated financial statements are related to long-lived assets (including intangible assets and goodwill), the values of natural gas, NGLs, condensate and oil (collectively "natural gas") reserves, asset retirement obligations, deferred income tax assets and liabilities, contingencies, fair value of derivative instruments, stock-based compensation and salary retirement benefits.

Cash and Cash Equivalents:

Cash and cash equivalents include cash on hand and on deposit at banking institutions as well as all highly liquid short-term securities with original maturities of three months or less.

Trade Accounts Receivable:

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. CNX reserves for specific accounts receivable when it is probable that all or a part of an outstanding balance will not be collected, such as customer bankruptcies. Collectability is determined based on terms of sale, credit status of customers and various other circumstances. CNX regularly reviews collectability and establishes or adjusts the allowance as necessary using the specific identification method. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Reserves for uncollectable amounts were not material in the periods presented. In addition, there were no material financing receivables with a contractual maturity greater than one year at December 31, 2019 or 2018.

Inventories:

Inventories are stated at the lower of cost or net realizable value. The cost of supplies inventory is determined by the average cost method and includes operating and maintenance supplies to be used in the Company's operations.

Property, Plant and Equipment:

CNX uses the successful efforts method of accounting for natural gas producing activities. Costs of property acquisitions, successful exploratory, development wells and related support equipment and facilities are capitalized. Periodic valuation provisions for impairment of capitalized costs of unproved mineral interests are expensed. Costs of unsuccessful exploratory wells are expensed when such wells are determined to be non-productive, or if the determination cannot be made after finding sufficient quantities of reserves to continue evaluating the viability of the project. The costs of producing properties and mineral interests are amortized using the units-of-production method. DD&A expense is calculated based on the actual produced sales volumes multiplied by the applicable rate per unit, which is derived by dividing the net capitalized costs by the number of units expected to be produced over the life of the reserves. Wells and related equipment and intangible drilling costs are also amortized on a units-of-production method. Units-of-production amortization rates are revised at least once per year, or more frequently if events and circumstances indicate an adjustment is necessary. Such revisions are accounted for prospectively as changes in accounting estimates.

Property, plant and equipment is recorded at cost upon acquisition. Expenditures which extend the useful lives of existing plant and equipment are capitalized. Interest costs applicable to major asset additions are capitalized during the construction period. Planned major maintenance costs which do not extend the useful lives of existing plant and equipment are expensed as incurred.

Depreciation of plant and equipment is calculated on the straight-line method over their estimated useful lives or lease terms, generally as follows:

	<u>Years</u>
Buildings and Improvements	10 to 45
Machinery and Equipment	3 to 25
Gathering and Transmission	30 to 40
Leasehold Improvements	Life of Lease

Costs for purchased software are capitalized and amortized using the straight-line method over the estimated useful life which does not exceed seven years.

Impairment of Long-Lived Assets:

Impairment of long-lived assets is recorded when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying value. The carrying value of the assets is then reduced to its estimated fair value which is usually measured based on an estimate of future discounted cash flows. Impairment of equity investments is recorded when indicators of impairment are present, and the estimated fair value of the investment is less than the assets' carrying value.

In February 2017, the Company approved a plan to sell its subsidiaries Knox Energy LLC and Coalfield Pipeline Company (collectively, "Knox"). Knox met all of the criteria to be classified as held for sale in February 2017. As part of the required evaluation under the held for sale guidance, Knox's book value was evaluated, and it was determined that the approximate fair value less costs to sell Knox was less than the carrying value of the net assets to be sold. The resulting impairment of \$137,865 was included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income during the year ended December 31, 2017. The sale of Knox closed in the second quarter of 2017 (See Note 6 - Acquisitions and Dispositions for more information). The disposal of Knox did not represent a strategic shift that would have had a major effect on the Company's operations and financial results and was, therefore, not classified as a discontinued operation in accordance with Topic 205, Presentation of Financial Statements, and Topic 360, Property, Plant and Equipment.

Impairment of Proved Properties:

CNX performs a quantitative impairment test whenever events or changes in circumstances indicate that an asset group's carrying amount may not be recoverable, over proved properties using the published NYMEX forward prices, timing, methods and other assumptions consistent with historical periods. When indicators of impairment are present, tests require that the Company

first compare expected future undiscounted cash flows by asset group to their respective carrying values. If the carrying amount exceeds the estimated undiscounted future cash flows, a reduction of the carrying amount of the natural gas properties to their estimated fair values is required, which is determined based on discounted cash flow techniques using significant assumptions including projected revenues, future commodity prices, and a market-specific weighted average cost of capital which are affected by expectations about future market and economic conditions.

During the fourth quarter of 2019, CNX identified certain indicators of impairment specific to our Central Pennsylvania Marcellus asset group and determined that the carrying value of that asset group was not recoverable. The fair value of the asset group was estimated by using level 3 inputs which consisted of discounting the estimated future cash flows using discount rates and other assumptions that market participants would use in their estimates of fair value. As a result, an impairment of \$327,400 was included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income. This impairment was related to 56 operated wells and approximately 51,000 acres within our Central Pennsylvania Marcellus proved properties in Armstrong, Indiana, Jefferson and Westmoreland counties. The majority of these properties were developed prior to 2013 and the last of these properties were developed in 2015.

Impairment of Unproved Properties:

Capitalized costs of unproved oil and gas properties are evaluated at least annually for recoverability on a prospective basis. Indicators of potential impairment include, but are not limited to, changes brought about by economic factors, commodity price outlooks, our geologists' evaluation of the property, favorable or unfavorable activity on the property being evaluated and/or adjacent properties, potential shifts in business strategy employed by management and historical experience. The likelihood of an impairment of unproved oil and gas properties increases as the expiration of a lease term approaches if drilling activity has not commenced. If it is determined that the Company does not intend to drill on the property prior to expiration or does not have the intent and ability to extend, renew, trade, or sell the lease prior to expiration, an impairment expense is recorded. Expense for lease expirations that were not previously impaired are recorded as the leases expire.

For the year ended December 31, 2019, CNX recorded an impairment related to unproved properties of \$119,429 that was included in Impairment of Unproved Properties and Expirations in the Consolidated Statements of Income. These unproved properties are within CNX's Central Pennsylvania operating region and east of the acreage associated with the proved property impairment described above.

Exploration expense, which is associated primarily with lease expirations, was \$44,380, \$12,033 and \$48,074 for the years ended December 31, 2019, 2018 and 2017, respectively, and is included in Exploration and Production Related Other Costs in the Consolidated Statements of Income.

Impairment of Goodwill:

In connection with the Midstream Acquisition (See Note 6 - Acquisitions and Dispositions for more information), CNX recorded \$796,359 of goodwill through the application of purchase accounting. The goodwill recorded was allocated in its entirety to the Midstream reporting unit, which is the sole reporting unit within the Midstream segment.

Goodwill is the cost of an acquisition less the fair value of the identifiable net assets of the acquired business. Goodwill is not amortized, but rather it is evaluated for impairment annually during the fourth quarter, or more frequently if recent events or prevailing conditions indicate it is more likely than not that the fair value of a reporting unit is less than its carrying value. These indicators include, but are not limited to, overall financial performance, industry and market considerations, anticipated future cash flows and discount rates, changes in the stock price with regards to CNX or common unit price with regards to CNX Midstream Partners LP ("CNXM"), regulatory and legal developments, and other relevant factors.

In connection with the annual evaluation of goodwill for impairment, CNX may first consider qualitative factors to assess whether there are indicators that it is more likely than not that the fair value of a reporting unit may not exceed its carrying amount. If after assessing such factors or circumstances, CNX determines it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, then a quantitative assessment is not required. If CNX chooses to bypass the qualitative assessment, or if it chooses to perform a qualitative assessment but is unable to qualitatively conclude that no impairment has occurred, then CNX will perform a quantitative assessment. In the case of a quantitative assessment, CNX estimates the fair value of the reporting unit with which the goodwill is associated using level 3 inputs and compares it to the carrying value. If the estimated fair value of a reporting unit is less than its carrying value, an impairment charge is recognized for the excess of the reporting unit's carrying value over its fair value. The Company uses a combination of the income approach (generally a discounted cash

flow method) and market approach (which may include the guideline public company method and/or the guideline transaction method) to estimate the fair value of a reporting unit.

The income approach is used to estimate value based on the present value of future economic benefits that are expected to be produced by an asset or business entity. This approach generally involves two general steps:

- (i) The first step involves establishing a forecast of the estimated future net cash flows expected to accrue directly or indirectly to the owner of the asset over its remaining useful life or to the owner of the business entity (including a reporting unit).
- (ii) The second step involves discounting these estimated future net cash flows to their present value using a market rate of return.

CNX determined the fair value based on estimated future revenues and earnings before deducting net interest expense (interest expense less interest income) and income taxes (EBITDA - a non-GAAP financial measure), and also included estimates for capital expenditures, discounted to present value using an industry rate adjusted for company-specific risk, which management feels reflects the overall level of inherent risk of the reporting unit. These assumptions are affected by expectations about future market, industry and economic conditions. Cash flow projections were derived from board approved budgeted amounts, a five-year operating forecast and an estimate of future cash flows. Subsequent cash flows were developed using growth or contraction rates that management believes are reasonably likely to occur.

The estimates of future cash flows and EBITDA are subjective in nature and are subject to impacts from business risks as described in Item 1A. Risk Factors of this Form 10-K. The fair value estimation process requires considerable judgment and determining the fair value is sensitive to changes in assumptions impacting management's estimates of future financial results. Although CNX believes the estimates and assumptions used in estimating the fair value are reasonable and appropriate, different assumptions and estimates could materially impact the estimated fair value. Future results could differ from our current estimates and assumptions.

In connection with our annual assessment of goodwill in the fourth quarter of 2019, we bypassed the qualitative assessment and performed a quantitative test that utilized a combination of the income and market approaches to estimate the fair value of the Midstream reporting unit. As a result of this assessment, we concluded that the estimated fair value exceeded carrying value, and accordingly no adjustment to goodwill was necessary. However, the margin by which the fair value of the Midstream reporting unit exceeded its carrying value was less than 10%. As a result, this reporting unit is susceptible to impairment risk from further adverse macroeconomic conditions or other adverse factors such as future gathering volumes being less than those currently estimated. Any such adverse changes in the future could reduce the underlying cash flows used to estimate fair values and could result in a decline in fair value that could trigger future impairment charges relating to the Midstream reporting unit.

Impairment of Definite-Lived Intangible Assets:

Definite-lived intangible assets are amortized on a straight-line basis over their estimated economic lives and they are reviewed for impairment when indicators of impairment are present.

In connection with the Midstream Acquisition (See Note 6 - Acquisitions and Dispositions for more information), CNX recorded \$128,781 of other intangible assets, which are comprised of customer relationships, through the application of purchase accounting.

In May 2018, CNX determined that the carrying value of a portion of the customer relationship intangible assets that were acquired in connection with the Midstream acquisition exceeded their fair value in conjunction with the Asset Exchange Agreement with HG Energy II Appalachia, LLC (See Note 6 - Acquisitions and Dispositions for more information). CNX recognized an impairment on this intangible asset of \$18,650, which is included in Impairment of Other Intangible Assets in the Consolidated Statements of Income.

The customer relationships intangible asset is amortized on a straight-line basis over approximately 17 years.

Income Taxes:

Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. The provision for income taxes represents income taxes paid or payable for the current year and the change in deferred taxes, excluding the effects of acquisitions during the year. Deferred taxes result from

differences between the financial and tax bases of the Company's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a deferred tax benefit will not be realized.

CNX evaluates all tax positions taken on the state and federal tax filings to determine if the position is more likely than not to be sustained upon examination. For positions that do not meet the more likely than not to be sustained criteria, the Company determines, on a cumulative probability basis, the largest amount of benefit that is more likely than not to be realized upon ultimate settlement. A previously recognized tax position is reversed when it is subsequently determined that a tax position no longer meets the more likely than not threshold to be sustained. The evaluation of the sustainability of a tax position and the probable amount that is more likely than not is based on judgment, historical experience and on various other assumptions that the Company believes are reasonable under the circumstances. The results of these estimates, that are not readily apparent from other sources, form the basis for recognizing an uncertain tax position liability. Actual results could differ from those estimates upon subsequent resolution of identified matters.

Asset Retirement Obligations:

CNX accrues for dismantling and removing costs of gas-related facilities and related surface reclamation using the accounting treatment prescribed by the Asset Retirement and Environmental Obligations Topic of the FASB Accounting Standards Codification. This topic requires the fair value of an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. Estimates are regularly reviewed by management and are revised for changes in future estimated costs and regulatory requirements. The present value of the estimated asset retirement costs is capitalized as part of the carrying amount of the long-lived asset. Amortization of the capitalized asset retirement cost is generally determined on a units-of-production basis. Accretion of the asset retirement obligation is recognized over time and generally will escalate over the life of the producing asset, typically as production declines. Accretion is included in Depreciation, Depletion and Amortization in the Consolidated Statements of Income.

Investment Plan:

CNX has an investment plan that is available to most employees. Throughout the years ended December 31, 2019, 2018 and 2017, the Company's matching contribution was 6% of eligible compensation contributed by eligible employees. The Company may also make discretionary contributions to the Plan ranging from 1% to 6% of eligible compensation for eligible employees (as defined by the Plan). There were no such discretionary contributions made by CNX for the years ended December 31, 2019, 2018 and 2017. Total matching contribution payments and costs were \$3,460, \$3,205 and \$2,866 for the years ended December 31, 2019, 2018 and 2017, respectively.

Revenue Recognition:

Revenues are recognized when the recognition criteria of ASC 606 are met, which generally occurs at the point in which title passes to the customers. For natural gas, NGL and oil revenue, this occurs at the contractual point of delivery. For midstream revenue this occurs when obligations under the terms of the contract with the shipper are satisfied.

CNX sells natural gas to accommodate the delivery points of its customers. In general, this gas is purchased at market price and re-sold on the same day at market price less a small transaction fee. These matching buy/sell transactions include a legal right of offset of obligations and have been simultaneously entered into with the counterparty. These transactions qualify for netting under the Nonmonetary Transactions Topic of the FASB Accounting Standards Codification and are, therefore, recorded net within the Consolidated Statements of Income in the Purchased Gas Revenue line.

CNX purchases natural gas produced by third-parties at market prices less a fee. The gas purchased from third-parties is then resold to end users or gas marketers at current market prices. These revenues and expenses are recorded gross as Purchased Gas Revenue and Purchase Gas Costs, respectively, in the Consolidated Statements of Income. Purchased gas revenue is recognized when title passes to the customer. Purchased gas costs are recognized when title passes to CNX from the third-party.

Contingencies:

From time to time, CNX, or its subsidiaries, are subject to various lawsuits and claims with respect to such matters as personal injury, wrongful death, damage to property, exposure to hazardous substances, governmental regulations (including environmental remediation), employment and contract disputes, and other claims and actions, arising out of the normal course of business. Liabilities are recorded when it is probable that obligations have been incurred and the amounts can be reasonably estimated. Estimates are developed through consultation with legal counsel involved in the defense of these matters and are based upon the

nature of the lawsuit, progress of the case in court, view of legal counsel, prior experience in similar matters and management's intended response. Environmental liabilities are not discounted or reduced by possible recoveries from third-parties. Legal fees associated with defending these various lawsuits and claims are expensed when incurred.

Stock-Based Compensation:

Stock-based compensation expense for all stock-based compensation awards is based on the grant date fair value estimated in accordance with the provisions of the Stock Compensation Topic of the FASB Accounting Standards Codification. CNX recognizes these compensation costs on a straight-line basis over the requisite service period of the award, which is generally the award's vesting term. See Note 17 - Stock-Based Compensation for more information.

Derivative Instruments:

CNX enters into financial derivative instruments to manage its exposure to commodity price volatility. The derivatives are accounted for as an asset or a liability in the accompanying Consolidated Balance Sheets at their fair value, generally measured based upon Level 2 inputs, which is further described in Note 20 - Fair Value of Financial Instruments. Changes in the fair values of derivatives are recorded in earnings.

All of the Company's derivative instruments are subject to master netting arrangements with its counterparties, none of which currently require CNX to post collateral for any of its hedges. However, as stated in the counterparty master agreements, if the Company's obligations with one of its counterparties cease to be secured on the same basis as similar obligations with the other lenders under the credit facility, CNX would be required to post collateral for hedges that are in a liability position in excess of defined thresholds. Each of the Company's counterparty master agreements allows, in the event of default, the ability to elect early termination of outstanding contracts. If early termination is elected, CNX and the applicable counterparty would net settle all open hedge positions.

CNX is exposed to credit risk in the event of non-performance by counterparties, whose creditworthiness is subject to continuing review. Historically, CNX has not experienced any issues of non-performance by derivative counterparties.

Recent Accounting Pronouncements:

In December 2019, the FASB issued ASU 2019-12 - Income Taxes - Simplifying the Accounting for Income Taxes (Topic 740), which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. This ASU removes the following exceptions: (1) exception to the incremental approach for intraperiod tax allocation when there is a loss from continuing operations and income or a gain from other items; (2) exception to the requirement to recognize a deferred tax liability for equity method investments when a foreign subsidiary becomes an equity method investment; (3) exception to the ability not to recognize a deferred tax liability for a foreign subsidiary when a foreign equity method investment becomes a subsidiary; and (4) exception to the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. The amendments in this ASU also improve consistency and simplify other areas of Topic 740 by clarifying and amending existing guidance. The amendments in this ASU will be applied using different approaches depending on what the specific amendment relates to and, for public entities, are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. Early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's financial statements.

In November 2019, the FASB issued ASU 2019-11 - Financial Instruments - Credit Losses (Topic 326), which clarifies and addresses specific issues about certain aspects of the amendments in ASU 2016-13. In May 2019, the FASB issued ASU 2019-05 - Financial Instruments - Credit Losses (Topic 326), which provides optional targeted transition relief to entities adopting ASU 2016-13. ASU 2016-13 replaces the incurred loss impairment methodology with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The measurement of expected credit losses will be based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the reported amount. ASU 2019-05 provides the option to irrevocably elect the fair value option for certain financial assets previously measured at amortized cost basis. For those entities, the targeted transition relief will increase comparability of financial statement information by providing an option to align measurement methodologies for similar financial assets. The amendments in this ASU will be applied using the modified-retrospective approach and, for public entities, are effective for fiscal years beginning after December 15, 2019 and interim periods within those annual periods. Early adoption is permitted. The adoption of this guidance is not expected to have a material impact on the Company's financial statements.

Reclassifications:

Certain amounts in prior periods have been reclassified to conform with the report classifications of the year ended December 31, 2019, with no effect on previously reported net income, stockholders' equity, or statement of cash flows.

Subsequent Events:

The Company has evaluated all subsequent events through the date the financial statements were issued. No material recognized, or non-recognizable subsequent events were identified other than what is disclosed in Note 25 - Subsequent Event.

NOTE 2—EARNINGS PER SHARE:

Basic earnings per share is computed by dividing net income attributable to CNX shareholders by the weighted average shares outstanding during the reporting period. Diluted earnings per share is computed similarly to basic earnings per share, except that the weighted average shares outstanding are increased to include additional shares from stock options, performance stock options, restricted stock units and performance share units, if dilutive. The number of additional shares is calculated by assuming that outstanding stock options and performance share options were exercised, that outstanding restricted stock units and performance share units were released, and that the proceeds from such activities were used to acquire shares of common stock at the average market price during the reporting period. CNXM's dilutive units did not have a material impact on the Company's earnings per share calculations for the year ended December 31, 2019 or the period from January 3, 2018 through December 31, 2018.

The table below sets forth the share-based awards that have been excluded from the computation of diluted earnings per share because their effect would be antidilutive:

	For the Years Ended December 31,		
	2019	2018	2017
Anti-Dilutive Options	4,696,264	2,285,775	2,773,423
Anti-Dilutive Restricted Stock Units	1,282,582	—	18,598
Anti-Dilutive Performance Share Units	752,899	145,217	—
Anti-Dilutive Performance Share Options	927,268	927,268	927,268
	<u>7,659,013</u>	<u>3,358,260</u>	<u>3,719,289</u>

The computations for basic and diluted earnings per share are as follows:

	For the Years Ended December 31,		
	2019	2018	2017
Income from Continuing Operations	\$ 31,948	\$ 883,111	\$ 295,039
Less: Net Income Attributable to Non-Controlling Interest	112,678	86,578	—
Net (Loss) Income from Continuing Operations Attributable to CNX Resources Shareholders	\$ (80,730)	\$ 796,533	\$ 295,039
Income from Discontinued Operations	—	—	85,708
Net (Loss) Income Attributable to CNX Resources Shareholders	\$ (80,730)	\$ 796,533	\$ 380,747
Weighted-average shares of common stock outstanding	190,727,122	212,348,581	228,835,112
Effect of diluted shares	—	2,280,384	2,116,700
Weighted-average diluted shares of common stock outstanding	190,727,122	214,628,965	230,951,812
(Loss) Earnings Per Share:			
Basic (Continuing Operations)	\$ (0.42)	\$ 3.75	\$ 1.29
Basic (Discontinued Operations)	—	—	0.37
Total Basic	\$ (0.42)	\$ 3.75	\$ 1.66
Diluted (Continuing Operations)	\$ (0.42)	\$ 3.71	\$ 1.28
Diluted (Discontinued Operations)	—	—	0.37
Total Diluted	\$ (0.42)	\$ 3.71	\$ 1.65

Shares of common stock outstanding were as follows:

	For the Years Ended December 31,		
	2019	2018	2017
Balance, Beginning of Year	198,663,342	223,743,322	229,443,008
Issuance Related to Stock-Based Compensation (1)	909,107	814,344	711,214
Retirement of Common Stock (2)	(12,929,487)	(25,894,324)	(6,410,900)
Balance, End of Year	186,642,962	198,663,342	223,743,322

(1) See Note 17 - Stock-Based Compensation for additional information.

(2) See Note 7 - Stock Repurchase for additional information.

NOTE 3—CHANGES IN ACCUMULATED OTHER COMPREHENSIVE LOSS:

Changes in Accumulated Other Comprehensive Loss related to pension obligations, net of tax, were as follows:

	Amount
Balance at December 31, 2018	\$ (7,904)
Other Comprehensive Loss before Reclassifications	(4,868)
Amounts Reclassified from Accumulated Other Comprehensive Loss, net of tax	167
Balance at December 31, 2019	\$ (12,605)

The following table shows the reclassification of adjustments out of Accumulated Other Comprehensive Loss:

	For the Years Ended December 31,		
	2019	2018	2017
Actuarially Determined Long-Term Liability Adjustments* (Note 16)			
Amortization of Prior Service Costs	\$ (17)	\$ (193)	\$ (2,775)
Recognized Net Actuarial Loss	242	302	23,043
Total	225	109	20,268
Less: Tax Benefit	58	173	7,499
Net of Tax	\$ 167	\$ (64)	\$ 12,769

*Excludes amounts related to the remeasurement of the actuarially determined pension obligations for the years ended December 31, 2019, 2018 and 2017. The table above only shows the reclassifications out of Accumulated Other Comprehensive Loss that relates to continuing operations.

In February 2018, the FASB issued ASU 2018-02 - Income Statement - Reporting Comprehensive Income (Topic 220), which eliminates the stranded tax effects resulting from the Tax Cuts and Jobs Act. The Company early adopted this ASU, resulting in the reclassification of \$1,100 related to stranded tax effects from Accumulated Other Comprehensive Loss to Retained Earnings during the year ended December 31, 2018.

NOTE 4—REVENUE FROM CONTRACTS WITH CUSTOMERS:

On January 1, 2018, the Company adopted ASU 2014-09, Revenue from Contracts with Customers and all the related amendments using the modified retrospective method, which did not result in any changes to previously reported financial information. The updates were applied only to contracts that were not complete as of January 1, 2018.

Revenues are recognized when control of the promised goods or services is transferred to the Company's customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. The Company has elected to exclude all taxes from the measurement of transaction price.

For natural gas, NGLs and oil, and purchased gas revenue, the Company generally considers the delivery of each unit (MMBtu or Bbl) to be a separate performance obligation that is satisfied upon delivery. Payment terms for these contracts typically require payment within 25 days of the end of the calendar month in which the hydrocarbons are delivered. A significant number of these contracts contain variable consideration because the payment terms refer to market prices at future delivery dates. In these situations, the Company has not identified a standalone selling price because the terms of the variable payments relate specifically to the Company's efforts to satisfy the performance obligations. A portion of the contracts contain fixed consideration (i.e. fixed price contracts or contracts with a fixed differential to NYMEX or index prices). The fixed consideration is allocated to each performance obligation on a relative standalone selling price basis, which requires judgment from management. For these contracts, the Company generally concludes that the fixed price or fixed differentials in the contracts are representative of the standalone selling price. Revenue associated with natural gas, NGLs and oil as presented on the accompanying Consolidated Statements of Income represent the Company's share of revenues net of royalties and excluding revenue interests owned by others. When selling natural gas, NGLs and oil on behalf of royalty owners or working interest owners, the Company is acting as an agent and thus reports the revenue on a net basis.

Midstream revenue consists of revenues generated from natural gas gathering activities. The gas gathering services are interruptible in nature and include charges for the volume of gas actually gathered and do not guarantee access to the system. Volumetric based fees are based on actual volumes gathered. The Company generally considers the interruptible gathering of each unit (MMBtu) of natural gas as a separate performance obligation. Payment terms for these contracts typically require payment within 25 days of the end of the calendar month in which the hydrocarbons are gathered.

Disaggregation of Revenue

The following table is a disaggregation of revenue by major source:

	For the Years Ended December 31,		
	2019	2018	2017
Revenue from Contracts with Customers			
Natural Gas Revenue	\$ 1,251,013	\$ 1,391,459	\$ 945,382
NGLs Revenue	104,139	165,883	156,132
Condensate Revenue	8,751	17,559	20,531
Oil Revenue	422	3,036	3,179
Total Natural Gas, NGLs and Oil Revenue	1,364,325	1,577,937	1,125,224
Purchased Gas Revenue	94,027	65,986	53,795
Midstream Revenue	74,314	89,781	—
Other Sources of Revenue and Other Operating Income			
Gain (Loss) on Commodity Derivative Instruments	376,105	(30,212)	206,930
Other Operating Income	13,678	26,942	69,182
Total Revenue and Other Operating Income	\$ 1,922,449	\$ 1,730,434	\$ 1,455,131

The disaggregated revenue information corresponds with the Company's segment reporting found in Note 24 - Segment Information.

Contract Balances

CNX invoices its customers once a performance obligation has been satisfied, at which point payment is unconditional. Accordingly, CNX's contracts with customers do not give rise to contract assets or liabilities under ASC 606. The Company has no contract assets recognized from the costs to obtain or fulfill a contract with a customer. The opening and closing balances of the Company's receivables related to contracts with customers were \$252,424 and \$133,480, respectively, as of December 31, 2019.

Transaction Price Allocated to Remaining Performance Obligations

ASC 606 requires that the Company disclose the aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied. However, the guidance provides certain practical expedients that limit this requirement, including when variable consideration is allocated entirely to a wholly unsatisfied performance obligation or to a wholly unsatisfied promise to transfer a distinct good or service that forms part of a series.

A significant portion of CNX's natural gas, NGLs and oil and purchased gas revenue is short-term in nature with a contract term of one year or less. For those contracts, CNX has utilized the practical expedient in ASC 606-10-50-14 exempting the Company from disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less.

For revenue associated with contract terms greater than one year, a significant portion of the consideration in those contracts is variable in nature and the Company allocates the variable consideration in its contract entirely to each specific performance obligation to which it relates. Therefore, any remaining variable consideration in the transaction price is allocated entirely to wholly unsatisfied performance obligations. As such, the Company has not disclosed the value of unsatisfied performance obligations pursuant to the practical expedient.

For revenue associated with contract terms greater than one year with a fixed price component, the aggregate amount of the transaction price allocated to remaining performance obligations was \$156,620 as of December 31, 2019. The Company expects to recognize net revenue of \$38,928 in the next 12 months and \$53,322 over the following 12 months, with the remainder recognized thereafter.

For revenue associated with CNX's midstream contracts, which also have terms greater than one year, the interruptible gathering of each unit of natural gas represents a separate performance obligation; therefore, future volumes are wholly unsatisfied, and disclosure of the transaction price allocated to remaining performance obligations is not required.

Prior-Period Performance Obligations

CNX records revenue in the month production is delivered to the purchaser. However, settlement statements for certain natural gas and NGL revenue may not be received for 30 to 90 days after the date production is delivered, and as a result, the Company is required to estimate the amount of production delivered to the purchaser and the price that will be received for the sale of the product. CNX records the differences between the estimates and the actual amounts received in the month that payment is received from the purchaser. The Company has existing internal controls for its revenue estimation process and the related accruals, and any identified differences between its revenue estimates and actual revenue received historically have not been significant. For each of the years ended December 31, 2019, 2018, and 2017, revenue recognized in the reporting period related to performance obligations satisfied in prior reporting periods was not material.

NOTE 5—DISCONTINUED OPERATIONS:

In November 2017, CNX completed the tax-free spin-off of its coal business resulting in two independent, publicly traded companies: (i) a coal company, CONSOL Energy, formerly known as CONSOL Mining Corporation and (ii) CNX, a natural gas exploration and production company, formerly known as CONSOL Energy, Inc. Following the separation, CONSOL Energy and its subsidiaries hold the coal assets previously held by CNX, including its Pennsylvania Mining Complex, Baltimore Marine Terminal, its direct and indirect ownership interest in CONSOL Coal Resources LP, formerly known as CNXC Coal Resources LP, and other related coal assets previously held by CNX. The coal business has been reclassified to discontinued operations for all periods presented.

The following table details selected financial information for the divested business included within discontinued operations:

	For the Year Ended	
	December 31, 2017	
Coal Revenue	\$	1,067,841
Other Outside Sales		60,066
Freight-Outside Coal		66,297
Miscellaneous Other Income		73,645
Total Revenue and Other Income		<u>1,267,849</u>
Total Costs		<u>1,147,254</u>
Income from Operations Before Income Taxes		120,595
Income Tax Expense		23,984
Less: Net Income Attributable to Noncontrolling Interest		10,903
Income from Discontinued Operations, net	\$	<u>85,708</u>

NOTE 6—ACQUISITIONS AND DISPOSITIONS:

On August 31, 2018, CNX closed on the sale of substantially all of its Ohio Utica Joint Venture Assets in the wet gas Utica Shale areas of Belmont, Guernsey, Harrison, and Noble Counties, which included approximately 26,000 net undeveloped acres. The net cash proceeds of \$381,124 are included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows and the net gain on the transaction of \$130,710 is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

On May 2, 2018, CNX closed on an Asset Exchange Agreement (the "AEA") with HG Energy II Appalachia, LLC ("HG Energy"), pursuant to which, among other things, HG Energy (i) paid to CNX approximately \$7,000 and (ii) assigned to CNX certain undeveloped Marcellus and Utica acreage in Southwest Pennsylvania, in exchange for CNX (x) assigning its interest in certain non-core midstream assets and surface acreage to HG Energy and (y) releasing certain HG Energy oil and gas acreage from dedication under a gathering agreement that is partially held, indirectly, by CNX. In connection with the transaction, CNX also agreed to certain transactions with CNXM, including the amendment of the existing gas gathering agreement between CNX and CNXM to increase the existing well commitment by an additional forty wells. The net gain on the sale was \$286 and is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

As a result of the AEA, CNX determined that the carrying value of a portion of the customer relationship intangible assets that were acquired in connection with the Midstream Acquisition discussed below (see also Note 11 - Goodwill and Other Intangible Assets) exceeded their fair value, and recognized an impairment of approximately \$18,650, which is included in Impairment of Other Intangible Assets in the Consolidated Statements of Income.

On March 30, 2018, CNX Gas completed the sale of substantially all of its shallow oil and gas assets and certain Coalbed Methane (CBM) assets in Pennsylvania and West Virginia for \$89,921 in cash consideration. In connection with the sale, the buyer assumed approximately \$196,514 of asset retirement obligations. The net gain on the sale was \$4,227 and is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

On December 14, 2017, CNX Gas entered into a purchase agreement with Noble, pursuant to which CNX Gas acquired Noble's 50% membership interest in CNX Gathering (then named "CONE Gathering LLC"), for a cash purchase price of \$305,000 and the mutual release of all outstanding claims (the "Midstream Acquisition"). CNX Gathering owns a 100% membership interest in CNX Midstream GP LLC (the "general partner"), which is the general partner of CNXM.

