ANNUAL REPORT — 2021

OHIO VALLEY ELECTRIC CORPORATION

and subsidiary

INDIANA-KENTUCKY ELECTRIC CORPORATION

Ohio Valley Electric Corporation

GENERAL OFFICES, 3932 U.S. Route 23, Piketon, Ohio 45661

Ohio Valley Electric Corporation (OVEC) and its wholly owned subsidiary, Indiana-Kentucky Electric Corporation (IKEC), collectively, the Companies, were organized on October 1, 1952. The Companies were formed by investor-owned utilities furnishing electric service in the Ohio River Valley area and their parent holding companies for the purpose of providing the large electric power requirements projected for the uranium enrichment facilities then under construction by the Atomic Energy Commission (AEC) near Portsmouth, Ohio.

OVEC, AEC and OVEC's owners or their utility-company affiliates (called Sponsoring Companies) entered into power agreements to ensure the availability of the AEC's substantial power requirements. On October 15, 1952, OVEC and AEC executed a 25-year agreement, which was later extended through December 31, 2005 under a Department of Energy (DOE) Power Agreement. On September 29, 2000, the DOE gave OVEC notice of cancellation of the DOE Power Agreement. On April 30, 2003, the DOE Power Agreement terminated in accordance with the notice of cancellation.

OVEC and the Sponsoring Companies signed an Inter-Company Power Agreement (ICPA) on July 10, 1953, to support the DOE Power Agreement and provide for excess energy sales to the Sponsoring Companies of power not utilized by the DOE or its predecessors. Since the termination of the DOE Power Agreement on April 30, 2003, OVEC's entire generating capacity has been available to the Sponsoring Companies under the terms of the ICPA. The Sponsoring Companies and OVEC entered into an Amended and Restated ICPA, effective as of August 11, 2011, which extends its term to June 30, 2040.

OVEC's Kyger Creek Plant at Cheshire, Ohio, and IKEC's Clifty Creek Plant at Madison, Indiana, have nameplate generating capacities of 1,086,300 and 1,303,560 kilowatts, respectively. These two generating stations, both of which began operation in 1955, are connected by a network of 705 circuit miles of 345,000-volt transmission lines. These lines also interconnect with the major power transmission networks of several of the utilities serving the area.

The current Shareholders and their respective percentages of equity in OVEC are:

Allegheny Energy, Inc.[1]	3.50
American Electric Power Company, Inc.*	39.17
Buckeye Power Generating, LLC[2]	18.00
The Dayton Power and Light Company[3]	4.90
Duke Energy Ohio, Inc.[4]	9.00
Kentucky Utilities Company[5]	2.50
Louisville Gas and Electric Company[5]	5.63
Ohio Edison Company[1]	0.85
Ohio Power Company**[6]	4.30
Peninsula Generation Cooperative[7]	6.65
Southern Indiana Gas and Electric Company[8]	1.50
The Toledo Edison Company[1]	4.00
	100.00

The Sponsoring Companies are each either a shareholder in the Company or an affiliate of a shareholder in the Company, with the exception of Energy Harbor Corp. The Sponsoring Companies currently share the OVEC power participation benefits and requirements in the following percentages:

Allegheny Energy Supply Company LLC[1]	3.01
Appalachian Power Company[6]	15.69
Buckeye Power Generating, LLC[2]	18.00
The Dayton Power and Light Company[3]	4.90
Duke Energy Ohio, Inc.[4]	9.00
Energy Harbor Corp	4.85
Indiana Michigan Power Company[6]	7.85
Kentucky Utilities Company[5]	2.50
Louisville Gas and Electric Company[5]	5.63
Monongahela Power Company[1]	0.49
Ohio Power Company[6]	19.93
Peninsula Generation Cooperative[7]	6.65
Southern Indiana Gas and Electric Company[8]	1.50
	100.00

Some of the Common Stock issued in the name of:

*American Gas & Electric Company
**Columbus and Southern Ohio Electric Company

Subsidiary or affiliate of:
[1]FirstEnergy Corp.
[2]Buckeye Power, Inc.
[3]The AES Corporation
[4]Duke Energy Corporation
[5]PPL Corporation
[6]American Electric Power Company, Inc.
[7]Wolverine Power Supply Cooperative, Inc.
[8]CenterPoint Energy, Inc.

A Message from the President

Ohio Valley Electric Corporation (OVEC) and its subsidiary, Indiana-Kentucky Electric Corporation (IKEC), came into 2021 not knowing what new challenges would come and what effect there would be of the continued COVID-19 pandemic and its impact. The OVEC-IKEC team met an economic resurgence and an increase in natural gas prices that resulted in strong demand for our units in the second half of 2021.

For 2022, we continue to see strong demand for power in the PJM market and from our Sponsors. The OVEC-IKEC team is focused on meeting that demand, while continuing our hard work in creating a zero-harm culture, focusing on environmental stewardship, and using continuous improvement and LEAN tools to improve operating metrics and create cost optimization.

SAFETY

Our commitment to providing a safe and healthy place to work for all employees is our first priority. Our Transmission and Substation crew employees have worked over 16 years without a lost-time injury. The Company recordable and DART incident rates trended up in 2021 from the previous year, with year-end rates being 1.65 and 1.03, respectively. The goal is unchanged, zero-harm is the target.

In 2022, our safety focused around more leadership in the field. Leaders are providing effective and quality coaching in the field with team field observations and attending pre-job briefs, in alignment with Strategic Plan initiatives. Through June of 2022, we have had zero DART incidents and continue to strive to create and sustain a zero-harm culture for all working at OVEC-IKEC.

CULTURE

OVEC-IKEC remains on its continuous journey of culture improvement. Beginning in 2016, the Company has seen significant improvement from the initial survey and continues to make improvements every year. OVEC-IKEC believes investing in culture improvement to engage our people will be the key to our long-term success. For 2022, we will continue with another survey to allow our teams to continue to focus on opportunities and update their culture action plans to enable improvement.

RELIABILITY

In 2021, the combined equivalent availability of the five generating units at Kyger Creek and the six units at Clifty Creek was 70.8 percent compared with 78.9 percent in 2020. The combined equivalent forced outage rate (EFOR) at both plants was 6.6 percent in 2021 compared with 4.4 percent in 2020.

Through June 2022, the combined EFOR of the eleven generating units was 10.5 percent.

ENERGY SALES

OVEC's use factor — the ratio of power scheduled by the Sponsoring Companies to power available — for the combined on- and off-peak periods averaged 76.6 percent in 2021 compared with 60.8 percent in 2020. The on-peak use factor averaged 81.7 percent in 2021 compared with 68.6 percent in 2020. The off-peak use factor averaged 69.9 percent in 2021 and 50.9 percent in 2020.

In 2021, OVEC delivered 10.0 million megawatt hours (MWh) to the Sponsoring Companies under the terms of the Inter-Company Power Agreement compared with 9.0 million MWh delivered in 2020. The increase to both generation and utilization was due to high natural gas prices impact on energy demand.

Power Costs

In 2021, OVEC's average power cost to the Sponsoring Companies was $65.82 per MWhr compared with $67.00 per MWh in 2020. The decrease in the average power costs per MWhr were directly related to an increase in generation from higher energy demand and OVEC's continuing cost optimization efforts.

2022 Energy Sales Outlook

Through June, this year has provided a stronger energy market, rebounding even more than 2021 and COVID-19's historic negative impact in 2020. OVEC's use factor through June was 91% compared to 76% through June 2021. OVEC's updated projection for 2022, which assumes some continued strong energy demand through the end of the year, is projected at approximately 12.5 million MWh of generation.

Cost Control Initiatives

The OVEC and IKEC employees continue to strive to control costs and improve operating performance through application of its continuous improvement process (CIP). Since 2013, CIP has obtained over $26.5 million in sustainable savings through implementation of more than 6,500 process improvements. Employee-driven process improvements and a continued effort in hands-on skill development with CIP and LEAN tools throughout the Company are driving the sustainability of the continuous improvement efforts.

In 2021, OVEC-IKEC continued utilizing the LEAN tool of Open Book Leadership (OBL) as a cost-control initiative to further improve our culture and overall business success. The OBL process creates transparency of Company performance and engages employees in their ability to impact and improve key performance areas. For 2022, OVEC is working to optimize operating cost and improve our processes. Through June, OVEC-IKEC employees identified over 800 process improvements.

Environmental Compliance

OVEC-IKEC continues to maintain a strong commitment to meeting all applicable federal, state and local environmental rules and regulations. During 2021, OVEC operated in substantial compliance with the Mercury Air Toxics Standards (MATS), the Cross-State Air Pollution Rule (CSAPR) and other applicable state and federal air, water and solid waste regulations. In addition, for the fifth consecutive year, OVEC successfully met the challenge of operating in compliance with the more stringent ozone season NO_x constraints that went into effect with the 2017 ozone season with the adoption of EPA's CSAPR Update Rule. The Company is well positioned to continue to operate all SCR controlled units during 2022.

Clifty Creek and Kyger Creek both continue to sell the majority of the gypsum produced at each plant into the wallboard market. Clifty Creek has also been successful in marketing fly ash, and OVEC anticipates that market to continue to grow longer term. Kyger Creek will also pursue a marketing agreement for its dry fly ash in 2023 and beyond following the completion of the dry fly ash conversion project at the plant.

2021 was also a year of transition relative to key regulatory and legal actions that impact Company operations with respect to environmental compliance. The Company modified its compliance activities in 2021 to meet new USEPA regulatory actions that include a final Coal Combustion Residuals (CCR), Part A Rule that requires the closure of all clay lined and unlined surface impoundments receiving CCR material, and final revised steam electric effluent limitation guideline (ELG) regulations applicable to certain wastewater discharges from Clifty Creek and Kyger Creek operations. OVEC-IKEC prepared for these regulatory actions and has already initiated the multi-year environmental compliance projects needed to meet requirements in the new ELG and CCR rule requirements.

A Legal decision issued by the D.C. Circuit Court in 2020 also resulted in the vacatur of the federal Affordable Clean Energy (ACE) Rule. OVEC will continue to monitor and evaluate the impacts of the D.C. Circuit Court decision on the ACE Rule, the June 30, 2022, U.S. Supreme Court decision reversing the D.C. Circuit Court's decision, and the next steps the current administration may take to issue a replacement regulation relative to utility sector carbon emissions consistent with the Supreme Court decision. OVEC will also continue monitoring other regulatory and legislative initiatives that may impact the utility sector.

In the interim, the Company continues to work toward executing our compliance strategies for complying with obligations associated with the CCR rule, the current ELG rule and the Clean Water Act Section 316(b) regulations applicable to both facilities.

BOARD OF DIRECTORS AND OFFICERS CHANGES

On December 8, 2021, Mr. David Isaacson, Vice President – Distribution Region Operations, Indiana Michigan Power, was elected a director of the IKEC Board effective on January 1, 2022, with the resignation of Mr. David Lucas. Mr. Lucas had served on the IKEC Board since 2014.

On April 18, 2021, Mr. Amhed B. Pasha, CFO-US Utilities & Conventional Generation, DPL Inc., was elected a director of the OVEC Board effective April 1, 2022, with the resignation of Mr. Gustavo Garavaglia. Mr. Garavaglia had served on the OVEC Board since 2020.