Prior to the Midstream Acquisition, the Company accounted for its 50% interest in CNX Gathering as an equity method investment as the Company had the ability to exercise significant influence, but not control, over the operating and financial policies of the midstream operations. In conjunction with the Midstream Acquisition, the Company obtained a controlling interest in CNX Gathering and, through CNX Gathering's ownership of the general partner, control over the Partnership. Accordingly, the Midstream Acquisition has been accounted for as a business combination using the acquisition method of accounting pursuant to ASC Topic 805, *Business Combinations*, or ASC 805. ASC 805 requires that, in circumstances where a business combination is achieved in stages (or step acquisition), previously held equity interests are remeasured at fair value and any difference between the fair value and the carrying value of the equity interest held be recognized as a gain or loss on the statement of income.

The fair value assigned to the previously held equity interest in CNX Gathering and CNXM for purposes of calculating the gain or loss was \$799,033 and was determined using the income approach, based on a discounted cash flow methodology. The resulting gain on remeasurement to fair value of the previously held equity interest in CNX Gathering and CNXM of \$623,663 is included in Gain on Previously Held Equity Interest in the Consolidated Statements of Income.

The fair value of the previously held equity interests was based on inputs that are not observable in the market and therefore represent Level 3 inputs (See Note 20 - Fair Value of Financial Instruments). The fair value was measured using valuation techniques that convert future cash flows into a single discounted amount. Significant inputs to the valuation included estimates of: (i) gathering volumes; (ii) future operating costs; and (iii) a market-based weighted average cost of capital. These inputs required significant judgments and estimates by management.

The fair value of midstream facilities and equipment, generally consisting of pipeline systems and compression stations, were estimated using the cost approach. Significant unobservable inputs in the valuation include management's assumptions about the replacement costs for similar assets, the relative age of the acquired assets and any potential economic or functional obsolescence associated with the acquired assets. As a result, the fair value estimates of the midstream facilities and equipment represents a Level 3 fair value measurement.

As part of the purchase price allocation, the Company identified intangible assets for customer relationships with third-party customers. The fair value of the identified intangible assets was determined using the income approach, which requires a forecast of the expected future cash flows generated and an estimated market-based weighted average cost of capital. Significant unobservable inputs in the valuation include future revenue estimates, future cost assumptions, and estimated customer retention rates. As a result, the fair value estimate of the identified intangible assets represents a Level 3 fair value measurement.

The noncontrolling interest in the acquired business is comprised of the limited partner units in CNXM, which were not acquired by the Company. The CNXM limited partner units are actively traded on the New York Stock Exchange and were valued based on observable market prices as of the transaction date and therefore represent a Level 1 fair value measurement.

Allocation of Purchase Price (Midstream Acquisition)

The following table summarizes the purchase price and the amounts of identified assets acquired and liabilities assumed based on the fair value as of January 3, 2018, with any excess of the purchase price over the fair value of the identified net assets acquired recorded as goodwill. The purchase price allocation was finalized as of December 31, 2018.

Fair Value of Consideration Transferred:

	<u>Amount</u>
Cash Consideration	\$ 305,000
CNX Gathering Cash on Hand at January 3, 2018 Distributed to Noble	2,620
Fair Value of Previously Held Equity Interest	799,033
Total Estimated Fair Value of Consideration Transferred	<u>\$ 1,106,653</u>

The following is a summary of the fair values of the net assets acquired:

	<u>Amount</u>
Fair Value of Assets Acquired:	
Cash and Cash Equivalents	\$ 8,348
Accounts and Notes Receivable	21,199
Prepaid Expense	2,006
Other Current Assets	163
Property, Plant and Equipment, Net	1,043,340
Intangible Assets	128,781
Other	593
Total Assets Acquired	<u>1,204,430</u>
Fair Value of Liabilities Assumed:	
Accounts Payable	26,059
CNXM Revolving Credit Facility	149,500
Total Liabilities Assumed	<u>175,559</u>
Total Identifiable Net Assets	1,028,871
Fair Value of Noncontrolling Interest in CNXM	(718,577)
Goodwill	796,359
Net Assets Acquired	<u>\$ 1,106,653</u>

Post-Acquisition Operating Results (Midstream Acquisition)

The Midstream Acquisition contributed the following to the Company's Midstream segment:

	<u>For the Years Ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
Midstream Revenue	\$ 307,024	\$ 258,074
Earnings from Continuing Operations Before Income Tax	\$ 166,654	\$ 133,811

Unaudited Pro Forma Information (Midstream Acquisition)

The following unaudited pro forma combined financial information presents the Company's results as though the Midstream Acquisition had been completed at January 1, 2017. The pro forma combined financial information has been included for comparative purposes and is not necessarily indicative of the results that might have actually occurred had the acquisition been completed at January 1, 2017; furthermore, the financial information is not intended to be a projection of future results.

(in thousands, except per share data) (unaudited)	For the Year Ended	
	December 31, 2017	
Pro Forma Total Revenue and Other Operating Income	\$	1,553,078
Pro Forma Net Income from Continuing Operations	\$	427,381
Less: Pro Forma Net Income Attributable to Noncontrolling Interests	\$	74,251
Pro Forma Net Income from Continuing Operations Attributable to CNX	\$	353,130
Pro Forma Income per Share from Continuing Operations (Basic)	\$	1.33
Pro Forma Income per Share from Continuing Operations (Diluted)	\$	1.33

In September 2017, CNX closed on the sale of approximately 22,000 acres of surface land in Colorado. The net cash proceeds of \$23,703 are included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows and the net gain on the transaction of \$18,758 is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

In a two-part closing in July and September 2017, CNX executed the sale of approximately 7,500 net undeveloped acres of the Marcellus Shale in Allegheny and Westmoreland counties, Pennsylvania. The total cash proceeds of \$36,649 are included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows and the net gain on the transaction of \$15,251 is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

In June 2017, CNX closed on the sale of approximately 11,100 net undeveloped acres of the Marcellus and Utica Shale in Allegheny, Washington, and Westmoreland counties, Pennsylvania. The total cash proceeds of \$83,500 are included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows and the net gain on the transaction of \$58,541 is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

In June 2017, the Company finalized the sale of 12 producing wells, 15 drilled but uncompleted wells (DUCs), and approximately 11,000 net developed and undeveloped Marcellus and Utica acres in Doddridge and Wetzel counties in West Virginia that were previously classified as held for sale. CNX received total cash proceeds of \$125,507, which is included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows, as well as undeveloped acreage. The net loss on the sale of \$9,430 is included in Gain on Asset Sales and Abandonments net in the Consolidated Statements of Income.

In May 2017, CNX finalized the sale of approximately 6,300 net undeveloped acres of the Utica-Point Pleasant Shale in Jefferson, Belmont and Guernsey counties, Ohio that were previously classified as held for sale. The total cash proceeds of \$76,585 are included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows and the net gain on the transaction of \$72,346 is included in Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income.

In April 2017, CNX finalized the sale of its Knox Energy LLC and Coalfield Pipeline Company subsidiaries that were previously classified as held for sale. At closing, CNX received net cash proceeds of \$19,055, which is included in Proceeds from Asset Sales in the Consolidated Statements of Cash Flows. The net gain on the sale of these assets was \$606 and is included in the Gain on Asset Sales and Abandonments, net in the Consolidated Statements of Income. In February 2017, Knox met all of the criteria to be classified as held for sale. As part of the required evaluation under the held for sale guidance, Knox's book value was evaluated, and it was determined that the approximate fair value less costs to sell Knox was less than the carrying value of the net assets to be sold. The resulting impairment of \$137,865 is included in Impairment of Exploration and Production Properties in the Consolidated Statements of Income during the year ended December 31, 2017.

NOTE 7— STOCK REPURCHASE:

Since the October 30, 2017 inception of the current stock repurchase program, CNX's Board of Directors has approved in total a \$750,000 stock repurchase program, which is not subject to an expiration date. The repurchases may be affected from time-to-time through open market purchases, privately negotiated transactions, Rule 10b5-1 plans, accelerated stock repurchases, block trades, derivative contracts or otherwise in compliance with Rule 10b-18. The timing of any repurchases will be based on a number of factors, including available liquidity, the Company's stock price, the Company's financial outlook, and alternative investment

options. The stock repurchase program does not obligate the Company to repurchase any dollar amount or number of shares and the Board may modify, suspend, or discontinue its authorization of the program at any time. The Board of Directors will continue to evaluate the size of the stock repurchase program based on CNX's free cash flow position, leverage ratio, and capital plans. During the year ended December 31, 2019, 12,929,487 shares were repurchased and retired at an average price of \$8.91 per share for a total cost of \$115,477.

NOTE 8—INCOME TAXES:

Income tax expense (benefit) provided on earnings from continuing operations consisted of:

	For the Years Ended December 31,		
	2019	2018	2017
Current:			
U.S. Federal	\$ (51,243)	\$ (130,003)	\$ (31,791)
U.S. State	(113)	—	(1,838)
	<u>(51,356)</u>	<u>(130,003)</u>	<u>(33,629)</u>
Deferred:			
U.S. Federal	47,717	319,813	(166,112)
U.S. State	31,375	25,747	23,283
	<u>79,092</u>	<u>345,560</u>	<u>(142,829)</u>
Total Income Tax Expense (Benefit)	<u>\$ 27,736</u>	<u>\$ 215,557</u>	<u>\$ (176,458)</u>

The components of the net deferred taxes are as follows:

	December 31,	
	2019	2018
Deferred Tax Assets:		
Net Operating Loss- Federal	\$ 202,913	\$ 124,341
Net Operating Loss - State	130,430	110,339
Alternative Minimum Tax	51,241	102,482
Foreign Tax Credit	43,194	43,194
Interest Limitation	25,734	32,147
Gas Well Closing	17,888	10,140
Equity Compensation	9,308	13,096
Salary Retirement	9,236	9,434
Finance Lease	1,209	1,624
Other	10,030	13,714
Total Deferred Tax Assets	<u>501,183</u>	<u>460,511</u>
Valuation Allowance	(125,054)	(94,455)
Net Deferred Tax Assets	<u>376,129</u>	<u>366,056</u>
Deferred Tax Liabilities:		
Property, Plant and Equipment	(593,401)	(606,342)
Investment in Partnership	(145,424)	(125,253)
Gas Derivatives	(105,721)	(26,160)
Advance Gas Royalties	(3,337)	(3,384)
Other	(4,354)	(3,599)
Total Deferred Tax Liabilities	<u>(852,237)</u>	<u>(764,738)</u>
Net Deferred Tax Liability	<u>\$ (476,108)</u>	<u>\$ (398,682)</u>

Deferred taxes are recorded for certain tax benefits, including net operating losses and tax credit carry-forwards, if management assesses the utilization of those assets to be more likely than not. A valuation allowance is required when it is not more likely than not that all or a portion of a deferred tax asset will be realized. All available evidence, both positive and negative, must be considered in determining the need for a valuation allowance. For the years ended December 31, 2019 and 2018, positive evidence considered included financial earnings generated over the past three years for certain subsidiaries, reversals of financial to tax temporary differences and the implementation of and/or ability to employ various tax planning strategies. Negative evidence includes financial and tax losses generated in prior periods and the inability to achieve forecasted results for those periods.

As of December 31, 2019, the Company has a deferred tax asset related to federal net operating losses of \$202,913, which expire at various times between 2034 and 2038. However, because of the Tax Cuts and Jobs Act (the "Act") enacted on December 22, 2017, the anticipated federal net operating losses generated in 2018 and 2019 do not expire but may only offset 80% of taxable income in any given year.

The Act preserved the deductibility of intangible drilling costs for federal income tax purposes, which allows the Company to deduct a portion of drilling costs in the year incurred and minimizes current year taxes payable in periods of taxable income. The Act also repealed the corporate alternative minimum tax (AMT) for tax years beginning January 1, 2018 and provides that existing AMT credits can be utilized to offset current federal taxes owed in tax years 2018 through 2020. In addition, 50% of any unused AMT credits are refundable during these years with any remaining AMT credit carryforward being fully refunded in 2021. The Company has reclassified \$51,241 in 2019 and \$102,482 in 2018 from Deferred Income Taxes to Recoverable Income Taxes in the Consolidated Balance Sheets in anticipation of the AMT refunds expected to be received in 2020 and received in 2019. The Company has a deferred tax asset relating to federal AMT credits of \$51,241 and \$102,482, as of December 31, 2019 and 2018, respectively, a decrease of \$51,241 from the prior year that resulted from the anticipated and actual refund of the AMT credits. During 2018, the valuation allowance relating to federal AMT credits decreased by \$12,413 as the Internal Revenue Service (IRS) announced that refunds of AMT credits are no longer subject to government sequestration.

A valuation allowance on foreign tax credits of \$43,194 has also been recorded at December 31, 2019 and 2018. The foreign tax credits expire at various times between 2021 and 2023. A valuation allowance on charitable contribution carry-forwards of \$658 and \$3,297 has been recorded as of December 31, 2019 and 2018, respectively. The Company's valuation allowance for charitable contributions decreased by \$2,639 in 2019 due to expiration of the carry forward period. The remaining charitable contribution carry-forwards expire at various times between 2020 and 2024.

CNX continues to report, on an after federal tax basis, a deferred tax asset related to state operating losses of \$130,430 with a related valuation allowance of \$81,202 at December 31, 2019. The deferred tax asset related to state operating losses, on an after-tax adjusted basis, was \$110,339 with a related valuation allowance of \$47,964 at December 31, 2018. A review of positive and negative evidence regarding these state tax benefits concluded that the valuation allowances for various CNX subsidiaries was warranted. These NOLs expire at various times between 2020 and 2039.

Management will continue to assess the potential for realized deferred tax assets based upon income forecast data and the feasibility of future tax planning strategies and may record adjustments to valuation allowances against deferred tax assets in future periods, as appropriate, that could materially impact net income.

The following is a reconciliation, stated as a percentage of pretax income, of the United States statutory federal income tax rate to CNX's effective tax rate:

	For the Years Ended December 31,					
	2019		2018		2017	
	Amount	Percent	Amount	Percent	Amount	Percent
Statutory U.S. Federal Income Tax Rate	\$ 12,534	21.0 %	\$ 230,721	21.0 %	\$ 41,503	35.0 %
Net Effect of State Income Taxes	1,333	2.2	60,814	5.6	15,538	13.1
Non-Controlling Interest	(23,662)	(39.6)	(18,181)	(1.7)	—	—
Uncertain Tax Positions	—	—	(4,265)	(0.4)	27,359	23.1
Effect of Spin on Federal NOL's	—	—	—	—	24,942	21.0
Accrual to Tax Return Reconciliation	603	1.0	3,028	0.3	(1,147)	(1.0)
Effect of Equity Compensation	8,771	14.7	—	—	—	—
Effect of Change in State Valuation Allowance	33,238	55.6	(22,684)	(2.1)	(430)	(0.4)
Effect of Change in Federal Valuation Allowance	(2,640)	(4.4)	(18,110)	(1.7)	(145,772)	(122.9)
Other Deferred Adjustments	(1,691)	(2.8)	5,957	0.6	7,616	6.4
Effect of Federal and State Rate Reductions	(3,842)	(6.4)	(27,429)	(2.5)	(131,784)	(111.1)
Effect of Federal Tax Credits	2,881	4.8	1,208	0.1	(19,081)	(16.1)
Other	211	0.4	4,498	0.4	4,798	4.0
Income Tax Expense (Benefit) / Effective Rate	\$ 27,736	46.5 %	\$ 215,557	19.6 %	\$ (176,458)	(148.9)%

The effective tax rate for the year ended December 31, 2019 was higher than the U.S. federal statutory rate primarily due to state taxes, equity compensation, and the increase in certain state valuation allowances as a result of a higher than projected net operating loss generated in 2018 partially offset by the benefit from non-controlling interest.

As a result of the Midstream Acquisition on January 3, 2018 as discussed in Note 6 - Acquisitions and Dispositions, the Company obtained a controlling interest in CNX Gathering LLC and, through CNX Gathering's ownership of the general partner, control over CNXM. The financial results for 2019 and 2018 reflect full consolidation of CNXM's assets and liabilities. The effective tax rates for the years ended December 31, 2019 and 2018 reflect a \$23,662 and \$18,181 reduction in income tax expense, respectively, due to the non-controlling interest in CNXM's earnings.

The effective tax rate for the year ended December 31, 2018 was lower than the U.S. federal statutory rate primarily due to the effect of the filing of a Federal NOL carryback for 2017 and 2016 resulting in a financial statement benefit of \$23,483 through the realization of the Federal NOLs at a 35% tax rate as a carryback versus the current 21% tax rate as a carryforward, the reversal of the AMT credit sequestration valuation allowance, and the release of certain state valuation allowances as a result of a corporate reorganization during the year. The federal NOL carryback claims for 2016 and 2017 are under review by the IRS and the Joint Committee on Taxation.

The Act, which, among other things, lowered the U.S. Federal corporate income tax rate from 35% to 21%, repealed the corporate AMT for tax years beginning January 1, 2018, and provided for a refund of previously accrued AMT credits. As discussed above, CNX has credits that are to be refunded between 2019 and 2021 because of the Act and monetization opportunities under current law in 2018. The Company recorded a net tax benefit to reflect the impact of the Act as of December 31, 2017, as it is required to reflect the change in the period in which the law is enacted. Largely, the benefits recorded in the period ending December 31, 2017 related to the Act are in recognition of the revaluation of deferred tax assets and liabilities, a benefit of \$115,291. The Company's effective tax rate for 2018 and 2017 reflects the release of previously recorded valuation allowances against AMT credit carry-forwards of \$12,413 and \$154,385, respectively, as those credits will now be able to be monetized under the Act and, according to an IRS announcement, are no longer subject to government sequestration.

The Act is also a comprehensive tax reform bill containing a number of other provisions that either currently or in the future could impact CNX. The effect of certain limitations effective for the tax year 2018 and forward, specifically related to the deductibility of executive compensation, have been evaluated. The Company anticipates U.S. regulatory agencies will issue further regulations which may alter these estimates. The IRS issued rules pertaining to the application of limitations for executive compensation related to contracts existing prior to November 2, 2017, and provisions in the Act addressing the deductibility of interest expense after January 1, 2018. The Company will continue to refine its estimates to incorporate new or better information as it comes available.

Under the provisions of Staff Accounting Bulletin 118 (SAB 118), as of December 31, 2017, we had not completed our accounting for all of the enactment-date income tax effects of the Act under ASC 740, Income Taxes, for the remeasurement of

deferred tax assets and liabilities. As of December 31, 2018, CNX completed its accounting for all of the enactment-date income tax effects of the Act.

A reconciliation of the beginning and ending gross amounts of unrecognized tax benefits is as follows:

	For the Years Ended	
	December 31,	
	2019	2018
Balance at Beginning of Period	\$ 31,516	\$ 37,813
Increase in Unrecognized Tax Benefits Resulting from Tax Positions Taken During Prior Periods	—	2,140
Reduction in Unrecognized Tax Benefits Because of the Lapse of the Applicable Statute of Limitations	—	(8,437)
Balance at End of Period	\$ 31,516	\$ 31,516

If these unrecognized tax benefits were recognized, \$31,516 would affect CNX's effective income tax rate for 2019 and 2018.

In 2018, CNX recognized an increase in unrecognized tax benefits of \$2,140 for tax benefits resulting from a revision to our tax position taken on our 2017 federal tax return for the marginal well credit. CNX recognized a reduction to unrecognized tax benefits of \$8,437 from a position taken on a state tax return.

CNX recognizes accrued interest related to unrecognized tax benefits in its interest expense. As of December 31, 2019 and 2018, the Company reported no accrued liability relating to uncertain tax positions in Other Liabilities in the Consolidated Balance Sheets. The accrued interest liability includes interest income of \$644 and interest expense of \$337 recorded in the Company's Consolidated Statements of Income for the year ended December 31, 2018. During the years ended December 31, 2019 and 2018, CNX paid no interest related to income tax deficiencies.

CNX recognizes penalties accrued related to uncertain tax positions in its income tax expense. CNX had no accrued liabilities for tax penalties as of December 31, 2019 and 2018.

CNX and its subsidiaries file federal income tax returns with the United States and income tax returns within various states. With few exceptions, the Company is no longer subject to United States federal, state, local or non-U.S. income tax examinations by tax authorities for the years before 2016. The Joint Committee on Taxation is in the process of reviewing the NOL carryback returns for tax years 2016 and 2017. The review is expected to be completed in 2020. The Joint Committee on Taxation concluded its review of the audit of tax year 2015 on March 21, 2018. The audit resulted in a \$108,651 reduction to CNX's NOL, primarily due to a reduction in the depreciation as an offset to the bonus depreciation taken in the 2010-2013 IRS audit. There was no current cash tax impact from the audit.

NOTE 9—ASSET RETIREMENT OBLIGATIONS:

The reconciliation of changes in asset retirement obligations is as follows:

	As of December 31,	
	2019	2018
Balance, Beginning of Year	\$ 38,554	\$ 204,070
Obligations Divested (Note 6)	—	(196,643)
Accretion Expense	9,458	9,874
Obligations Incurred	2,933	4,795
Obligations Settled	(4,231)	(5,323)
Revisions in Estimated Cash Flows	21,740	21,781
Balance, End of Year	\$ 68,454	\$ 38,554

NOTE 10—PROPERTY, PLANT AND EQUIPMENT:

	December 31,	
	2019	2018
Property, Plant and Equipment		
Intangible Drilling Cost	\$ 4,688,497	\$ 4,120,283
Gas Gathering Equipment	2,463,866	2,126,895
Proved Gas Properties	1,208,046	1,135,411
Gas Wells and Related Equipment	1,042,000	859,359
Unproved Gas Properties	755,590	927,667
Surface Land and Other Equipment	226,285	238,487
Other	187,722	159,326
Total Property, Plant and Equipment	<u>10,572,006</u>	<u>9,567,428</u>
Less: Accumulated Depreciation, Depletion and Amortization	<u>3,435,431</u>	<u>2,624,984</u>
Total Property, Plant and Equipment - Net	<u>\$ 7,136,575</u>	<u>\$ 6,942,444</u>

During the years ended December 31, 2019 and 2018, the Company capitalized \$5,482 and \$1,075, respectively, of interest on Gas Gathering Equipment under construction.

Amounts below reflect properties where drilling operations have not yet commenced and therefore, were not being amortized for the years ended December 31, 2019 and 2018, respectively. These assets will be amortized using the units-of-production method and reclassified to proved gas properties when placed in service.

	December 31,	
	2019	2018
Unproved Gas Properties	\$ 755,590	\$ 927,667
Advance Royalties	12,770	12,863
Total	<u>\$ 768,360</u>	<u>\$ 940,530</u>

As of December 31, 2019 and 2018, Property, Plant and Equipment includes a gross asset related to finance leases of \$72,916 and \$73,144, respectively. Included in Gas Gathering Equipment is a finance lease for the Jewell Ridge Pipeline of \$66,919 at December 31, 2019 and 2018. CNX also maintains finance leases for vehicles of \$5,997 and \$6,225 at December 31, 2019 and 2018, respectively, which is included in Other. Accumulated amortization for finance leases was \$63,008 and \$59,517 at December 31, 2019 and 2018, respectively. Amortization expense for finance leases is included in Depreciation, Depletion and Amortization in the Consolidated Statements of Income. See Note 15 - Leases for further discussion of finance leases.

NOTE 11—GOODWILL AND OTHER INTANGIBLE ASSETS:

In connection with the Midstream Acquisition that closed on January 3, 2018 (See Note 6 - Acquisitions and Dispositions for more information), CNX recorded \$796,359 of goodwill and \$128,781 of other intangible assets which are comprised of customer relationships.

All goodwill is attributed to the Midstream reportable segment.

The carrying amount and accumulated amortization of other intangible assets consist of the following:

	December 31,	
	2019	2018
Other Intangible Assets		
Gross Amortizable Asset - Customer Relationships	\$ 109,752	\$ 109,752
Less: Accumulated Amortization - Customer Relationships	13,105	6,552
Total Other Intangible Assets, net	<u>\$ 96,647</u>	<u>\$ 103,200</u>

During the year ended December 31, 2018, CNX determined that the carrying value of a portion of the customer relationship intangible assets exceeded their fair value as a result of the AEA with HG Energy. Accordingly, CNX recognized an impairment on this intangible asset of \$18,650. There were no such impairments in the current period.

The customer relationship intangible asset is being amortized on a straight-line basis over approximately 17 years. Amortization expense related to other intangible assets was \$6,553 and \$6,931 for the years ended December 31, 2019 and 2018, respectively. There was no such expense for the year ended December 31, 2017. The estimated annual amortization expense is expected to approximate \$6,552 per year for each of the next five years.

NOTE 12—REVOLVING CREDIT FACILITIES:

CNX Resources Corporation (CNX)

In April 2019, CNX amended its senior secured revolving credit facility ("Credit Facility") and extended its maturity to April 2024. The lenders' commitments remained unchanged at \$2,100,000, with an accordion feature that allows the Company to increase the commitments to \$3,000,000. The borrowing base was reaffirmed at \$2,100,000, including a \$650,000 letters of credit aggregate sub-limit. In addition, the Cumulative Credit Basket for dividends and distributions was replaced with a basket for dividends and distributions subject to a pro forma net leverage ratio of at least 3.00 to 1.00 and availability under the credit facility of at least 15% of the aggregate commitments. If the aggregate principal amount of the existing 5.875% Senior Notes due in April 2022 and certain other publicly traded debt securities outstanding 91 days prior to the earliest maturity of such debt (the "Springing Maturity Date") is greater than \$500,000, then the Credit Facility will mature on the Springing Maturity Date. In October 2019, as part of the semi-annual borrowing base redetermination, the lenders increased CNX's borrowing base to \$2,300,000, including maintaining a \$650,000 letters of credit sub-limit.

Under the terms of the amended agreement, borrowings under the revolving credit facility will bear interest at CNX's option at either:

- the base rate, which is the highest of (i) the federal funds open rate plus 0.50%, (ii) PNC Bank, N.A.'s prime rate, or (iii) the one-month LIBOR rate plus 1.0%, in each case, plus a margin ranging from 0.25% to 1.25%; or
- the LIBOR rate, which is the LIBOR rate plus a margin ranging from 1.25% to 2.25%.

The CNX Credit Facility is secured by substantially all of the assets of CNX and certain of its subsidiaries (excluding the Excluded Subsidiaries, which includes CNX Midstream GP LLC and CNXM and their respective subsidiaries). Fees and interest rate spreads are based on the percentage of facility utilization, measured quarterly. Availability under the Credit Facility is limited to a borrowing base, which is determined by the lenders' syndication agent and approved by the required number of lenders in good faith by calculating a value of CNX's proved natural gas reserves.

The CNX Credit Facility contains a number of affirmative and negative covenants including those that, except in certain circumstances, limit the Company and the subsidiary guarantors' ability to create, incur, assume or suffer to exist indebtedness, create or permit to exist liens on properties, dispose of assets, make investments, purchase or redeem CNX common stock, pay dividends, merge with another corporation and amend the senior unsecured notes. The Company must also mortgage 80% of the value of its proved reserves and 80% of the value of its proved developed producing reserves, in each case, which are included in the borrowing base, maintain applicable deposit, securities and commodities accounts with the lenders or affiliates thereof, and enter into control agreements with respect to such applicable accounts.

The CNX Credit Facility contains customary events of default, including, but not limited to, a cross-default to certain other debt, breaches of representations and warranties, change of control events and breaches of covenants.

The CNX Credit Facility also requires that CNX maintain a maximum net leverage ratio of no greater than 4.00 to 1.00, which is calculated as the ratio of debt less cash on hand to consolidated EBITDA, measured quarterly. CNX must also maintain a minimum current ratio of no less than 1.00 to 1.00, which is calculated as the ratio of current assets, plus revolver availability, to current liabilities, excluding borrowings under the revolver, measured quarterly. The calculation of all of the ratios exclude CNXM. CNX was in compliance with all financial covenants as of December 31, 2019.

At December 31, 2019, the CNX Credit Facility had \$661,000 of borrowings outstanding and \$204,726 of letters of credit outstanding, leaving \$1,234,274 of unused capacity. At December 31, 2018, the CNX Credit Facility had \$612,000 borrowings outstanding and \$198,396 letters of credit outstanding, leaving \$1,289,604 of unused capacity.

CNX Midstream Partners LP (CNXM)

In April 2019, CNXM amended its senior secured revolving credit facility and extended its maturity to April 2024. The lenders' commitments remained unchanged at \$600,000, with an accordion feature that allows CNXM to increase the available borrowings by up to an additional \$250,000 under certain terms and conditions. Among other things, the revolving credit facility now includes (i) the addition of a restricted payment basket permitting cash repurchases of Incentive Distribution Rights (IDRs)

subject to a pro forma secured leverage ratio of 3.00 to 1.00, a pro forma total leverage ratio of 4.00 to 1.00 and pro forma availability of 20% of commitments and (ii) a restricted payment basket for the repurchase of LP units not to exceed Available Cash (as defined in the partnership agreement) in any quarter, of up to \$150,000 per year and up to \$200,000 during the life of the facility.

Under the terms of the amended agreement, borrowings under the revolving credit facility will bear interest at CNXM's option at either:

- the base rate, which is the highest of (i) the federal funds open rate plus 0.50%, (ii) PNC Bank, N.A.'s prime rate, or (iii) the one-month LIBOR rate plus 1.0%, in each case, plus a margin ranging from 0.50% to 1.50%; or
- the LIBOR rate, plus a margin ranging from 1.50% to 2.50%.

Fees and interest rate spreads under the CNXM credit facility are based on the total leverage ratio, measured quarterly. The CNXM credit facility includes the ability to issue letters of credit up to \$100,000 in the aggregate.

The CNXM revolving credit facility contains a number of affirmative and negative covenants that include, among others, covenants that, except in certain circumstances, restrict the ability of CNXM, its subsidiary guarantors and certain of its non-guarantor, non-wholly-owned subsidiaries, except in certain circumstances, to: (i) create, incur, assume or suffer to exist indebtedness; (ii) create or permit to exist liens on their properties; (iii) prepay certain indebtedness unless there is no default or event of default under the revolving facility; (iv) make or pay any dividends or distributions in excess of certain amounts; (v) merge with or into another person, liquidate or dissolve; or acquire all or substantially all of the assets of any going concern or going line of business or acquire all or a substantial portion of another person's assets; (vi) make particular investments and loans; (vii) sell, transfer, convey, assign or dispose of its assets or properties other than in the ordinary course of business and other select instances; (viii) deal with any affiliate except in the ordinary course of business on terms no less favorable to CNXM than it would otherwise receive in an arm's length transaction; and (ix) amend in any material manner its certificate of incorporation, bylaws, or other organizational documents without giving prior notice to the lenders and, in some cases, obtaining the consent of the lenders.

In addition, CNXM is obligated to maintain at the end of each fiscal quarter (w) for so long as at least \$150,000 of the CNXM senior notes are outstanding, a maximum total leverage ratio of no greater than 5.25 to 1.00 (which increases to no greater than 5.50 to 1.00 during qualifying acquisition periods); (x) if less than \$150,000 of the CNXM senior notes are outstanding, a maximum total leverage ratio of no greater than 4.75 to 1.00 (which increases to no greater than 5.25 to 1.00 during qualifying acquisition periods); (y) a maximum secured leverage ratio of no greater than 3.50 to 1.00 and (z) a minimum interest coverage ratio of no less than 2.50 to 1.00. CNXM was in compliance with all financial covenants as of December 31, 2019.

The CNXM revolving credit facility also contains customary events of default, including, but not limited to, a cross-default to certain other debt, breaches of representations and warranties, change of control events and breaches of covenants. The obligations under the revolving credit facility are secured by substantially all of the assets of CNXM and its wholly-owned subsidiaries. CNX is not a guarantor under the revolving credit facility.

At December 31, 2019, the CNXM credit facility had \$311,750 of borrowings outstanding. CNXM had the maximum amount of revolving credit available for borrowing at December 31, 2019, or \$288,250. At December 31, 2018, the CNXM credit facility had \$84,000 of borrowings outstanding.