On May 1, 2022, Mr. Dan Arbough, LG&E and KU Energy, resigned as a director of OVEC. Mr. Arbough had served on the OVEC Board since 2020.

Paul Chodak III

Paul Chodak III
OVEC-IKEC President

August 4, 2022

OHIO VALLEY ELECTRIC CORPORATION AND SUBSIDIARY COMPANY

CONSOLIDATED BALANCE SHEETS
AS OF DECEMBER 31, 2021 AND 2020

	2021	2020
ASSETS		
ELECTRIC PLANT:		
At original cost	$ 2,892,814,447	$ 2,869,460,850
Less—accumulated provisions for depreciation	1,766,903,520	1,648,697,601
	1,125,910,927	1,220,763,249
Construction in progress	56,005,177	18,727,452
Total electric plant	1,181,916,104	1,239,490,701
CURRENT ASSETS:		
Cash and cash equivalents	56,366,876	50,835,059
Accounts receivable	36,289,466	44,900,548
Fuel in storage	40,352,672	79,328,652
Emission allowances	81,833	143,905
Materials and supplies	43,646,500	40,428,263
Property taxes applicable to future years	3,116,700	3,255,000
Prepaid expenses and other	4,430,506	4,031,567
Total current assets	184,284,553	222,922,994
REGULATORY ASSETS:		
Unrecognized postemployment benefits	8,611,705	6,833,166
Unrecognized pension benefits	18,796,585	34,784,688
Income taxes billable to customers	13,045,853	10,751,917
Other regulatory assets	9,262,500	-
Total regulatory assets	49,716,643	52,369,771
DEFERRED CHARGES AND OTHER:		
Unamortized debt expense	755,213	382,580
Long-term investments	301,302,862	273,951,093
Postretirement benefits	11,877,835	-
Other	2,866,534	1,488,586
Total deferred charges and other	316,802,444	275,822,259
TOTAL	$ 1,732,719,744	$ 1,790,605,725

(Continued)

OHIO VALLEY ELECTRIC CORPORATION AND SUBSIDIARY COMPANY

CONSOLIDATED BALANCE SHEETS
AS OF DECEMBER 31, 2021 AND 2020

	2021	2020
CAPITALIZATION AND LIABILITIES		
CAPITALIZATION:		
Common stock, $100 par value—authorized, 300,000 shares; outstanding, 100,000 shares in 2021 and 2020	$ 10,000,000	$ 10,000,000
Long-term debt	979,998,445	1,009,833,026
Line of credit borrowings	10,000,000	60,000,000
Retained earnings	22,800,986	20,104,306
Total capitalization	1,022,799,431	1,099,937,332
CURRENT LIABILITIES:		
Current portion of long-term debt	132,134,224	194,982,570
Accounts payable	49,515,658	37,908,306
Accrued other taxes	11,116,929	11,247,988
Regulatory liabilities	58,034,516	20,718,951
Accrued interest and other	22,342,003	26,547,150
Total current liabilities	273,143,330	291,404,965
COMMITMENTS AND CONTINGENCIES (Notes 3, 9, 11, and 12)		
REGULATORY LIABILITIES:		
Postretirement benefits	91,142,107	64,415,536
Advance billing of debt reserve	120,000,000	120,000,000
Total regulatory liabilities	211,142,107	184,415,536
OTHER LIABILITIES:		
Pension liability	18,796,585	34,784,688
Deferred income tax liability	21,704,751	19,410,815
Asset retirement obligations	159,573,299	138,933,456
Postretirement benefits obligation	5,379,460	11,995,106
Postemployment benefits obligation	8,611,705	6,833,166
Other non-current liabilities	11,569,076	2,890,661
Total other liabilities	225,634,876	214,847,892
TOTAL	$ 1,732,719,744	$ 1,790,605,725

See notes to consolidated financial statements. (Concluded)

OHIO VALLEY ELECTRIC CORPORATION AND SUBSIDIARY COMPANY

CONSOLIDATED STATEMENTS OF INCOME AND RETAINED EARNINGS
AS OF DECEMBER 31, 2021 AND 2020

	2021	2020
REVENUES FROM CONTRACTS WITH CUSTOMERS—Sales of electric energy to:		
Department of Energy	$ 5,221,889	$ 3,265,537
Sponsoring Companies	616,419,611	547,668,086
Other	1,783,416	784,078
Total revenues from contracts with customers	623,424,916	551,717,701
OPERATING EXPENSES:		
Fuel and emission allowances consumed in operation	260,173,759	231,316,036
Purchased power	4,963,205	2,545,280
Other operation	85,531,745	73,452,698
Maintenance	79,212,668	78,628,228
Depreciation	117,385,278	82,237,657
Taxes—other than income taxes	12,292,661	12,203,087
Total operating expenses	559,559,316	480,382,986
OPERATING INCOME	63,865,600	71,334,715
OTHER INCOME (EXPENSE)	(27,487)	86,805
INCOME BEFORE INTEREST CHARGES	63,838,113	71,421,520
INTEREST CHARGES:		
Amortization of debt expense	4,439,333	4,288,807
Interest expense	56,702,100	64,322,430
Total interest charges	61,141,433	68,611,237
NET INCOME	2,696,680	2,810,283
RETAINED EARNINGS—Beginning of year	20,104,306	17,294,023
RETAINED EARNINGS—End of year	$ 22,800,986	$ 20,104,306

See notes to consolidated financial statements.

OHIO VALLEY ELECTRIC CORPORATION AND SUBSIDIARY COMPANY

CONSOLIDATED STATEMENTS OF CASH FLOWS
AS OF DECEMBER 31, 2021 AND 2020

	2021	2020
OPERATING ACTIVITIES:		
Net income	$ 2,696,680	$ 2,810,283
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation	117,385,278	82,237,657
Amortization of debt expense	4,439,333	4,288,807
Changes in assets and liabilities:		
Accounts receivable	8,611,082	29,586,141
Fuel in storage	38,975,980	(17,976,794)
Materials and supplies	(3,218,237)	502,800
Property taxes applicable to future years	138,300	(105,000)
Emissions allowances	62,072	147,776
Income tax receivable	-	2,307,853
Prepaid expenses and other	(398,939)	(1,213,852)
Other regulatory assets	14,209,564	(4,246,010)
Other noncurrent assets	(12,390,783)	3,329,391
Accounts payable	10,467,693	1,215,500
Accrued taxes	(131,060)	720,941
Accrued interest and other	(3,324,951)	(950,127)
Decommissioning, demolition and other	-	12,914,757
Other liabilities	(25,617,393)	15,277,153
Other regulatory liabilities	68,751,241	17,373,170
Net cash provided by operating activities	220,655,860	148,220,446
INVESTING ACTIVITIES:		
Electric plant additions	(44,970,990)	(12,899,927)
Proceeds from sale of long-term investments	47,043,450	198,124,748
Purchases of long-term investments	(68,821,414)	(234,468,776)
Net cash (used in) provided by investing activities	(66,748,954)	(49,243,955)
FINANCING ACTIVITIES:		
Debt issuance and maintenance costs	(2,511,973)	(2,068,564)
Repayment of Senior 2006 Notes	(24,713,983)	(23,333,029)
Repayment of Senior 2007 Notes	(17,590,534)	(16,591,089)
Repayment of Senior 2008 Notes	(19,345,070)	(18,130,679)
Repayment of Senior 2017A Notes	(33,333,333)	-
Proceeds from line of credit	-	25,000,000
Payments on line of credit	(50,000,000)	(45,000,000)
Principal payments under capital leases	(880,196)	(259,242)
Net cash (used in) provided by financing activities	(148,375,089)	(80,382,603)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	$ 5,531,817	$ 18,593,888
CASH AND CASH EQUIVALENTS—Beginning of year	50,835,059	32,241,171
CASH AND CASH EQUIVALENTS—End of year	$ 56,366,876	$ 50,835,059
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:		
Interest paid	$ 57,401,894	$ 64,526,922
Income taxes (received) paid—net	$ -	$ (4,615,202)
Non-cash electric plant additions included in accounts payable at December 31	$ 3,242,769	$ 2,102,982

See notes to consolidated financial statements.

1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

Consolidated Financial Statements—The consolidated financial statements include the accounts of Ohio Valley Electric Corporation (OVEC) and its wholly owned subsidiary, Indiana-Kentucky Electric Corporation (IKEC), collectively, the Companies. All intercompany transactions have been eliminated in consolidation.

Organization—The Companies own two generating stations located in Ohio and Indiana with a combined electric production capability of approximately 2,256 megawatts. OVEC is owned by several investor-owned utilities or utility holding companies and two affiliates of generation and transmission rural electric cooperatives. These entities or their affiliates comprise the Sponsoring Companies. The Sponsoring Companies purchase power from OVEC according to the terms of the Inter-Company Power Agreement (ICPA), which has a current termination date of June 30, 2040. Approximately 24% of the Companies' employees are covered by a collective bargaining agreement that expires on August 31, 2024.

Prior to 2004, OVEC's primary commercial customer was the U.S. Department of Energy (DOE). The contract to provide OVEC-generated power to the DOE was terminated in 2003 and all obligations were settled at that time. Currently, OVEC has an agreement to arrange for the purchase of power (Arranged Power), under the direction of the DOE, for resale directly to the DOE. The current agreement with the DOE was executed on July 11, 2018, for one year, with the option for the DOE to extend the agreement at the anniversary date. The agreement was extended on July 11, 2021, for one year. OVEC anticipates that this agreement could continue to 2027. All purchase costs are billable by OVEC to the DOE.

Rate Regulation—The proceeds from the sale of power to the Sponsoring Companies are designed to be sufficient for OVEC to meet its operating expenses and fixed costs, as well as earn a return on equity before federal income taxes. In addition, the proceeds from power sales are designed to cover debt amortization and interest expense associated with financings. The Companies have continued and expect to continue to operate pursuant to the cost-plus rate of return recovery provisions at least to June 30, 2040, the date of termination of the ICPA.

The accounting guidance for Regulated Operations provides that rate-regulated utilities account for and report assets and liabilities consistent with the economic effect of the way in which rates are established, if the rates established are designed to recover the costs of providing the regulated service and it is probable that such rates can be charged and collected. The Companies follow the accounting and reporting requirements in accordance with the guidance for Regulated Operations. Certain expenses and credits subject to utility regulation or rate determination normally reflected in income are deferred in the accompanying consolidated balance sheets and are recognized as income as the related amounts are included in service rates and recovered from or refunded to customers.