NOTE 13—OTHER ACCRUED LIABILITIES:

	December 31,	
	2019	2018
Royalties	\$ 74,061	\$ 92,005
Accrued Interest	30,862	26,333
Short-Term Incentive Compensation	21,030	20,482
Transportation Charges	16,533	19,661
Deferred Revenue	13,964	17,693
Accrued Other Taxes	9,115	7,300
Accrued Payroll & Benefits	6,248	6,533
Other	38,105	31,851
Current Portion of Long-Term Liabilities:		
Asset Retirement Obligations	5,076	1,075
Salary Retirement	1,587	1,578
Total Other Accrued Liabilities	<u>\$ 216,581</u>	<u>\$ 224,511</u>

NOTE 14—LONG-TERM DEBT:

	December 31,	
	2019	2018
Senior Notes due April 2022 at 5.875% (Principal of \$894,307 and \$1,294,307 plus Unamortized Premium of \$1,001 and \$2,069, respectively)	\$ 895,308	\$ 1,296,376
CNX Credit Facility	661,000	612,000
Senior Notes due March 2027 at 7.25%, Issued at Par Value	500,000	—
CNX Midstream Partners LP Senior Notes due March 2026 at 6.50% (Principal of \$400,000 less Unamortized Discount of \$4,625 and \$5,375, respectively)*	395,375	394,625
CNX Midstream Partners LP Revolving Credit Facility*	311,750	84,000
Less: Unamortized Debt Issuance Costs	8,990	8,796
Long-Term Debt	<u>\$ 2,754,443</u>	<u>\$ 2,378,205</u>

*CNX is not a guarantor of CNXM's 6.50% senior notes due in March 2026 or CNXM's senior secured revolving credit facility.

At December 31, 2019, annual undiscounted maturities of CNX and CNXM long-term debt during the next five years and thereafter are as follows:

<u>Year ended December 31,</u>	<u>Amount</u>
2020	\$ —
2021	—
2022	894,307
2023	—
2024	972,750
Thereafter	900,000
Total Long-Term Debt Maturities	<u>\$ 2,767,057</u>

During the year ended December 31, 2019, CNX completed a private offering of \$500,000 of 7.25% senior notes due in March 2027. The notes are guaranteed by most of CNX's subsidiaries but do not include CNXM's general partner or CNXM.

During the year ended December 31, 2019, CNX purchased \$400,000 of its outstanding 5.875% senior notes due in April 2022. As part of this transaction, a loss of \$7,614 was included in Loss on Debt Extinguishment in the Consolidated Statements of Income.

During the year ended December 31, 2018, CNXM completed a private offering of \$400,000 of 6.50% senior notes due in March 2026 less \$6,000 of unamortized bond discount. CNX is not a guarantor of CNXM's 6.50% senior notes due in March 2026 or CNXM's senior secured revolving credit facility.

During the year ended December 31, 2018, CNX purchased \$411,375 of its outstanding 5.875% senior notes due in April 2022. As part of this transaction, a loss of \$15,320 was included in Loss on Debt Extinguishment in the Consolidated Statements of Income.

During the year ended December 31, 2018, CNX called the \$500,000 balance on its 8.00% senior notes due in April 2023. As part of this transaction, a loss of \$38,798 was included in Loss on Debt Extinguishment in the Consolidated Statements of Income.

During the year ended December 31, 2017, CNX purchased \$144,318 of its outstanding 5.875% senior notes due in April 2022. As part of this transaction, a loss of \$110 was included in Loss on Debt Extinguishment in the Consolidated Statements of Income.

During the year ended December 31, 2017, CNX called the remaining \$74,470 balance on its 8.25% senior notes due in April 2020 and the remaining \$20,611 balance on its 6.375% senior notes due in March 2021. As part of these transactions, a loss of \$2,019 was included in Loss on Debt Extinguishment in the Consolidated Statements of Income.

NOTE 15—LEASES:

On January 1, 2019, the Company adopted ASU 2016-02, and all related amendments, using the transition method, which allows for a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. CNX elected the transition relief package of practical expedients by applying previous accounting conclusions under ASC 840 to all leases that existed prior to the transition date. As a result, CNX did not reassess 1) whether existing or expired contracts contain leases, 2) lease classification for any existing or expired leases or 3) whether lease origination costs qualified as initial direct costs. Additionally, the Company elected the short-term practical expedient for all asset classes by establishing an accounting policy to exclude leases with a term of 12 months or less. CNX will not separate lease components from non-lease components for any asset class. Lastly, CNX adopted the easement practical expedient, which allows the Company to apply ASC 842 prospectively to land easements after the adoption date. Easements that existed or expired prior to the adoption date that were not previously assessed under ASC 840 will not be reassessed.

CNX's leasing activities primarily consist of operating and finance leases for electric fracturing equipment, natural gas drilling rigs, CNX's corporate headquarters as well as field offices, a natural gas gathering pipeline and commercial vehicles. Some leases include options to renew ranging from a period of 1 to 10 years, which are not recognized as part of the lease right-of-use (ROU) assets or liabilities as they are not reasonably certain to be exercised.

Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of the lease payments over the lease term. As most of CNX's leases do not provide an implicit rate, an incremental borrowing rate is used to determine the present value of lease payments.

The components of lease cost were as follows:

	For the Year Ended December 31, 2019
Operating Lease Cost	\$ 73,809
Finance Lease Cost:	
Amortization of Right-of-Use Assets	5,242
Interest on Lease Liabilities	1,241
Short-term Lease Cost	5,547
Variable Lease Cost*	17,337
Total Lease Cost	<u>\$ 103,176</u>

*Amount recognized in the Consolidated Balance Sheet for natural gas drilling rigs are measured using the rates that would be paid if the rigs were idle, as this represents the minimum payment that could be made under the contract. Variable lease cost represents amounts paid for natural gas drilling rigs above this minimum when the rigs are in use. Amount recognized in the Consolidated Balance Sheet for electric fracturing equipment are measured using minimum pumping hours under the contract; however, pumping hours may exceed the minimum and vary period to period. Any such amounts paid related to pumping hours in excess of the minimum represent variable lease cost.

Rental expense under operating leases prior to the adoption of ASC 842 was \$21,441 and \$16,797 for the years ended December 31, 2018 and 2017, respectively.

Amounts recognized in the Consolidated Balance Sheet are as follows:

	<u>December 31, 2019</u>
Operating Leases:	
Operating Lease Right-of-Use Asset	\$ 187,097
Current Portion of Operating Lease Obligations	\$ 61,670
Operating Lease Obligations	110,466
Total Operating Lease Liabilities	<u>\$ 172,136</u>
Finance Leases:	
Property, Plant and Equipment	\$ 72,916
Less—Accumulated Depreciation, Depletion and Amortization	63,008
Property, Plant and Equipment—Net	<u>\$ 9,908</u>
Current Portion of Finance Lease Obligations	\$ 7,164
Finance Lease Obligations	7,706
Total Finance Lease Liabilities	<u>\$ 14,870</u>

Supplemental cash flow information related to leases was as follows:

	<u>For the Year Ended December 31, 2019</u>	
Cash Paid for Amounts Included in the Measurement of Lease Liabilities:		
Operating Cash Flows from Operating Leases	\$	66,827
Operating Cash Flows from Finance Leases	\$	1,241
Financing Cash Flows from Finance Leases	\$	7,149
Right-of-Use Assets Obtained in Exchange for Lease Obligations:		
Operating Leases	\$	15,347
Finance Leases	\$	1,846

Maturities of lease liabilities are as follows:

<u>Year Ended December 31,</u>	<u>Operating Leases</u>	<u>Finance Leases</u>
2020	\$ 68,663	\$ 7,968
2021	59,410	7,142
2022	23,789	436
2023	5,453	433
2024	5,433	127
Thereafter	30,822	—
Total Lease Payments	<u>193,570</u>	<u>16,106</u>
Less: Interest	21,434	1,236
Present Value of Lease Liabilities	<u>\$ 172,136</u>	<u>\$ 14,870</u>

Lease terms and discount rates are as follows:

	<u>December 31, 2019</u>
Weighted Average Remaining Lease Term (years):	
Operating Leases	4.39
Finance Leases	2.16
Weighted Average Discount Rate:	
Operating Leases	4.96%
Finance Leases	6.92%

NOTE 16—PENSION:

The benefits for the Defined Contribution Restoration Plan were frozen effective July 1, 2018. Employees hired after this date are not eligible for this benefit plan. In addition, current participants receive no further compensation credits after that date, with the last award being 2017. Annual interest credits will continue to be made in accordance with the terms of the plan. The freezing of the plan triggered a curtailment gain of \$416 during the year ended December 31, 2018.

The current portion of the pension obligation is included in Other Accrued Liabilities and the noncurrent portion is included in Other liabilities in the Consolidated Balances Sheets. The reconciliation of changes in the benefit obligation, plan assets and funded status of the pension benefits is as follows:

	<u>December 31,</u>	
	<u>2019</u>	<u>2018</u>
Change in Benefit Obligation:		
Benefit Obligation at Beginning of Period	\$ 33,569	\$ 36,280
Service Cost	209	302
Interest Cost	1,338	1,265
Actuarial Loss (Gain)	4,865	(2,645)
Plan Amendments	1,728	—
Plan Curtailments	—	(126)
Benefits and Other Payments	(1,513)	(1,507)
Benefit Obligation at End of Period	<u>\$ 40,196</u>	<u>\$ 33,569</u>
Change in Plan Assets:		
Fair Value of Plan Assets at Beginning of Period	\$ —	\$ —
Company Contributions	1,513	1,507
Benefits and Other Payments	(1,513)	(1,507)
Fair Value of Plan Assets at End of Period	<u>\$ —</u>	<u>\$ —</u>
Funded Status:		
Current Liabilities	\$ (1,587)	\$ (1,578)
Noncurrent Liabilities	(38,609)	(31,991)
Net Obligation Recognized	<u>\$ (40,196)</u>	<u>\$ (33,569)</u>
Amounts Recognized in Accumulated Other Comprehensive Loss Consist of:		
Net Actuarial Loss	\$ 15,361	\$ 10,738
Prior Service Cost (Credit)	1,727	(17)
Total	17,088	10,721
Less: Tax Benefit	4,483	2,817
Net Amount Recognized	<u>\$ 12,605</u>	<u>\$ 7,904</u>

The components of the net periodic benefit cost are as follows:

	For the Years Ended December 31,		
	2019	2018	2017
Components of Net Periodic Benefit Cost:			
Service Cost	\$ 209	\$ 302	\$ 375
Interest Cost	1,338	1,265	1,201
Amortization of Prior Service Credits	(17)	(193)	(362)
Recognized Net Actuarial Loss	242	865	1,525
Curtailment Gain	—	(416)	—
Net Periodic Benefit Cost	<u>\$ 1,772</u>	<u>\$ 1,823</u>	<u>\$ 2,739</u>

Amounts included in accumulated other comprehensive loss which are expected to be recognized in 2020 net periodic benefit cost:

	Pension Benefits
Prior Service Cost Recognition	\$ (221)
Actuarial Loss Recognition	\$ (383)

CNX utilizes a corridor approach to amortize actuarial gains and losses that have been accumulated under the pension plan. Cumulative gains and losses that are in excess of 10% of the greater of either the projected benefit obligation (PBO) or the market-related value of plan assets are amortized over the expected remaining future lifetime of all plan participants for the pension plan.

The following table provides information related to the pension plan with an accumulated benefit obligation in excess of plan assets:

	As of December 31,	
	2019	2018
Projected Benefit Obligation	\$ 40,196	\$ 33,569
Accumulated Benefit Obligation	\$ 40,196	\$ 33,169
Fair Value of Plan Assets	\$ —	\$ —

Assumptions:

The weighted-average assumptions used to determine benefit obligations are as follows:

	As of December 31,	
	2019	2018
Discount Rate	3.36%	4.37%
Rate of Compensation Increase	—%	3.63%

The discount rates are determined using a Company-specific yield curve model (above-mean) developed with the assistance of an external actuary. The Company-specific yield curve models (above-mean) use a subset of the expanded bond universe to determine the Company-specific discount rate. Bonds used in the yield curve are rated AA by Moody's or Standard & Poor's as of the measurement date. The yield curve models parallel the plans' projected cash flows, and the underlying cash flows of the bonds included in the models exceed the cash flows needed to satisfy the Company plans.

The weighted-average assumptions used to determine net periodic benefit cost are as follows:

	For the Years ended December 31,		
	2019	2018	2017
Discount Rate	4.37%	4.28%	4.26%
Rate of Compensation Increase	3.63%	4.05%	3.90%

Cash Flows:

CNX expects to pay benefits of \$1,588 from the non-qualified pension plan in 2020.

The following benefit payments, which reflect expected future service, are expected to be paid:

<u>Year ended December 31,</u>	<u>Pension</u>
	<u>Benefits</u>
2020	\$ 1,588
2021	\$ 1,670
2022	\$ 1,760
2023	\$ 1,866
2024	\$ 2,063
Year 2025-2029	\$ 11,207

NOTE 17—STOCK-BASED COMPENSATION:

CNX's Equity Incentive Plan provides for grants of stock-based awards to key employees and to non-employee directors. Amendments to the Equity Incentive Plan have been adopted and approved by the Board of Directors and the Company's Shareholders since the commencement of the Equity Incentive Plan. Most recently, in May 2016, the Company's Shareholders adopted and approved a 10,550,000 increase to the total number of shares available for issuance, which brought the total number of shares of common stock that can be covered by grants in accordance with the terms of the Equity Incentive Plan, after adjustment for the separation of the coal business from the gas business on November 28, 2017, to 48,915,944. At December 31, 2019, 5,560,610 shares of common stock remained available for grant under the plan. The Equity Incentive Plan provides that the aggregate number of shares available for issuance will be reduced by one share for each share relating to stock options and by 1.62 for each share relating to Performance Share Units (PSUs) or Restricted Stock Units (RSUs). No award of stock options may be exercised under the Equity Incentive Plan after the tenth anniversary of the grant date of the award.

For those shares expected to vest, CNX recognizes stock-based compensation costs on a straight-line basis over the requisite service period of the award, which is generally the vesting term. Options and RSUs vest over a three-year term. PSUs vest over a five-year term at 20% per year subject to performance conditions. If an employee leaves the Company, all unvested shares are forfeited. CNX recognizes forfeitures as they occur. The vesting of all awards will accelerate in the event of death and disability and may accelerate upon a change in control of CNX.

Pursuant to the terms of the change in control severance agreements of certain employees and CNX officers, outstanding equity awards held by such employees vest upon a stockholder (or stockholder group) becoming the beneficial owner of more than 25% of the Company's outstanding common stock. During the year ended December 31, 2019, Southeastern Asset Management, Inc. and its affiliates ("SEAM") acquired shares of CNX's common stock in the open market which resulted in SEAM's aggregate share ownership exceeding more than 25% of CNX's common stock outstanding. This transaction, as such, constituted a change in control event under the severance agreements, resulting in the accelerated vesting of 473,126 restricted stock units and 903,100 performance share units held by the aforementioned employees that were issued prior to 2019. Those affected employees and officers each consented to waive the change in control vesting provision included in the change in control severance agreements with respect to their restricted stock unit and performance share unit awards that were issued during 2019. The accelerated vesting resulted in \$19,654 of additional long-term equity-based compensation expense for the year ended December 31, 2019, and is included in Selling, General and Administrative Costs in the Consolidated Statements of Income. The performance share unit awards that vested continue to be subject to the attainment of performance goals as determined by the Compensation Committee of CNX's Board of Directors after the end of the applicable performance period.

The total stock-based compensation expense recognized relating to CNX shares during the years ended December 31, 2019, 2018 and 2017 was \$36,545, \$18,930 and \$16,983, respectively.

As of December 31, 2019, CNX has \$7,346 of unrecognized compensation cost related to all non-vested stock-based compensation awards, which is expected to be recognized over a weighted-average period of 2.24 years. When stock options are exercised, and restricted and performance stock unit awards become vested, the issuances are made from CNX's common stock shares.

Pursuant to the terms of the CNX Equity Plan and the outstanding awards, in the event of certain changes in the outstanding common stock of CNX or its capital structure, including by reason of a spin-off, the administrator of the CNX Equity Plan is required to appropriately adjust the number, exercise price, kind of shares, performance goals or other terms and conditions of Awards granted thereunder. In connection with the Separation, the Board of Directors of CNX has determined that it is appropriate that the outstanding awards be equitably adjusted pursuant to the terms of the CNX Equity Plan and/or converted into awards issued under the CONSOL Energy Inc. (CEIX) Equity Incentive Plan, such that the intrinsic value of the outstanding awards immediately following the separation remains the same as the intrinsic value of such awards immediately prior to the Separation. The separation resulted in a modification of the equity plans but did not have a material impact on the financial statements as of the date of Separation (See Note 5 - Discontinued Operations for more information).

Stock Options:

CNX examined its historical pattern of option exercises in an effort to determine if there were any discernible activity patterns based on certain employee populations. From this analysis, CNX identified two distinct employee populations and used the Black-Scholes option pricing model to value the options for each of the employee populations. The expected term computation presented in the table below is based upon a weighted average of the historical exercise patterns and post-vesting termination behavior of the two populations. The risk-free interest rate was determined for each vesting tranche of an award based upon the calculated yield on U.S. Treasury obligations for the expected term of the award. A combination of historical and implied volatility is used to determine expected volatility and future stock price trends. The total fair value of options granted during the years ended December 31, 2019, 2018 and 2017 was \$50, \$143, and \$353 respectively, based on the following assumptions and weighted average fair values:

	December 31,		
	2019	2018	2017
Weighted Average Fair Value of Grants	\$ 3.48	\$ 6.50	\$ 6.19
Risk-free Interest Rate	2.13%	2.66%	1.66%
Expected Dividend Yield	—%	—%	—%
Expected Forfeiture Rate	—%	—%	—%
Expected Volatility	43.60%	52.68%	50.85%
Expected Term in Years	6.50	3.71	3.71

A summary of the status of stock options granted is presented below:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
				\$
Outstanding at December 31, 2018	5,442,920	\$ 18.74		
Granted	14,368	\$ 7.54		
Exercised	(79,468)	\$ 6.87		
Forfeited	(4,208)	\$ 6.87		
Expired	(677,348)	\$ 24.29		
Outstanding at December 31, 2019	4,696,264	\$ 18.05	4.49	\$ 5,280
Exercisable at December 31, 2019	4,681,896	\$ 18.04	4.47	\$ 5,261

At December 31, 2019, there are 4,224,415 employee stock options outstanding under the Equity Incentive Plan. Non-employee director stock options vest one year after the grant date. There are 471,849 stock options outstanding under these grants.

The aggregate intrinsic value in the table above represents the total pretax intrinsic value (the difference between CNX's closing stock price on the last trading day of the year ended December 31, 2019 and the option's exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2019. This amount varies based on the fair market value of CNX's stock. The total intrinsic value of options exercised for the years ended December 31, 2019, 2018 and 2017 was \$175, \$2,077, and \$1,067, respectively.

Cash received from option exercises for the years ended December 31, 2019, 2018 and 2017 was \$546, \$1,714 and \$1,002, respectively. The tax impact from option exercises totaled \$46, \$569 and \$205 for the years ended December 31, 2019, 2018 and 2017, respectively.

Restricted Stock Units:

Under the Equity Incentive Plan, CNX grants certain employees and non-employee directors RSU awards, which entitle the holder to receive shares of common stock as the award vests. Non-employee director RSUs vest at the end of one year. Compensation expense is recognized over the vesting period of the units, described above. The total fair value of RSUs granted during the years ended December 31, 2019, 2018 and 2017 was \$10,844, \$13,768 and \$14,328, respectively. The total fair value of restricted stock units vested during the years ended December 31, 2019, 2018 and 2017 was \$10,391, \$6,437 and \$12,805, respectively. The following table represents the nonvested restricted stock units and their corresponding fair value (based upon the closing share price) at the date of grant:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2018	1,427,151	\$14.30
Granted	963,426	\$11.26
Vested	(1,052,235)	\$14.27
Forfeited	(305,142)	\$13.50
Nonvested at December 31, 2019	<u>1,033,200</u>	\$11.71

Performance Share Units:

Under the Equity Incentive Plan, CNX grants certain employees performance share unit awards, which entitle the holder to shares of common stock subject to the achievement of certain market and performance goals. Compensation expense is recognized over the performance measurement period of the units in accordance with the provisions of the Stock Compensation Topic of the FASB Accounting Standards Codification for awards with market and performance vesting conditions. The total fair value of performance share units granted during the years ended December 31, 2019, 2018 and 2017 was \$6,741, \$8,570 and \$9,789, respectively. The total fair value of performance share units vested during the years ended December 31, 2019, 2018 and 2017 was \$4,668, \$7,547 and \$17,646, respectively. The following table represents the nonvested performance share units and their corresponding fair value (based upon the Monte Carlo Methodology) on the date of grant:

	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2018	1,344,985	\$19.93
Granted	407,056	\$16.56
PSUs Issued as a Result of 200% Payout	156,918	\$22.63
Vested	(345,282)	\$22.21
Forfeited	(162,841)	\$17.83
Nonvested at December 31, 2019	<u>1,400,836</u>	\$18.91

Performance Options:

Under the Equity Incentive Plan in 2010, CNX granted certain employees performance options, which entitled the holder to shares of common stock subject to the achievement of certain performance goals. Compensation expense was recognized over the vesting period of the options. The Black-Scholes option valuation model was used to value each tranche separately. There have been no performance options granted since 2010. There were 927,268 performance options outstanding and exercisable at a weighted average exercise price of \$39.00 and a weighted average remaining contractual term of 0.46 years as of December 31, 2019.

NOTE 18—SUPPLEMENTAL CASH FLOW INFORMATION:

The following are non-cash transactions that impact the investing and financing activities of CNX. For non-cash transactions that relate to the separation, as well as acquisitions and dispositions, see Note 5 - Discontinued Operations and Note 6 - Acquisitions and Dispositions.

As of December 31, 2019, 2018 and 2017, CNX purchased goods and services related to capital projects in the amount of \$43,982, \$58,246 and \$35,437, respectively, which are included in accounts payable.

The following table shows cash paid (received):

	For the Years Ended December 31,		
	2019	2018	2017
Interest (Net of Amounts Capitalized)	\$ 143,111	\$ 144,756	\$ 152,047
Income Taxes	\$ (138,409)	\$ (11,505)	\$ (121,773)

NOTE 19—CONCENTRATION OF CREDIT RISK AND MAJOR CUSTOMERS:

CNX markets natural gas primarily to gas wholesalers in the United States. Concentration of credit risk is summarized below:

	December 31,	
	2019	2018
Gas Wholesalers	\$ 115,641	\$ 232,638
NGL, Condensate & Processing Facilities	10,140	12,595
Other	7,699	7,191
Total Accounts Receivable Trade	\$ 133,480	\$ 252,424

As of December 31, 2019, receivables of \$23,859 and \$15,401 due from Direct Energy Business Marketing LLC and NJR Energy Services Company, respectively, were included in the Gas Wholesalers balance above. As of December 31, 2018, receivables of \$30,872 and \$26,417 due from NJR Energy Services Company and Direct Energy Business Marketing LLC, respectively, were included. No other customers made up more than 10% of the total balances.

During the year ended December 31, 2019 sales to Direct Energy Business Marketing LLC were \$214,980 and sales to NJR Energy Services Company were \$147,540, each of which comprised over 10% of the Company's revenue from contracts with external customers for the period.

During the year ended December 31, 2018, sales to NJR Energy Services Company were \$219,472 and sales to Direct Energy Business Marketing LLC were \$184,668, each of which comprised over 10% of the Company's revenue from contracts with external customers for the period.

During the year ended December 31, 2017, sales to Direct Energy Business Marketing LLC were \$153,565 and sales to NJR Energy Services Company were \$147,595, each of which comprised over 10% of the Company's revenue from contracts with external customers for the period.

NOTE 20—FAIR VALUE OF FINANCIAL INSTRUMENTS:

CNX determines the fair value of assets and liabilities based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The fair values are based on assumptions that market participants would use when pricing an asset or liability, including assumptions about risk and the risks inherent in valuation techniques and the inputs to valuations. The fair value hierarchy is based on whether the inputs to valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources (including NYMEX forward curves, LIBOR-based discount rates and basis forward curves), while unobservable inputs reflect the Company's own assumptions of what market participants would use.

The fair value hierarchy includes three levels of inputs that may be used to measure fair value as described below:

Level One - Quoted prices for identical instruments in active markets.

Level Two - The fair value of the assets and liabilities included in Level 2 are based on standard industry income approach models that use significant observable inputs, including NYMEX forward curves, LIBOR-based discount rates and basis forward curves.

Level Three - Unobservable inputs significant to the fair value measurement supported by little or no market activity.

In those cases when the inputs used to measure fair value meet the definition of more than one level of the fair value hierarchy, the lowest level input that is significant to the fair value measurement in its totality determines the applicable level in the fair value hierarchy.

The financial instrument measured at fair value on a recurring basis is summarized below:

Description	Fair Value Measurements at December 31, 2019			Fair Value Measurements at December 31, 2018		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Gas Derivatives	\$ —	\$ 405,781	\$ —	\$ —	\$ 99,456	\$ —

The carrying amounts and fair values of financial instruments for which the fair value option was not elected are as follows:

	December 31, 2019		December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash and Cash Equivalents	\$ 16,283	\$ 16,283	\$ 17,198	\$ 17,198
Long-Term Debt (Excluding Debt Issuance Costs)	\$ 2,763,433	\$ 2,619,676	\$ 2,387,001	\$ 2,290,537

Cash and cash equivalents represent highly-liquid instruments and constitute Level 1 fair value measurements. Certain of the Company's debt is actively traded on a public market and, as a result, constitute Level 1 fair value measurements. The portion of the Company's debt obligations that is not actively traded is valued through reference to the applicable underlying benchmark rate and, as a result, constitute Level 2 fair value measurements.

NOTE 21—DERIVATIVE INSTRUMENTS:

In June 2019, CNX entered into an interest rate swap agreement to manage its exposure to interest rate volatility. The interest rate swap agreement relates to \$160,000 of borrowings under CNX's senior secured revolving credit facility (See Note 12 - Revolving Credit Facilities) and has the economic effect of modifying the variable-interest obligation into a fixed-interest obligation over a three-year period.

The change in fair value of the interest rate swap agreement is accounted for on a mark-to-market basis with changes in fair value recorded in current period earnings. The fair value at December 31, 2019 and the corresponding change in fair value from inception through December 31, 2019 was nominal.

CNX enters into financial derivative instruments to manage its exposure to commodity price volatility. These natural gas and NGL commodity hedges are accounted for on a mark-to-market basis with changes in fair value recorded in current period earnings.

CNX is exposed to credit risk in the event of non-performance by counterparties. The creditworthiness of counterparties is subject to continuing review. The Company has not experienced any issues of non-performance by derivative counterparties.

None of the Company's counterparty master agreements currently require CNX to post collateral for any of its positions. However, as stated in the counterparty master agreements, if CNX's obligations with one of its counterparties cease to be secured on the same basis as similar obligations with the other lenders under the credit facility, CNX would have to post collateral for instruments in a liability position in excess of defined thresholds. All of the Company's derivative instruments are subject to master netting arrangements with its counterparties. CNX recognizes all financial derivative instruments as either assets or liabilities at fair value in the Consolidated Balance Sheets on a gross basis.

Each of the Company's counterparty master agreements allows, in the event of default, the ability to elect early termination of outstanding contracts. If early termination is elected, CNX and the applicable counterparty would net settle all open hedge positions.

The total notional amounts of production of CNX's derivative instruments were as follows:

	December 31,		Forecasted to Settle Through
	2019	2018	
Natural Gas Commodity Swaps (Bcf)	1,460.6	1,484.4	2025
Natural Gas Basis Swaps (Bcf)	1,290.4	1,056.6	2025

The gross fair value of CNX's derivative instruments was as follows:

	Asset Derivative Instruments		Liability Derivative Instruments	
	December 31,		December 31,	
	2019	2018	2019	2018
Commodity Swaps:				
Current Assets	\$ 234,238	\$ 28,612	Current Liabilities	\$ 345
Other Assets	288,543	164,310	Non-Current Liabilities	9,693
Total Asset	\$ 522,781	\$ 192,922	Total Liability	\$ 10,038
Basis Only Swaps:				
Current Assets	\$ 13,556	\$ 11,628	Current Liabilities	\$ 40,626
Other Assets	25,553	48,788	Non-Current Liabilities	105,445
Total Asset	\$ 39,109	\$ 60,416	Total Liability	\$ 146,071

The effect of derivative instruments on the Company's Consolidated Statements of Income was as follows:

	For the Years Ended December 31,		
	2019	2018	2017
Cash Received (Paid) in Settlement of Commodity Derivative Instruments:			
Commodity Swaps:			
Natural Gas	\$ 82,899	\$ (41,098)	\$ (34,928)
Propane	—	—	(1,216)
Natural Gas Basis Swaps	(13,119)	(28,622)	(5,030)
Total Cash Received (Paid) in Settlement of Commodity Derivative Instruments	69,780	(69,720)	(41,174)
Unrealized Gain (Loss) on Commodity Derivative Instruments:			
Commodity Swaps:			
Natural Gas	406,472	33,026	319,605
Propane	—	—	1,147
Natural Gas Basis Swaps	(100,147)	6,482	(72,648)
Total Unrealized Gain on Commodity Derivative Instruments	306,325	39,508	248,104
Gain (Loss) on Commodity Derivative Instruments:			
Commodity Swaps:			
Natural Gas	\$ 489,371	\$ (8,072)	\$ 284,677
Propane	—	—	(69)
Natural Gas Basis Swaps	(113,266)	(22,140)	(77,678)
Total Gain (Loss) on Commodity Derivative Instruments	\$ 376,105	\$ (30,212)	\$ 206,930

The Company also enters into fixed price natural gas sales agreements that are satisfied by physical delivery. These physical commodity contracts qualify for the normal purchases and normal sales exception and are not subject to derivative instrument accounting.

NOTE 22—COMMITMENTS AND CONTINGENT LIABILITIES:

CNX and its subsidiaries are subject to various lawsuits and claims with respect to such matters as personal injury, royalty accounting, damage to property, climate change, governmental regulations including environmental violations and remediation, employment and contract disputes and other claims and actions arising out of the normal course of business. CNX accrues the estimated loss for these lawsuits and claims when the loss is probable and can be estimated. The Company's current estimated accruals related to these pending claims, individually and in the aggregate, are immaterial to the financial position, results of operations or cash flows of CNX. It is possible that the aggregate loss in the future with respect to these lawsuits and claims could

ultimately be material to the financial position, results of operations or cash flows of CNX; however, such amounts cannot be reasonably estimated.

At December 31, 2019, CNX has provided the following financial guarantees, unconditional purchase obligations, and letters of credit to certain third-parties as described by major category in the following tables. These amounts represent the maximum potential of total future payments that the Company could be required to make under these instruments. These amounts have not been reduced for potential recoveries under recourse or collateralization provisions. Generally, recoveries under reclamation bonds would be limited to the extent of the work performed at the time of the default. No amounts related to these unconditional purchase obligations and letters of credit are recorded as liabilities in the financial statements. CNX management believes that the commitments in the following table will expire without being funded, and therefore will not have a material adverse effect on financial condition.

	Amount of Commitment Expiration Per Period				
	Total Amounts Committed	Less Than 1 Year	1-3 Years	3-5 Years	Beyond 5 Years
Letters of Credit:					
Firm Transportation	\$ 197,776	\$ 148,526	\$ 49,250	\$ —	\$ —
Other	6,950	6,200	750	—	—
Total Letters of Credit	<u>204,726</u>	<u>154,726</u>	<u>50,000</u>	<u>—</u>	<u>—</u>
Surety Bonds:					
Employee-Related	2,600	2,600	—	—	—
Environmental	12,763	12,503	260	—	—
Financial Guarantees	81,670	81,670	—	—	—
Other	9,254	7,970	1,284	—	—
Total Surety Bonds	<u>106,287</u>	<u>104,743</u>	<u>1,544</u>	<u>—</u>	<u>—</u>
Total Commitments	<u>\$ 311,013</u>	<u>\$ 259,469</u>	<u>\$ 51,544</u>	<u>\$ —</u>	<u>\$ —</u>

Excluded from the above table are commitments and guarantees entered into in conjunction with the spin-off of the Company's coal business (See Note 5 - Discontinued Operations). Although CONSOL Energy has agreed to indemnify CNX to the extent that CNX would be called upon to pay any of these liabilities, there is no assurance that CONSOL Energy will satisfy its obligations to indemnify CNX in the event that CNX is so called upon.