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The Companies' regulatory assets, liabilities, and amounts authorized for recovery through Sponsor billings at December 31, 2021 and 2020, were as follows:

	2021	2020
Regulatory assets:		
Noncurrent regulatory assets:		
Unrecognized postemployment benefits	$ 8,611,705	$ 6,833,166
Unrecognized pension benefits	18,796,585	34,784,688
Income taxes billable to customers	13,045,853	10,751,917
Other regulatory assets	9,262,500	-
Total	49,716,643	52,369,771
Total regulatory assets	$ 49,716,643	$ 52,369,771
Regulatory liabilities:		
Current regulatory liabilities:		
Deferred revenue—advances for construction	$ 56,525,728	$ 19,371,880
Deferred credit—advance collection of interest	1,508,788	1,347,071
Total	58,034,516	20,718,951
Noncurrent regulatory liabilities:		
Postretirement benefits	91,142,107	64,415,536
Advance billing of debt reserve	120,000,000	120,000,000
Total	211,142,107	184,415,536
Total regulatory liabilities	$ 269,176,623	$ 205,134,487

Regulatory Assets—Regulatory assets consist primarily of pension benefit costs, postemployment benefit costs, and income taxes to be billed to the Sponsoring Companies in future years. The Companies' current billing policy for pension and postemployment benefit costs is to bill its actual plan funding.

Regulatory Liabilities—The regulatory liabilities classified as current in the accompanying consolidated balance sheet as of December 31, 2021, consist primarily of interest expense collected from customers in advance of expense recognition and customer billings for construction in progress. These amounts will be credited to customer bills during 2022. Other regulatory liabilities consist primarily of postretirement benefit costs and advanced billings collected from the Sponsoring Companies for debt service.

The regulatory liability for postretirement benefits recorded at December 31, 2021 and 2020, represents amounts collected in historical billings in excess of the accounting principles generally accepted in the United States of America (GAAP) net periodic benefit costs, including a termination payment from the DOE in 2003 for unbilled postretirement benefit costs, and incremental unfunded plan obligations recognized in the balance sheets but not yet recognizable in GAAP net periodic benefit costs.

Beginning January 2017 and continuing through December 31, 2020, the Companies billed the Sponsoring Companies for debt service as allowed under the ICPA. A total of $120 million was billed during this period. As the Companies have not yet incurred the related costs, a regulatory liability was recorded which will be credited to customer bills on a long-term basis.

Cash and Cash Equivalents—Cash and cash equivalents primarily consist of cash and money market funds and their carrying value approximates fair value. For purposes of these statements, the Companies consider temporary cash investments to be cash equivalents since they are readily convertible into cash and have original maturities of less than three months.

Electric Plant—Property additions and replacements are charged to utility plant accounts. Depreciation expense is recorded at the time property additions and replacements are billed to customers or at the date the property is placed in service if the in-service date occurs subsequent to the customer billing. Customer billings for construction in progress are recorded as deferred revenue—advances for construction. These amounts are closed to revenue at the time the related property is placed in service. Depreciation expense and accumulated depreciation are recorded when financed property additions and replacements are recovered over a period of years through customer debt retirement billing. All depreciable property will be fully billed and depreciated prior to the expiration of the ICPA. Repairs of property are charged to maintenance expense.

Fuel in Storage, Emission Allowances, and Materials and Supplies—The Companies maintain coal, reagent, and oil inventories, as well as emission allowances, for use in the generation of electricity for regulatory compliance purposes due to the generation of electricity. These inventories are valued at average cost. Materials and supplies consist primarily of replacement parts necessary to maintain the generating facilities and are valued at average cost.

Long-Term Investments—Long-term investments consist of marketable securities that are held for the purpose of funding decommissioning and demolition costs, debt service, potential postretirement funding, and other costs. These debt securities have been classified as trading securities in accordance with the provisions of the accounting guidance for Investments—Debt and Equity Securities. Debt and equity securities reflected in long-term investments are carried at fair value. The cost of securities sold is based on the specific identification cost method. The fair value of most investment securities is determined by reference to currently available market prices. Where quoted market prices are not available, the Companies use the market price of similar types of securities that are traded in the market to estimate fair value. See Fair Value Measurements in Note 10. Long-term investments primarily consist of municipal bonds, money market mutual fund investments, and mutual funds. Net unrealized gains (losses) recognized during 2021 and 2020 on securities still held at the balance sheet date were $5,434,007 and $3,840,821, respectively.

Fair Value Measurements of Assets and Liabilities—The accounting guidance for Fair Value Measurements and Disclosures establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Where observable inputs are available, pricing may be completed using comparable securities, dealer values, and general market conditions to determine fair value. Valuation models utilize various inputs that include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in inactive markets, and other observable inputs for the asset or liability.

Unamortized Debt Expense—Unamortized debt expense relates to costs incurred in connection with obtaining revolving credit agreements. These costs are being amortized over the term of the related revolving credit agreement and are recorded as an asset in the consolidated balance sheets. Costs incurred to issue debt are recorded as a reduction to long-term debt as presented in Note 6.

Asset Retirement Obligations and Asset Retirement Costs—The Companies recognize the fair value of legal obligations associated with the retirement or removal of long-lived assets at the time the obligations are incurred and can be reasonably estimated. The initial recognition of this liability is accompanied by a corresponding increase in depreciable electric plant. Subsequent to the initial recognition, the liability is adjusted for any revisions to the expected value of the retirement obligation (with corresponding adjustments to electric plant) and for accretion of the liability due to the passage of time.

These asset retirement obligations are primarily related to obligations associated with future asbestos abatement at certain generating stations and certain plant closure costs, including the impacts of the coal combustion residuals rule.

Balance—January 1, 2020	$ 63,487,038
Accretion	3,476,310
Liabilities settled	-
Revisions to cash flows	71,970,108
Balance—December 31, 2020	138,933,456
Accretion	6,281,878
Liabilities settled	(10,026,043)
Revisions to cash flows	24,384,008
Balance—December 31, 2021	$ 159,573,299

In 2020, the USEPA finalized several changes to the regulations for coal combustion residuals. These changes included a final rule that all unlined surface impoundments are required to retrofit or close, not just those that have detected groundwater contamination above regulatory levels. The rule also changes the classification of certain surface impoundments from “lined” to “unlined.” Finally, the rule establishes a revised date, April 11, 2021, by which unlined surface impoundments and units that failed the aquifer location restriction must cease receiving waste and initiate closure or retrofit, unless a company files for an extension of that date, which the Companies have done and is further discussed in Note 9. As a result of these rule changes and the potential for new, more restrictive rules under a new presidential administration, the Companies decided to accelerate the timing of remediation activities related to their coal ash ponds and landfills. This resulted in an upward revision to projected cash flows and an increase in the resulting asset retirement obligations in 2020, as disclosed in the table above. Changes in the regulations, or in the remediation technologies could potentially result in material increases in the asset retirement obligation. The Companies will revisit the studies as appropriate throughout the process of executing remediation related to the coal ash ponds and landfills to maintain an accurate estimated cost of remediation.

In 2021 the Companies completed a new decommissioning and demolition study resulting in an upward revision of $24.3 million. This increase was primarily driven by future ground water monitoring requirements.

The Companies do not recognize liabilities for asset retirement obligations for which the fair value cannot be reasonably estimated. The Companies have asset retirement obligations associated with transmission assets. However, the retirement date for these assets cannot be determined; therefore, the fair value of the associated liability currently cannot be estimated and no amounts are recognized in the consolidated financial statements herein.

Income Taxes—The Companies use the liability method of accounting for income taxes. Under the liability method, the Companies provide deferred income taxes for all temporary differences between the book and tax basis of assets and liabilities, which will result in a future tax consequence. The Companies account for uncertain tax positions in accordance with the accounting guidance for income taxes.

Use of Estimates—The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Revenue Recognition—Revenue is recognized when the Companies transfer promised goods or services to customers in an amount that reflects the consideration to which the Companies expect to be entitled in exchange for those goods or services. Performance obligations related to the sale of electric energy are satisfied over time as system resources are made available to customers and as energy is delivered to customers and the Companies recognize revenue upon billing the customer.

The Companies have three contracts with customers resulting in three types of revenue. These three contracted revenue types are:

1) Sales of Electric Energy to Department of Energy
2) Sales of Electric Energy to Sponsoring Companies
3) Sales of Electric Energy to Pennsylvania, Jersey, Maryland Power Pool (PJM)

The performance obligations and recognition of revenue are similar and both individually and, in the aggregate, were not materially impacted by the implementation of Topic 606. The Companies have no contract assets or liabilities as of December 31, 2021. The following table provides information about the Companies' receivables from contracts with customers:

	Accounts Receivable
Beginning balance—January 1, 2020	$ 74,486,689
Ending balance—December 31, 2020	44,900,548
Increase/(decrease)	$(29,586,141)
Beginning balance—January 1, 2021	$ 44,900,548
Ending balance—December 31, 2021	36,289,466
Increase/(decrease)	$ (8,611,082)

Recently Issued Accounting Standards—In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* and in January 2021, the FASB issued ASU 2021-01, *Reference Rate Reform (Topic 848): Scope.* These pronouncements provide temporary optional expedients and exceptions for applying GAAP principles to contract modifications and hedging relationships to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates. The Companies plan to adopt the standard for fiscal year ended December 31, 2022. The Companies are in process of evaluating the impact of adoption, if any, of this ASU on the Companies' consolidated financial statements.

Subsequent Events—In preparing the accompanying financial statements and disclosures, the Companies reviewed subsequent events through May 4, 2022, which is the date the consolidated financial statements were issued.

2. RELATED-PARTY TRANSACTIONS

Transactions with the Sponsoring Companies during 2021 and 2020 included the sale of all generated power to them, the purchase of arranged power from them, and other utility systems in order to meet the DOE's power requirements, contract barging services, railcar services, and minor transactions for services and materials. The Companies have Power Agreements with Louisville Gas and Electric Company, Duke Energy Ohio, Inc., The Dayton Power and Light Company, Kentucky Utilities Company, Ohio Edison Company, and American Electric Power Service Corporation as agent for the American Electric Power System Companies; and Transmission Service Agreements with Louisville Gas and Electric Company, Duke Energy Ohio, Inc., The Dayton Power and Light Company, The Toledo Edison Company, Ohio Edison

Company, Kentucky Utilities Company, and American Electric Power Service Corporation as agent for the American Electric Power System Companies.

At December 31, 2021 and 2020, balances due from the Sponsoring Companies are as follows:

	2021	2020
Accounts receivable	$30,117,445	$37,633,208

During 2021 and 2020, American Electric Power accounted for approximately 44% of operating revenues from Sponsoring Companies and Buckeye Power accounted for 18%. No other Sponsoring Company accounted for more than 10%.

American Electric Power Company, Inc. and subsidiary companies owned 43.47% of the common stock of OVEC as of December 31, 2021. The following is a summary of the principal services received from the American Electric Power Service Corporation as authorized by the Companies' Boards of Directors:

	2021	2020
General services	$ 3,037,297	$ 2,761,173
Specific projects	1,072,053	257,787
Total	$ 4,109,350	$ 3,018,960

General services consist of regular recurring operation and maintenance services. Specific projects primarily represent nonrecurring plant construction projects and engineering studies, which are approved by the Companies' Boards of Directors. The services are provided in accordance with the service agreement dated December 15, 1956, between the Companies and the American Electric Power Service Corporation.

3. COAL SUPPLY

The Companies have coal supply agreements with certain nonaffiliated companies that expire at various dates from the year 2022 through 2024. Pricing for coal under these contracts is subject to contract provisions and adjustments. The Companies currently have 100% of their 2022 coal requirements under contract. These contracts are based on rates in effect at the time of contract execution. The Companies' total obligations under these agreements as of December 31, 2021, are included in the table below:

2022	$ 231,193,776
2023	213,175,000
2024	123,625,000

4. ELECTRIC PLANT

Electric plant at December 31, 2021 and 2020, consists of the following:

	2021	2020
Steam production plant	$2,797,653,316	$2,774,455,039
Transmission plant	82,008,817	81,986,558
General plant	13,125,750	12,992,689
Intangible	26,564	26,564
	2,892,814,447	2,869,460,850
Less accumulated depreciation	1,766,903,520	1,648,697,601
	1,125,910,927	1,220,763,249
Construction in progress	56,005,177	18,727,452
Total electric plant	$1,181,916,104	$1,239,490,701

All property additions and replacements are fully depreciated on the date the property is placed in service, unless the addition or replacement relates to a financed project. As the Companies' policy is to bill in accordance with the debt service schedule under the debt agreements, all financed projects are being depreciated in amounts equal to the principal payments on outstanding debt.

5. BORROWING ARRANGEMENTS AND NOTES

OVEC has a revolving credit facility of $185 million set to expire on February 26, 2024. At December 31, 2021 and 2020, OVEC had borrowed $10 million and $60 million, respectively, under lines of credit. Interest expense related to lines of credit borrowings was $481,649 in 2021 and $1,860,768 in 2020. During 2021 and 2020, OVEC incurred annual commitment fees of $317,285 and $308,303, respectively, based on the borrowing limits of the line of credit.

6. LONG-TERM DEBT

The following amounts were outstanding at December 31, 2021 and 2020:

	Interest Rate Type	Interest Rate	2021	2020
Senior 2006 Notes:				
2006A due February 15, 2026	Fixed	5.80 %	$ 123,200,015	$ 146,533,289
2006B due June 15, 2040	Fixed	6.40	51,465,748	52,846,460
Senior 2007 Notes:				
2007A-A due February 15, 2026	Fixed	5.90	53,268,981	64,250,051
2007A-B due February 15, 2026	Fixed	5.90	13,415,270	16,180,745
2007A-C due February 15, 2026	Fixed	5.90	13,522,091	16,309,586
2007B-A due June 15, 2040	Fixed	6.50	25,652,971	26,354,033
2007B-B due June 15, 2040	Fixed	6.50	6,460,448	6,637,764
2007B-C due June 15, 2040	Fixed	6.50	6,511,889	6,690,005
Senior 2008 Notes:				
2008A due February 15, 2026	Fixed	5.92	16,632,689	20,059,786
2008B due February 15, 2026	Fixed	6.71	33,681,096	40,716,172
2008C due February 15, 2026	Fixed	6.71	35,938,542	42,874,648
2008D due June 15, 2040	Fixed	6.91	37,521,292	38,486,303
2008E due June 15, 2040	Fixed	6.91	38,173,246	39,155,024
Series 2009 Bonds:				
2009A due February 1, 2026	Fixed	2.88	25,000,000	25,000,000
2009B due February 1, 2026	Fixed	1.38	25,000,000	25,000,000
2009C due February 1, 2026	Fixed	1.50	25,000,000	25,000,000
2009D due February 1, 2026	Fixed	2.88	25,000,000	25,000,000
Series 2010 Bonds:				
2010A due November 1, 2030	Fixed	3.00	50,000,000	50,000,000
2010B due November 1, 2030	Fixed	2.50	50,000,000	50,000,000
Series 2012 Bonds:				
2012A due June 1, 2032	Fixed	5.00	76,800,000	76,800,000
2012A due June 1, 2039	Fixed	5.00	123,200,000	123,200,000
2012B due November 1, 2030	Fixed	3.00	50,000,000	50,000,000
2012C due November 1, 2030	Fixed	3.00	50,000,000	50,000,000
Series 2017 Notes—				
2017A due August 4, 2022	Floating	4.07	66,666,667	100,000,000
Series 2019 Bonds—				
2019A due September 1, 2029	Fixed	3.25	100,000,000	100,000,000
Total debt			1,122,110,945	1,217,093,866
Total premiums and discounts—net			(392,666)	(415,266)
Less unamortized debt expense			(9,585,610)	(11,863,004)
Total debt net of premiums, discounts, and unamortized debt expense			1,112,132,669	1,204,815,596
Current portion of long-term debt			132,134,224	194,982,570
Total long-term debt			$ 979,998,445	$ 1,009,833,026

Since 2009, OVEC has entered a number of tax-exempt financing arrangements. Under these arrangements, the Ohio Air Quality Development Authority (the "OAQDA"), and the Indiana Finance Authority (the "IFA") issued tax exempt bonds, and the Companies entered back-to-back loan agreements under which the Companies are obligated to make payments equal to the principal and interest due on such bonds, among other payments.

The 2009, 2010, 2012B and 2012C Bonds were originally issued as variable-rate remarketable put bonds backed by irrevocable transferable direct-pay letters of credit. These bonds were all subsequently remarketed as fixed-rate bonds with interest periods that extend through their final maturity dates, except for the 2009B and 2009C bonds, which have interest periods that extend through October 31, 2024 and November 3, 2025, respectively, at which point such bonds are subject to mandatory tender.

The 2010, 2012B, 2012C and 2019 Bonds are all scheduled to begin amortizing in 2026. The 2012A Bonds will begin amortizing in 2027.

Pursuant to an agreement with the lender executed in 2020, the remaining $66,666,667 of principal owed on the 2017 notes is due on the final maturity date, August 4, 2022.

Certain of OVEC's bonds and its revolving credit facility require the company to maintain a minimum of $11 million of equity, which includes common stock and retained earnings balances. Common stock and retained earnings approximated $32.8 million as of December 31, 2021.

The annual maturities of long-term debt as of December 31, 2021, are as follows:

2022	$ 132,134,224
2023	69,523,395
2024	73,831,592
2025	78,243,501
2026	129,341,140
2027–2040	639,037,093
Total	$1,122,110,945

7. INCOME TAXES

OVEC and IKEC file a consolidated federal income tax return. The effective tax rate varied from the statutory federal income tax rate due to differences between the book and tax treatment of various transactions as follows:

	2021	2020
Income tax expense at statutory rate (21%)	$ 566,303	$ 590,159
Temporary differences flowed through to customer bills	(579,754)	(591,673)
Permanent differences and other	13,451	1,514
Income tax provision	$ -	$ -

Components of the income tax provision were as follows:

	2021	2020
Current income tax expense—federal	$ -	$ -
Current income tax (benefit)/expense—state	-	-
Deferred income tax expense/(benefit)—federal	-	-
Total income tax provision	$ -	$ -

OVEC and IKEC record deferred tax assets and liabilities based on differences between book and tax basis of assets and liabilities measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Deferred tax assets and liabilities are adjusted for changes in tax rates.

To the extent that the Companies have not reflected charges or credits in customer billings for deferred tax assets and liabilities, they have recorded a regulatory asset or liability representing income taxes billable or refundable to customers under the applicable agreements among the parties. These temporary differences will be billed or credited to the Sponsoring Companies through future billings. The regulatory asset was $13,045,856 and $10,751,917 at December 31, 2021 and 2020, respectively.

Deferred income tax assets (liabilities) at December 31, 2021 and 2020, consisted of the following:

	2021	2020
Deferred tax assets:		
Deferred revenue—advances for construction	$ 13,194,899	$ 4,072,606
Federal net operating loss carryforwards	5,086,419	26,854,145
Postretirement benefit obligation	-	2,521,765
Pension liability	3,129,540	7,418,001
Postemployment benefit obligation	1,809,185	1,436,556
Asset retirement obligations	33,523,862	29,208,377
Advanced collection of interest and debt service	25,527,102	25,511,141
Miscellaneous accruals	1,174,133	1,146,349
Regulatory liability-postretirement benefits	20,185,875	13,542,262
Total deferred tax assets	103,631,015	111,711,201
Deferred tax liabilities:		
Prepaid expenses	(590,692)	(501,970)
Electric plant	(83,922,216)	(90,448,307)
Unrealized gain/loss on marketable securities	(5,324,468)	(4,184,852)
Postretirement benefit obligation	(699,371)	-
Regulatory asset—pension benefits	(3,948,869)	(7,312,884)
Regulatory asset—asset retirement costs	(47,360)	-
Regulatory asset—unrecognized postemployment benefits	(1,809,185)	(1,436,556)
Regulatory asset—income taxes billable to customers	(2,732,737)	(2,257,902)
Total deferred tax liabilities	(99,074,898)	(106,142,472)
Valuation allowance	(26,260,868)	(24,979,544)
Deferred income tax liability	$ (21,704,751)	$ (19,410,815)

Because future taxable income may prove to be insufficient to recover the Companies' gross deferred tax assets, the Companies have recorded a valuation allowance for their deferred tax assets as of December 31, 2021 and 2020.

The accounting guidance for Income Taxes addresses the determination of whether the tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under this guidance, the Companies may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. The Companies have not identified any uncertain tax positions as of December 31, 2021 and 2020, and accordingly, no liabilities for uncertain tax positions have been recognized.

The Companies file income tax returns with the Internal Revenue Service and the states of Ohio, Indiana, and the Commonwealth of Kentucky. The Companies are no longer subject to federal tax examinations for tax years 2017 and earlier. The Companies are no longer subject to State of Indiana tax examinations for tax years 2016 and earlier. The Companies are no longer subject to Ohio and the Commonwealth of Kentucky examinations for tax years 2016 and earlier. The Companies have $24,221,046 of Federal Net Operating Loss carryovers that begin to expire in 2036.

8. PENSION PLAN AND OTHER POSTRETIREMENT AND POSTEMPLOYMENT BENEFITS

The Companies have a noncontributory qualified defined benefit pension plan (the Pension Plan) covering substantially all of their employees hired prior to January 1, 2015. The benefits are based on years of service and each employee's highest consecutive 36-month compensation period. Employees are vested in the Pension Plan after five years of service with the Companies.

Funding for the Pension Plan is based on actuarially determined contributions, the maximum of which is generally the amount deductible for income tax purposes and the minimum being that required by the Employee Retirement Income Security Act of 1974, as amended.

In addition to the Pension Plan, the Companies provide certain health care and life insurance benefits (Other Postretirement Benefits) for retired employees. Substantially, all of the Companies' employees hired prior to January 1, 2015, become eligible for these benefits if they reach retirement age while working for the Companies. These and similar benefits for active employees are provided through employer funding and insurance policies. In December 2004, the Companies established VEBA trusts. In January 2011, the Companies established an Internal Revenue Code Section 401(h) account under the Pension Plan.

The full cost of the pension benefits and other postretirement benefits has been allocated to OVEC and IKEC in the accompanying consolidated financial statements. The allocated amounts represent approximately a 54% and 46% split between OVEC and IKEC, respectively, as of December 31, 2021, and approximately a 53% and 47% split between OVEC and IKEC, respectively, as of December 31, 2020.

The Pension Plan's assets as of December 31, 2021, consist of investments in equity and debt securities. All of the trust funds' investments for the pension and postemployment benefit plans are diversified and managed in compliance with all laws and regulations. Management regularly reviews the actual asset allocation and periodically rebalances the investments to targeted allocation when appropriate. The investments are reported at fair value under the Fair Value Measurements and Disclosures accounting guidance.