CNX enters into long-term unconditional purchase obligations to procure major equipment purchases, natural gas firm transportation, gas drilling services and other operating goods and services. These purchase obligations are not recorded in the Consolidated Balance Sheets. As of December 31, 2019, the purchase obligations for each of the next five years and beyond were as follows:

Obligations Due	Amount
Less than 1 year	\$ 256,613
1 - 3 years	483,807
3 - 5 years	406,915
More than 5 years	1,072,748
Total Purchase Obligations	<u>\$ 2,220,083</u>

NOTE 23—VARIABLE INTEREST ENTITIES:

The Company determined CNXM, of which the Company owned an approximately 34% limited partner interest (prior to the IDR Elimination transaction - See Note 25 - Subsequent Event) and 100% of the general partner interest, to be a variable interest entity. As a result of the Midstream Acquisition (see Note 6 - Acquisitions and Dispositions), the Company has the power through the Company's ownership and control of CNXM's general partner (CNX Midstream GP LLC) to direct the activities that most significantly impact CNXM's economic performance. In addition, through its limited partner interest in CNXM, the Company has the obligation to absorb the losses of CNXM and the right to receive benefits in accordance with such interests. As the Company has a controlling financial interest and is the primary beneficiary of CNXM, the Company consolidated CNXM commencing January 3, 2018.

The risks associated with the operations of CNXM are discussed in its Annual Report on Form 10-K for the year ended December 31, 2019 filed with the SEC on February 10, 2020 and its other periodic reports filed thereafter.

The following table presents amounts included in the Company's Consolidated Balance Sheets that were for the use or obligation of CNXM:

	December 31,	
	2019	2018
Assets:		
Cash	\$ 31	\$ 3,966
Receivables - Related Party	21,076	17,073
Receivables - Third Party	7,935	7,028
Other Current Assets	1,976	2,383
Property, Plant and Equipment, net	1,195,591	891,775
Operating Lease ROU Asset	4,731	—
Other Assets	3,262	3,203
Total Assets	\$ 1,234,602	\$ 925,428
Liabilities:		
Accounts Payable and Accrued Liabilities	\$ 67,290	\$ 43,919
Accounts Payable - Related Party	4,787	4,980
Revolving Credit Facility	311,750	84,000
Long-Term Debt	394,162	393,215
Total Liabilities	\$ 777,989	\$ 526,114

The following table summarizes CNXM's Consolidated Statements of Operations and Cash Flows, inclusive of affiliate amounts:

	For the Years Ended December 31,	
	2019	2018
Revenue		
Gathering Revenue - Related Party	\$ 231,482	\$ 167,048
Gathering Revenue - Third Party	74,315	89,620
Total Revenue	305,797	256,668
Expenses		
Operating Expense - Related Party	22,943	19,814
Operating Expense - Third Party	23,964	27,343
General and Administrative Expense - Related Party	15,928	13,867
General and Administrative Expense - Third Party	5,769	8,595
Loss on Asset Sales and Abandonments, net	7,229	2,501
Depreciation Expense	24,371	21,939
Interest Expense	30,293	23,614
Total Expense	130,497	117,673
Net Income	\$ 175,300	\$ 138,995
Net Cash Provided by Operating Activities	\$ 217,062	\$ 180,115
Net Cash Used in Investing Activities	\$ (327,615)	\$ (138,869)
Net Cash Provided by (Used in) Financing Activities	\$ 106,618	\$ (40,474)

Prior to the acquisition of Noble's interest on January 3, 2018, CNX accounted for its interests in CNX Gathering and CNXM as an equity-method investment. The following transactions were included in Other Operating Income and Transportation, Gathering and Compression in the Consolidated Statements of Income:

	For the Year Ended	
	December 31, 2017	
Other Operating Income:		
Equity in Earnings of Affiliates - CNX Gathering	\$	9,823
Equity in Earnings of Affiliates - CNXM	\$	38,523
Transportation, Gathering and Compression:		
Gathering Services - CNX Gathering	\$	914
Gathering Services - CNXM	\$	136,068

In March 2018, CNXM closed on its acquisition of CNX's remaining 95% interest in the gathering system and related assets commonly referred to as the Shirley-Penns System, in exchange for cash consideration in the amount of \$265,000. CNXM funded the cash considerations with proceeds from the issuance of its 6.50% senior notes due 2026 (See Note 14 - Long-Term Debt).

At December 31, 2019 and 2018, CNX had a net payable of \$16,362 and \$12,202, respectively, due to CNX Gathering and CNXM, primarily for accrued but unpaid gathering services.

NOTE 24—SEGMENT INFORMATION:

CNX consists of two principal business divisions: Exploration and Production (E&P) and Midstream. The principal activity of the E&P Division, which includes four reportable segments, is to produce pipeline quality natural gas for sale primarily to gas wholesalers. The E&P Division's reportable segments are Marcellus Shale, Utica Shale, Coalbed Methane and Other Gas. The Other Gas Segment is primarily related to shallow oil and gas production which is not significant to the Company due to the sale of substantially all of CNX's shallow oil and gas assets in the 2018 period (See Note 6 - Acquisitions and Dispositions for more information). It also includes the Company's purchased gas activities, unrealized gain or loss on commodity derivative instruments, exploration and production related other costs, impairments of exploration and production properties and unproved properties and expirations, as well as various other operating activities assigned to the E&P Division but not allocated to each individual segment.

CNX's Midstream Division's principal activity is the ownership, operation, development and acquisition of natural gas gathering and other midstream energy assets of CNX Gathering and CNXM, which provide natural gas gathering services for the Company's produced gas, as well as for other independent third-parties in the Marcellus Shale and Utica Shale in Pennsylvania and West Virginia. Excluded from the Midstream Division are the gathering assets and operations of CNX that have not been contributed to CNX Gathering and CNXM. As a result of the Midstream Acquisition (See Note 6 - Acquisitions and Dispositions for more information), CNX owns and controls 100% of CNX Gathering, making CNXM a single-sponsor master limited partnership and thus the Company began consolidating CNXM on January 3, 2018. The Midstream Division is comprised of a single Midstream segment.

The Company's unallocated expenses include other expense, gain on asset sales related to non-core assets, gain on previously held equity interest, loss on debt extinguishment, impairment of other intangible assets and income taxes.

In the preparation of the following information, intersegment sales have been recorded at amounts approximating market prices. Operating profit for each segment is based on sales less identifiable operating and non-operating expenses. Assets are reflected at the division level for E&P and are not allocated between each individual E&P segment. These assets are not allocated to each individual segment due to the diverse asset base controlled by CNX, whereby each individual asset may service more than one segment within the division. An allocation of such asset base would not be meaningful or representative on a segment by segment basis.

Industry segment results for the year ended December 31, 2019 are:

	Marcellus Shale	Utica Shale	Coalbed Methane	Other Gas	Total E&P	Midstream	Unallocated	Intercompany Eliminations	Consolidated
Natural Gas, NGLs and Oil Revenue	\$ 934,728	\$ 264,548	\$ 163,893	\$ 1,156	\$ 1,364,325	\$ —	\$ —	\$ —	\$ 1,364,325 (A)
Purchased Gas Revenue	—	—	—	94,027	94,027	—	—	—	94,027
Midstream Revenue	—	—	—	—	—	307,024	—	(232,710)	74,314
Gain on Commodity Derivative Instruments	47,475	14,943	7,335	306,352	376,105	—	—	—	376,105
Other Operating Income	—	—	—	14,057	14,057	—	—	(379)	13,678 (B)
Total Revenue and Other Operating Income	<u>\$ 982,203</u>	<u>\$ 279,491</u>	<u>\$ 171,228</u>	<u>\$ 415,592</u>	<u>\$ 1,848,514</u>	<u>\$ 307,024</u>	<u>\$ —</u>	<u>\$ (233,089)</u>	<u>\$ 1,922,449</u>
Earnings (Loss) From Continuing Operations Before Income Tax	<u>\$ 234,284</u>	<u>\$ 87,972</u>	<u>\$ 35,170</u>	<u>\$ (497,869)</u>	<u>\$ (140,443)</u>	<u>\$ 166,654</u>	<u>\$ 33,473</u>	<u>\$ —</u>	<u>\$ 59,684</u>
Segment Assets					\$ 6,745,091	\$ 2,230,676	\$ 78,708	\$ 6,331	\$ 9,060,806 (C)
Depreciation, Depletion and Amortization					\$ 474,352	\$ 34,111	\$ —	\$ —	\$ 508,463
Capital Expenditures					\$ 867,860	\$ 324,739	\$ —	\$ —	\$ 1,192,599

(A) Included in Total Natural Gas, NGLs and Oil Revenue are sales of \$214,980 to Direct Energy Business Marketing LLC and \$147,540 to NJR Energy Services Company, each of which comprises over 10% of revenue from contracts with external customers for the period.

(B) Includes equity in earnings of unconsolidated affiliates of \$2,103 for Total E&P.

(C) Includes investments in unconsolidated equity affiliates of \$16,710 for Total E&P.

Industry segment results for the year ended December 31, 2018 are:

	Marcellus Shale	Utica Shale	Coalbed Methane	Other Gas	Total E&P	Midstream	Unallocated	Intercompany Eliminations	Consolidated
Natural Gas, NGLs and Oil Revenue	\$ 903,316	\$ 445,880	\$ 212,884	\$ 15,857	\$ 1,577,937	\$ —	\$ —	\$ —	\$ 1,577,937 (D)
Purchased Gas Revenue	—	—	—	65,986	65,986	—	—	—	65,986
Midstream Revenue	—	—	—	—	—	258,074	—	(168,293)	89,781
(Loss) Gain on Commodity Derivative Instruments	(40,444)	(19,882)	(8,767)	38,881	(30,212)	—	—	—	(30,212)
Other Operating Income	—	—	—	27,218	27,218	—	—	(276)	26,942 (E)
Total Revenue and Other Operating Income	<u>\$ 862,872</u>	<u>\$ 425,998</u>	<u>\$ 204,117</u>	<u>\$ 147,942</u>	<u>\$ 1,640,929</u>	<u>\$ 258,074</u>	<u>\$ —</u>	<u>\$ (168,569)</u>	<u>\$ 1,730,434</u>
Earnings (Loss) From Continuing Operations Before Income Tax	<u>\$ 254,310</u>	<u>\$ 194,164</u>	<u>\$ 49,719</u>	<u>\$ (253,577)</u>	<u>\$ 244,616</u>	<u>\$ 133,811</u>	<u>\$ 720,241</u>	<u>\$ —</u>	<u>\$ 1,098,668</u>
Segment Assets					\$ 6,518,597	\$ 1,919,117	\$ 166,679	\$ (12,223)	\$ 8,592,170 (F)
Depreciation, Depletion and Amortization					\$ 461,149	\$ 32,274	\$ —	\$ —	\$ 493,423
Capital Expenditures					\$ 974,059	\$ 142,338	\$ —	\$ —	\$ 1,116,397

(D) Included in Total Natural Gas, NGLs and Oil Revenue are sales of \$219,472 to NJR Energy Services Company and \$184,668 to Direct Energy Business Marketing LLC, each of which comprises over 10% of revenue from contracts with external customers for the period.

(E) Includes equity in earnings of unconsolidated affiliates of \$5,363 for Total E&P.

(F) Includes investments in unconsolidated equity affiliates of \$18,663 for Total E&P.

Industry segment results for the year ended December 31, 2017 are:

	Marcellus Shale	Utica Shale	Coalbed Methane	Other Gas	Total E&P	Unallocated	Consolidated	
Natural Gas, NGLs and Oil Revenue	\$ 646,188	\$ 217,020	\$ 208,677	\$ 53,339	\$ 1,125,224	\$ —	\$ 1,125,224	(G)
Purchased Gas Revenue	—	—	—	53,795	53,795	—	53,795	
(Loss) Gain on Commodity Derivative Instruments	(30,336)	1,367	(9,589)	245,488	206,930	—	206,930	
Other Operating Income	—	—	—	69,182	69,182	—	69,182	(H)
Total Revenue and Other Operating Income	<u>\$ 615,852</u>	<u>\$ 218,387</u>	<u>\$ 199,088</u>	<u>\$ 421,804</u>	<u>\$ 1,455,131</u>	<u>\$ —</u>	<u>\$ 1,455,131</u>	
Earnings (Loss) From Continuing Operations Before Income Tax	<u>\$ 91,436</u>	<u>\$ 64,741</u>	<u>\$ 20,346</u>	<u>\$ (240,050)</u>	<u>\$ (63,527)</u>	<u>\$ 182,108</u>	<u>\$ 118,581</u>	
Segment Assets					<u>\$ 6,391,223</u>	<u>\$ 540,690</u>	<u>\$ 6,931,913</u>	(I)
Depreciation, Depletion and Amortization					<u>\$ 412,036</u>	<u>\$ —</u>	<u>\$ 412,036</u>	
Capital Expenditures					<u>\$ 632,846</u>	<u>\$ —</u>	<u>\$ 632,846</u>	

(G) Included in Total Natural Gas, NGLs and Oil Revenue are sales of \$153,656 to Direct Energy Business Marketing LLC and \$147,595 to NJR Energy Services Company, each of which comprises over 10% of revenue from contracts with external customers for the period.

(H) Includes equity in earnings of unconsolidated affiliates of \$49,830 for Total E&P.

(I) Includes investments in unconsolidated equity affiliates of \$197,921 for Total E&P.

Reconciliation of Segment Information to Consolidated Amounts:**Revenue and Other Operating Income:**

	For the Years Ended December 31,		
	2019	2018	2017
Total Segment Revenue from Contracts with External Customers	\$ 1,532,666	\$ 1,733,704	\$ 1,179,019
Gain (Loss) on Commodity Derivative Instruments	376,105	(30,212)	206,930
Other Operating Income	13,678	26,942	69,182
Total Consolidated Revenue and Other Operating Income	\$ 1,922,449	\$ 1,730,434	\$ 1,455,131

Earnings (Loss) From Continuing Operations Before Income Tax:

	For the Years Ended December 31,		
	2019	2018	2017
Segment Earnings (Loss) Before Income Taxes for Reportable Business Segments:			
E&P	\$ (140,443)	\$ 244,616	\$ (63,527)
Midstream	166,654	133,811	—
Total Segment Earnings (Loss) Before Income Taxes for Reportable Business Segments	26,211	378,427	(63,527)
Unallocated Expenses:			
Other (Expense) Income	(1,396)	14,571	(3,826)
Gain on Certain Asset Sales	42,483	154,775	188,063
Gain on Previously Held Equity Interest	—	623,663	—
Loss on Debt Extinguishment	(7,614)	(54,118)	(2,129)
Impairment of Other Intangible Assets	—	(18,650)	—
Earnings from Continuing Operations Before Income Tax	\$ 59,684	\$ 1,098,668	\$ 118,581

Total Assets:

	December 31,	
	2019	2018
Segment Assets for Total Reportable Business Segments:		
E&P	\$ 6,745,091	\$ 6,518,597
Midstream	2,230,676	1,919,117
Intercompany Eliminations	6,331	(12,223)
Items Excluded from Segment Assets:		
Cash and Cash Equivalents	16,283	17,198
Recoverable Income Taxes	62,425	149,481
Total Consolidated Assets	\$ 9,060,806	\$ 8,592,170

NOTE 25—SUBSEQUENT EVENT

On January 29, 2020, CNX and CNXM entered into and closed definitive agreements to eliminate CNXM's IDRs held by its general partner and to convert the 2.0% general partner interest in CNXM into a non-economic general partnership interest (collectively, the "IDR Elimination Transaction").

Pursuant to the IDR Elimination Transaction agreements, CNX will receive the following consideration in exchange for the IDRs and the 2.0% general partner interest:

- 26 million CNXM common units;
- 3 million new CNXM Class B units. The newly issued Class B units will not receive or accrue distributions until January 1, 2022, at which time they will automatically convert into CNXM common units on a one-for-one basis; and
- \$135,000 to be paid in three installments of \$50,000 due December 31, 2020, \$50,000 due December 31, 2021 and \$35,000 due December 31, 2022.

As a result of the IDR Elimination Transaction, CNX now owns 47.7 million common units, or approximately 53.1%, of the outstanding limited partner interests in CNXM, excluding the Class B units. Upon conversion of the Class B units to CNXM common units on January 1, 2022, CNX's ownership will increase to 50.7 million units on a pro forma basis.

NOTE 26 - SUPPLEMENTAL GAS DATA (unaudited):

The following information was prepared in accordance with the FASB's Accounting Standards Update No. 2010-03, "Extractive Activities-Oil and Gas (Topic 932)." The supplementary information summarized below presents the results of natural gas and oil activities for the E&P segment in accordance with the successful efforts method of accounting for production activities.

Capitalized Costs:

	As of December 31,	
	2019	2018
Intangible Drilling Costs	\$ 4,688,497	\$ 4,120,283
Proved Gas Properties	1,208,046	1,135,411
Gas Gathering Assets	1,110,977	1,099,047
Unproved Gas Properties	755,590	927,667
Gas Wells and Related Equipment	1,042,000	856,973
Other Gas Assets	73,479	54,395
Total Property, Plant and Equipment	\$ 8,878,589	\$ 8,193,776
Accumulated Depreciation, Depletion and Amortization	(3,263,221)	(2,475,917)
Net Capitalized Costs	\$ 5,615,368	\$ 5,717,859

Costs incurred for property acquisition, exploration and development (*):

	For the Years Ended December 31,		
	2019	2018	2017
Property Acquisitions:			
Proved Properties	\$ 36,710	\$ 38,621	\$ 15,850
Unproved Properties	24,760	36,248	32,038
Development	739,874	844,081	544,809
Exploration	79,855	61,604	48,020
Total	\$ 881,199	\$ 980,554	\$ 640,717

(*) Includes costs incurred whether capitalized or expensed.

Results of Operations for Producing Activities:

	For the Years Ended December 31,		
	2019	2018	2017
Natural Gas, NGLs and Oil Revenue	\$ 1,364,325	\$ 1,577,937	\$ 1,125,224
Gain (Loss) on Commodity Derivative Instruments	376,105	(30,212)	206,930
Purchased Gas Revenue	94,027	65,986	53,795
Total Revenue	1,834,457	1,613,711	1,385,949
Lease Operating Expense	65,443	95,139	88,932
Production, Ad Valorem, and Other Fees	27,461	32,750	29,267
Transportation, Gathering and Compression	516,879	424,206	382,865
Purchased Gas Costs	90,553	64,817	52,597
Impairment of Exploration and Production Properties	327,400	—	137,865
Impairment of Undeveloped Properties	119,429	—	—
Exploration Costs	44,380	12,033	48,074
Depreciation, Depletion and Amortization	474,352	461,149	412,036
Total Costs	1,665,897	1,090,094	1,151,636
Pre-tax Operating Income	168,560	523,617	234,313
Income Tax Expense (Benefit)	78,398	102,629	(348,676)
Results of Operations for Producing Activities excluding Corporate and Interest Costs	\$ 90,162	\$ 420,988	\$ 582,989

The following is production, average sales price and average production costs, excluding ad valorem and severance taxes, per unit of production:

	For the Years Ended December 31,		
	2019	2018	2017
Production (MMcfe)	539,149	507,104	407,166
Total Average Sales Price Before Effects of Commodity Derivative Financial Settlements (per Mcfe)	\$ 2.53	\$ 3.11	\$ 2.76
Average Effects of Commodity Derivative Financial Settlements (per Mcfe)	\$ 0.14	\$ (0.15)	\$ (0.11)
Total Average Sales Price Including Effects of Commodity Derivative Financial Settlements (per Mcfe)	\$ 2.66	\$ 2.97	\$ 2.66
Average Lifting Costs, Excluding Ad Valorem and Severance Taxes (per Mcfe)	\$ 0.12	\$ 0.19	\$ 0.22

During the years ended December 31, 2019, 2018 and 2017, the Company drilled 75.7, 83.9, and 90.0 net development wells, respectively. There was 1.0 net dry development well in 2019, and no net dry development wells in 2018 or 2017.

During the years ended December 31, 2019 and 2017, the Company drilled 5.0 and 4.0 net exploratory wells, respectively. During the year ended December 31, 2018, the Company drilled no net exploratory wells. There were no net dry exploratory wells in 2019, 2018 or 2017.

At December 31, 2019, there were 35.0 net development wells and 1.0 exploratory well that are drilled but uncompleted. Additionally, there are 7.0 net developmental wells that have been completed and are awaiting final tie-in to production.

CNX is committed to provide 532.3 Bcf of gas under existing sales contracts or agreements over the course of the next four years. The Company expects to produce sufficient quantities from existing proved developed reserves to satisfy these commitments.

Most of the Company's development wells and proved acreage are located in Virginia, West Virginia, Ohio and Pennsylvania. Some leases are beyond their primary term, but these leases are extended in accordance with their terms as long as certain drilling commitments or other term commitments are satisfied. The following table sets forth, at December 31, 2019, the number of producing wells, developed acreage and undeveloped acreage:

	<u>Gross</u>	<u>Net(1)</u>
Producing Gas Wells (including Gob Wells)	6,512	4,510
Producing Oil Wells	151	—
Acreage Position:		
Proved Developed Acreage	337,700	337,700
Proved Undeveloped Acreage	28,916	28,916
Unproved Acreage	5,192,777	3,868,533
Total Acreage	<u>5,559,393</u>	<u>4,235,149</u>

(1) Net acres include acreage attributable to the Company's working interests of the properties. Additional adjustments (either increases or decreases) may be required as the Company further develops title to and further confirms its rights with respect to its various properties in anticipation of development. The Company believes that its assumptions and methodology in this regard are reasonable.

Proved Oil and Gas Reserves Quantities:

Annually, the preparation of natural gas reserves estimates is completed in accordance with CNX prescribed internal control procedures, which include verification of input data into a gas reserves forecasting and economic evaluation software, as well as multi-functional management review. The input data verification includes reviews of the price and operating, and development cost assumptions used in the economic model to determine the reserves. Also, the production volumes are reconciled between the system used to calculate the reserves and other accounting/measurement systems. The technical employee responsible for overseeing the preparation of the reserve estimates is a registered professional engineer in the state of West Virginia with over 15 years of experience in the oil and gas industry. The Company's gas reserves results, which are reported in the Supplemental Gas Data year ended December 31, 2019 Form 10-K, were audited by Netherland, Sewell & Associates, Inc. The technical person primarily responsible for overseeing the audit of the Company's reserves is a registered professional engineer in the state of Texas with over 12 years of experience in the oil and gas industry. The gas reserves estimates are as follows:

	Natural Gas (MMcf)	NGLs (Mbbbls)	Condensate & Crude Oil (Mbbbls)	Consolidated Operations (MMcfe)
Balance December 31, 2016 (a)	5,828,399	60,532	10,009	6,251,648
Revisions (b)	(202,735)	1,162	(5,834)	(232,321)
Price Changes	173,738	1,188	(159)	181,470
Extensions and Discoveries (c)	1,769,029	17,887	1,800	1,887,153
Production	(364,893)	(6,456)	(589)	(407,166)
Sales of Reserves In-Place	(81,780)	(2,622)	(277)	(99,172)
Balance December 31, 2017 (a)	7,121,758	71,691	4,950	7,581,612
Revisions (d)	313,091	441	865	320,925
Price Changes	28,100	32	4	28,315
Extensions and Discoveries (c)	839,268	16,247	4,010	960,808
Production	(468,228)	(6,011)	(468)	(507,104)
Purchases of Reserves In-Place	317,437	756	—	321,975
Sales of Reserves In-Place (e)	(715,088)	(17,252)	(1,100)	(825,196)
Balance December 31, 2018 (a)	7,436,338	65,904	8,261	7,881,335
Revisions (f)	(521,617)	5,926	(5,418)	(518,570)
Price Changes	(40,773)	(740)	(5)	(45,246)
Extensions and Discoveries (c)	1,569,813	10,182	2,732	1,647,297
Production	(505,355)	(5,428)	(204)	(539,149)
Balance December 31, 2019 (a)	7,938,406	75,844	5,366	8,425,667

Proved developed reserves:

December 31, 2017	4,051,526	56,022,000	3,567,000	4,409,065
December 31, 2018	4,242,579	40,180,000	1,870,000	4,494,878
December 31, 2019	4,473,534	59,800,000	1,087,000	4,838,858

Proved undeveloped reserves:

December 31, 2017	3,070,232	15,669,000	1,383,000	3,172,547
December 31, 2018	3,193,759	25,724,000	6,391,000	3,386,457
December 31, 2019	3,464,873	16,044,000	4,278,000	3,586,809

- (a) Proved developed and proved undeveloped gas reserves are defined by SEC Rule 4.10(a) of Regulation S-X. Generally, these reserves would be commercially recovered under current economic conditions, operating methods and government regulations. CNX cautions that there are many inherent uncertainties in estimating proved reserve quantities, projecting future production rates and timing of development expenditures. Proved oil and gas reserves are estimated quantities of natural gas which geological and engineering data demonstrate with reasonable certainty to be recoverable in future years from known reservoirs under existing economic and operating conditions and government regulations. Proved developed reserves are reserves expected to be recovered through existing wells, with existing equipment and operating methods.
- (b) The downward revisions for 2017 are due to corporate planning changes by our JV partner in Ohio Utica which resulted in all PUD's being removed, causing a 458 Bcfe downward revision, offset, in part, by improved well performance due to the enhanced RCS completions and improved operating costs.
- (c) Extensions and Discoveries in 2017, 2018, and 2019 are due to the addition of wells on the Company's Marcellus and Utica Shale acreage more than one offset location away with continued use of reliable technology.
- (d) The upward revision for 2018 of 321 Bcfe is primarily due to a 472 Bcfe upward revision from increased performance through our continued focus on optimization. This is partially offset by a 151 Bcfe downward revision due to plan changes.
- (e) The sales of reserves in-place is related to the divestiture of our Utica JV assets and substantially all of our conventional properties. Refer to Note 6 - Acquisitions and Dispositions for more information.
- (f) The downward revisions in 2019 are primarily due to removal of 872 Bcfe in reserves from plan changes which are the result of our continued focus on optimization and high grading initiatives. There was additionally a reduction of 304 Bcfe related to removal of proved undeveloped locations removed from our plans due to the SEC five-year development rule.

These downward revisions were partially offset by efficiencies in operations and optimization which increased reserves by 657 Bcfe.

	For the Year Ended December 31, 2019
Proved Undeveloped Reserves (MMcfe)	
Beginning Proved Undeveloped Reserves	3,386,457
Undeveloped Reserves Transferred to Developed (a)	(752,970)
Revisions Due to 5 Year Rule	(303,787)
Price Revisions	2,147
Revisions Due to Plan Changes (b)	(872,495)
Revisions Due to Changes Due to Well Performance (c)	556,881
Extension and Discoveries (d)	1,570,576
Ending Proved Undeveloped Reserves(e)	<u>3,586,809</u>

(a) During 2019, various exploration and development drilling and evaluations were completed. Approximately, \$334,062 of capital was spent in the year ended December 31, 2019 related to undeveloped reserves that were transferred to developed.

(b) The downward revisions for 2019 plan changes is due to removal of a portion of our Marcellus and Utica locations from our proved undeveloped reserves.

(c) The upward revisions due to well performance is due to results from Marcellus Shale production.

(d) Extensions and discoveries are due mainly to the addition of wells on our Marcellus and Utica Shale acreage more than one offset location away with continued use of reliable technology.

(e) Included in proved undeveloped reserves at December 31, 2019 are approximately 248,570 MMcfe of reserves that have been reported for more than five years. These reserves specifically relate to GOB (a rubble zone formed in the cavity created by the extraction of coal) production due to a complex fracture being generated in the overburden strata above the mined seam. Mining operations take a significant amount of time and our GOB forecasts are consistent with the future plans of the Buchanan Mine that was sold in March 2016 to Coronado IV LLC with the rights to this gas being retained by the Company. Evidence also exists that supports the continual operation of the mine beyond the current plan, unless there was an extreme circumstance resulting from an external factor. These reasons constitute the specific circumstances that exist to continue recognizing these reserves for CNX.

At December 31, 2019 there was one well pending the determination of proved reserves.

The following table represents the capitalized exploratory well cost activity as indicated:

	December 31,		
	2019	2018	2017
Costs reclassified to wells, equipment and facilities based on the determination of proved reserves	\$ 59,981	\$ 46,614	\$ 40,149
Costs expensed due to determination of dry hole or abandonment of project	\$ —	\$ 809	\$ —

CNX proved natural gas reserves are located in the United States.

Standardized Measure of Discounted Future Net Cash Flows:

The following information has been prepared in accordance with the provisions of the Financial Accounting Standards Board's Accounting Standards Update No. 2010-03, "Extractive Activities-Oil and Gas (Topic 932)." This topic requires the standardized measure of discounted future net cash flows to be based on the average, first-day-of-the-month price for the year. Because prices used in the calculation are average prices for that year, the standardized measure could vary significantly from year to year based on the market conditions that occurred.

The projections should not be viewed as realistic estimates of future cash flows, nor should the "standardized measure" be interpreted as representing current value to CNX. Material revisions to estimates of proved reserves may occur in the future; development and production of the reserves may not occur in the periods assumed; actual prices realized are expected to vary significantly from those used; and actual costs may vary. CNX investment and operating decisions are not based on the information presented, but on a wide range of reserve estimates that include probable as well as proved reserves and on different price and cost assumptions.

The standardized measure is intended to provide a better means for comparing the value of CNX proved reserves at a given time with those of other gas producing companies than is provided by a comparison of raw proved reserve quantities.

	December 31,		
	2019	2018	2017
Future Cash Flows (a)			
Revenues	\$ 19,489,588	\$ 26,610,100	\$ 19,261,578
Production Costs	(7,903,120)	(7,730,451)	(7,234,303)
Development Costs	(1,121,073)	(1,600,128)	(1,710,585)
Income Tax Expense	(2,720,994)	(4,147,075)	(2,475,981)
Future Net Cash Flows	7,744,401	13,132,446	7,840,709
Discounted to Present Value at a 10% Annual Rate	(4,673,932)	(8,476,989)	(4,709,311)
Total Standardized Measure of Discounted Net Cash Flows	\$ 3,070,469	\$ 4,655,457	\$ 3,131,398

(a) For 2019, the reserves were computed using unweighted arithmetic averages of the closing prices on the first day of each month during 2019, adjusted for energy content and a regional price differential. For 2019, this adjusted natural gas price was \$2.24 per Mcf, the adjusted oil price was \$44.31 per barrel and the adjusted NGL price was \$19.10 per barrel.

For 2018, the reserves were computed using unweighted arithmetic averages of the closing prices on the first day of each month during 2018, adjusted for energy content and a regional price differential. For 2018, this adjusted natural gas price was \$3.28 per Mcf, the adjusted oil price was \$51.68 per barrel and the adjusted NGL price was \$27.58 per barrel.

For 2017, the reserves were computed using unweighted arithmetic averages of the closing prices on the first day of each month during 2017, adjusted for energy content and a regional price differential. For 2017, this adjusted natural gas price was \$2.44 per Mcf, the adjusted oil price was \$38.65 per barrel and the adjusted NGL price was \$23.61 per barrel.

The following are the principal sources of change in the standardized measure of discounted future net cash flows for consolidated operations during:

	December 31,		
	2019	2018	2017
Balance at Beginning of Period	\$ 4,655,457	\$ 3,131,398	\$ 955,117
Net Changes in Sales Prices and Production Costs	(2,826,725)	1,732,229	1,983,475
Sales Net of Production Costs	(1,130,685)	(995,630)	(831,131)
Net Change Due to Revisions in Quantity Estimates	(252,796)	307,030	(145,496)
Net Change Due to Extensions, Discoveries and Improved Recovery	654,027	534,052	588,574
Development Costs Incurred During the Period	739,874	844,081	544,809
Difference in Previously Estimated Development Costs Compared to Actual Costs Incurred During the Period	(323,922)	(434,817)	(129,427)
Purchase of Reserves In-Place	—	209,630	—
Sales of Reserves In-Place	—	(434,103)	(55,277)
Changes in Estimated Future Development Costs	(24,469)	(49,294)	(233,017)
Net Change in Future Income Taxes	409,797	(507,410)	(404,582)
Timing and Other	586,591	(69,087)	712,764
Accretion	583,320	387,378	145,589
Total Discounted Cash Flow at End of Period	<u>\$ 3,070,469</u>	<u>\$ 4,655,457</u>	<u>\$ 3,131,398</u>

Supplemental Quarterly Information (unaudited):
(Dollars in thousands, except per share data)

	Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	2019	2019	2019	2019
Revenue (A)	\$ 275,234	\$ 602,109	\$ 526,681	\$ 504,747
Expenses (B)	\$ 147,928	\$ 153,835	\$ 153,833	\$ 182,035
Net (Loss) Income (C)	\$ (64,651)	\$ 192,694	\$ 143,960	\$ (240,055)
Net (Loss) Income Attributable to CNX Resources Shareholders	\$ (87,337)	\$ 162,477	\$ 115,538	\$ (271,408)
(Loss) Earnings Per Share				
Basic (Loss) Earnings Per Share	\$ (0.44)	\$ 0.85	\$ 0.62	\$ (1.45)
Diluted (Loss) Earnings Per Share	\$ (0.44)	\$ 0.84	\$ 0.61	\$ (1.45)

	Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
	2018	2018	2018	2018
Revenue (A)	\$ 485,019	\$ 393,590	\$ 393,223	\$ 431,660
Expenses (B)	\$ 167,785	\$ 140,040	\$ 123,779	\$ 148,480
Net Income (C)	\$ 545,546	\$ 61,394	\$ 146,756	\$ 129,415
Net Income Attributable to CNX Resources Shareholders	\$ 527,563	\$ 42,014	\$ 125,029	\$ 101,927
Earnings Per Share				
Basic Earnings Per Share	\$ 2.38	\$ 0.19	\$ 0.59	\$ 0.51
Diluted Earnings Per Share	\$ 2.35	\$ 0.19	\$ 0.59	\$ 0.50

(A) Includes natural gas, NGLs, and oil revenue; gain (loss) on commodity derivative instruments, purchased gas revenue and midstream revenue.