All benefit plan assets are invested in accordance with each plan's investment policy. The investment policy outlines the investment objectives, strategies, and target asset allocations by plan. Benefit plan assets are reviewed on a formal basis each quarter by the OVEC-IKEC Qualified Plan Trust Committee.

The investment philosophies for the benefit plans support the allocation of assets to minimize risks and optimize net returns.

Investment strategies include:

- Maintaining a long-term investment horizon.
- Diversifying assets to help control volatility of returns at acceptable levels.
- Managing fees, transaction costs, and tax liabilities to maximize investment earnings.
- Using active management of investments where appropriate risk/return opportunities exist.
- Keeping portfolio structure style neutral to limit volatility compared to applicable benchmarks.

The target asset allocation for each portfolio is as follows:

Pension Plan Assets	**Target**
Domestic equity	15 %
International and global equity	15
Fixed income	68
Cash	2
VEBA Plan Assets	
Domestic equity	20 %
International and global equity	20
Fixed income	60

Each benefit plan contains various investment limitations. These limitations are described in the investment policy statement and detailed in customized investment guidelines. These investment guidelines require appropriate portfolio diversification and define security concentration limits. Each investment manager's portfolio is compared to an appropriate diversified benchmark index.

Equity investment limitations:

- No security in excess of 5% of all equities.
- Cash equivalents must be less than 10% of each investment manager's equity portfolio.
- Individual securities must be less than 15% of each manager's equity portfolio.

- No investment in excess of 5% of an outstanding class of any company.
- No securities may be bought or sold on margin or other use of leverage.

Fixed-Income Limitations—As of December 31, 2021, the Pension Plan fixed-income allocation consists of managed accounts composed of U.S. Government, corporate, and municipal obligations. The VEBA benefit plans' fixed-income allocation is composed of a variety of fixed-income securities and mutual funds. Investment limitations for these fixed-income funds are defined by manager prospectus.

Cash Limitations—Cash and cash equivalents are held in each trust to provide liquidity and meet short-term cash needs. Cash equivalent funds are used to provide diversification and preserve principal. The underlying holdings in the cash funds are investment grade money market instruments, including money market mutual funds, certificates of deposit, treasury bills, and other types of investment-grade short-term debt securities. The cash funds are valued each business day and provide daily liquidity.

Pension Plan and Other Postretirement Benefits obligations and funded status as of December 31, 2021 and 2020, are as follows:

	Pension Plan		Other Postretirement Benefits	
	2021	2020	2021	2020
Change in benefit obligation:				
Benefit obligation—beginning of year	$ 276,434,312	$ 244,541,899	$ 178,235,236	$ 159,833,696
Service cost	7,721,082	6,919,404	4,100,166	3,867,790
Interest cost	7,705,582	8,652,849	4,591,069	5,595,528
Plan participants' contributions	-	-	1,355,555	1,339,527
Benefits paid	(16,830,398)	(13,391,815)	(5,542,477)	(6,912,071)
Net actuarial loss (gain)	(11,372,798)	29,783,513	(16,835,277)	14,510,766
Expenses paid from assets	(63,805)	(71,538)	-	-
Benefit obligation—end of year	263,593,975	276,434,312	165,904,272	178,235,236
Change in fair value of plan assets:				
Fair value of plan assets—beginning of year	241,649,624	212,371,591	166,240,130	155,590,848
Actual return on plan assets	9,041,969	32,441,386	10,326,206	16,186,032
Expenses paid from assets	(63,805)	(71,538)	-	-
Employer contributions	11,000,000	10,300,000	23,233	35,794
Plan participants' contributions	-	-	1,355,555	1,339,527
Benefits paid	(16,830,398)	(13,391,815)	(5,542,477)	(6,912,071)
Fair value of plan assets—end of year	244,797,390	241,649,624	172,402,647	166,240,130
(Underfunded) Overfunded status—end of year	$ (18,796,585)	$ (34,784,688)	$ 6,498,375	$ (11,995,106)

See Note 1 for information regarding regulatory assets related to the Pension Plan and Other Postretirement Benefits plan.

The accumulated benefit obligation for the Pension Plan was $236,107,876 and $246,035,532 at December 31, 2021 and 2020, respectively.

Components of Net Periodic Benefit Cost—The Companies record the expected cost of Other Postretirement Benefits over the service period during which such benefits are earned.

The accumulated benefit obligation for the Pension Plan was $236,107,876 and $246,035,532 at December 31, 2021 and 2020, respectively.

Components of Net Periodic Benefit Cost—The Companies record the expected cost of Other Postretirement Benefits over the service period during which such benefits are earned.

Pension expense is recognized as amounts are contributed to the Pension Plan and billed to customers. The accumulated difference between recorded pension expense and the yearly net periodic pension expense, as calculated under generally accepted accounting principles, is billable as a cost of operations under the ICPA when contributed to the pension fund. This accumulated difference has been recorded as a regulatory asset in the accompanying consolidated balance sheets.

	Pension Plan		Other Postretirement Benefits	
	2021	**2020**	**2021**	**2020**
Service cost	$ 7,721,082	$ 6,919,404	$ 4,100,166	$ 3,867,790
Interest cost	7,705,582	8,652,849	4,591,069	5,595,528
Expected return on plan assets	(12,520,433)	(12,231,210)	(7,440,275)	(7,948,184)
Amortization of prior service cost	(416,565)	(416,565)	(2,781,539)	(2,781,539)
Recognized actuarial loss (gain)	1,226,576	815,085	(1,414,607)	(766,517)
Total benefit cost	$ 3,716,242	$ 3,739,563	$ (2,945,186)	$ (2,032,922)
Pension and other postretirement benefits expense recognized in the consolidated statements of income and retained earnings and billed to Sponsoring Companies under the ICPA	$ 6,000,000	$ 5,800,000	$ -	$ -

The following table presents the classification of Pension Plan assets within the fair value hierarchy at December 31, 2021 and 2020:

	Fair Value Measurements at Reporting Date Using			
2021	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Common stock	$ 10,845,681	$ -	$ -	$ 10,845,681
Equity mutual funds	47,445,588	-	-	47,445,588
Index futures	-	460	-	460
Fixed-income securities	-	164,505,732	-	164,505,732
Commodities	-	43	-	43
Cash equivalents	6,425,767	-	-	6,425,767
Subtotal benefit plan assets	$ 64,717,036	$ 164,506,235	$ -	229,223,271
Investments measured at net asset value (NAV)				15,574,119
Total benefit plan assets				$ 244,797,390
2020	**(Level 1)**	**(Level 2)**	**(Level 3)**	**Total**
Common stock	$ 11,191,580	$ -	$ -	$ 11,191,580
Equity mutual funds	53,315,439	-	-	53,315,439
Index futures	-	232	-	232
Fixed-income securities	-	157,072,275	-	157,072,275
Commodities	-	43	-	43
Cash equivalents	5,718,922	-	-	5,718,922
Subtotal benefit plan assets	$ 70,225,941	$ 157,072,550	$ -	227,298,491
Investments measured at net asset value (NAV)				14,351,133
Total benefit plan assets				$ 241,649,624

The following table presents the classification of VEBA and 401(h) account assets within the fair value hierarchy at December 31, 2021 and 2020:

	Fair Value Measurements at Reporting Date Using			
2021	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Equity mutual funds	$ 55,045,316	$ -	$ -	$ 55,045,316
Equity exchange traded funds	4,212,480	-	-	4,212,480
Fixed-income mutual funds	86,580,043	-	-	86,580,043
Fixed-income securities	-	19,461,407	-	19,461,407
Cash equivalents	1,229,124	-	-	1,229,124
Benefit plan assets	$ 147,066,963	$ 19,461,407	$ -	166,528,370
Uncleared cash disbursements from benefits paid				(4,163,688)
Investments measured at net asset value (NAV)				10,037,965
Total benefit plan assets				$ 172,402,647
2020				
Equity mutual funds	$ 61,519,280	$ -	$ -	$ 61,519,280
Fixed-income mutual funds	79,992,711	-	-	79,992,711
Fixed-income securities	-	19,910,040	-	19,910,040
Cash equivalents	1,403,900	-	-	1,403,900
Benefit plan assets	$ 142,915,891	$ 19,910,040	$ -	162,825,931
Uncleared cash disbursements from benefits paid				(5,536,750)
Investments measured at net asset value (NAV)				8,950,949
Total benefit plan assets				$ 166,240,130

Investments that were measured at net asset value (NAV) per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. These investments represent holdings in a single private investment fund that are redeemable at the election of the holder upon no more than 30 days' notice. The values reported above are based on information provided by the fund manager.

Pension Plan and Other Postretirement Benefit Assumptions—Actuarial assumptions used to determine benefit obligations at December 31, 2021 and 2020, were as follows:

	Pension Plan		Other Postretirement Benefits			
	2021	2020	2021		2020	
			Medical	Life	Medical	Life
Discount rate	3.08 %	2.85 %	3.06 %	3.06 %	2.82 %	2.82 %
Rate of compensation increase	3.00	3.00	N/A	3.00	N/A	3.00

Actuarial assumptions used to determine net periodic benefit cost for the years ended December 31, 2021 and 2020, were as follows:

			2021		2020	
	2021	2020	Medical	Life	Medical	Life
Discount rate	2.85 %	3.58 %	2.82 %	2.82 %	3.55 %	3.55 %
Expected long-term return on plan assets	5.25	5.75	4.47	5.00	5.11	5.75
Rate of compensation increase	3.00	3.00	N/A	3.00	N/A	3.00

In selecting the expected long-term rate of return on assets, the Companies considered the average rate of earnings expected on the funds invested to provide for plan benefits. This included considering the Pension Plan and VEBA trusts’ asset allocation, and the expected returns likely to be earned over the life of the Pension Plan and the VEBAs.

Assumed health care cost trend rates at December 31, 2021 and 2020, were as follows:

	2021	2020
Health care trend rate assumed for next year—participants under 65	6.50 %	6.50 %
Health care trend rate assumed for next year—participants over 65	7.10	6.80
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)—participants under 65	5.00	5.00
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)—participants over 65	5.00	5.00
Year that the rate reaches the ultimate trend rate	2027	2024

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	One-Percentage-Point Increase	One-Percentage-Point Decrease
Effect on total service and interest cost	$ 1,046,841	$ (859,369)
Effect on postretirement benefit obligation	19,360,210	(15,969,792)

Pension Plan and Other Postretirement Benefit Assets—The asset allocation for the Pension Plan and VEBA trusts at December 31, 2021 and 2020, by asset category was as follows:

	Pension Plan		VEBA Trusts	
	2021	**2020**	**2021**	**2020**
Asset category:				
Equity securities	31 %	33 %	40 %	41 %
Debt securities	69	67	60	59

Pension Plan and Other Postretirement Benefit Contributions—The Companies expect to contribute $6,200,000 to their Pension Plan and $21,900 to their Other Postretirement Benefits plan in 2022.

Estimated Future Benefit Payments—The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

Years Ending December 31	Pension Plan	Other Postretirement Benefits
2022	$ 11,422,129	$ 6,694,289
2023	11,974,475	7,207,046
2024	12,930,216	7,829,720
2025	12,739,515	8,391,295
2026	13,164,561	8,861,471
Five years thereafter	69,638,851	48,588,130

Postemployment Benefits—The Companies follow the accounting guidance in FASB ASC 712, *Compensation—Non-Retirement Postemployment Benefits*, and accrue the estimated cost of benefits provided to former or inactive employees after employment but before retirement. Such benefits include, but are not limited to, salary continuations, supplemental unemployment, severance, disability (including workers' compensation), job training, counseling, and continuation of benefits, such as health care and life insurance coverage. The cost of such benefits and related obligations has been allocated to OVEC and IKEC in the accompanying consolidated financial statements. The allocated amounts represent approximately a 43% and 57% split between OVEC and IKEC, respectively, as of December 31, 2021, and approximately a 37% and 63% split between OVEC and IKEC, respectively, as of December 31, 2020. The liability is offset with a corresponding regulatory asset and represents unrecognized postemployment benefits billable in the future to customers. The accrued cost of such benefits was $8,611,705 and $6,833,166 at December 31, 2021 and 2020, respectively.

Defined Contribution Plan—The Companies have a trustee-defined contribution supplemental pension and savings plan that includes 401(k) features and is available to employees who have met eligibility requirements. The Companies' contributions to the savings plan equal 100% of the first 1% and 50% of the next 5% of employee-participants' pay contributed. In addition, the

Companies provide contributions to eligible employees, hired on or after January 1, 2015, of 3% to 5% of pay based on age and service. Benefits to participating employees are based solely upon amounts contributed to the participants' accounts and investment earnings. By its nature, the plan is fully funded at all times. The employer contributions for 2021 and 2020 were $1,914,558 and $1,920,461, respectively.

9. ENVIRONMENTAL MATTERS

Air Regulations

On March 10, 2005, the United States Environmental Protection Agency (the USEPA) issued the Clean Air Interstate Rule (CAIR) that required significant reductions of SO2 and NOx emissions from coal-burning power plants. On March 15, 2005, the USEPA also issued the Clean Air Mercury Rule (CAMR) that required significant mercury emission reductions for coal-burning power plants. These emission reductions were required in two phases: 2009 and 2015 for NOx, 2010 and 2015 for SO2 and 2010 and 2018 for mercury. Ohio and Indiana subsequently finalized their respective versions of CAIR and CAMR. In response, the Companies determined that it would be necessary to install flue gas desulfurization (FGD) systems at both plants to comply with these rules. Following completion of the necessary engineering and permitting, construction was started on the FGD systems, and the two Kyger Creek FGD systems were placed into service in 2011 and 2012, while the two Clifty Creek FGD systems were placed into service in 2013.

After the promulgation of CAIR and CAMR, a series of legal challenges to those rules resulted in their replacement with additional rules. CAMR was replaced with a rule referred to as the Mercury and Air Toxics Standards (MATS) rule. The rule became final on April 16, 2012, and the Companies had to demonstrate compliance with MATS emission limits on April 16, 2015. The MATS rule has also undergone legal challenges since it went into effect, and there are a few remaining legal issues pending. The controls the Companies have installed have proven to be adequate to meet the stringent emissions requirements outlined in the MATS rule.

After CAIR was promulgated, legal challenges resulted in that rule being remanded back to the USEPA. The USEPA subsequently promulgated a replacement rule to CAIR called the Cross-State Air Pollution Rule (CSAPR). CSAPR was issued on July 6, 2011, and it was scheduled to go into effect on January 1, 2012. However, a legal challenge of that rule resulted in a stay. The stay was lifted by the D.C. Circuit Court in 2014 and CSAPR, which requires significant NOx and SO2 emissions reductions, became effective on January 1, 2015. Further legal challenges of CSAPR resulted in the U.S. Supreme Court remanding portions of the CSAPR rule back to the D.C. Circuit Court for additional review and subsequent action by the USEPA. This resulted in the USEPA issuing the CSAPR Update rule which became final on September 7, 2016, and went into effect beginning with the May 1, 2017 to September 30, 2017 ozone season. The CSAPR Update did not replace CSAPR, it only required additional reductions in NOx emissions from utilities in 22 states (including Ohio and Indiana) during the ozone season. The Companies prepared for and implemented a successful compliance strategy for the CSAPR Update rule requirements in the 2017 ozone season. That strategy was standardized to meet future ozone season compliance obligations, and its execution provided for another successful ozone season in 2019. The CSAPR

Update Rule has also been subject to extensive litigation, and the D.C. Circuit Court of Appeals issued a decision on September 13, 2019, on one of those legal challenges that remanded portions of this rule back to the USEPA to address. On October 15, 2020, the USEPA issued a proposed revision to the CSAPR Update in response to the court remand; and on March 15, 2021, the USEPA Administer Regan signed a final rule revising the CSAPR Update Rule to ensure states fully comply with their "good neighbor" obligations to comply with the 2008 Ozone NAAQS standard. This revised rule went into effect on June 29, 2021 and it created a new Group 3 NOx allowance trading program that applies to 12 states, including Indiana and Ohio. The rule changes did not impact our near term compliance strategy, nor is it expected to materially change future operations.

On February 28, 2022, the USEPA proposed federal implementation rule known as the proposed "Transport Rule." This proposed new draft rule is intended to fully resolve states obligations under the "good neighbor" provisions of the Clean Air Act for the 2015 Ozone NAAQS. EPA anticipates finalizing this rule by the 2023 ozone season. The draft rule terms are being evaluated but, as drafted, do not appear to materially impact the Companies near term compliance strategy.

As a result of the installation and effective operation of the FGD systems and the SCR systems at each plant, management did not need to purchase additional annual SO2 allowances, annual NOx allowances or ozone season NOx allowances as part of the ozone season CSAPR Update Rule that went into effect in 2021 to cover actual emissions. The Companies also maintain a bank of allowances for all three programs as a hedge to cover future emissions in the event of any short-term operating events or other external factors. Depending on a variety of operational and economic factors, management may elect to consume a portion of these banked allowances and/or strategically purchase additional CSAPR annual and ozone season allowances in 2022 and beyond for compliance with the CSAPR and the recently revised CSAPR Update, as well as the proposed new Transport Rule intended to implement the 2015 ozone NAAQS beginning with the 2023 ozone season.

With all FGD systems fully operational, the Companies continue to expect to have adequate SO_2 allowances available every year without having to rely on market purchases to comply with the CSAPR rules in their current form. Given the success of the Companies' NOx ozone season compliance strategy, the purchase of additional NOx allowances is less likely in the short term as well; however, the Companies did implement changes in unit dispatch criteria for Clifty Creek Unit 6 during the 2017 and subsequent ozone seasons and are continuing to evaluate the need for additional NOx controls for this unit to provide additional flexibility in operating this unit in light of recent changes to the CSAPR Update rules that went into effect in June of 2021 as well as the proposed new ozone season Transport Rule that the USEPA anticipates going into effect during the 2023 NOx ozone season.

CCR Rule

In 2010, the USEPA published a proposed rule to regulate the disposal and beneficial reuse of coal combustion residuals (CCRs), including fly ash and boiler slag generated at coal-fired electric generating units as well as FGD gypsum generated at some coal-fired plants. The proposed rule contained two alternative proposals. One proposal would impose federal hazardous waste disposal and management standards on these materials and another would allow states to retain primary authority to regulate the beneficial reuse and disposal of these materials under state solid waste management standards, including minimum federal standards for disposal and management. Both proposals would impose stringent requirements for the construction of new coal ash landfills and existing unlined surface impoundments.

Various environmental organizations and industry groups filed a petition seeking to establish deadlines for a final rule. To comply with a court-ordered deadline, the USEPA issued a prepublication copy of its final rule in December 2014. The rule was published in the Federal Register in April 2015 and became effective in October 2015.

In the final rule, the USEPA elected to regulate CCR as a nonhazardous solid waste and issued new minimum federal solid waste management standards. The rule applies to new and existing active CCR landfills and CCR surface impoundments at operating electric utility or independent power production facilities. The rule imposes new and additional construction and operating obligations, including location restrictions, liner criteria, structural integrity requirements for impoundments, operating criteria, and additional groundwater monitoring requirements. The rule is self-implementing and currently does not require state action for the states of Indiana or Ohio. As a result of this self-implementing feature, the rule contains extensive recordkeeping, notice, and Internet posting requirements.

The Companies have been systematically implementing the applicable provisions of the CCR rule. The Companies have completed all compliance obligations associated with the rule to date and are continuing to evaluate what, if any, impacts groundwater quality will have on the South Fly Ash Pond and landfill at Kyger Creek and the West Boiler Slag Pond and landfill at Clifty Creek. To date, these four CCR units continue to meet the groundwater monitoring standards of the CCR rule. The Companies have been evaluating potential impacts to groundwater quality near the boiler slag pond at Kyger Creek and the landfill runoff collection pond at Clifty Creek as required by the CCR rule. The Companies have determined that statistically significant increases (SSIs) in certain groundwater parameters are present at the two identified locations, and additional steps as defined by the CCR rule were taken. The evaluation of whether an SSI exists is a required component of the groundwater monitoring conditions of the CCR rule. A determination that an SSI appears to be present requires additional evaluation to be undertaken by the facility to determine if there are alternative sources that are influencing groundwater quality and to evaluate the extent of the groundwater quality impact. Concurrently, a facility must continue to evaluate groundwater quality as required by the CCR rule, and determine what potential corrective actions are feasible to address the SSIs. The Companies conducted Alternative Source Demonstrations (ASD) to determine if groundwater was being influenced from sources other than the CCR unit. The ASDs were unable to definitively prove that alternative sources were directly influencing groundwater quality. As a result, the Companies worked with their Qualified Professional Engineer (QPE) to determine what corrective actions were feasible for each CCR unit, and then held a public meeting to discuss these options with the public prior to selecting a remedy. The Companies continue to work through the compliance requirements of the CCR Rule and remain in compliance.

Since the initial publication of the CCR rules in 2015, several legal, legislative and regulatory events impacting the scope, applicability and future CCR compliance obligations and timelines have also taken place. Final actions include: 1.) federal legislation (i.e., the WIIN Act) that provides a pathway for states to seek approval for administering and enforcing the federal CCR program; 2.) The USEPA's issuance of a Phase I, Part I revision to the CCR rules on March 1, 2018; 3.) the D.C. Circuit Court's August 21, 2018, ruling vacating and remanding portions of the CCR rule; 4.) The USEPA's issuance of a final CCR Rule, Part A, which was published in the *Federal Register* on August 28, 2020. This final rule introduced a significant revision to the 2015 CCR rule requiring all impoundments that do not meet the liner requirements outlined in the rule to cease receiving CCR material and initiate closure by April 11, 2021, regardless of their overall compliance status. If that date is not technically feasible, an alternate date to cease receiving CCR material and initiate closure can be secured from the USEPA through a proposed extension request process, which was required by the USEPA no later than November 30, 2020. The surface impoundments at Kyger Creek and Clifty Creek were not constructed in a manner that meets the definition of a liner under the 2015 CCR rule. As a result, the Companies completed an engineering evaluation to develop preliminary closure designs for the impoundments and to determine a technically feasible timeline for discontinuing placement of CCR and non-CCR waste streams in these impoundments and to initiate closure of the CCR impoundments consistent with the requirements of the rule. The Companies submitted technical justification documents to the USEPA in compliance with the November 30, 2020, deadline that demonstrated why additional time is needed to cease placement of CCR and non-CCR waste streams in the surface impoundments and initiate closure. Separately, the proposed Part B revisions to the 2015 CCR rule outline the development of a federal permitting program to regulate and enforce the CCR rule at all applicable facilities consistent with the Congressional mandate outlined in the WIIN Act. This federal permit program would replace the current enforcement mechanism of a self-implementing rule enforced through citizen suits and place it back with the USEPA or any state regulator that receives primacy to implement the CCR permitting within their respective state. The Companies are actively monitoring these developments and adapting their CCR compliance program to ensure compliance obligations and timelines are adjusted accordingly.