(B) Includes exploration and production costs and other operating expense; excludes DD&A, impairment charges, selling, general and administrative, loss on debt extinguishment, interest expense and other expense.

(C) Includes impairment charges of \$327,400 and \$119,429 that were recorded during the three months ended December 31, 2019 related to CNX's exploration and productions properties and unproved properties, respectively, and \$18,650 that was recorded during the three months ended June 30, 2018 related to CNX's intangible assets. See Note 1 - Significant Accounting Policies in Item 8 of this Form 10-K for additional information.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure controls and procedures. CNX, under the supervision and with the participation of its management, including CNX's principal executive officer and principal financial officer, evaluated the effectiveness of the Company's "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Securities Act of 1934, as amended (the "Exchange Act"), as of the end of the period covered by this Form 10-K. Based on that evaluation, CNX's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures are effective as of December 31, 2019 to ensure that information required to be disclosed by CNX in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and includes controls and procedures designed to ensure that information required to be disclosed by CNX in such reports is accumulated and communicated to CNX's management, including CNX's principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting. CNX's management is responsible for establishing and maintaining adequate internal control over financial reporting. CNX's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

CNX's internal control over financial reporting includes policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; (2) provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures are being made only in accordance with authorizations of management and the directors of CNX; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of CNX's assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of CNX's internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (COSO) in Internal Control-Integrated Framework. Based on management's assessment and those criteria, management has concluded that CNX maintained effective internal control over financial reporting as of December 31, 2019.

The effectiveness of CNX's internal control over financial reporting as of December 31, 2019 has been audited by Ernst & Young, LLP, an independent registered public accounting firm, as stated in their report set forth in the Report of Independent Registered Public Accounting Firm in Part II, Item 9A of this Annual Report on Form 10-K.

Changes in internal controls over financial reporting. There were no changes in the Company's internal controls over financial reporting that occurred during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of CNX Resources Corporation and Subsidiaries

Opinion on Internal Control over Financial Reporting

We have audited CNX Resources Corporation and Subsidiaries' internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, CNX Resources Corporation and Subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of CNX Resources Corporation and Subsidiaries as of December 31, 2019 and 2018, and the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2019 and the related notes and financial statement schedule listed in the Index at Item 15 (a) (2) of the Company and our report dated February 10, 2020 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Pittsburgh, Pennsylvania
February 10, 2020

ITEM 9B. OTHER INFORMATION

None.

PART III**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by this Item is incorporated herein by reference from the information under the captions "PROPOSAL NO. 1-ELECTION OF DIRECTORS-Biographies of Nominees," "BOARD OF DIRECTORS AND COMPENSATION INFORMATION" and "DELINQUENT SECTION 16 REPORTS" in the Company's Proxy Statement for the annual meeting of shareholders to be held on May 6, 2020 (the "Proxy Statement").

Information About Our Executive Officers

The following is a list, as of February 1, 2020, of CNX executive officers, their ages and their positions and offices held with CNX.

Name	Age	Position
Nicholas J. DeLulius	51	President and Chief Executive Officer
Donald W. Rush	37	Executive Vice President and Chief Financial Officer
Chad A. Griffith	42	Executive Vice President and Chief Operating Officer
Olayemi Akinkugbe	45	Executive Vice President and Chief Excellence Officer

Nicholas J. DeLulius has served as a Director and the Chief Executive Officer of CNX Resources Corporation since May 7, 2014. He was appointed President of the Company on February 23, 2011. Prior to the separation of CONSOL Energy Inc. into two separate companies, Mr. DeLulius had more than 25 years of experience with the Company and in that time has held the positions of President and Chief Executive Officer, Chief Operating Officer, Senior Vice President - Strategic Planning, and earlier in his career various engineering positions. On January 3, 2018, Mr. DeLulius was appointed Chairman of the Board and Chief Executive Officer of the general partner of CNX Midstream Partners LP (formerly known as CONE Midstream Partners, LP). He was a Director, President and Chief Executive Officer of CNX Gas Corporation from its creation in 2005 through 2009. Mr. DeLulius was a Director and Chairman of the Board of the general partner of CONSOL Coal Resources LP (formerly known as CNX Coal Resources LP) from March 16, 2015 until November 28, 2017. Mr. DeLulius is a registered engineer in the Commonwealth of Pennsylvania and a member of the Pennsylvania bar.

Donald W. Rush has served as the Executive Vice President and Chief Financial Officer of CNX Resources Corporation since August 2, 2017. Mr. Rush held the same position at CONSOL Energy Inc. prior to its separation into two separate companies. He previously served as Vice President of Energy Marketing where he oversaw the Company's commercial functions, including mergers and acquisitions, gas marketing and transportation, in addition to holding other strategy and planning, business development and engineering positions during his 13 years with the Company. He successfully guided the Company through every significant transaction during its transition into a pure play natural gas exploration and production company, including the sale of the Company's five West Virginia coal mines in 2013 and the separation of the Company's Marcellus Shale joint venture with Noble Energy Inc. in 2016. On January 3, 2018, Mr. Rush was appointed as a Director and named Chief Financial Officer of the general partner of CNX Midstream Partners LP (formerly known as CONE Midstream Partners, LP). Mr. Rush holds a B.S. in civil engineering from the University of Pittsburgh and an M.B.A. from Carnegie Mellon University's Tepper School of Business.

Chad A. Griffith has served as the Executive Vice President and Chief Operating Officer of CNX Resources Corporation since January 1, 2020 and July 30, 2019 respectively. Mr. Griffith was appointed Director and named Chief Operating Officer of the general partner of CNX Midstream Partners LP (formerly known as CONE Midstream Partners, LP) in February 2019 and July 2019 respectively, and continues to serve as President of the general partner of CNX Midstream Partners LP. Before being appointed to his current position, Mr. Griffith served as Vice President, Commercial and Vice President of Marketing of CNX from January 2018 to July 2019 and prior to that Mr. Griffith served as the Director of Marketing of CNX from November 2015 to January 2018. He was the Director of Diversified Business Units at CNX from April 2014 to November 2015. Prior to that role, Mr. Griffith held several positions with the Land Department at CNX, including the Director of Title and Land Services. Mr. Griffith started working for CNX in 2011 and holds a bachelor's degree from Frostburg State University, a law degree from West Virginia University College of Law, and an M.B.A. from Carnegie Mellon University's Tepper School of Business. Mr. Griffith is a licensed attorney in Maryland and licensed, but inactive, in West Virginia.

Olayemi Akinkugbe has served as the Executive Vice President and Chief Excellence Officer of CNX Resources Corporation since July 30, 2019. As the Executive Vice President and Chief Excellence Officer of CNX, Mr. Akinkugbe oversees operational and corporate support functions for the company. Prior to assuming this role, Mr. Akinkugbe served as Director Virginia Operations at CNX, a role he assumed in July 2018. Mr. Akinkugbe served as Director Business Development from September 2017 through July 2018, General Manager - Planning and Petroleum Reserves from February 2014 through September 2017, and served in various other positions, including with the Engineering Department, throughout his tenure at CNX, which started in 2003. Mr. Akinkugbe holds a master's degree in Engineering from West Virginia University and an M.B.A. from Carnegie Mellon University's Tepper School of Business.

CNX has a written Code of Employee Business Conduct and Ethics that applies to CNX's Chief Executive Officer (Principal Executive Officer), Chief Financial Officer (Principal Financial Officer), Chief Accounting Officer (Principal Accounting Officer) and others. The Code of Employee Business Conduct and Ethics is available on CNX's website at www.cnx.com. Any amendments to, or waivers from, a provision of our Code of Employee Business Conduct and Ethics that applies to our Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer and that relates to any element enumerated in paragraph (b) of Item 406 of Regulation S-K shall be disclosed by posting such information on our website at www.cnx.com.

By certification dated June 11, 2019, CNX's Chief Executive Officer certified to the New York Stock Exchange (NYSE) that he was not aware of any violation by the Company of the NYSE corporate governance listing standards. In addition, the required Sarbanes-Oxley Act, Section 302 certifications regarding the quality of our public disclosures were filed by CNX Resources as exhibits to this Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference from the information under the captions "BOARD OF DIRECTORS AND COMPENSATION INFORMATION" and "EXECUTIVE COMPENSATION INFORMATION" (excluding the Compensation Committee Report) in the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item is incorporated by reference from the information under the captions "BENEFICIAL OWNERSHIP OF SECURITIES" and "SECURITIES AUTHORIZED FOR ISSUANCE UNDER CNX EQUITY COMPENSATION PLAN" in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information requested by this Item is incorporated by reference from the information under the caption "PROPOSAL NO. 1-ELECTION OF DIRECTORS - *Related Party Policy and Procedures* and PROPOSAL NO. 1 - ELECTION OF DIRECTORS - *Determination of Director Independence* in the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated by reference from the information under the caption "ACCOUNTANTS AND AUDIT COMMITTEE-INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM" in the Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

In reviewing any agreements incorporated by reference in this Form 10-K or filed with this Form 10-K, please remember that such agreements are included to provide information regarding their terms. They are not intended to be a source of financial, business or operational information about CNX or any of its subsidiaries or affiliates. The representations, warranties and covenants contained in these agreements are made solely for purposes of the agreements and are made as of specific dates; are solely for the benefit of the parties; may be subject to qualifications and limitations agreed upon by the parties in connection with negotiating the terms of the agreements, including being made for the purpose of allocating contractual risk between the parties instead of establishing matters as facts; and may be subject to standards of materiality applicable to the contracting parties that differ from those applicable to investors or security holders. Investors and security holders should not rely on the representations, warranties and covenants or any description thereof as characterizations of the actual state of facts or condition of CNX or any of its subsidiaries or affiliates or, in connection with acquisition agreements, of the assets to be acquired. Moreover, information concerning the subject matter of the representations, warranties and covenants may change after the date of the agreements. Accordingly, these representations and warranties alone may not describe the actual state of affairs as of the date they were made or at any other time.

- (a)(1) Financial Statements Contained in Item 8 hereof.
- (a)(2) Financial Statement Schedule-Schedule II Valuation and Qualifying Accounts contained below, following the signature page.
- (a)(3) Exhibits and Exhibit Index.
- [2.1](#) Membership Interest and Asset Purchase Agreement dated February 26, 2016, by and among the Company, CONSOL Mining Holding Company LLC, CONSOL Buchanan Mining Company LLC, CONSOL Amonate Mining Company LLC, CONSOL Mining Company LLC, CNX Land LLC, CNX Marine Terminals Inc., CNX RCPC LLC, CONSOL Pennsylvania Coal Company LLC and CONSOL Amonate Facility LLC and Coronado IV LLC, incorporated by reference to Exhibit 2.1 to Form 8-K (file no. 001-14901) filed on February 29, 2016.
- [2.2](#) Separation and Distribution Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Mining Corporation, incorporated by reference to Exhibit 2.1 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [2.3](#) Tax Matters Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Mining Corporation, incorporated by reference to Exhibit 2.2 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [2.4](#) Employee Matters Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Mining Corporation, incorporated by reference to Exhibit 2.3 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [2.5](#) Intellectual Property Matters Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Mining Corporation, incorporated by reference to Exhibit 2.4 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [3.1](#) Restated Certificate of Incorporation of the Company, incorporated by reference to Exhibit 3.1 to Form 8-K (file no. 001-14901) filed on May 8, 2006.
- [3.2](#) Certificate of Amendment to the Restated Certificate of Incorporation of the Company, incorporated by reference to Exhibit 3.1 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [3.3](#) Amended and Restated Bylaws of the Company, incorporated by reference to Exhibit 3.2 to Form 8-K (file no. 001-14901) filed on April 10, 2019.
- [4.1](#) Description of the Company's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, filed herewith.
- [4.2](#) Indenture, dated as of April 16, 2014, by and among the Company, the subsidiary guarantors party thereto and Wells Fargo Bank, National Association, a national banking association, as trustee, with respect to the 5.875% Senior Notes due 2022, incorporated by reference to Exhibit 4.1 to Form 8-K (file no. 001-14901) filed on April 16, 2014.
- [4.3](#) Indenture, dated as of March 14, 2019, by and among the Company, the subsidiary guarantors party thereto and UMB Bank, N.A., a national banking association, as trustee, with respect to the 7.250% Senior Notes due 2027, incorporated by reference to Exhibit 4.1 to Form 8-K (file no. 001-14901) filed on March 14, 2019.
- [4.4](#) Registration Rights Agreement, dated as of April 16, 2014, by and among the Company, the guarantors signatory thereto and J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC, as representatives of the several initial purchasers, incorporated by reference to Exhibit 4.2 to Form 8-K (file no. 001-14901) filed on April 16, 2014.
- [4.5](#) Registration Rights Agreement, dated as of August 12, 2014, by and among the Company, the guarantors signatory thereto and Goldman, Sachs & Co., as the initial purchasers, incorporated by reference to Exhibit 4.2 to Form 8-K (file no. 001-14901) filed on August 12, 2014.

- [10.1](#) Purchase and Sale Agreement dated July 19, 2016, by and among CONSOL of Kentucky Inc., Island Creek Coal Company, Laurel Run Mining Company, and CNX Land LLC and Southeastern Land, LLC, incorporated by reference to Exhibit 2.1 to Form 8-K (file no. 001-14901) filed on July 25, 2016.
- [10.2](#) Contribution Agreement dated as of November 15, 2016, by and among CONE Gathering LLC, CONE Midstream GP LLC, CONE Midstream Partners LP, CONE Midstream Operating Company LLC and certain other signatories thereto, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on November 16, 2016.
- [10.3](#) Second Amended and Restated Credit Agreement, dated as of March 8, 2018, by and among the Company, certain of its subsidiaries, PNC Bank, National Association, as administrative agent and collateral agent, JPMorgan Chase Bank, N.A., as syndication agent and the lender parties thereto, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on March 12, 2018.
- [10.4](#) Waiver No. 1 to Second Amended and Restated Credit Agreement, dated as of February 27, 2019, by and among the Company, the guarantors party thereto, the lenders party thereto, JPMorgan Chase Bank, N.A., as syndication agent, and PNC Bank, National Association, as administrative agent and collateral agent, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on March 4, 2019.
- [10.5](#) Amendment No. 1, dated as of April 24, 2019, to the Second Amended and Restated Credit Agreement, dated as of March 8, 2018, by and among the Company, the guarantors party thereto, the lenders party thereto, JPMorgan Chase Bank, N.A., as syndication agent, and PNC Bank, National Association, as administrative agent and collateral agent, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on April 30, 2019.
- [10.6](#) Amendment No. 2, dated as of October 28, 2019, to the Second Amended and Restated Credit Agreement, dated as of March 8, 2018, by and among the Company, the guarantors party thereto, the lenders party thereto, JPMorgan Chase Bank, N.A., as syndication agent, and PNC Bank, National Association, as administrative agent and collateral agent, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on October 29, 2019.
- [10.7](#) Stipulation and Agreement of Compromise and Settlement, dated May 8, 2013, between and among (i) plaintiffs Harold L. Hurwitz and James R. Gummel, on their own behalf and on behalf of the Class (as defined therein) and (ii) defendants CNX Gas Corporation, CONSOL Energy Inc. and certain individual defendants, incorporated by reference to Exhibit 10.1 of Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2013, filed on August 5, 2013.
- [10.8](#) Purchase Agreement, dated as of April 10, 2014, by and among the Company, the subsidiary guarantors party thereto and J.P. Morgan Securities LLC and Credit Suisse Securities (USA) LLC, as representatives of the several initial purchasers named therein, incorporated by reference to Exhibit 1.1 to Form 8-K (file no. 001-14901) filed on April 16, 2014.
- [10.9](#) Transition Services Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Mining Corporation, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [10.10](#) CNX Resources Corporation to CONSOL Energy Inc. Trademark License Agreement dated as of November 28, 2017, by and between the Company and CONSOL Energy Inc., incorporated by reference to Exhibit 10.2 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [10.11](#) CONSOL Energy Inc. to CNX Resources Corporation Trademark License Agreement, dated as of November 28, 2017, by and between the Company and CONSOL Energy Inc., incorporated by reference to Exhibit 10.3 to Form 8-K (file no. 001-14901) filed on December 4, 2017.
- [10.12](#) Purchase Agreement, dated as of December 14, 2017, by and among CNX Gas Company LLC, as Buyer, and NBL Midstream, LLC, as Seller, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on January 3, 2018.
- [10.13](#) Purchase and Sale Agreement, dated June 28, 2018, by and between CNX Gas Company LLC and Ascent Resources - Utica, LLC, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on August 31, 2018.
- [10.14](#) First Amendment to Purchase and Sale Agreement, dated August 29, 2018, by and between CNX Gas Company LLC and Ascent Resources - Utica, LLC, incorporated by reference to Exhibit 10.2 to Form 8-K (file no. 001-14901) filed on August 31, 2018.
- [10.15*](#) Letter Agreement, dated August 24, 2007, by and between the Company and Nicholas J. Deluliis, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on August 24, 2007.
- [10.16*](#) Change in Control Agreement, dated as of December 30, 2008, by and between the Company and Nicholas J. Deluliis, incorporated by reference to Exhibit 10.7 to Form 10-K (file no. 001-14901) for the year ended December 31, 2008, filed on February 17, 2009.
- [10.17*](#) Change in Control Severance Agreement, dated August 24, 2015, between the Company and Donald W. Rush, incorporated by reference to Exhibit 10.6 to Form 10-Q (file no. 001-14901) for the quarter ended March 31, 2018, filed on May 3, 2018.
- [10.18*](#) Change in Control Severance Agreement, dated October 28, 2019, by and between the Company and Chad A. Griffith, incorporated by reference to Exhibit 10.1 to Form 10-Q (file no. 001-14901) for the quarter ended September 30, 2019, filed on October 29, 2019.

- [10.19*](#) Change in Control Severance Agreement, dated October 28, 2019, by and between the Company and Olayemi Akinkugbe, incorporated by reference to Exhibit 10.2 to Form 10-Q (file no. 001-14901) for the quarter ended September 30, 2019, filed on October 29, 2019.
- [10.20*](#) Form of Indemnification Agreement for Directors and Executive Officers of the Company, incorporated by reference to Exhibit 10.6 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2009, filed on August 3, 2009.
- [10.21*](#) Form of Indemnification Agreement for Directors and Executive Officers of CNX Gas Corporation, incorporated by reference to Exhibit 10.7 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2009, filed on August 3, 2009.
- [10.22*](#) CNX Resources Corporation Equity Incentive Plan, as amended and restated effective January 26, 2018, incorporated by reference to Exhibit 10.48 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
- [10.23*](#) Amended and Restated CNX Resources Corporation Executive Annual Incentive Plan, incorporated by reference to Exhibit 10.49 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
- [10.24*](#) Form of Non-Qualified Stock Option Award Agreement for Employees (February 17, 2009 and through 2012), incorporated by reference to Exhibit 10.28 to Form S-4 (file no. 333-157894) filed on June 26, 2009.
- [10.25*](#) Form of Non-Qualified Performance Stock Option Agreement for Employees, incorporated by reference to Exhibit 10.1 to Form 8-K (file no. 001-14901) filed on June 21, 2010.
- [10.26*](#) Form of Employee Nonqualified Stock Option Agreement (May 26, 2016), incorporated by reference to Exhibit 10.4 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2016, filed on July 29, 2016.
- [10.27*](#) Form of Non-Qualified Stock Option Agreement for Directors, incorporated by reference to Exhibit 10.4 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2019, filed on July 30, 2019.
- [10.28*](#) Form of Non-Qualified Stock Option Agreement for Employees (for 2020 awards), filed herewith.
- [10.29*](#) Form of Restricted Stock Unit Award Agreement for Directors, incorporated by reference to Exhibit 10.5 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2019, filed on July 30, 2019.
- [10.30*](#) Form of Restricted Stock Unit Award Agreement for CEO (for 2019 awards), incorporated by reference to Exhibit 10.37 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.31*](#) Form of Restricted Stock Unit Award Agreement for VP and Above (for 2019 awards), incorporated by reference to Exhibit 10.38 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.32*](#) Form of Restricted Stock Unit Award Agreement for Non-VP and Below (for 2019 awards), incorporated by reference to Exhibit 10.39 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.33*](#) Form of Restricted Stock Unit Award Agreement for Employees (for 2020 awards), filed herewith.
- [10.34*](#) Form of Performance Share Unit Award Agreement (for 2016 awards), incorporated by reference to Exhibit 10.79 to Form 10-K (file no. 001-14901) for the year ended December 31, 2015, filed on February 5, 2016.
- [10.35*](#) Form of Performance Share Unit Award Agreement (for 2017 awards), incorporated by reference to Exhibit 10.80 to Form 10-K (file no. 001-14901) for the year ended December 31, 2016, filed on February 8, 2017.
- [10.36*](#) Form of Performance Share Unit Award Agreement (for 2018 awards), incorporated by reference to Exhibit 10.63 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
- [10.37*](#) Form of Performance Share Unit Award Agreement for CEO (for 2019 awards), incorporated by reference to Exhibit 10.44 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.38*](#) Form of Performance Share Unit Agreement for VP and Above (for 2019 awards), incorporated by reference to Exhibit 10.45 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.39*](#) Form of Performance Share Unit Agreement for Non-VP and Below (for 2019 awards), incorporated by reference to Exhibit 10.46 to Form 10-K (file no. 001-14901) for the year ended December 31, 2018, filed on February 7, 2019.
- [10.40*](#) Form of Performance Share Unit Award Agreement (for 2020 awards), filed herewith.
- [10.41*](#) Directors' Deferred Fee Plan (2004 Plan) (Amended and Restated on December 4, 2007), incorporated by reference to Exhibit 10.3 to Form 10-Q (file no. 001-14901) for the quarter ended March 31, 2008, filed on April 30, 2008.
- [10.42*](#) Hypothetical Investment Election Form Relating to Directors' Deferred Fee Plan (2004 Plan), incorporated by reference to Exhibit 10.50 to Form 10-K (file no. 001-14901) for the year ended December 31, 2007, filed on February 19, 2008.
- [10.43*](#) Form of Director Deferred Stock Unit Grant Agreement, incorporated by reference to Exhibit 10.95 to Form 8-K (file no. 001-14901) filed on May 8, 2006.

10.44*	Form of Director Deferred Stock Unit Grant Agreement, incorporated by reference to Exhibit 10.3 to Form 10-Q (file no. 001-14901) for the quarter ended March 31, 2018, filed on May 3, 2018.
10.45*	Form of Director Deferred Stock Unit Grant Agreement, updated May 2019, incorporated by reference to Exhibit 10.3 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2019, filed on July 30, 2019.
10.46*	Trust Agreement (Amended and Restated on March 20, 2008) (Directors' Deferred Fee Plan (2004 Plan)), incorporated by reference to Exhibit 10.4 to Form 10-Q (file no. 001-14901) for the quarter ended March 31, 2008, filed on April 30, 2008.
10.47*	Amended and Restated Retirement Restoration Plan of CNX Resources Corporation, as amended and restated effective December 2, 2008, as amended and restated effective November 28, 2017, incorporated by reference to Exhibit 10.71 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
10.48*	Amended and Restated Supplemental Retirement Plan of CNX Resources Corporation effective January 1, 2007, as amended and restated effective November 28, 2017, incorporated by reference to Exhibit 10.72 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
10.49*	Amendment, effective May 30, 2019, to the Amended and Restated Supplemental Retirement Plan of CNX Resources Corporation, as amended and restated effective November 28, 2017, incorporated by reference to Exhibit 10.2 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2019, filed on July 30, 2019.
10.50*	Amendment, effective September 24, 2019, to the Amended and Restated Supplemental Retirement Plan of CNX Resources Corporation as amended and restated effective November 28, 2017, filed herewith.
10.51*	CNX Resources Corporation Defined Contribution Restoration Plan, effective January 1, 2012, as amended and restated effective November 28, 2017, incorporated by reference to Exhibit 10.73 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
10.52*	Amendment, dated as of July 1, 2018, to the CNX Resources Corporation Defined Contribution Restoration Plan, effective January 1, 2012, as amended and restated effective November 28, 2017, incorporated by reference to Exhibit 10.1 to Form 10-Q (file no. 001-14901) for the quarter ended June 30, 2018, filed on August 2, 2018.
10.53*	Executive Compensation Clawback Policy of the Company, dated as of January 28, 2014, incorporated by reference to Exhibit 10.11 to Form 10-Q (file no. 001-14901) for the quarter ended March 31, 2014, filed on May 6, 2014.
10.54*	Purchase and Sale Agreement, dated as of February 7, 2018, by and among CNX Midstream Partners LP, CNX Midstream DevCo I LP, CNX Midstream DevCo III LP, CNX Gathering LLC, and, for certain purposes, CNX Midstream DevCo I GP LLC, CNX Midstream DevCo III GP LLC and CNX Midstream Operating Company LLC, incorporated by reference to Exhibit 10.75 to Form 10-K (file no. 001-14901) for the year ended December 31, 2017, filed on February 7, 2018.
10.55*	Letter Agreement, dated as of September 24, 2019, by and between the Company and Timothy Dugan, filed herewith.
21	Subsidiaries of CNX Resources Corporation.
23.1	Consent of Ernst & Young LLP
23.2	Consent of Netherland Sewell & Associates, Inc.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.1	Engineers' Audit Letter
101.INS	XBRL Instance Document - the instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Labels Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

* Denotes the management contracts and compensatory arrangements in which any director or any named executive officer participates.

Supplemental Information

No annual report or proxy material has been sent to shareholders of CNX at the time of filing of this Form 10-K. An annual report will be sent to shareholders and to the commission subsequent to the filing of this Form 10-K.

In accordance with SEC Release 33-8238, Exhibits 32.1 and 32.2 are being furnished and not filed.

CNX RESOURCES CORPORATION AND SUBSIDIARIES
Valuation and Qualifying Accounts
(Dollars in thousands)

	Balance at Beginning of Period	Additions		Deductions		Balance at End of Period
		Charged to Expense	Release of Valuation Allowance	Charged to Expense		
Year Ended December 31, 2019						
State Operating Loss Carry-Forwards	\$ 47,964	\$ 33,238	\$ —	\$ —	\$ —	\$ 81,202
Charitable Contributions	3,297	—	(2,639)	—	—	658
Foreign Tax Credits	43,194	—	—	—	—	43,194
Total	<u>\$ 94,455</u>	<u>\$ 33,238</u>	<u>\$ (2,639)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 125,054</u>
Year Ended December 31, 2018						
State Operating Loss Carry-Forwards	\$ 61,560	\$ —	\$ (13,596)	\$ —	\$ —	\$ 47,964
Deferred Deductible Temporary Differences	9,088	—	(9,088)	—	—	—
Charitable Contributions	3,156	141	—	—	—	3,297
162(m) Officers Compensation	5,957	—	(5,957)	—	—	—
AMT Credit	12,413	1,983	(14,396)	—	—	—
Foreign Tax Credits	44,402	—	(1,208)	—	—	43,194
Total	<u>\$ 136,576</u>	<u>\$ 2,124</u>	<u>\$ (44,245)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 94,455</u>
Year Ended December 31, 2017						
State Operating Loss Carry-Forwards	\$ 60,488	\$ —	\$ 1,072	\$ —	\$ —	\$ 61,560
Deferred Deductible Temporary Differences	10,590	—	(1,502)	—	—	9,088
Charitable Contributions	5,052	—	(1,896)	—	—	3,156
162(m) Officers Compensation	—	—	5,957	—	—	5,957
AMT Credit	166,798	—	(154,385)	—	—	12,413
Foreign Tax Credits	39,850	4,552	—	—	—	44,402
Total	<u>\$ 282,778</u>	<u>\$ 4,552</u>	<u>\$ (150,754)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 136,576</u>

**DESCRIPTION OF THE REGISTRANT'S SECURITIES
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

DESCRIPTION OF SECURITIES

The following description of our securities is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation") and our Amended and Restated Bylaws (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.1 is a part. We encourage you to read our Certificate of Incorporation and our Bylaws for additional information.

Authorized Capital Stock

Our authorized capital stock consists of 500,000,000 shares of common stock, par value \$0.01 per share ("Common Stock"), and 15,000,000 shares of preferred stock, par value \$0.01 per share ("Preferred Stock"), the rights and preferences of which may be established from time to time by our board of directors.

Common Stock

Holders of our Common Stock are entitled to one vote for each share on all matters voted upon by our stockholders, including the election of directors, and do not have cumulative voting rights, which means that the holders of a majority of shares voting for the election of directors can elect all members of our board of directors. Except as otherwise required by applicable law, a majority vote is sufficient for any act of stockholders. Subject to the rights of holders of any then outstanding shares of our Preferred Stock, our common stockholders are entitled to receive ratably any dividends that may be declared by our board of directors out of funds legally available therefor. Holders of our Common Stock are entitled to share ratably in our net assets upon our dissolution or liquidation after payment or provision for all liabilities and any preferential liquidation rights of our Preferred Stock then outstanding. Holders of our Common Stock do not have preemptive rights to purchase shares of our stock. The shares of our Common Stock are not subject to any sinking fund or redemption provisions and are not convertible into any other shares of our capital stock. All outstanding shares of our Common Stock are fully paid and nonassessable. The rights, preferences and privileges of holders of our Common Stock will be subject to those of the holders of any shares of our Preferred Stock we may issue in the future.

Our Common Stock is listed on the New York Stock Exchange under the symbol "CNX."

Preferred Stock

Our board of directors may, from time to time, authorize the issuance of one or more classes or series of Preferred Stock without stockholder approval.

Subject to the provisions of our Certificate of Incorporation and limitations prescribed by law, our board of directors is authorized to adopt resolutions to issue shares, establish the number of shares, change the number of shares constituting any series, and provide or change the voting powers, designations, preferences and relative rights, qualifications, limitations or restrictions on shares of our Preferred Stock, including dividend rights, terms of redemption, conversion rights and liquidation preferences, in each case without any action or vote by our stockholders.

CNX RESOURCES CORPORATION
EQUITY INCENTIVE PLAN
FORM OF
NON-QUALIFIED STOCK OPTION AWARD AGREEMENT

This Non-Qualified Stock Option Award Agreement set forth below (this "Agreement") is dated as of the grant date (the "Grant Date") set forth on Exhibit A and is between CNX Resources Corporation, a Delaware corporation (the "Company"), and the individual to whom the Compensation Committee of the Board of Directors of the Company or its delegate (the "Committee") has made this Award and whose name is set forth on Exhibit A (the "Participant"). The Company has established the CNX Resources Corporation Equity Incentive Plan, as amended (the "Plan"), to advance the interests of the Company and its stockholders by providing incentives to certain eligible persons who contribute significantly to the strategic and long-term performance objectives and growth of the Company. Unless the context otherwise requires, all capitalized terms not otherwise defined in this Agreement have the same meaning given such capitalized terms in the Plan.

Pursuant to the provisions of the Plan, the Board has delegated to the Committee full power and authority to direct the execution and delivery of this Agreement in the name and on behalf of the Company, and has authorized the execution and delivery of this Agreement.

Agreement

1. Non-Qualified Stock Option Award. Subject to and pursuant to all terms and conditions stated in this Agreement and in the Plan, as of the Grant Date, the Company hereby grants an Award to the Participant in the form of a Non-Qualified Stock Option (the "Option") with the number of Shares subject to the Award set forth on Exhibit A. The Option awarded under this Agreement shall represent a contingent right to purchase Shares that shall vest, except as otherwise provided herein, on the schedule described in Section 2 hereof. Notwithstanding, the Option as initially awarded has no independent economic value, but rather is a mere unit of measurement used for purposes of calculating the value of benefits, if any, to be received under this Agreement upon vesting and exercise of such Option.