The Companies secured various environmental permits in support of the CCR compliance strategy developed to comply with the CCR Rule, Part A and initiated work in 2021. On January 11, 2022, the IKEC Clifty Creek plant received a preliminary determination from USEPA proposing to deny the alternative closure deadlines IKEC requested for its two surface impoundments in the demonstration application filed by IKEC on November 30, 2020. The USEPA's determination is preliminary, and is not a final action. The preliminary determination is also subject to public notice and comment, that ended March 25, 2022. Upon conclusion of the public notice and comment period, and subsequent review of comments filed, the USEPA could take a final agency action to either approve or deny IKEC's alternative closure dates. If the demonstration is ultimately denied, IKEC may need to take a plant outage while it completes the installation of new treatment systems currently under construction that will provide alternative capacity to manage CCR and non-CCR waste streams at the site consistent with the CCR Rule. The Kyger Creek station filed a similar demonstration application in November of 2020, but has yet to receive any determination from the USEPA.

Changes in regulations or in the Companies' strategies for mitigating the impact of coal combustion residuals could potentially result in material increases to the asset retirement obligations. The Companies will revisit the demolition and decommissioning studies as appropriate throughout the process of executing closure of the CCR surface impoundments to maintain an appropriate estimated cost of ultimate facility closure and decommissioning

In February 2014, the USEPA completed a risk evaluation of the beneficial uses of coal fly ash in concrete and FGD gypsum in wallboard and concluded that the USEPA supports these beneficial uses. Currently, approximately 65 percent of the coal ash and other residual products from the Companies' generating facilities are reused in the production of cement and wallboard, as soil amendments, as abrasives or road treatment materials, and for other beneficial uses.

NAAQS Compliance for SO_2

On June 22, 2010, the USEPA revised the Clean Air Act by developing and publishing a new one-hour SO2 NAAQS of 75 parts per billion, which replaced the previously existing 24-hour and annual standards, and became effective on August 23, 2010. States with areas failing to meet the standard were required to develop state implemented plans to expeditiously attain and maintain the standard.

On August 15, 2013, the USEPA published its initial non-attainment area designations for the new one-hour SO2, which did not include the areas around Kyger Creek or Clifty Creek. However, the amended rule does establish that at a minimum, sources that emit 2,000 tons SO2 or more per year be characterized by their respective states using either modeling of actual source emissions or through appropriately sited ambient air quality monitors.

In addition, the USEPA entered into a settle agreement with Sierra Club/NRDC in the U.S. District Court for the Northern District of California requiring the USEPA to take certain actions, including completing area designation by July 2, 2016, for areas with either monitored violations based on 2013-15 air quality monitoring or sources not announced for retirement that emitted more than 16,000 tons SO2 or more than 2,600 tons with a 0.45 SO2/mmBtu emission rate in 2012.

Both Kyger Creek and Clifty Creek directly or indirectly triggered one of the criteria and have been evaluated by the respective state regulatory agencies through modeling. The modeling results showed Clifty Creek could meet the new one-hour SO2 limit using their current scrubber systems without any additional investment or modifications. Kyger Creek's modeling data was rejected by USEPA as inconclusive in 2016. As a result, the USEPA required Kyger Creek install an SO2 monitoring network around the plant and monitor ambient air quality beginning on January 1, 2017. Based on the first three years of data from that network, Ohio EPA prepared an updated petition to the USEPA in early 2020 requesting that the area in the county surrounding the plant be re-designated to attainment/unclassifiable with the one-hour SO2 standard. The USEPA subsequently acted on this request and published a notice in the *Federal Register* proposing to make this re-designation. A final rulemaking approving the re-designation was expected in 2021; however, the USEPA failed to act on the re-designation. The companies are still optimistic the USEPA will eventually do so as there are now five years of data supporting a re-designation determination On February 26, 2019, the USEPA issued a final decision that it is retaining the existing primary SO2 NAAQS at 75 parts per billion for the next five-year NAAQS review cycle. Given this decision, combined with current scrubber performance, the Companies expect to avoid more restrictive permit limits relative to its SO2 emissions or the need for additional capital investment in major scrubber upgrades or modifications.

NAAQS compliance for Particulate Matter (PM).

In 2021, the current administration signaled via executive order that it intends to revisit the 2020 PM NAAQS standard and lower it. No draft rule has been issued yet; however, the Companies will continue to monitor that rulemaking effort to determine what impact a revision to this NAAQS standard could have on unit operations.

Steam Electric ELGs

On September 30, 2015, the USEPA signed a new final rule governing Effluent Limitations Guidelines (ELGs) for the wastewater discharges from steam electric power generating plants. The rule, which was formally published in the Federal Register on November 3, 2015, impacted future wastewater discharges from both the Kyger Creek and Clifty Creek stations.

The rule was intended to require the Companies to modify the way they handle a number of wastewater processes at both power plants. Specifically, the new ELG standards were going to affect the following wastewater processes in three ways listed below; however, in April 2017, the USEPA issued an administrative stay on the ELG rule; and then in June 2017, the USEPA issued a separate rulemaking staying the compliance deadlines for portions of the ELG rule applicable to bottom ash sluice water and to FGD wastewater discharges. The USEPA revised the rule redefining what constitutes "best available technology" for these two wastewater discharges and issued an updated final rule in the Federal Register on October 13, 2020. Based on the original rule and revisions captured in the 2020 update, the following impacts to each wastewater discharge are expected:

1. Kyger Creek will need to convert to dry fly ash handling by no later than December 31, 2023. The USEPA stay on portions of the ELG rule does not impact the need to convert Kyger Creek station to dry fly ash handling or the associated timeline. The Clifty Creek station already has a dry fly ash handling system in place, so this provision of the rule will not impact Clifty Creek's operations. Construction activities associated with dry fly ash conversion are underway and are expected to be completed in late 2022.

2. The new ELG rules originally prohibited the discharge of bottom ash sluice water from boiler slag/bottom ash waste water treatment systems. For Clifty Creek and Kyger Creek, this will result in the conversion of each plant's boiler slag pond to a closed-loop sluicing system for boiler slag, with up to a ten percent purge based on the volume of each facilities' total wetted volume. The Companies conducted a Phase I engineering study in 2016 to determine options and costs associated with retrofitting the plants' boiler slag treatment systems, but postponed the study until more information was available from the USEPA on the technologies being considered in the revised rule. After reviewing the new rule in draft, the Companies resumed the engineering study needed to formulate an overall compliance strategy based on this updated information. This study includes a further evaluation of technologies or retrofits capable of complying with the requirements of the revised rule, which included preliminary engineering, design, and schedule development that were initiated late in 2019. The Companies have completed the required evaluation associated with each facilities' boiler slag/bottom ash transport waste water treatment in 2020. This feed information was used to develop design and to initiate the bid process to conduct the work. Both the Kyger Creek and Clifty Creek Stations have secured various environmental permits

necessary to commence construction on the boiler slag/bottom ash handling systems. Work associated with the Companies' CCR and ELG compliance strategies commenced in 2021.

3. The new ELG rules originally established new internal limitations for the FGD system wastewater discharges. Specifically, there were to be new internal limits for arsenic, mercury, selenium, and nitrate/nitrite nitrogen from the FGD chlorides purge stream wastewater treatment plant at each plant. After reviewing the requirements of the 2015 edition of the rule, the Companies expected both Clifty Creek and Kyger Creek stations to be able to meet the mercury and arsenic limitations with the current wastewater treatment technology; however, the Companies anticipated the potential to add some form of biological (or equivalent nonbiological) treatment system downstream of each station's existing FGD waste water treatment plant to meet the new nitrate/nitrite nitrogen and selenium limitations. Installation of new controls to meet the final effluent limitations contained in the revised rule were placed on hold while the USEPA reconsidered the 2015 ELG rule to ensure that the compliance strategy ultimately selected would be able to meet any revised requirements in the updated ELG rule. With the finalization of the October 13, 2020 ELG Revision, the Companies resumed evaluation of the appropriate technology, design, and schedule to achieve compliance with the new requirements, which included a change in the final effluent limitations for arsenic, nitrate/nitrite, mercury and selenium. The most significant change to the rule is associated with the final effluent limitation for mercury, which was ultimately lower than the final limit in the 2015 version of the rule, resulting in the Companies needing to re-evaluate and pilot technologies to determine what technology is capable of achieving this reduced mercury limit on the FGD discharges from each station. The Companies have been working with outside engineering resources, developed preliminary design reports, and a pilot test was conducted at the Kyger Creek station in 2021. Further, the Companies continue to work with state agencies to request the revised ELG applicability date for FGD waste water of no later than December 31, 2025.

Any new ELG limits will be implemented through each station's waste water discharge permit, which is typically renewed on a five-year basis. Given permit renewal schedules, each station is expected to receive new permits in 2022 with those revised applicability dates. The final compliance dates are expected to be facility-specific and negotiated with the Companies' state permit agencies based on the time needed to plan, secure funding, design, procure, and install necessary control technologies once the new rulemaking has been completed. The Companies will continue to monitor EPA regulatory actions on this rule and will respond as necessary.

316(b) Compliance

The 316(b) rule was published as a final rule in the Federal Register on August 15, 2014, and impacts facilities that use cooling water intake structures designed to withdraw at least 2 million gallons per day from waters of the U.S., and those facilities who also have an NPDES permit. The rule requires such facilities to choose one of seven options specified by the rule to reduce impingement to fish and other aquatic organisms. Additionally, facilities that withdraw 125 million gallons or more per day must conduct entrainment studies to assist state permitting authorities in determining what site-specific controls are required to reduce the number of aquatic organisms entrained by each respective cooling water system.

The Companies have completed the required two-year fish entrainment studies and filed the reports with the respective state regulatory agencies consistent with regulatory requirements under 40 CFR Section 122.21(r).

The timeline for determining if retrofits may be required to the cooling water systems at either Clifty Creek or Kyger Creek, as well as the type of retrofit required, will be negotiated with each state regulatory agency during future NPDES Permit renewals consistent with state regulatory obligations under 40 CFR Section 125.98(f). The terms and timelines associated with those retrofits are anticipated to be included in NPDES permit renewals at both facilities that are expected to take place in 2022.

The environmental rules and regulations discussed throughout the Environmental Matters footnote could require additional capital expenditures or maintenance expenses in future periods.