2. Vesting. Subject to Section 5 hereof, one-third of the Option shall vest and become exercisable on the first anniversary of the Grant Date and an additional one-third of the Option shall vest and become exercisable on each of the second and third anniversaries of the Grant Date. For purposes of this Agreement, the term "Vested Portion" of the Option means that portion which: (i) shall have become vested and exercisable pursuant to the terms of this Agreement; (ii) shall not have been previously exercised; and (iii) shall not have expired, been forfeited or otherwise canceled in accordance with the terms hereof or the Plan. For purposes of this Agreement, the term "Non-Vested Portion" of the Option means that portion of the Option that is not vested or exercisable and which has not otherwise expired, been forfeited or canceled in accordance with the terms hereof or the Plan.

3. Exercise of Option.

3.1 Subject to the provisions of the Plan and this Agreement (including Section 5 hereof), the Participant may exercise all or any part of the Vested Portion of the Option at any time prior to the tenth anniversary of the Grant Date (the "Expiration Date"); provided that the Option may be exercised with respect to whole Shares only. In no event shall the Option be exercisable on or after the Expiration Date.

3.2 To the extent set forth in Section 3.1 above, the Option may be exercised by delivering to the Company at its principal office, or to such other location designated by the Company, written notice of intent to exercise. Such notice shall specify the number of Shares for which the Option is being exercised and shall be accompanied by payment in full, or adequate provision therefor, of the aggregate Exercise Price Per Share (as set forth on Exhibit A) for such Shares ("Exercise Price"), and any applicable withholding tax and fees. In accordance with the administrative procedures established by the Company, the payment of the Exercise Price shall be made as indicated by the Participant on the election form: (i) in cash; (ii) by certified check or bank draft payable to the order of the Company; (iii) by personal check payable to the order of the Company; (iv) by tendering, actually or constructively, Shares owned by the Participant (and which are not subject to any pledge or other security interest); or (v) by a combination of the foregoing, provided that the combined value of all cash and cash equivalents and the Fair Market Value of any such Shares so tendered to the Company as of the date of such tender is at least equal to the Exercise Price. The Participant may also elect to pay all or any portion of the Exercise Price by having Shares with a Fair Market Value on the date of exercise equal to the Exercise Price withheld by the Company or sold by a broker-dealer. Subject to the preceding sentence, the Participant may elect to sell all Shares to cover Option costs, taxes, and fees, and any remaining funds will be issued to the Participant. The payment of withholding tax shall be subject to Section 6 of this Agreement.

3.3 Notwithstanding any other provision of the Plan or this Agreement to the contrary, no Option may be exercised prior to the completion of any registration or qualification of such Option or the Shares under applicable state and federal securities or other laws, or under any ruling or regulation of any government body or national securities exchange, that the Board shall in its sole discretion determine to be necessary or advisable.

3.4 Upon the Company's determination that the Option has been validly exercised as to any of the Shares, the Company shall issue or cause to be issued the Shares in the Participant's name.

4. Change in Control. Notwithstanding any other provision of this Agreement, in the event of a Change in Control, as defined in Section 16 of the Plan, the Non-Vested Portion of the Option shall vest and, unless otherwise provided by separate agreement between the Company and the Participant, the Option shall remain exercisable until the Expiration Date.

5. Change in Participant's Status.

5.1 In the event the Participant Separates from Service on account of death or Disability, the Non-Vested Portion of the Option shall vest in its entirety immediately upon the Participant's Separation from Service and the Option shall remain exercisable until the Expiration Date.

5.2 In the event the Participant Separates from Service by action taken by the Company (including any Affiliate) without Cause and after a decision by the Company's Chief Executive Officer, in his or her sole and absolute discretion, that such Separation from Service without Cause qualifies for special vesting treatment hereunder (a "Qualifying Separation from Service without Cause"), the Non-Vested Portion of the Option shall continue to vest and become exercisable in accordance with the schedule established under Section 2 of this Agreement and the Option shall remain exercisable until the Expiration Date.

5.3 In the event the Participant Separates from Service for any other reason, including, but not limited to, by the Participant voluntarily, or by the Company (including any Affiliate) without Cause (other than in connection with a Qualifying Separation of Service without Cause), the Non-Vested Portion of the Option shall be deemed canceled and forfeited on the date of the Participant's Separation from Service and the Vested Portion, if any, of the Option as of the date of such Separation from Service shall remain exercisable until the Expiration Date.

5.4 In the event the Participant Separates from Service by action taken by the Company (including any Affiliate) for Cause, the Option (whether vested or unvested) shall be deemed canceled and forfeited in its entirety on the date of the Participant's Separation from Service and, to the extent that the Participant has exercised any Option within the six (6)-month period ending with the date of the Participant's date of Separation from Service for Cause, the Participant will be required to repay to the Company, within ten (10) days after receipt of written demand from the Company, an amount in cash equal to the gain realized by the Participant upon exercise of the Option.

6. Tax Consequences/Withholding.

6.1 The Participant agrees to make appropriate arrangements with the Company for satisfaction of any applicable federal, state, local or foreign tax withholding requirements or like requirements, including the payment to the Company at the time of any exercise of the Option of all such taxes and requirements, by submitting an election form to the Company. The Participant is hereby authorized to instruct the Company to withhold from the Shares deliverable to the Participant upon any exercise of the Option the number of Shares having a Fair Market Value equal to the applicable minimum statutory tax withholding requirements as determined in accordance with the Plan; provided, however, in the event the full amount of the Participant's taxes cannot be satisfied through Share withholding, the remaining amount must be paid by separate check delivered by the Participant to the Company.

6.2 This Agreement is intended to be excepted from coverage under, Section 409A of the Code and the regulations promulgated thereunder and shall be administered, interpreted and construed accordingly. Notwithstanding any provision of this Agreement to the contrary, if any benefit provided under this Agreement is subject to the provisions of Section 409A of the Code and the regulations issued thereunder (and not excepted therefrom), the provisions of the Agreement shall be administered, interpreted and construed in a manner necessary to comply with Section 409A (or disregarded to the extent such provision cannot be so administered, interpreted, or construed). Notwithstanding, Section 409A may impose upon the Participant certain taxes or other charges for which the Participant is and shall remain solely responsible, and nothing contained in this Agreement or the Plan shall be construed to obligate any member of the Committee or Board, the Company or any Affiliate (or its employees, officers or directors) for any such taxes or other charges.

7. Non-Competition.

7.1 The Participant hereby agrees that this Section 7 is reasonable and necessary in order to protect the legitimate business interests and goodwill of the Company, including the Company's trade secrets, valuable confidential business and professional information, substantial relationships with prospective and existing customers and clients, and specialized training provided to the Participant and other employees of the Company. The Participant acknowledges and recognizes the highly competitive nature of the business of the Company and its Affiliates and accordingly agrees that during the term of the Participant's employment and for a period of [1 year / 6 months] after the termination thereof (the "Restriction Period"):

(a) The Participant will not directly or indirectly engage in any business substantially similar to any line of business conducted by the Company or any of its Affiliates, including, but not limited to, where such engagement is as an officer, director, proprietor, employee, partner, investor (other than as a holder of less than 1% of the outstanding capital stock of a publicly traded corporation), consultant, advisor, agent or sales representative, in any geographic region in which the Company or any of its Affiliates conducted business;

(b) The Participant will not contact, solicit, perform services for, or accept business from any customer or prospective customer of the Company or any of its Affiliates;

(c) The Participant will not directly or indirectly induce any employee of the Company or any of its Affiliates to: (1) engage in any activity or conduct which is prohibited pursuant to subparagraph 7.1(a); or (2) terminate such employee's employment with the Company or any of its Affiliates. Moreover, the Participant will not directly or indirectly employ or offer employment (in connection with any business substantially similar to any line of business conducted by the Company or any of its Affiliates) to any person who was employed by the Company or any of its Affiliates unless such person shall have ceased to be employed by the Company or any of its Affiliates for a period of at least 12 months; and

(d) The Participant will not directly or indirectly assist others in engaging in any of the activities, which are prohibited under subparagraphs (a) — (c) above.

Notwithstanding the foregoing, if the Restriction Period set forth herein is shorter in duration following the Participant's termination of employment with the Company and its Affiliates than in any other prior Award Agreement, the Restriction Period set forth herein shall be the Restriction Period for all such prior Award Agreements and related Awards. Similarly, if the Restriction Period is longer in this Agreement than in prior Award Agreements, the Restriction Period set forth in such prior Award Agreements and related Awards shall be amended hereby and have the same applicable Restriction Period following the Participant's termination of employment with the Company and its Affiliates as set forth herein (and the Participant shall be deemed to have consented to such amendment by executing this Agreement).

7.2 It is expressly understood and agreed that although the Participant and the Company consider the restrictions contained in this Section 7 to be reasonable, if a final judicial determination is made by a court of competent jurisdiction that the time or territory or any other restriction contained in this Agreement is an unenforceable restriction against the Participant, the provisions of this Agreement shall not be rendered void but shall be deemed amended to apply as to such maximum time and territory and to such maximum extent as such court may judicially determine or indicate to be enforceable against such Participant. Alternatively, if any court of competent jurisdiction finds that any restriction contained in this Agreement is unenforceable, and such restriction cannot be amended so as to make it enforceable, such finding shall not affect the enforceability of any of the other restrictions contained herein. The restrictive covenants set forth in this Section 7 shall be extended by any amount of time that the Participant is in breach of such covenants, such that the Company receives the full benefit of the time duration set forth above.

8. Confidential Information and Trade Secrets. The Participant and the Company agree that certain materials, including, but not limited to, information, data and other materials relating to customers, development programs, costs, marketing, trading, investment, sales activities, promotion, credit and financial data, manufacturing processes, financing methods, plans or the business and affairs of the Company and its Affiliates, constitute proprietary confidential information and trade secrets. Accordingly, the Participant will not at any time during or after the Participant's employment with the Company (including any Affiliate) disclose or use for such Participant's own benefit or purposes or the benefit or purposes of any other person, firm, partnership, joint venture, association, corporation or other business organization, entity or enterprise other than the Company and any of its Affiliates, any proprietary confidential information or trade secrets, provided that the foregoing shall not apply to information which is not unique to the Company or any of its Affiliates or which is generally known to the industry or the public other than as a result of such Participant's breach of this covenant. The Participant agrees that upon termination of employment with the Company (including any Affiliate) for any reason, the Participant will immediately return to the Company all memoranda, books, papers, plans, information, letters and other data, and all copies thereof or therefrom, which in any way relate to the business of the Company and its Affiliates, except that the Participant may retain personal notes, notebooks and diaries. The Participant further agrees that the Participant will not retain or use for the Participant's own account at any time any trade names, trademark or other proprietary business designation used or owned in connection with the business of the Company or any of its Affiliates.

Notwithstanding anything contained herein to the contrary, this Agreement shall not prohibit disclosure of proprietary confidential information if (i) it is required by law or by a court of competent jurisdiction or (ii) it is in connection with any judicial, arbitration, dispute resolution or other legal proceeding in which your legal rights and obligations as an employee or under this Agreement are at issue; provided, however, that you shall, to the extent practicable and lawful in any such event, give prior notice to the Company of your intent to disclose proprietary confidential information so as to allow the Company an opportunity (which you shall not oppose) to obtain such protective orders or similar relief with respect thereto as may be deemed appropriate.

Notwithstanding the foregoing, nothing in this Agreement is intended to restrict, prohibit, impede or interfere with the Participant providing information to, or from reporting possible violations of law or regulation to, any governmental agency or entity, from participating in investigations, testifying in proceedings regarding the Company's past or future conduct, or from making other disclosures that are protected under state or federal law or regulation, engaging in any future activities protected under statutes administered by any government agency (including but not limited, to the Department of Justice, the Securities and Exchange Commission, the Congress, and any agency Inspector General), or from receiving and retaining a monetary award from a government-administered whistleblower award program for providing information directly to a government-administered whistleblower award program. The Participant does not need the prior authorization of the Company to make such reports or disclosures. The Participant is not required to notify the Company that he or she has made any such reports or disclosures. The Company nonetheless asserts, and does not waive, its attorney-client privilege over any information appropriately protected by the privilege.

9. Remedies/Forfeiture.

9.1 The Participant acknowledges that a violation or attempted violation on the Participant's part of Sections 7 and/or 8 will cause irreparable damage to the Company and its Affiliates, and the Participant therefore agrees that the Company and its Affiliates shall be entitled as a matter of right to an injunction, out of any court of competent jurisdiction, restraining any violation or further violation of such promises by the Participant or the Participant's employees, partners or agents. The Participant agrees that such right to an injunction is cumulative, in addition to whatever other remedies the Company (including any Affiliate) may have under law or equity and to the Participant's obligations to make timely payment to the Company as set forth in Section 9.2 of this Agreement. The Participant further acknowledges and agrees that the Participant's Option shall be cancelled and forfeited without payment by the Company if the Participant breaches any of his obligations set forth in Sections 7 and 8 herein.

9.2 At any point after becoming aware of a breach of any obligation set forth in Sections 7 and 8 of this Agreement, the Company shall provide notice of such breach to the Participant. By agreeing to receive the Option pursuant to this Agreement, the Participant agrees that, to the extent the Participant has exercised any Option, within ten (10) days after the date the Company provides such notice, the Participant shall pay to the Company in cash an amount equal to the gain realized by the Participant upon exercise of the Option at any time during the period following the date that was six (6) months prior to the date of the earliest breach. The Participant agrees that failure to make such timely payment to the Company constitutes an independent and material breach of the terms and conditions of this Agreement, for which the Company may seek recovery of the unpaid amount as liquidated damages, in addition to all other rights and remedies the Company may have resulting from the Participant's breach of the obligations set forth in Sections 7 and/or 8. The Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is reasonable and necessary because the compensatory damages that will result from breaches of Sections 7 and/or 8 cannot readily be ascertained. Further, the Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is not a penalty, and it does not preclude the Company from seeking all other remedies that may be available to the Company, including without limitation those set forth in this Section 9.

10. Assignment/Nonassignment.

10.1 The Company shall have the right to assign this Agreement, including without limitation Sections 7 and/or 8, and the Participant agrees to remain obligated by all provisions of this Agreement that are assigned to any successor, assign or surviving entity. Any successor to the Company is an intended third party beneficiary of this Agreement.

10.2 The Option is nontransferable and any interest in the Option or (prior to exercise) the underlying Shares shall not be sold, pledged, assigned, hypothecated, transferred or disposed of (a "Transfer") in any manner, other than by will or the laws of descent and distribution. Any attempt by the Participant to Transfer the Option in violation of the terms of this Agreement shall render the Option null and void, and result in the immediate forfeiture of such Option, without payment by the Company.

11. Impact on Benefit Plans. Payments under this Agreement shall not be considered as earnings for purposes of the Company's and/or Affiliate's qualified retirement plans or any other retirement or benefit plan unless specifically provided for therein. Nothing herein shall prevent the Company or any Affiliate from maintaining additional compensation plans and arrangements for its employees.

12. Successors; Changes in Stock. The obligation of the Company under this Agreement shall be binding upon the successors and assigns of the Company. In the event of any spin-off, split-off or split-up, dividend in property other than cash, recapitalization or other change in the capital structure of the Company, or any merger, consolidation, reorganization, partial or complete liquidation or other distribution of assets (other than a normal cash dividend), or any other corporate transaction or event having an effect similar to any of the foregoing, or extraordinary distribution to stockholders of the Company's common stock, the Option shall be appropriately adjusted to prevent dilution or enlargement of the rights of the Participant which would otherwise result from any such transaction, provided such adjustment shall be consistent with Code Section 409A.

In the case of a Change in Control, any obligation under this Agreement shall be handled in accordance with the terms of Section 4 hereof. In any case not constituting a Change in Control in which the Company's common stock is changed into or becomes exchangeable for a different number or kind of shares of stock or other securities of the Company or another corporation, or cash or other property, whether through reorganization, reclassification, recapitalization, stock split-up, combination of shares, merger or consolidation, then (i) the value of the Option constituting the Award shall be calculated based on the closing price per Share of such common stock on the closing date of the transaction on the principal market on which such common stock is traded and (ii) there shall be substituted for the Option constituting the Award, the number and kind of shares of stock or other securities (or cash or other property) into which each outstanding Share relating to the Option shall be so changed or for which each such Share shall be exchangeable relating to the Option. In the case of any such adjustment, the Option shall remain subject to the terms of the Agreement.

13. Governing Law, Jurisdiction, and Venue.

13.1 This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the principles of conflicts of law.

13.2 The Participant hereby irrevocably submits to the personal and exclusive jurisdiction of the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania in any action or proceeding arising out of, or relating to, this Agreement (whether such action or proceeding arises under contract, tort, equity or otherwise). The Participant hereby irrevocably waives any objection which the Participant now or hereafter may have to the laying of venue or personal jurisdiction of any such action or proceeding brought in said courts.

13.3 Jurisdiction over, and venue of, any such action or proceeding shall be exclusively vested in the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania.

13.4 Provided that the Company commences any such action or proceeding in the courts identified in Section 13.3, the Participant irrevocably waives the Participant's right to object to or challenge the above selected forum on the basis of inconvenience or unfairness under 28 U.S.C. § 1404, 42 Pa. C.S. § 5322 or similar state or federal statutes. The Participant agrees to reimburse the Company for all of the attorneys' fees and costs it incurs to oppose the Participant's efforts to challenge or object to litigation proceeding in the courts identified in Section 13.3 with respect to actions arising out of or relating to this Agreement (whether such actions arise under contract, tort, equity or otherwise).

14. Failure to Enforce Not a Waiver. The failure of the Company to enforce at any time any provision of this Agreement shall in no way be construed to be a waiver of such provision or of any other provision hereof.

15. Severability. In the event that any one or more of the provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

16. Funding. This Agreement is not funded and all amounts payable hereunder, if any, shall be paid from the general assets of the Company or its Affiliate, as applicable. No provision contained in this Agreement or the Plan and no action taken pursuant to the provisions of this Agreement or the Plan shall create a trust of any kind or require the Company to maintain or set aside any specific funds to pay benefits hereunder. To the extent the Participant acquires a right to receive payments from the Company under this Agreement, such right shall be no greater than the right of any unsecured general creditor of the Company.

17. Headings. The descriptive headings of the Sections of this Agreement are inserted for convenience of reference only and shall not constitute a part of this Agreement.

18. Awards Subject to Plan. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern and prevail.

19. Amendment or Termination of this Agreement. This Agreement may be modified, amended, suspended or terminated by the Committee at any time; provided, however, that no modification, amendment, suspension or termination of the Plan or this Agreement shall adversely affect the material rights of the Participant under this Agreement without the consent of such Participant. Notwithstanding the foregoing or any provision of this Agreement to the contrary, the Company may, in its sole discretion and without the Participant's consent, modify or amend the terms of the Agreement or the Award, or take any other action it deems necessary or advisable, to cause the Agreement to comply with Section 10D of the Exchange Act or Section 409A (or an exception thereto). Any modification, amendment, suspension or termination shall only be effective upon a writing issued by the Company, and the Participant shall not offer evidence of any purported oral modifications or amendments to vary or contradict the terms of this Agreement document.

20. Entire Agreement. Except as otherwise provided in this Agreement or in any other agreement between the Participant and the Company, this Agreement and the Plan are: (i) intended to be the final, complete, and exclusive statement of the terms of the agreement between the Participant and the Company with regard to the subject matter of this Agreement; (ii) supersede all other prior agreements, communications, and statements, whether written or oral, express or implied, pertaining to that subject matter; and (iii) may not be contradicted by evidence of any prior or contemporaneous statements or agreements, oral or written, and may not be explained or supplemented by evidence of consistent additional terms.

21. Clawback. Notwithstanding any provisions in this Agreement to the contrary, any compensation, payments, or benefits provided hereunder (or profits realized from the sale of Shares delivered hereunder), whether in the form of cash or otherwise, shall be subject to recoupment and recapture to the extent necessary to comply with the requirements of any Company-adopted policy and/or laws or regulations, including, but not limited to, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Exchange Act, Section 304 of the Sarbanes Oxley Act of 2002, the New York Stock Exchange Listed Company Manual or any rules or regulations promulgated thereunder with respect to such laws, regulations and/or securities exchange listing requirements, as may be in effect from time to time, and which may operate to create additional rights for the Company with respect to this grant and recovery of amounts relating thereto. By accepting this Option, the Participant agrees and acknowledges that he or she is obligated to cooperate with, and provide any and all assistance necessary to, the Company to recover, recoup or recapture this Option (including Shares relating thereto) or amounts paid under the Plan pursuant to such law, government regulation, stock exchange listing requirement or Company policy. Such cooperation and assistance shall include, but is not limited to, executing, completing and submitting any documentation necessary to recover, recoup or recapture this Option (and Shares relating thereto) or amounts paid under the Plan from a Participant's accounts, or pending or future compensation or other grants.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the day and year indicated below. This Agreement may be executed in more than one counterpart, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

PARTICIPANT

Dated: _____

CNX RESOURCES CORPORATION

Dated: _____

Exhibit A

Participant: [_____]

Participant's Personnel Number: [_____]

Grant Date: January [__], 2020

Number of Shares Covered by Option: [_____]

Exercise Price Per Share: [_____]

First Vesting Date: January [__], 2021

CNX RESOURCES CORPORATION
EQUITY INCENTIVE PLAN
FORM OF
RESTRICTED STOCK UNIT AWARD AGREEMENT

This Restricted Stock Unit Award Agreement set forth below (this "Agreement") is dated as of the grant date (the "Grant Date") set forth on Exhibit A and is between CNX Resources Corporation, a Delaware corporation (the "Company"), and the individual to whom the Compensation Committee of the Board of Directors of the Company or its delegatee (the "Committee") has made this Restricted Stock Unit Award and whose name is set forth on Exhibit A (the "Participant").

The Company has established the CNX Resources Corporation Equity Incentive Plan, as amended (the "Plan"), to advance the interests of the Company and its stockholders by providing incentives to certain eligible persons who contribute significantly to the strategic and long-term performance objectives and growth of the Company. Unless the context otherwise requires, all capitalized terms not otherwise defined in this Agreement have the same meaning given such capitalized terms in the Plan.

Pursuant to the provisions of the Plan, the Board has delegated to the Committee full power and authority to direct the execution and delivery of this Agreement in the name and on behalf of the Company, and has authorized the execution and delivery of this Agreement.

Agreement

1. Restricted Stock Unit Award. Subject to and pursuant to all terms and conditions stated in this Agreement and in the Plan, as of the Grant Date, the Company hereby grants an Award to the Participant in the form of the number of Restricted Stock Units set forth on Exhibit A (the "Restricted Stock Units"). Each Restricted Stock Unit awarded under this Agreement shall represent a contingent right to receive one Share following the vesting date of such Restricted Stock Unit as described on Exhibit A (each such vesting date, a "Vesting Date"). Notwithstanding, Restricted Stock Units as initially awarded have no independent economic value, but rather are mere units of measurement used for purposes of calculating the value of any benefits to be paid under this Agreement.

2. Issuance and Distribution.

2.1 Subject to the terms and conditions of this Agreement, and except as otherwise provided in Section 2.2 or Section 4, Restricted Stock Units will be settled and paid in Shares issued to the Participant (to the extent not previously settled) on the applicable Vesting Date, or if the applicable Vesting Date is not a business day, on the immediately following business day, or as soon as reasonably practicable but in no event later than the 15th day of the third month following such date, subject to the Participant's satisfaction of all applicable income and employment withholding taxes; provided, however, that the Participant shall not be permitted to designate the taxable year of payment.

2.2 Notwithstanding any other provision of this Agreement, in the event of a Change in Control, as defined in Section 16 of the Plan, the Restricted Stock Units (to the extent not previously vested or forfeited) will be deemed to have vested, and will be settled, on the closing date of the Change in Control transaction (the "CiC Payment Date"); provided, however, in the event of a Change in Control, Restricted Stock Units may, in the Committee's discretion, be settled in cash and/or securities or other property.

2.3 The Participant is required to hold, and not sell, transfer or otherwise dispose of fifty percent (50%) of the Shares issued to the Participant following the vesting of the Restricted Stock Units (after accounting for the payment of any related taxes in connection with the vesting of the Restricted Stock Units) until the earlier of (i) ten (10) years from the Grant Date; or (ii) the Participant's attainment of age sixty-two (62).

3. Dividends. Each Restricted Stock Unit will be cumulatively credited with dividends that are paid on the Company's common stock in the form of additional units. These additional units shall be deemed to have been purchased on the record date for the dividend using the closing stock price per Share as reported in The Wall Street Journal and shall be subject to all the same conditions and restrictions as provided in this Agreement applicable to Restricted Stock Units.

4. Change in Participant's Status. In the event the Participant Separates from Service (i) on account of death or Disability (and, for the avoidance of doubt, the Participant shall have a Separation from Service upon the Participant's becoming Disabled) or (ii) by action taken by the Company (including any Affiliate) without Cause and after a decision by the Company's Chief Executive Officer, in his or her sole and absolute discretion with respect to non-Section 16 employees, that such Separation from Service without Cause qualifies for special vesting treatment hereunder (a "Qualifying Separation from Service without Cause"), prior to any Vesting Date or the CiC Payment Date, as applicable, the Participant shall vest in any unvested Restricted Stock Units (to the extent not previously forfeited) and receive payment therefore on the date of such Separation from Service (or as soon as reasonably practicable thereafter, but in no event later than the 15th day of the third month following such Separation from Service); provided, however, that the Participant shall not be permitted to designate the taxable year of payment. In the event the Participant Separates from Service for any other reason, including, but not limited to, by the Participant voluntarily, or by the Company (including any Affiliate) with Cause or without Cause (other than in connection with a Qualifying Separation of Service without Cause), prior to any Vesting Date or the CiC Payment Date, as applicable, the unvested Restricted Stock Units awarded to the Participant shall be cancelled and forfeited, without payment by the Company or any Affiliate; provided that in the event the Participant Separates from Service by action taken by the Company (including any Affiliate) with Cause, any vested Restricted Stock Units that are held by the Participant shall also be forfeited (with any Shares issued thereunder returned to the Company) and, to the extent that the Participant has sold any of his or her Shares issued under the Award within the six (6)-month period ending with the date of the Participant's date of Separation from Service for Cause, the Participant will be required to repay to the Company, within ten (10) days after receipt of written demand from the Company, the cash proceeds that the Participant received upon each such sale. Any payments due a deceased Participant may be transferred pursuant to the provisions of his or her will or the laws of inheritance following the Participant's death. Notwithstanding the foregoing or any provision contained herein to the contrary, the delivery of any Shares shall be delayed until six (6) months after your Separation from Service to the extent required by Section 409A(a)(2)(B)(i) of the Code as provided under the terms of the Plan.

5. Tax Consequences/Withholding.

5.1 It is intended that the Participant shall have merely an unfunded, unsecured promise to be paid a benefit, and such unfunded promise shall not consist of a transfer of "property" within the meaning of Code Section 83.

5.2 Participant acknowledges that any income for federal, state, local or foreign tax purposes, including payroll taxes, that the Participant is required to recognize on account of the vesting of the Restricted Stock Units and/or issuance of the Shares under this Award to the Participant shall be subject to withholding of tax by the Company. The Participant must pay all applicable taxes when due. The Company will automatically withhold from the total number of Shares deliverable to the Participant upon the applicable payment date, the number of Shares having a fair market value equal to the minimum statutory tax withholding requirements (or as otherwise approved by the Board) as determined in accordance with the Plan. In the event of any remaining tax balance, the Participant will be required to deliver a check for that amount payable to CNX Resources Corporation before the Shares are deposited into Participant's plan account. Notwithstanding the foregoing, if the Participant is liable for the payment of the employee share of the FICA (Social Security and Medicare) taxes applicable to the Award prior to the payment of the Shares underlying the Award, the Participant will be required to deliver a check for the amount of such FICA taxes payable to CNX Resources Corporation in a timely manner.

5.3 This Agreement is intended to comply with, or be excepted from coverage under, Section 409A of the Code and the regulations promulgated thereunder and shall be administered, interpreted and construed accordingly. Notwithstanding any provision of this Agreement to the contrary, if any benefit provided under this Agreement is subject to the provisions of Section 409A of the Code and the regulations issued thereunder (and not excepted therefrom), the provisions of the Agreement shall be administered, interpreted and construed in a manner necessary to comply with Section 409A (or disregarded to the extent such provision cannot be so administered, interpreted, or construed). Notwithstanding, Section 409A may impose upon the Participant certain taxes or other charges for which the Participant is and shall remain solely responsible, and nothing contained in this Agreement or the Plan shall be construed to obligate any member of the Committee or Board, the Company or any Affiliate (or its employees, officers or directors) for any such taxes or other charges.

6. Non-Competition.

6.1 The Participant hereby agrees that this Section 6 is reasonable and necessary in order to protect the legitimate business interests and goodwill of the Company, including the Company's trade secrets, valuable confidential business and professional information, substantial relationships with prospective and existing customers and clients, and specialized training provided to the Participant and other employees of the Company. The Participant acknowledges and recognizes the highly competitive nature of the business of the Company and its Affiliates and accordingly agrees that during the term of Participant's employment and for a period of [1 year / 6 months] after the termination thereof (the "Restriction Period"):

(a) The Participant will not directly or indirectly engage in any business substantially similar to any line of business conducted by the Company or any of its Affiliates, including, but not limited to, where such engagement is as an officer, director, proprietor, employee, partner, investor (other than as a holder of less than 1% of the outstanding capital stock of a publicly traded corporation), consultant, advisor, agent or sales representative, in any geographic region in which the Company or any of its Affiliates conducted business;

(b) The Participant will not contact, solicit, perform services for, or accept business from any customer or prospective customer of the Company or any of its Affiliates;

(c) The Participant will not directly or indirectly induce any employee of the Company or any of its Affiliates to: (1) engage in any activity or conduct which is prohibited pursuant to subparagraph 6.1(a); or (2) terminate such employee's employment with the Company or any of its Affiliates. Moreover, the Participant will not directly or indirectly employ or offer employment (in connection with any business substantially similar to any line of business conducted by the Company or any of its Affiliates) to any person who was employed by the Company or any of its Affiliates unless such person shall have ceased to be employed by the Company or any of its Affiliates for a period of at least 12 months; and

(d) The Participant will not directly or indirectly assist others in engaging in any of the activities, which are prohibited under subparagraphs (a) — (c) above.

Notwithstanding the foregoing, if the Restriction Period set forth herein is shorter in duration following the Participant's termination of employment with the Company and its Affiliates than in any other prior Award Agreement, the Restriction Period set forth herein shall be the Restriction Period for all such prior Award Agreements and related Awards. Similarly, if the Restriction Period is longer in this Agreement than in prior Award Agreements, the Restriction Period set forth in such prior Award Agreements and related Awards shall be amended hereby and have the same applicable Restriction Period following Participant's termination of employment with the Company and its Affiliates as set forth herein (and the Participant shall be deemed to have consented to such amendment by executing this Agreement).

6.2 It is expressly understood and agreed that although the Participant and the Company consider the restrictions contained in this Section 6 to be reasonable, if a final judicial determination is made by a court of competent jurisdiction that the time or territory or any other restriction contained in this Agreement is an unenforceable restriction against the Participant, the provisions of this Agreement shall not be rendered void but shall be deemed amended to apply as to such maximum time and territory and to such maximum extent as such court may judicially determine or indicate to be enforceable against such Participant. Alternatively, if any court of competent jurisdiction finds that any restriction contained in this Agreement is unenforceable, and such restriction cannot be amended so as to make it enforceable, such finding shall not affect the enforceability of any of the other restrictions contained herein. The restrictive covenants set forth in this Section 6 shall be extended by any amount of time that the Participant is in breach of such covenants, such that the Company receives the full benefit of the time duration set forth above.

7. Confidential Information and Trade Secrets. The Participant and the Company agree that certain materials, including, but not limited to, information, data and other materials relating to customers, development programs, costs, marketing, trading, investment, sales activities, promotion, credit and financial data, manufacturing processes, financing methods, plans or the business and affairs of the Company and its Affiliates, constitute proprietary confidential information and trade secrets. Accordingly, the Participant will not at any time during or after the Participant's employment with the Company (including any Affiliate) disclose or use for such Participant's own benefit or purposes or the benefit or purposes of any other person, firm, partnership, joint venture, association, corporation or other business organization, entity or enterprise other than the Company and any of its Affiliates, any proprietary confidential information or trade secrets, provided that the foregoing shall not apply to information which is not unique to the Company or any of its Affiliates or which is generally known to the industry or the public other than as a result of such Participant's breach of this covenant. The Participant agrees that upon termination of employment with the Company (including any Affiliate) for any reason, the Participant will immediately return to the Company all memoranda, books, papers, plans, information, letters and other data, and all copies thereof or therefrom, which in any way relate to the business of the Company and its Affiliates, except that the Participant may retain personal notes, notebooks and diaries. The Participant further agrees that the Participant will not retain or use for the Participant's own account at any time any trade names, trademark or other proprietary business designation used or owned in connection with the business of the Company or any of its Affiliates.

Notwithstanding anything contained herein to the contrary, this Agreement shall not prohibit disclosure of proprietary confidential information if (i) it is required by law or by a court of competent jurisdiction or (ii) it is in connection with any judicial, arbitration, dispute resolution or other legal proceeding in which your legal rights and obligations as an employee or under this Agreement are at issue; provided, however, that you shall, to the extent practicable and lawful in any such event, give prior notice to the Company of your intent to disclose proprietary confidential information so as to allow the Company an opportunity (which you shall not oppose) to obtain such protective orders or similar relief with respect thereto as may be deemed appropriate.

Notwithstanding the foregoing, nothing in this Agreement is intended to restrict, prohibit, impede or interfere with the Participant providing information to, or from reporting possible violations of law or regulation to, any governmental agency or entity, from participating in investigations, testifying in proceedings regarding the Company's past or future conduct, or from making other disclosures that are protected under state or federal law or regulation, engaging in any future activities protected under statutes administered by any government agency (including but not limited to, the Department of Justice, the Securities and Exchange Commission, the Congress, and any agency Inspector General), or from receiving and retaining a monetary award from a government-administered whistleblower award program for providing information directly to a government-administered whistleblower award program. The Participant does not need the prior authorization of the Company to make such reports or disclosures. The Participant is not required to notify the Company that he or she has made any such reports or disclosures. The Company nonetheless asserts, and does not waive, its attorney-client privilege over any information appropriately protected by the privilege.

8. Remedies/Forfeiture.

8.1 The Participant acknowledges that a violation or attempted violation on the Participant's part of Sections 6 and/or 7 will cause irreparable damage to the Company and its Affiliates, and the Participant therefore agrees that the Company and its Affiliates shall be entitled as a matter of right to an injunction, out of any court of competent jurisdiction, restraining any violation or further violation of such promises by the Participant or the Participant's employees, partners or agents. The Participant agrees that such right to an injunction is cumulative, in addition to whatever other remedies the Company (including any Affiliate) may have under law or equity and to the Participant's obligations to make timely payment to the Company as set forth in Section 8.2 of this Agreement. The Participant further acknowledges and agrees that the Participant's Restricted Stock Units (whether vested or unvested) shall be cancelled and forfeited (with any Shares issued thereunder returned to the Company), without payment by the Company, if the Participant breaches any of his obligations set forth in Sections 6 and 7 herein.

8.2 At any point after becoming aware of a breach of any obligation set forth in Sections 6 and 7 of this Agreement, the Company shall provide notice of such breach to the Participant. By agreeing to receive the Restricted Stock Units pursuant to this Agreement, the Participant agrees that, to the extent the Participant has sold any of his or her Shares issued under the Award, within ten (10) days after the date the Company provides such notice, the Participant shall pay to the Company in cash an amount equal to the cash proceeds that the Participant received upon each such sale that occurred after the date that was six (6) months prior to the date of the earliest breach. The Participant agrees that failure to make such timely payment to the Company constitutes an independent and material breach of the terms and conditions of this Agreement, for which the Company may seek recovery of the unpaid amount as liquidated damages, in addition to all other rights and remedies the Company may have resulting from the Participant's breach of the obligations set forth in Sections 6 and/or 7. The Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is reasonable and necessary because the compensatory damages that will result from breaches of Sections 6 and/or 7 cannot readily be ascertained. Further, the Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is not a penalty, and it does not preclude the Company from seeking all other remedies that may be available to the Company, including without limitation those set forth in this Section 8.

9. Assignment/Nonassignment.

9.1 The Company shall have the right to assign this Agreement, including without limitation Sections 6 and/or 7, and the Participant agrees to remain obligated by all provisions of this Agreement that are assigned to any successor, assign or surviving entity. Any successor to the Company is an intended third party beneficiary of this Agreement.

9.2 The Restricted Stock Units shall not be sold, pledged, assigned, hypothecated, transferred or disposed of (a "Transfer") in any manner, other than by will or the laws of descent and distribution. Any attempt by the Participant to Transfer the Restricted Stock Units in violation of the terms of this Agreement shall render the Restricted Stock Units null and void, and result in the immediate forfeiture of such Restricted Stock Units, without payment by the Company.

10. Impact on Benefit Plans. Payments under this Agreement shall not be considered as earnings for purposes of the Company's and/or Affiliate's qualified retirement plans or any other retirement or benefit plan unless specifically provided for therein. Nothing herein shall prevent the Company or any Affiliate from maintaining additional compensation plans and arrangements for its employees.

11. Successors: Changes in Stock. The obligation of the Company under this Agreement shall be binding upon the successors and assigns of the Company. If a dividend or other distribution shall be declared upon the Company's common stock payable in Shares, the Restricted Stock Units shall be adjusted by adding thereto the number of Restricted Stock Units equal to the number of Shares which would have been distributable thereon if such Restricted Stock Units had been actual Shares and outstanding on the date fixed for determining the stockholders entitled to receive such stock dividend or distribution. In the event of any spin-off, split-off or split-up, dividend in property other than cash, recapitalization or other change in the capital structure of the Company, or any merger, consolidation, reorganization, partial or complete liquidation or other distribution of assets (other than a normal cash dividend), or any other corporate transaction or event having an effect similar to any of the foregoing, or extraordinary distribution to stockholders of the Company's common stock, the Restricted Stock Units shall be appropriately adjusted to prevent dilution or enlargement of the rights of the Participant which would otherwise result from any such transaction, provided such adjustment shall be consistent with Code Section 409A.

In the case of a Change in Control, any obligation under this Agreement shall be handled in accordance with the terms of Section 2 hereof. In any case not constituting a Change in Control in which the Company's common stock is changed into or becomes exchangeable for a different number or kind of shares of stock or other securities of the Company or another corporation, or cash or other property, whether through reorganization, reclassification, recapitalization, stock split-up, combination of Shares, merger or consolidation, then (i) the value of the Restricted Stock Units constituting the Award shall be calculated based on the closing price per Share of such common stock on the closing date of the transaction on the principal market on which such common stock is traded and (ii) there shall be substituted for each Restricted Stock Unit constituting the Award, the number and kind of shares of stock or other securities (or cash or other property) into which each outstanding Share shall be so changed or for which each such Share shall be exchangeable. In the case of any such adjustment, the Restricted Stock Units shall remain subject to the terms of the Agreement.

12. Governing Law, Jurisdiction, and Venue.

12.1 This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the principles of conflicts of law.

12.2 The Participant hereby irrevocably submits to the personal and exclusive jurisdiction of the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania in any action or proceeding arising out of, or relating to, this Agreement (whether such action or proceeding arises under contract, tort, equity or otherwise). The Participant hereby irrevocably waives any objection which the Participant now or hereafter may have to the laying of venue or personal jurisdiction of any such action or proceeding brought in said courts.

12.3 Jurisdiction over, and venue of, any such action or proceeding shall be exclusively vested in the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania.

12.4 Provided that the Company commences any such action or proceeding in the courts identified in Section 12.3, the Participant irrevocably waives the Participant's right to object to or challenge the above selected forum on the basis of inconvenience or unfairness under 28 U.S.C. § 1404, 42 Pa. C.S. § 5322 or similar state or federal statutes. The Participant agrees to reimburse the Company for all of the attorneys' fees and costs it incurs to oppose the Participant's efforts to challenge or object to litigation proceeding in the courts identified in Section 12.3 with respect to actions arising out of or relating to this Agreement (whether such actions arise under contract, tort, equity or otherwise).

13. Failure to Enforce Not a Waiver. The failure of the Company to enforce at any time any provision of this Agreement shall in no way be construed to be a waiver of such provision or of any other provision hereof.

14. Severability. In the event that any one or more of the provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

15. Funding. This Agreement is not funded and all amounts payable hereunder, if any, shall be paid from the general assets of the Company or its Affiliate, as applicable. No provision contained in this Agreement or the Plan and no action taken pursuant to the provisions of this Agreement or the Plan shall create a trust of any kind or require the Company to maintain or set aside any specific funds to pay benefits hereunder. To the extent the Participant acquires a right to receive payments from the Company under this Agreement, such right shall be no greater than the right of any unsecured general creditor of the Company.

16. Headings. The descriptive headings of the Sections of this Agreement are inserted for convenience of reference only and shall not constitute a part of this Agreement.

17. Awards Subject to Plan. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern and prevail.

18. Amendment or Termination of this Agreement. This Agreement may be modified, amended, suspended or terminated by the Committee at any time; provided, however, that no modification, amendment, suspension or termination of the Plan or this Agreement shall adversely affect the material rights of the Participant under this Agreement without the consent of such Participant. Notwithstanding the foregoing or any provision of this Agreement to the contrary, the Company may, in its sole discretion and without the Participant's consent, modify or amend the terms of the Agreement or a Restricted Stock Unit award, or take any other action it deems necessary or advisable, to cause the Agreement to comply with Section 10D of the Exchange Act or Section 409A (or an exception thereto). Any modification, amendment, suspension or termination shall only be effective upon a writing issued by the Company, and the Participant shall not offer evidence of any purported oral modifications or amendments to vary or contradict the terms of this Agreement document.

19. Entire Agreement. Except as otherwise provided in this Agreement or in any other agreement between the Participant and the Company, this Agreement and the Plan are: (i) intended to be the final, complete, and exclusive statement of the terms of the agreement between the Participant and the Company with regard to the subject matter of this Agreement; (ii) supersede all other prior agreements, communications, and statements, whether written or oral, express or implied, pertaining to that subject matter; and (iii) may not be contradicted by evidence of any prior or contemporaneous statements or agreements, oral or written, and may not be explained or supplemented by evidence of consistent additional terms.

20. Clawback. Notwithstanding any provisions in this Agreement to the contrary, any compensation, payments, or benefits provided hereunder (or profits realized from the sale of Shares delivered hereunder), whether in the form of cash or otherwise, shall be subject to recoupment and recapture to the extent necessary to comply with the requirements of any Company-adopted policy and/or laws or regulations, including, but not limited to, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Exchange Act, Section 304 of the Sarbanes Oxley Act of 2002, the New York Stock Exchange Listed Company Manual or any rules or regulations promulgated thereunder with respect to such laws, regulations and/or securities exchange listing requirements, as may be in effect from time to time, and which may operate to create additional rights for the Company with respect to this grant and recovery of amounts relating thereto. By accepting this grant of Restricted Stock Units, the Participant agrees and acknowledges that he or she is obligated to cooperate with, and provide any and all assistance necessary to, the Company to recover, recoup or recapture this grant of Restricted Stock Units or amounts paid under the Plan pursuant to such law, government regulation, stock exchange listing requirement or Company policy. Such cooperation and assistance shall include, but is not limited to, executing, completing and submitting any documentation necessary to recover, recoup or recapture this grant of Restricted Stock Units or amounts paid under the Plan from a Participant's accounts, or pending or future compensation or other grants.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the day and year indicated below. This Agreement may be executed in more than one counterpart, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

PARTICIPANT

Dated: _____

CNX RESOURCES CORPORATION

Dated: _____

Participant: [_____]

Grant Date: January [2][__], 2020

Number of Restricted Stock Units Subject to Award: [_____]

Vesting Schedule: Except as otherwise provided in the Agreement, three (3) successive equal annual installments upon the Participant's completion of each year of continuous employment with the Company and its Affiliates over the three (3)-year period measured from the Grant Date.

**CNX RESOURCES CORPORATION
EQUITY INCENTIVE PLAN
FORM OF
PERFORMANCE SHARE UNIT AWARD AGREEMENT**

This Performance Share Unit Award Agreement set forth below (this "Agreement") is dated as of the grant date (the "Grant Date") set forth on Exhibit A and is between CNX Resources Corporation, a Delaware corporation (the "Company"), and the individual to whom the Compensation Committee of the Board of Directors (the "Committee") of the Company has made this Performance Award and whose name is set forth on Exhibit A (the "Participant").

The Company has established the CNX Resources Corporation Equity Incentive Plan, as amended (the "Plan"), to advance the interests of the Company and its stockholders by providing incentives to certain eligible persons who contribute significantly to the strategic and long-term performance objectives and growth of the Company. Unless the context otherwise requires, all capitalized terms not otherwise defined in this Agreement have the same meaning given such capitalized terms in the Plan.

Pursuant to the provisions of the Plan, the Committee has full power and authority to direct the execution and delivery of this Agreement in the name and on behalf of the Company, and has authorized the execution and delivery of this Agreement.

Agreement

1. Performance Share Unit Award. Subject to and pursuant to all terms and conditions stated in this Agreement and in the Plan, as of the Grant Date, the Company hereby grants a Performance Award to the Participant in the form of performance share units (the "Performance Share Units") with the target number set forth on Exhibit A. Each Performance Share Unit awarded under this Agreement shall represent a contingent right to receive one share of the Company's common stock as described more fully herein, to the extent such Performance Share Unit is earned and becomes payable pursuant to the terms of this Agreement. Notwithstanding, Performance Share Units as initially awarded have no independent economic value, but rather are mere units of measurement used for purposes of calculating the value of benefits, if any, to be paid under this Agreement.

2. Performance Period. The "Performance Period" means the performance period as set forth on Exhibit A.

3. Performance Goals of the Performance Share Units. Subject to the provisions of this Agreement, the total number of Performance Share Units awarded to Participant will be earned (at a maximum award level of 100% of the target number of Performance Share Units awarded), if the performance measures set by and on file with the Committee are satisfied (each, a "Performance Goal"); provided, however, that the Committee has sole discretion to determine whether the Performance Goals, as defined, are met and the date of such determination (or deemed determination date by the Committee) shall be the vesting date of the Award (the "Vesting Date") and provided, further, that the Award will only become payable, except as otherwise provided herein, if the Participant remains an employee of the Company and its subsidiaries through the Vesting Date. As a condition to receiving this Award, Participant agrees that all determinations made by the Committee are final and conclusive.

4. Issuance and Distribution.

4.1 After the end of the Performance Period and prior to the commencement of the payment of Shares relating to the Award, the Committee shall certify in writing the extent to which the Performance Goals and any other material terms of this Agreement have been achieved. For purposes of this provision, and for so long as the Code permits, the approved minutes of the Committee meeting in which the certification is made may be treated as written certification.

4.2 Subject to the terms and conditions of this Agreement, Performance Share Units earned by the Participant (to the extent not previously settled) will be settled and paid in shares of the Company's common stock in the first calendar year immediately following the end of the Performance Period on a date determined in the Committee's discretion, but in no event later than March 15th of such year, subject to Participant's satisfaction of all applicable income and employment withholding taxes (the "Payment Date").

4.3 Notwithstanding any other provision of this Agreement, in the event of a Change in Control, as defined in Section 16 of the Plan, the Performance Goals will be deemed to have been achieved at the target award level, and the value of such units will be settled (to the extent not previously settled), on the closing date of the Change in Control transaction (the "CiC Payment Date"); provided, further, in the event of a Change in Control, Performance Share Units may, in the Committee's discretion, be settled in cash and/or securities or other property.

4.4 The Participant is required to hold, and not sell, transfer or otherwise dispose of fifty percent (50%) of the shares issued to the Participant following the vesting of the Performance Share Units (after accounting for the payment of any related taxes in connection with the vesting of the Performance Share Units) until the earlier of (i) ten (10) years from the Grant Date; or (ii) the Participant's attainment of age sixty-two (62).

5. Dividends. Each Performance Share Unit will be cumulatively credited with dividends that are paid on the Company's common stock in the form of additional units. These additional units shall be deemed to have been purchased on the record date for the dividend using the closing stock price per share of the Company's common stock as reported in The Wall Street Journal and shall be subject to all the same conditions and restrictions as provided in this Agreement applicable to Performance Share Units.

6. Change in Participant's Status. In the event the Participant Separates from Service (i) on account of death or Disability or (ii) by action taken by the Company (including any Affiliate) without Cause and after a decision by the Company's Chief Executive Officer, in his or her sole and absolute discretion with respect to non-Section 16 employees, that such Separation from Service without Cause qualifies for special vesting treatment hereunder (a "Qualifying Separation from Service without Cause"), prior to any Payment Date or the CiC Payment Date, as applicable, the Participant shall be entitled to retain the Performance Share Units and receive payment therefore to the extent earned and payable pursuant to the provisions of this Agreement. In the event the Participant Separates from Service for any other reason, including, but not limited to, by the Participant voluntarily, or by the Company (including any Affiliate) with Cause or without Cause (other than in connection with a Qualifying Separation of Service without Cause), prior to any Payment Date or the CiC Payment Date, as applicable, the Performance Share Units awarded to the Participant shall be cancelled and forfeited, whether payable or not, without payment by the Company or any Affiliate. Any payments due a deceased Participant shall be paid to his or her estate as provided herein after the end of the Performance Period.

7. Tax Consequences/Withholding.

7.1 It is intended that: (i) the Participant's Performance Share Units shall be considered to be subject to a substantial risk of forfeiture in accordance with those terms as defined in Sections 409A and 3121(v)(2) of the Code; and (ii) the Participant shall have merely an unfunded, unsecured promise to be paid a benefit, and such unfunded promise shall not consist of a transfer of "property" within the meaning of Code Section 83.

7.2 Participant acknowledges that any income for federal, state, local or foreign tax purposes, including payroll taxes, that the Participant is required to recognize on account of the vesting of the Performance Share Units and/or issuance of the Shares under this Award to Participant shall be subject to withholding of tax by the Company. Participant must pay all applicable taxes when due. The Company will automatically withhold from the total number of Shares deliverable to Participant upon the applicable payment date, the number of Shares having a Fair Market Value equal to the minimum statutory tax withholding requirements (or as otherwise approved by the Board) as determined in accordance with the Plan. In the event of any remaining tax balance, Participant will be required to deliver a check for that amount payable to CNX Resources Corporation before the Shares are deposited into Participant's plan account.

7.3 This Agreement is intended to comply with, or be excepted from coverage under, Section 409A of the Code and the regulations promulgated thereunder and shall be administered, interpreted and construed accordingly. Notwithstanding any provision of this Agreement to the contrary, if any benefit provided under this Agreement is subject to the provisions of Section 409A of the Code and the regulations issued thereunder (and not excepted therefrom), the provisions of the Agreement shall be administered, interpreted and construed in a manner necessary to comply with Section 409A (or disregarded to the extent such provision cannot be so administered, interpreted, or construed). Notwithstanding, Section 409A may impose upon the Participant certain taxes or other charges for which the Participant is and shall remain solely responsible, and nothing contained in this Agreement or the Plan shall be construed to obligate any member of the Committee or Board, the Company or any Affiliate (or its employees, officers or directors) for any such taxes or other charges.

8. Non-Competition.

8.1 The Participant hereby agrees that this Section 8 is reasonable and necessary in order to protect the legitimate business interests and goodwill of the Company, including the Company's trade secrets, valuable confidential business and professional information, substantial relationships with prospective and existing customers and clients, and specialized training provided to the Participant and other employees of the Company. The Participant acknowledges and recognizes the highly competitive nature of the business of the Company and its Affiliates and accordingly agrees that during the term of Participant's employment and for a period of [1 year / 6 months] after the termination thereof (the "Restriction Period"):

(a) The Participant will not directly or indirectly engage in any business substantially similar to any line of business conducted by the Company or any of its Affiliates, including, but not limited to, where such engagement is as an officer, director, proprietor, employee, partner, investor (other than as a holder of less than 1% of the outstanding capital stock of a publicly traded corporation), consultant, advisor, agent or sales representative, in any geographic region in which the Company or any of its Affiliates conducted business;

(b) The Participant will not contact, solicit, perform services for, or accept business from any customer or prospective customer of the Company or any of its Affiliates;

(c) The Participant will not directly or indirectly induce any employee of the Company or any of its Affiliates to: (1) engage in any activity or conduct which is prohibited pursuant to subparagraph 8.1(a); or (2) terminate such employee's employment with the Company or any of its Affiliates. Moreover, the Participant will not directly or indirectly employ or offer employment (in connection with any business substantially similar to any line of business conducted by the Company or any of its Affiliates) to any person who was employed by the Company or any of its Affiliates unless such person shall have ceased to be employed by the Company or any of its Affiliates for a period of at least 12 months; and

(d) The Participant will not directly or indirectly assist others in engaging in any of the activities, which are prohibited under subparagraphs (a) — (c) above.

Notwithstanding the foregoing, if the Restriction Period set forth herein is shorter in duration following Participant's termination of employment with the Company and its Affiliates than in any other prior Award Agreement, the Restriction Period set forth herein shall be the Restriction Period for all such prior Award Agreements and related Awards. Similarly, if the Restriction Period is longer in this Agreement than in prior Award Agreements, the Restriction Period set forth in such prior Award Agreements and related Awards shall be amended hereby and have the same applicable Restriction Period following Participant's termination of employment with the Company and its Affiliates as set forth herein (and the Participant shall be deemed to have consented to such amendment by executing this Agreement).

8.2 It is expressly understood and agreed that although the Participant and the Company consider the restrictions contained in this Section 8 to be reasonable, if a final judicial determination is made by a court of competent jurisdiction that the time or territory or any other restriction contained in this Agreement is an unenforceable restriction against the Participant, the provisions of this Agreement shall not be rendered void but shall be deemed amended to apply as to such maximum time and territory and to such maximum extent as such court may judicially determine or indicate to be enforceable against such Participant. Alternatively, if any court of competent jurisdiction finds that any restriction contained in this Agreement is unenforceable, and such restriction cannot be amended so as to make it enforceable, such finding shall not affect the enforceability of any of the other restrictions contained herein. The restrictive covenants set forth in this Section 8 shall be extended by any amount of time that the Participant is in breach of such covenants, such that the Company receives the full benefit of the time duration set forth above.

9. **Confidential Information and Trade Secrets.** The Participant and the Company agree that certain materials, including, but not limited to, information, data and other materials relating to customers, development programs, costs, marketing, trading, investment, sales activities, promotion, credit and financial data, manufacturing processes, financing methods, plans or the business and affairs of the Company and its Affiliates, constitute proprietary confidential information and trade secrets. Accordingly, the Participant will not at any time during or after the Participant's employment with the Company (including any Affiliate) disclose or use for such Participant's own benefit or purposes or the benefit or purposes of any other person, firm, partnership, joint venture, association, corporation or other business organization, entity or enterprise other than the Company and any of its Affiliates, any proprietary confidential information or trade secrets, provided that the foregoing shall not apply to information which is not unique to the Company or any of its Affiliates or which is generally known to the industry or the public other than as a result of such Participant's breach of this covenant. The Participant agrees that upon termination of employment with the Company (including any Affiliate) for any reason, the Participant will immediately return to the Company all memoranda, books, papers, plans, information, letters and other data, and all copies thereof or therefrom, which in any way relate to the business of the Company and its Affiliates, except that the Participant may retain personal notes, notebooks and diaries. The Participant further agrees that the Participant will not retain or use for the Participant's own account at any time any trade names, trademark or other proprietary business designation used or owned in connection with the business of the Company or any of its Affiliates.

Notwithstanding anything contained herein to the contrary, this Agreement shall not prohibit disclosure of proprietary confidential information if (i) it is required by law or by a court of competent jurisdiction or (ii) it is in connection with any judicial, arbitration, dispute resolution or other legal proceeding in which your legal rights and obligations as an employee or under this Agreement are at issue; provided, however, that you shall, to the extent practicable and lawful in any such event, give prior notice to the Company of your intent to disclose proprietary confidential information so as to allow the Company an opportunity (which you shall not oppose) to obtain such protective orders or similar relief with respect thereto as may be deemed appropriate.

Notwithstanding the foregoing, nothing in this Agreement is intended to restrict, prohibit, impede or interfere with the Participant providing information to, or from reporting possible violations of law or regulation to, any governmental agency or entity, from participating in investigations, testifying in proceedings regarding the Company's past or future conduct, or from making other disclosures that are protected under state or federal law or regulation, engaging in any future activities protected under statutes administered by any government agency (including but not limited, to the Department of Justice, the Securities and Exchange Commission, the Congress, and any agency Inspector General), or from receiving and retaining a monetary award from a government-administered whistleblower award program for providing information directly to a government-administered whistleblower award program. The Participant does not need the prior authorization of the Company to make such reports or disclosures. The Participant is not required to notify the Company that he or she has made any such reports or disclosures. The Company nonetheless asserts, and does not waive, its attorney-client privilege over any information appropriately protected by the privilege.

10. **Remedies/Forfeiture.**

10.1 The Participant acknowledges that a violation or attempted violation on the Participant's part of Sections 8 and/or 9 will cause irreparable damage to the Company and its Affiliates, and the Participant therefore agrees that the Company and its Affiliates shall be entitled as a matter of right to an injunction, out of any court of competent jurisdiction, restraining any violation or further violation of such promises by the Participant or the Participant's employees, partners or agents. The Participant agrees that such right to an injunction is cumulative, in addition to whatever other remedies the Company (including any Affiliate) may have under law or equity and to the Participant's obligations to make timely payment to the Company as set forth in Section 10.2 of this Agreement. The Participant further acknowledges and agrees that the Participant's Performance Share Units shall be cancelled and forfeited without payment by the Company if the Participant breaches any of his obligations set forth in Sections 8 and 9 herein.

10.2 At any point after becoming aware of a breach of any obligation set forth in Sections 8 and 9 of this Agreement, the Company shall provide notice of such breach to the Participant. By agreeing to receive the Performance Share Units pursuant to this Agreement, the Participant agrees that within ten (10) days after the date the Company provides such notice, the Participant shall pay to the Company in cash an amount equal in value to any and all distributions paid to or on behalf of such Participant under this Agreement after the date that was six (6) months prior to the date of the earliest breach. The Participant agrees that failure to make such timely payment to the Company constitutes an independent and material breach of the terms and conditions of this Agreement, for which the Company may seek recovery of the unpaid amount as liquidated damages, in addition to all other rights and remedies the Company may have resulting from the Participant's breach of the obligations set forth in Sections 8 and/or 9. The Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is reasonable and necessary because the compensatory damages that will result from breaches of Sections 8 and/or 9 cannot readily be ascertained. Further, the Participant agrees that timely payment to the Company as set forth in this provision of this Agreement is not a penalty, and it does not preclude the Company from seeking all other remedies that may be available to the Company, including without limitation those set forth in this Section 10.

11. **Assignment/Nonassignment.**

11.1 The Company shall have the right to assign this Agreement, including without limitation Sections 8 and/or 9, and the Participant agrees to remain obligated by all provisions of this Agreement that are assigned to any successor, assign or surviving entity. Any successor to the Company is an intended third party beneficiary of this Agreement.

11.2 The Performance Share Units shall not be sold, pledged, assigned, hypothecated, transferred or disposed of (a "Transfer") in any manner, other than by will or the laws of descent and distribution. Any attempt by the Participant to Transfer the Performance Share Units in violation of the terms of this Agreement shall render the Performance Share Units null and void, and result in the immediate forfeiture of such Performance Share Units, without payment by the Company.

12. **Impact on Benefit Plans.** Payments under this Agreement shall not be considered as earnings for purposes of the Company's and/or Affiliate's qualified retirement plans or any other retirement or benefit plan unless specifically provided for therein. Nothing herein shall prevent the Company or any Affiliate from maintaining additional compensation plans and arrangements for its employees.

13. **Successors; Changes in Stock.** The obligation of the Company under this Agreement shall be binding upon the successors and assigns of the Company. If a dividend or other distribution shall be declared upon the Company's common stock payable in Shares, the target number of Performance Share Units shall be adjusted by adding thereto the number of Performance Share Units which would have been distributable thereon if such shares and Performance Share Units had been actual Shares and outstanding on the date fixed for determining the stockholders entitled to receive such stock dividend or distribution. In the event of any spin-off, split-off or split-up, dividend in property other than cash, recapitalization or other change in the

capital structure of the Company, or any merger, consolidation, reorganization, partial or complete liquidation or other distribution of assets (other than a normal cash dividend), or any other corporate transaction or event having an effect similar to any of the foregoing, or extraordinary distribution to stockholders of the Company's common stock, the Performance Share Units and the Performance Goals shall be appropriately adjusted to prevent dilution or enlargement of the rights of Participants which would otherwise result from any such transaction, provided such adjustment shall be consistent with Code Section 409A.

In the case of a Change in Control, any obligation under this Agreement shall be handled in accordance with the terms of Section 4 hereof. In any case not constituting a Change in Control in which the Company's common stock is changed into or becomes exchangeable for a different number or kind of shares of stock or other securities of the Company or another corporation, or cash or other property, whether through reorganization, reclassification, recapitalization, stock split-up, combination of shares, merger or consolidation, then (i) the value of the Performance Share Units constituting the Award shall be calculated based on the closing price per share of such common stock on the closing date of the transaction on the principal market on which such common stock is traded, (ii) there shall be substituted for each Performance Share Unit constituting the Award, the number and kind of shares of stock or other securities (or cash or other property) into which each outstanding Share shall be so changed or for which each such Share shall be exchangeable, and (iii) the Share on which the Performance Goals are based shall be appropriately and equitably adjusted, provided any such adjustments shall be consistent with Code Section 409A. In the case of any such adjustment, the Performance Share Units shall remain subject to the terms of the Agreement.

14. Governing Law, Jurisdiction, and Venue.

14.1 This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without giving effect to the principles of conflicts of law.

14.2 The Participant hereby irrevocably submits to the personal and exclusive jurisdiction of the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania in any action or proceeding arising out of, or relating to, this Agreement (whether such action or proceeding arises under contract, tort, equity or otherwise). The Participant hereby irrevocably waives any objection which the Participant now or hereafter may have to the laying of venue or personal jurisdiction of any such action or proceeding brought in said courts.

14.3 Jurisdiction over, and venue of, any such action or proceeding shall be exclusively vested in the United States District Court for the Western District of Pennsylvania or the Court of Common Pleas of Allegheny County, Pennsylvania.

14.4 Provided that the Company commences any such action or proceeding in the courts identified in Section 14.3, the Participant irrevocably waives the Participant's right to object to or challenge the above selected forum on the basis of inconvenience or unfairness under 28 U.S.C. § 1404, 42 Pa. C.S. § 5322 or similar state or federal statutes. The Participant agrees to reimburse the Company for all of the attorneys' fees and costs it incurs to oppose the Participant's efforts to challenge or object to litigation proceeding in the courts identified in Section 14.3 with respect to actions arising out of or relating to this Agreement (whether such actions arise under contract, tort, equity or otherwise).

15. Failure to Enforce Not a Waiver. The failure of the Company to enforce at any time any provision of this Agreement shall in no way be construed to be a waiver of such provision or of any other provision hereof.

16. Severability. In the event that any one or more of the provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

17. Funding. This Agreement is not funded and all amounts payable hereunder, if any, shall be paid from the general assets of the Company or its Affiliate, as applicable. No provision contained in this Agreement or the Plan and no action taken pursuant to the provisions of this Agreement or the Plan shall create a trust of any kind or require the Company to maintain or set aside any specific funds to pay benefits hereunder. To the extent the Participant acquires a right to receive payments from the Company under this Agreement, such right shall be no greater than the right of any unsecured general creditor of the Company.

18. Headings. The descriptive headings of the Sections of this Agreement are inserted for convenience of reference only and shall not constitute a part of this Agreement.

19. Awards Subject to Plan. In the event of a conflict between any term or provision contained herein and a term or provision of the Plan, the applicable terms and provisions of the Plan will govern and prevail.

20. Amendment or Termination of this Agreement. This Agreement may be modified, amended, suspended or terminated by the Committee at any time; provided, however, that no modification, amendment, suspension or termination of the Plan or this Agreement shall adversely affect the material rights of the Participant under this Agreement without the consent of such Participant. Notwithstanding the foregoing or any provision of this Agreement to the contrary, the Company may, in its sole discretion and without the Participant's consent, modify or amend the terms of the Agreement or a Performance Share Unit award, or take any other action it deems necessary or advisable, to cause the Agreement to comply with Section 10D of the Exchange Act or Section 409A (or an exception thereto). Any modification, amendment, suspension or termination shall only be effective upon a writing issued by the Company, and the Participant shall not offer evidence of any purported oral modifications or amendments to vary or contradict the terms of this Agreement document.