10. FAIR VALUE MEASUREMENTS

The accounting guidance for financial instruments requires disclosure of the fair value of certain financial instruments. The estimates of fair value under this guidance require the application of broad assumptions and estimates. Accordingly, any actual exchange of such financial instruments could occur at values significantly different from the amounts disclosed.

OVEC utilizes its trustee’s external pricing service in its estimate of the fair value of the underlying investments held in the benefit plan trusts and investment portfolios. The Companies’ management reviews and validates the prices utilized by the trustee to determine fair value. Equities and fixed-income securities are classified as Level 1 holdings if they are actively traded on exchanges. In addition, mutual funds are classified as Level 1 holdings because they are actively traded at quoted market prices. Certain fixed-income securities do not trade on an exchange and do not have an official closing price. Pricing vendors calculate bond valuations using financial models and matrices. Fixed-income securities are typically classified as Level 2 holdings because their valuation inputs are based on observable market data. Observable inputs used for valuing fixed-income securities are benchmark yields, reported trades, broker/dealer quotes, issuer spreads, bids, offers, and economic events. Other securities with model-derived valuation inputs that are observable are also classified as Level 2 investments. Investments with unobservable valuation inputs are classified as Level 3 investments.

As of December 31, 2021 and 2020, the Companies held certain assets that are required to be measured at fair value on a recurring basis. These consist of investments recorded within long-term investments. The investments consist of money market mutual funds, equity mutual funds, and fixed-income municipal securities. Changes in the observed trading prices and liquidity of money market funds are monitored as additional support for determining fair value, and unrealized gains and losses are recorded in earnings.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Companies believe their valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

As cash and cash equivalents, current receivables, current payables, and line of credit borrowings are all short-term in nature, their carrying amounts approximate fair value.

Long-Term Investments— Assets measured at fair value on a recurring basis at December 31, 2021 and 2020, were as follows:

	Fair Value Measurements at Reporting Date Using		
2021	**Quoted Prices in Active Market for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Equity mutual funds	$ 44,885,981	$ -	$ -
Equity exchange traded funds	22,078,933	-	-
Fixed-income municipal securities	-	107,781,573	-
Cash equivalents	126,581,690	-	-
Total fair value	$ 193,546,604	$ 107,781,573	$ -
2020	**(Level 1)**	**(Level 2)**	**(Level 3)**
Equity mutual funds	$ 55,782,673	$ -	$ -
Fixed-income municipal securities	-	96,555,122	-
Cash equivalents	121,616,295	-	-
Total fair value	$ 177,398,968	$ 96,555,122	$ -

Long-Term Debt—The fair values of the senior notes and fixed-rate bonds were estimated using discounted cash flow analyses based on current incremental borrowing rates for similar types of borrowing arrangements. These fair values are not reflected in the balance sheets. The fair values and recorded values of the senior notes and fixed- and variable-rate bonds as of December 31, 2021 and 2020, are as follows:

	2021		2020	
	Fair Value	Recorded Value	Fair Value	Recorded Value
Total	$ 1,230,028,697	$ 1,122,110,945	$ 1,364,602,177	$ 1,217,093,866

11. LEASES

OVEC has various operating leases for the use of other property and equipment.

On January 1, 2019, the Companies adopted ASC 842, "Leases" which, among other changes, requires the Companies to record liabilities classified as operating leases on the balance sheet along with a corresponding right-of-use asset. The Companies elected the package of practical expedients available for expired or existing contracts, which allowed them to carryforward their historical assessments of whether contracts are or contain leases, lease classification tests and treatment of initial direct costs. Further, the Companies elected to not separate lease components from non-lease components for all fixed payments, and excluded variable lease payments in the measurement of right-of-use assets and lease obligations.

The Companies determine whether an arrangement is, or includes, a lease at contract inception. Leases with an initial term of 12 months or less are not recognized on the balance sheet. The Companies recognize lease expense for these leases on a straight-line basis over the lease term.

Operating lease right-of-use assets and liabilities are recognized at commencement date and initially measured based on the present value of lease payments over the defined lease term.

The leases typically do not provide an implicit rate; therefore, the Companies use the estimated incremental borrowing rate at the time of lease commencement to discount the present value of lease payments. In order to apply the incremental borrowing rate, a portfolio approach with a collateralized rate is utilized. Assets were grouped based on similar lease terms and economic environments in a manner whereby the Companies reasonably expect that the application is not expected to differ materially from a lease-by-lease approach.

The Companies have finance leases for the use of vehicles, property, and equipment. The leases have remaining terms of 0 year to 5 years. The components of lease expense were as follows:

	December 31, 2021
Finance lease cost:	
Amortization of leased assets	$ 700,804
Interest on lease liabilities	179,392
Total finance lease cost	$ 880,196

Supplemental cash flow information related to leases was as follows:

..	$ 880,196
Weighted average remaining lease term:	
Finance leases	4
Weighted average discount rate:	
Finance leases	4.8 %

The amount in property under finance leases is $4,424,518 and $4,081,933 with accumulated depreciation of $1,293,804 and $610,556 as of December 31, 2021 and 2020, respectively.

Future maturities of finance lease liabilities are as follows:

Years Ending December 31	Finance
2022	$ 886,697
2023	821,740
2024	774,700
2025	652,338
2026	116,774
Thereafter	-
Total future minimum lease payments	3,252,249
Less estimated interest element	282,386
Estimated present value of future minimum lease payments	$ 2,969,863

12. COMMITMENTS AND CONTINGENCIES

The Companies are party to or may be affected by litigation, claims and uncertainties that arise in the ordinary course of business. The Companies regularly analyze current information and, as necessary provide accruals for probable and reasonably estimable liabilities on the eventual disposition of these matters. Management believes that the ultimate outcome of these matters will not have a significant adverse effect on either the Companies' future results of operation or financial position.

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of Ohio Valley Electric Corporation

Opinion

We have audited the consolidated financial statements of Ohio Valley Electric Corporation and its subsidiary company, Indiana-Kentucky Electric Corporation (the "Companies"), which comprise the consolidated balance sheets as of December 31, 2021 and 2020, and the related consolidated statements of income, retained earnings and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Companies as of December 31, 2021 and 2020, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Companies and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Companies' ability to continue as a going concern for one year after the date that the financial statements are issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Companies' internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Companies' ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Deloitte & Touche LLP

May 4, 2022

OHIO VALLEY ELECTRIC CORPORATION
AND SUBSIDIARY COMPANY

OVEC PERFORMANCE – A 5-YEAR COMPARISON

	2021	2020	2019	2018	2017
Net Generation (MWh)	**10,071,966**	9,025,018	11,238,298	12,146,856	11,940,259
Energy Delivered (MWh) to Sponsors	**10,063,687**	9,033,056	11,234,353	11,863,505	11,724,662
Maximum Scheduled (MW) by Sponsors	**2,227**	2,215	2,209	2,173	2,186
Power Costs to Sponsors	**$662,365,000**	$605,270,000	$640,801,000	$644,114,000	$636,287,000
Average Price (MWh) Sponsors	**$65.819**	$67.006	$57.040	$54.294	$54.270
Operating Revenues	**$623,425,000**	$551,718,000	$614,667,000	$615,839,000	$624,058,000
Operating Expenses	**$559,559,000**	$480,383,000	$554,642,000	$523,196,000	$560,170,000
Cost of Fuel Consumed	**$260,174,000**	$231,316,000	$274,843,000	$277,369,000	$288,503,000
Taxes (federal, state, and local)	**$12,293,000**	$12,203,000	$8,418,000	$12,165,000	$11,975,000
Payroll	**$53,052,000**	$53,461,000	$55,491,000	$57,569,000	$58,847,000
Fuel Burned (tons)	**4,527,068**	4,148,459	5,111,144	5,428,783	5,338,318
Heat Rate (Btu per kWh, net generation)	**10,733**	11,036	10,714	10,540	10,622
Unit Cost of Fuel Burned (per mmBtu)	**$2.41**	$2.04	$2.28	$2.17	$2.27
Equivalent Availability (percent)	**70.8**	78.9	78.2	76.6	75.6
Power Use Factor (percent)	**76.56**	60.80	76.23	84.19	83.90
Employees (year-end)	**548**	563	591	640	666

OHIO VALLEY ELECTRIC CORPORATION
AND SUBSIDIARY COMPANY

DIRECTORS

Ohio Valley Electric Corporation

[1] **THOMAS ALBAN**, Columbus, Ohio
Vice President, Power Generation
Buckeye Power, Inc.

ERIC D. BAKER, Cadillac, Michigan
President and Chief Executive Officer
Wolverine Power Supply Cooperative, Inc.

[1] **CHRISTIAN T. BEAM**, Charleston, West Virginia
President and Chief Operating Officer
Appalachian Power

[1,2] **LONNIE E. BELLAR,** Louisville, Kentucky
Chief Operating Officer
LG&E and KU Energy LLC

[2] **PAUL CHODAK III**, Columbus, Ohio
Executive Vice President - Generation
American Electric Power Company, Inc.

WAYNE D. GAMES, Evansville, Indiana
Vice President – Power Supply
Vectren Corporation

STEVEN K. NELSON, Coshocton, Ohio
Chairman, Buckeye Power Board of Trustees
The Frontier Power Company

[2] **PATRICK W. O'LOUGHLIN**, Columbus, Ohio
President and Chief Executive Officer
Buckeye Power, Inc.

AHMED B. PASHA, Arlington, Virginia
CFO, US Utilities & Conventional Generation
AES Corporation

[2] **DAVID W. PINTER**, Akron, Ohio
Executive Director, Business Development
FirstEnergy Corp.

[2] **MARC REITTER**, Gahanna, Ohio
President and Chief Operating Officer, AEP Ohio
American Electric Power Company, Inc.

[1] **JULIE SLOAT**, Columbus, Ohio
Executive Vice President and Chief Financial Officer
American Electric Power Company, Inc.

[2] **JOHN A. VERDERAME**, Charlotte, North Carolina
Director, Power Trading & Dispatch
Duke Energy Corporation

Indiana-Kentucky Electric Corporation

[2] **PAUL CHODAK III**, Columbus, Ohio
Executive Vice President - Generation
American Electric Power Company, Inc.

KATHERINE K. DAVIS, Fort Wayne, Indiana
Vice President, External Affairs
Indiana Michigan Power

WAYNE D. GAMES, Evansville, Indiana
Vice President – Power Supply
Vectren Corporation

DAVID S. ISAACSON, Fort Wayne, Indiana
Vice President –Distribution Region Ops
Indiana Michigan Power

[2] **PATRICK W. O'LOUGHLIN**, Columbus, Ohio
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Buckeye Power, Inc.

[2] **DAVID W. PINTER**, Akron, Ohio
Executive Director, Business Development
FirstEnergy Corp.

TOBY L. THOMAS, Fort Wayne, Indiana
President and Chief Operating Officer
Indiana Michigan Power

OFFICERS—OVEC AND IKEC

PAUL CHODAK III
President

JUSTIN J. COOPER
Vice President,
Chief Operating Officer and
Chief Financial Officer

KASSANDRA K. MARTIN
Secretary and Treasurer

JULIE SHERWOOD
Assistant Secretary and
Assistant Treasurer

[1]Member of Human Resources Committee.
[2]Member of Executive Committee.