21. Entire Agreement. Except as otherwise provided in this Agreement or in any other agreement between the Participant and the Company, this Agreement and the Plan are: (i) intended to be the final, complete, and exclusive statement of the terms of the agreement between the Participant and the Company with regard to the subject matter of this Agreement; (ii) supersede all other prior agreements, communications, and statements, whether written or oral, express or implied, pertaining to that subject matter; and (iii) may not be contradicted by evidence of any prior or contemporaneous statements or agreements, oral or written, and may not be explained or supplemented by evidence of consistent additional terms.

22. Clawback. Notwithstanding any provisions in this Agreement to the contrary, any compensation, payments, or benefits provided hereunder (or profits realized from the sale of Shares delivered hereunder), whether in the form of cash or otherwise, shall be subject to recoupment and recapture to the extent necessary to comply with the requirements of any Company-adopted policy and/or laws or regulations, including, but not limited to, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Exchange Act, Section 304 of the Sarbanes Oxley Act of 2002, the New York Stock Exchange Listed Company Manual or any rules or regulations promulgated thereunder with respect to such laws, regulations and/or securities exchange listing requirements, as may be in effect from time to time, and which may operate to create additional rights for the Company with respect to this grant and recovery of amounts relating thereto. By accepting this grant of Performance Share Units, the Participant agrees and acknowledges that he or she is obligated to cooperate with, and provide any and all assistance necessary to, the Company to recover, recoup or recapture this grant of Performance Share Units or amounts paid under the Plan pursuant to such law, government regulation, stock exchange listing requirement or Company policy. Such cooperation and assistance shall include, but is not limited to, executing, completing and submitting any documentation necessary to recover, recoup or recapture this grant of Performance Share Units or amounts paid under the Plan from a Participant's accounts, or pending or future compensation or other grants.

[Remainder of this page intentionally left blank]

IN WITNESS WHEREOF, the undersigned have executed this Agreement on the day and year indicated below. This Agreement may be executed in more than one counterpart, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

PARTICIPANT

Dated: _____

CNX RESOURCES CORPORATION

Dated: _____

Exhibit A

Participant: [_____]

Grant Date: January [2][__], 2020

Performance Share Units (Target): [_____]

Performance Period: January 1, 2020 through December 31, 2022.

RESOLUTIONS CLARIFYING
SERP OFFSETS FOR CEO

ACTION BY BOARD OF DIRECTORS

WHEREAS, in 2005, the Board of Directors (the "Board") of CNX Resources Corporation ("CNX" or the "Corporation") adopted a Supplemental Retirement Plan (the "SERP") to provide a select group of key employees with supplemental retirement benefits;

WHEREAS, as a follow-up to its meeting on May 29, 2019 whereby the Board eliminated the qualified plan offset from the SERP, the Board desires to further clarify the SERP offsets for the CEO.

NOW THEREFORE, BE IT RESOLVED, that the Board hereby approves a clarifying amendment to the SERP (see Exhibit A) that will eliminate the Corporation's Restoration Plan offset for the current President and Chief Executive Officer only; and it is further

RESOLVED, that the Board delegates to the Chief Financial Officer, the Vice President - General Counsel and other officers so designated by them (the "Authorized Officers") the authority to implement the foregoing resolutions; and it is further

RESOLVED, that the Authorized Officers are hereby authorized and directed, in the name and on behalf of the Corporation to take any and all such further actions as such Authorized Officers deem necessary, convenient, incidental or advisable in furtherance of the purpose and intent of any or all of the foregoing resolutions.

¹The PBO liability will be approximately \$800K, and the annual expense will be approximately \$175K. For ease of reference, eliminating the pension offset (which the Board previously approved in May) results in a PBO liability of approximately \$600K and an annual expense of approximately \$115K.

Exhibit A

**AMENDMENT TO
CNX RESOURCES CORPORATION
SUPPLEMENTAL RETIREMENT PLAN**

Pursuant to the authority granted to the Company in Section 7.6 of the CNX Resources Corporation Supplemental Retirement Plan (the "Plan"), the Plan is amended as follows:

1. Section 2.2(a) is amended by adding a new sentence at the end thereof to read as follows:

Notwithstanding the foregoing, for the Participant holding the title of President and Chief Executive Officer as of the date hereof, Section 2.2(b) shall not be apply.

2. In all other respects, the Plan is unchanged.

IN WITNESS WHEREOF, the Company's duly authorized delegate has caused this Amendment to be executed this 24th day of September, 2019.

CNX Resources Corporation

By: /s/ Stephanie L. Gill
Stephanie L. Gill, Esq.
Vice President, General Counsel &
Corporate Secretary

September 24, 2019

Timothy C. Dugan
312 Braeburn Drive
McMurray, PA 15317

Dear Timothy,

As previously discussed and publicly disclosed, your employment with CNX Resources Corporation (the "Company") will terminate effective December 31, 2019 (unless you earlier voluntarily terminate your employment with the Company or you are earlier terminated by the Company "for cause") (the earliest of such dates being the "Termination Date"). As of the Termination Date, you are no longer expected or required to provide any services to the Company, except as provided in this agreement. Further, you agree that, effective as of the Termination Date, you hereby resign from all other positions you hold as an officer or director of the Company or any of its subsidiaries and affiliates.

Prior to the Termination Date you shall continue to be employed as an Executive Vice President of the Company. In such capacity, you shall have such responsibilities, powers and duties as may from time to time be prescribed by the Chief Executive Officer or the Board of Directors, consistent with the role of Executive Vice President, which may include: (i) the orderly transition of the responsibilities and duties of the chief operating officer to the new chief operating officer, (ii) maintaining and transitioning to the new chief operating officer customer, commercial, financial, shareholder and other relationships which are important to the Company, and (iii) providing advice and guidance to the new chief operating officer, as requested by the new chief operating officer. You shall devote as much of your working time and efforts to the business and affairs of the Company and its subsidiaries as is necessary to effectively carry out the foregoing duties and responsibilities. You shall not directly or indirectly render any services of a business, commercial or professional nature to any other person or organization, whether for compensation or otherwise, without the prior written consent of the Company; provided, however, that nothing in this agreement shall preclude you from managing your personal investments and serving as a director of a not-for-profit organization. In consideration for the foregoing, you will receive the following:

1. Ongoing Wages: Your wages based on your current salary for your employment up to the Termination Date will be paid to you in accordance with the normal payroll practices of the Company.
 2. Benefits: You shall be entitled to participate in all employee benefit plans made available by the Company to its employees upon the terms and subject to the conditions set forth in the applicable plan or arrangement up to the Termination Date.
 3. Expenses: The Company shall reimburse you for all reasonable expense incurred by you in the course of performing your duties up to the Termination Date, subject to the Company's requirements with respect to reporting and documentation of expenses.
-

At the Termination Date, as a consequence of the termination of your employment, you are entitled to receive the following:

1. Final Wages: Your wages for your work through your Termination Date already have been paid to you or will be paid to you on the next payroll date when those wages would otherwise be due.
2. Accrued and Unused Vacation: The Company already has or will pay you for unused vacation time for 2019 as of the Termination Date (less applicable withholdings and deductions) on the next payroll date.

We remind you that, after the Termination Date, you continue to be bound by the Company's policies and your contractual commitments regarding the protection of confidential business information, which of course are subject to any laws that require or permit disclosure of such confidential information.

In addition to the compensation and benefits described above, in recognition of your years of service to the Company and (i) provided that you do not voluntarily terminate your employment by the Company prior to December 31, 2019; (ii) provided that you are not terminated by the Company "for cause" prior to December 31, 2019; and (iii) provided that you have delivered a signed Release of claims ("Release No. 2"), substantially similar to the Release set forth below and otherwise reasonably satisfactory to the Company's General Counsel within 21 days after the Termination Date and not revoked such Release No. 2 within the seven-day revocation period provided for in Release No. 2, the Company will provide the following additional compensation and benefits (the "Severance Payment and Benefits") to you:

1. Severance Payment: The Company will pay you a lump sum payment of \$100,000 (less applicable withholdings and deductions) on the first regular payroll date following the Termination Date and your execution and return of the referenced Release No. 2 and your non-revocation of such Release No. 2 during the seven-day Revocation Period described below.
2. Unemployment: The Company will not object to any application that you might make for unemployment benefits. Your eligibility for such benefits will be determined solely by the state where such an application for unemployment is filed.
3. Non-Compete: Notwithstanding anything to the contrary contained herein or in any other Company document or otherwise, you will not be precluded from working for a competitor of the Company and its affiliates and subsidiaries.

Release No. 1

By signing and not revoking this letter agreement (which includes this Release No. 1), as described herein, you shall release CNX, and all of its affiliated companies, direct and indirect parents, subsidiaries, affiliates, successors, and assigns (collectively, the "CNX Companies") and all of their current and former shareholders, partners, principals, members, directors, officers, agents, employees, employee benefit plans, trustees, insurers and all others acting in concert with them (collectively, the "Released Persons"), from any and all claims you have or might have against them as the result of events

that occurred on or before the date you execute the Release, whether known or unknown, except for the rights described in the next paragraph. The claims released by you include, without limitation, all claims relating in any way to your employment with the CNX Companies, the termination of your employment, claims for wrongful discharge or retaliation, claims related to any purported status as a whistleblower, and any cause of action or claim you have or might have for an alleged violation of any express or implied contract, or federal, state, or local law, including (without limitation) state and federal statutes or laws, as amended, that prohibit discrimination or retaliation in employment based on any protected status, including, but not limited to, the Age Discrimination in Employment Act of 1967 (“ADEA”), the Employee Retirement Income Security Act of 1974, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, 42 U.S.C. § 1981, the Civil Rights Acts of 1866 and 1871, the Pregnancy Discrimination Act, the National Labor Relations Act, the Racketeer Influenced and Corrupt Organizations Act, the Rehabilitation Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the Sarbanes-Oxley Act, the Worker Adjustment and Retraining Notification Act (“WARN Act”), Ohio Civil Rights Act, Ohio Minimum Fair Wage Law, Ohio Wage Payment Law, Pennsylvania Human Relations Act, Pennsylvania Minimum Wage Act of 1968, Virginia Human Rights Act, Virginians with Disabilities Act, Virginia's Genetic Testing Law, Virginia Equal Pay Act, Virginia Minimum Wage Act, West Virginia Human Rights Act, West Virginia Minimum Wage and Maximum Hour Standards Law, West Virginia Equal Pay for Equal Work Act, and any other state, federal or local law, rule or regulation, the common law for negligence, gross negligence, or any other tort claim, including but not limited to, intentional infliction of emotional distress, assault, battery, invasion of privacy, false imprisonment, breach of express or implied contract, interference with contractual relations, additional wages or benefits that may be owed (whether pursuant to the accrued and unused vacation policy, the CNX Resources Corporation Severance Pay Plan for Salaried Employees, equity awards granted under the CNX Resources Equity Incentive Plan (other than equity that vested prior to the Termination Date), the short-term incentive program under the Executive Annual Incentive Plan, any employment agreement or change in control agreement to which you may be a party, or otherwise), covenants of fair dealing and good faith, civil conspiracy, duress, promissory or equitable estoppel, defamation, slander, fraud, mistake, misrepresentation, violation of public policy, overtime, retaliation, personal injury, breach of fiduciary duty, loss of consortium, bad faith, any other wrongful conduct and claims under any federal, state or local laws, statutes, regulations, ordinances, or other similar provisions, and any claims for attorneys’ fees and costs. If any administrative agency or court assumes jurisdiction over any charge, complaint, proceeding, or action involving claims released in this agreement, you agree that you will not accept, recover, or receive any monetary damages or other relief from or in connection with that charge, complaint, or proceeding. You agree that if a court of competent jurisdiction determines that you are to be awarded damages under the WARN Act or any other federal or state law, those damages would be offset by an amount equal to your above severance payment minus \$500. You also agree that you have not assigned or transferred to another person or entity any interest in any of the above stated claims.

You have certain rights that are not released by signing this letter agreement, which includes this Release No. 1. Such Release No. 1 does **not** affect the following: any rights or claims that may arise after the date this letter agreement is executed; your right to enforce the Company’s obligations under this agreement; any rights you may have to vested CNX Companies’ pension or retirement benefits that you are entitled to on the date of execution of this agreement and/or the Release by you; your right to receive workers’ compensation benefits; your right to file a charge or complaint with any appropriate federal, state, or local agency, such as the United States Equal Employment Opportunity Commission; your right

to participate in or cooperate with any such charge or complaint procedure; and any right that cannot be waived as a matter of law. Any other claim you have or might have is, however, released by such Release No. 1.

By signing this letter agreement, which includes this Release No. 1, you are also representing and agreeing that, except for wages to be paid to you regardless of whether you sign this letter agreement, as described herein, and the Severance Payment and Benefits to be paid under the terms of this agreement, you have been paid in full for all other wages and benefits to which you are entitled.

You and the Company agree that certain materials, including, but not limited to, information, data and other materials relating to customers, development programs, costs, marketing, trading, investment, sales activities, promotion credit and financial data, manufacturing processes, financial methods, plans or the business and affairs of the Company and its affiliates, constitute proprietary confidential information and trade secrets. Accordingly, you will not at any time during or after your employment with the Company disclose or use for your own benefit or purposes or the benefit or purposes of any Person, other than the Company and any of its affiliates, any proprietary confidential information or trade secrets. The foregoing obligations imposed by this paragraph will not apply (i) in the course of the business of and for the benefit of the Company, (ii) if such information has become, through no fault of yours, generally known to the public, or (iii) if you are required by law to make disclosure (after giving the Company notice and an opportunity to contest such requirement). You agree that upon the Termination Date, you will immediately return to the Company all memoranda, books, paper, plans, information, letters and other data, and all copies thereof or therefrom, which in any way relate to the business of the Company and its affiliates. You further agree that you will not retain or use for your account at any time any trade names, trademark or other proprietary business designation used or owned in connection with the business of the Company or any of its Affiliates.

The Company agrees that if you are made a party, or are threatened to be made a party, to any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that you are or were a director, officer or employee of the Company or are or were serving at the request of the Company as a director, officer, member, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, you shall be indemnified and held harmless by the Company to the fullest extent permitted or authorized by applicable law and the Company's certificate of incorporation or bylaws, against all cost, expense, liability and loss (including, without limitation, attorney's fees, judgments, fines, ERISA excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by you in connection therewith, and such indemnification shall continue as to you even if you have ceased to be a director, member, employee or agent of the Company or other entity and shall inure to the benefit of your heirs, executors and administrators.

The provisions of this letter agreement may be amended or waived only by a written agreement executed and delivered by the Company and you. No other course of dealing between the parties to this agreement or any delay in exercising any rights hereunder will operate as a waiver of any rights of any such parties. Notwithstanding the foregoing or any provisions of this letter agreement to the contrary, the Company may at any time, with your consent, modify or amend any provision of this agreement or take any other action, to the extent necessary or advisable to ensure that this letter agreement complies with or is exempt from Section 409A of the Internal Revenue Code of 1986, as amended, (the "Code") and that

any payments or benefits under this agreement are not subject to interest and penalties under Section 409A of the Code.

All covenants and agreements contained in this letter agreement by or on behalf of any of the parties hereto will bind and inure to the benefit of the respective heirs, successors and assigns of the parties hereto whether so expressed or not, provided that you may not assign your rights or delegate your obligations under this agreement without the written consent of the Company and the Company may assign this agreement only to a successor to all or substantially all of its assets.

If any dispute arises with regard to the interpretation and/or performance of this letter agreement or Release No.1, as set forth above, or any of the provisions contained therein, the parties agree to attempt to resolve the dispute by telephone conference with a mediator jointly selected by the parties. If the parties cannot resolve the dispute by such telephone conference, then the parties agree to schedule and conduct a half-day mediation within thirty (30) days of notice of the dispute and to share equally the costs of such mediation. If a party refuses to mediate, then such party thereby waives any claim for and recovery of attorneys' fees or costs incurred in any litigation brought regarding this agreement. Otherwise, if the parties are unable to resolve their dispute by mediation, then the prevailing party or parties in any resulting litigation shall be entitled to recover reasonable attorneys' fees, costs and expenses, including the costs of mediation. This agreement may be executed simultaneously in two or more counterparts, any one of which need not contain the signatures of more than one party, but all of which counterparts taken together will constitute one and the same agreement. The descriptive headings of this agreement are inserted for convenience only and do not constitute a part of this agreement.

The Company may withhold from any amounts payable under this letter agreement such federal, state, local or foreign taxes as shall be required to be withheld pursuant to any applicable law or regulation.

This letter agreement shall become effective on the date set forth below. On and after the effective date, this letter agreement constitutes the entire agreement among the parties and supersedes any prior understandings, agreements or representations by or among the parties, written or oral, that may have related in any way to the subject matter hereof.

ALL QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY AND INTERPRETATION OF THIS AGREEMENT WILL BE GOVERNED BY THE INTERNAL LAW OF PENNSYLVANIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICT OF LAWS.

You have up to and including 21 days from the date you receive this letter agreement to consider the terms of this agreement as proposed by the Company, including the terms of Release No. 1, as set forth herein. Any modification to these proposed terms, whether material or immaterial, does not restart the running of the 21-day period.

If you decide to sign this letter agreement, and thereby accept the terms of this agreement, you may then revoke your acceptance of it up to seven days after signing it ("Revocation Period 1"), by notifying me in writing **before** the expiration of Revocation Period 1. This agreement will not become effective until the expiration of Revocation Period 1; provided, however, that the Company's obligation to pay the Severance Payment and Benefits will not become effective until the expiration of Revocation Period 2, as defined herein. On the Termination Date, the referenced Release No. 2, as described above, will be provided to you and if you decide to sign Release No. 2, and thereby accept the terms of Release No. 2, you may then revoke your acceptance of it up to seven (7) days after signing it ("Revocation Period 2"), by notifying me in writing **before** the expiration of Revocation Period 2. Release No. 2 and

the Company's obligation to pay the Severance Payment and Benefits will not become effective until the expiration of Revocation Period 2.

If this letter agreement is not signed and returned by October 15, 2019 (21 days from the date of this letter), then this offer is revoked by the Company. This letter agreement must be delivered by email or hard copy to me within the time specified herein in order to be effective.

You should not sign this letter agreement if you do not understand its terms, including the terms of Release No. 1. By signing this letter agreement, you affirm that you have read its terms, including the terms of Release No. 1, that you understand those terms and effects, including the fact that you have agreed to release employment-related claims, that you have signed this letter agreement voluntarily and knowingly in exchange for the consideration described herein, which you acknowledge is adequate and satisfactory and which you acknowledge is in addition to other benefits to which you would be entitled, and that you have been advised in writing to consult with an attorney prior to signing this letter agreement.

If all of the above terms are agreeable to you, please sign the enclosed copy of this letter where indicated below and return it to me via email (at stephaniegill@cnx.com) or hard copy (1000 CONSOL Energy Drive, Canonsburg, PA 15317-6506) by October 15, 2019. Please direct any questions to me.

Sincerely,

CNX RESOURCES CORPORATION

BY: /s/ Stephanie L. Gill
Stephanie Gill
Vice President, General Counsel & Corporate Secretary

I knowingly and voluntarily agree to the above terms this 24th day of October, 2019, intending to be legally bound.

/s/ Timothy D. Dugan
Timothy C. Dugan

CNX RESOURCES CORPORATION
SUBSIDIARIES
As of January 30, 2020

(In alphabetical order)

Buchanan Generation, LLC (a Virginia limited liability company)

Cardinal States Gathering Company (a Virginia limited liability company)

CSG Holdings I LLC (a Delaware limited liability company)

CSG Holdings II LLC (a Delaware limited liability company)

CSG Holdings III LLC (a Delaware limited liability company)

CNX Gas Company LLC (a Virginia limited liability company)

CNX Gas LLC (a Delaware limited liability company)

CNX Land LLC (a Delaware limited liability company)

CNX Resource Holdings LLC (a Delaware limited liability company)

CNX Water Assets LLC (formerly CONSOL of WV LLC) (d/b/a CONVEY Water Systems) (a West Virginia limited liability Company)

Mon-View, LLC (a West Virginia limited liability company)

Pocahontas Gas LLC (a Delaware limited liability company)

CNX MIDSTREAM RELATED SUBSIDIARIES

CNX Gathering LLC (a Delaware limited liability company)

CNX Midstream GP LLC (a Delaware limited liability company)

CNX Midstream Partners LP (a Delaware limited partnership)

CNX Midstream Finance Corp. (a Delaware corporation)

CNX Midstream Operating Company LLC (a Delaware limited liability company)

CNX Midstream DevCo I GP LLC (a Delaware limited liability company)

CNX Midstream DevCo I LP (a Delaware limited partnership)

CNX Midstream DevCo III GP LLC (a Delaware limited liability company)

CNX Midstream DevCo III LP (a Delaware limited partnership)

CNX Midstream SP Holdings LLC (a Delaware limited liability company)

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statements on Form S-8 (File No. 333-183039, File No. 333-167892, File No. 333-126057, File No. 333-113973, File No. 333-87545, File No. 333-160273, and File No. 333-211286) of CNX Resources Corporation and Subsidiaries of our reports dated February 10, 2020, with respect to the consolidated financial statements and schedule of CNX Resources Corporation and Subsidiaries and the effectiveness of internal control over financial reporting of CNX Resources Corporation and Subsidiaries included in this Annual Report (Form 10-K) for the year ended December 31, 2019.

/s/ Ernst & Young LLP

Pittsburgh, Pennsylvania
February 10, 2020

Consent of Independent Petroleum Engineers and Geologists

As independent petroleum engineers, we hereby consent to (a) the use of our audit letter relating to the proved reserves of gas and oil (including coalbed methane) of CNX Resources Corporation as of December 31, 2019, (b) the references to us as experts in CNX Resources Corporation's Annual Report on Form 10-K for the year ended December 31, 2019 and (c) the incorporation by reference of our name and our audit letter into CNX Resources Corporation's Registration Statements on Form S-8 (File No. 333-183039, File No. 333-167892, File No. 333-126057, File No. 333-126056, File No. 333-113973, File No. 333-87545, File No. 333-160273, File No. 333-177023, and File No. 333-211286), that incorporate by reference such Form 10-K.

We further wish to advise that we are not employed on a contingent basis and that at the time of the preparation of our report, as well as at present, neither Netherland, Sewell & Associates, Inc. nor any of its employees had, or now has, a substantial interest in CNX Resources Corporation or any of its subsidiaries, as a holder of its securities, promoter, underwriter, voting trustee, director, officer, or employee.

NETHERLAND, SEWELL & ASSOCIATES, INC.

/s/ DANNY D. SIMMONS

By: Danny D. Simmons, P.E.

President and Chief Operating Officer

Houston, Texas
February 10, 2020

Please be advised that the digital document you are viewing is provided by Netherland, Sewell & Associates, Inc. (NSAI) as a convenience to our clients. The digital document is intended to be substantively the same as the original signed document maintained by NSAI. The digital document is subject to the parameters, limitations, and conditions stated in the original document. In the event of any differences between the digital document and the original document, the original document shall control and supersede the digital document.

CERTIFICATIONS

I, Nicholas J. DeLuliis, certify that:

1. I have reviewed this Annual Report on Form 10-K of CNX Resources Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 10, 2020

/s/ Nicholas J. DeLuliis

Nicholas J. DeLuliis

Director, Chief Executive Officer and President

(Principal Executive Officer)

CERTIFICATIONS

I, Donald W. Rush, certify that:

1. I have reviewed this Annual Report on Form 10-K of CNX Resources Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information;
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 10, 2020

/s/ Donald W. Rush

Donald W. Rush

Chief Financial Officer and Executive Vice President
(Principal Financial Officer)

CERTIFICATION
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002,
18 U.S.C. Section 1350

I, Nicholas J. DeLuliis, President and Chief Executive Officer (principal executive officer) of CNX Resources Corporation (the "Registrant"), certify that to my knowledge, based upon a review of the Annual Report on Form 10-K for the period ended December 31, 2019, of the Registrant (the "Report"):

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Date: February 10, 2020

/s/ Nicholas J. DeLuliis

Nicholas J. DeLuliis

Director, Chief Executive Officer and President

(Principal Executive Officer)

CERTIFICATION
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002,
18 U.S.C. Section 1350

I, Donald W. Rush, Chief Financial Officer (principal financial officer) of CNX Resources Corporation (the "Registrant"), certify that to my knowledge, based upon a review of the Annual Report on Form 10-K for the period ended December 31, 2019, of the Registrant (the "Report"):

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

Date: February 10, 2020

/s/ Donald W. Rush

Donald W. Rush

Chief Financial Officer and Executive Vice President
(Principal Financial Officer)

January 31, 2020

Mr. Jeremy Hayhurst
CNX Resources Corporation
1000 Consol Energy Drive
Canonsburg, Pennsylvania 15317

Dear Mr. Hayhurst:

In accordance with your request, we have audited the estimates prepared by CNX Resources Corporation (CNX), as of December 31, 2019, of the proved reserves and future revenue to the CNX interest in certain oil and gas properties located in the United States. It is our understanding that the proved reserves estimates shown herein constitute all of the proved reserves owned by CNX. We have examined the estimates with respect to reserves quantities, reserves categorization, future producing rates, future net revenue, and the present value of such future net revenue, using the definitions set forth in U.S. Securities and Exchange Commission (SEC) Regulation S-X Rule 4-10(a). The estimates of reserves and future revenue have been prepared in accordance with the definitions and regulations of the SEC and, with the exception of the exclusion of future income taxes, conform to the FASB Accounting Standards Codification Topic 932, Extractive Activities—Oil and Gas. We completed our audit on or about the date of this letter. This report has been prepared for CNX's use in filing with the SEC; in our opinion the assumptions, data, methods, and procedures used in the preparation of this report are appropriate for such purpose.

The following table sets forth CNX's estimates of the net reserves and future net revenue, as of December 31, 2019, for the audited properties:

Category	Net Reserves			Future Net Revenue (M\$)	
	Oil (MBBL)	NGL (MBBL)	Gas (MMCF)	Total	Present Worth at 10%
Proved Developed Producing	1,087.4	59,799.9	4,469,450.2	5,806,365.7	2,539,070.5
Proved Developed Non-Producing	0.0	0.0	4,082.7	6,145.2	2,663.9
Proved Undeveloped	4,278.3	16,044.3	3,464,873.5	4,652,885.0	1,634,667.4
Total Proved	5,365.8	75,844.3	7,938,406.4	10,465,394.7	4,176,401.4

Totals may not add because of rounding.

The oil volumes shown include crude oil and condensate. Oil and natural gas liquids (NGL) volumes are expressed in thousands of barrels (MBBL); a barrel is equivalent to 42 United States gallons. Gas volumes are expressed in millions of cubic feet (MMCF) at standard temperature and pressure bases. The table following this letter sets forth CNX's estimates of net reserves and future net revenue, by reserves category.

When compared on a lease-by-lease basis, some of the estimates of CNX are greater and some are less than the estimates of Netherland, Sewell & Associates, Inc. (NSAI). However, in our opinion the estimates shown herein of CNX's reserves and future revenue are reasonable when aggregated at the proved level and have been prepared in accordance with the Standards Pertaining to the Estimating and Auditing of Oil and Gas Reserves Information promulgated by the Society of Petroleum Engineers (SPE Standards). Additionally, these estimates are within the recommended 10 percent tolerance threshold set forth

in the SPE Standards. We are satisfied with the methods and procedures used by CNX in preparing the December 31, 2019, estimates of reserves and future revenue, and we saw nothing of an unusual nature that would cause us to take exception with the estimates, in the aggregate, as prepared by CNX.

Reserves categorization conveys the relative degree of certainty; reserves subcategorization is based on development and production status. The estimates of reserves and future revenue included herein have not been adjusted for risk. CNX's estimates do not include probable or possible reserves that may exist for these properties, nor do they include any value for undeveloped acreage beyond those tracts for which undeveloped reserves have been estimated.

Prices used by CNX are based on the 12-month unweighted arithmetic average of the first-day-of-the-month price for each month in the period January through December 2019. For oil and NGL volumes, the average West Texas Intermediate spot price of \$55.69 per barrel is adjusted for quality, transportation fees, and market differentials. For gas volumes, the average Henry Hub spot price of \$2.578 per MMBTU is adjusted for energy content, transportation fees, and market differentials. The fees associated with CNX's firm transportation contracts are included as a deduction to gas revenue. All prices are held constant throughout the lives of the properties. This report includes the effects of several gas price hedge contracts currently in place. The average adjusted product prices weighted by production over the remaining lives of the properties are \$44.31 per barrel of oil, \$19.10 per barrel of NGL, and \$2.24 per MCF of gas.

Operating costs used by CNX are based on historical operating expense records. These costs include the per-well overhead expenses allowed under joint operating agreements along with estimates of costs to be incurred at and below the district and field levels. Operating costs have been divided into per-well costs and per-unit-of-production costs. Headquarters general and administrative overhead expenses of CNX are included to the extent that they are covered under joint operating agreements for the operated properties. Capital costs used by CNX are based on authorizations for expenditure and actual costs from recent activity. Capital costs are included as required for new development wells and production equipment. Abandonment costs used are CNX's estimates of the costs to abandon the wells and production facilities, net of any salvage value. Operating, capital, and abandonment costs are not escalated for inflation.

The reserves shown in this report are estimates only and should not be construed as exact quantities. Proved reserves are those quantities of oil and gas which, by analysis of engineering and geoscience data, can be estimated with reasonable certainty to be economically producible; probable and possible reserves are those additional reserves which are sequentially less certain to be recovered than proved reserves. Estimates of reserves may increase or decrease as a result of market conditions, future operations, changes in regulations, or actual reservoir performance. In addition to the primary economic assumptions discussed herein, estimates of CNX and NSAI are based on certain assumptions including, but not limited to, that the properties will be developed consistent with current development plans as provided to us by CNX, that the properties will be operated in a prudent manner, that no governmental regulations or controls will be put in place that would impact the ability of the interest owner to recover the reserves, and that projections of future production will prove consistent with actual performance. If the reserves are recovered, the revenues therefrom and the costs related thereto could be more or less than the estimated amounts. Because of governmental policies and uncertainties of supply and demand, the sales rates, prices received for the reserves, and costs incurred in recovering such reserves may vary from assumptions made while preparing these estimates.

It should be understood that our audit does not constitute a complete reserves study of the audited oil and gas properties. Our audit consisted primarily of substantive testing, wherein we conducted a detailed review of all properties. In the conduct of our audit, we have not independently verified the accuracy and completeness of information and data furnished by CNX with respect to ownership interests, oil and gas production, well test data, historical costs of operation and development, product prices, or any agreements relating to current and future operations of the properties and sales of production. However, if in the course of our examination something came to our attention that brought into question the validity or sufficiency of any such information or data, we did not rely on such information or data until we had satisfactorily resolved our questions relating thereto or had independently verified such information or data. Our audit did not include a review of CNX's overall reserves management processes and practices.

We used standard engineering and geoscience methods, or a combination of methods, including performance analysis, volumetric analysis, and analogy, that we considered to be appropriate and necessary to establish the conclusions set forth herein. As in all aspects of oil and gas evaluation, there are uncertainties inherent in the interpretation of engineering and geoscience data; therefore, our conclusions necessarily represent only informed professional judgment.

Supporting data documenting this audit, along with data provided by CNX, are on file in our office. The technical persons primarily responsible for conducting this audit meet the requirements regarding qualifications, independence, objectivity, and confidentiality set forth in the SPE Standards. Steven W. Jansen, a Licensed Professional Engineer in the State of Texas, has been practicing consulting petroleum engineering at NSAI since 2011 and has over 4 years of prior industry experience. Edward C. Roy III, a Licensed Professional Geoscientist in the State of Texas, has been practicing consulting petroleum geoscience at NSAI since 2008 and has over 11 years of prior industry experience. We are independent petroleum engineers, geologists, geophysicists, and petrophysicists; we do not own an interest in these properties nor are we employed on a contingent basis.

Sincerely,

NETHERLAND, SEWELL & ASSOCIATES, INC.

Texas Registered Engineering Firm F-2699

/s/ C.H. (Scott) Rees III

By: C.H. (Scott) Rees III, P.E.

Chairman and Chief Executive Officer

/s/ Steven W. Jansen

By: Steven W. Jansen, P.E. 112973

Vice President

Date Signed: January 31, 2020

/s/ Edward C. Roy III

By: Edward C. Roy III, P.G. 2364

Vice President

Date Signed: January 31, 2020

SWJ:STH

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