UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 FORM 10-K

(0.00)	FORM 10-K	
k One)	ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE AG	CT OF 1934
	For the fiscal year ended December 31, 2022 or	
]	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE	ACT OF 1934
	For the transition period fromtoto	
Commission File Number	Registrant, State of Incorporation or Organization, Address of Principal Executive Offices, Zip Code and Telephone Number	IRS Employer Identification No.
1-32853	DUKE ENERGY CORPORATION	20-2777218
	(a Delaware corporation) 526 South Church Street Charlotte, North Carolina 28202-1803 704-382-3853	
1-4928	DUKE ENERGY CAROLINAS, LLC	56-0205520
	(a North Carolina limited liability company) 526 South Church Street Charlotte, North Carolina 28202-1803 704-382-3853	
1-15929	PROGRESS ENERGY, INC.	56-2155481
	(a North Carolina corporation) 410 South Wilmington Street Raleigh, North Carolina 27601-1748 704-382-3853	
1-3382	DUKE ENERGY PROGRESS, LLC	56-0165465
	(a North Carolina limited liability company) 410 South Wilmington Street Raleigh, North Carolina 27601-1748 704-382-3853	
1-3274	DUKE ENERGY FLORIDA, LLC	59-0247770
	(a Florida limited liability company) 299 First Avenue North St. Petersburg, Florida 33701 704-382-3853	
1-1232	DUKE ENERGY OHIO, INC.	31-0240030
	(an Ohio corporation) 139 East Fourth Street Cincinnati, Ohio 45202 704-382-3853	
1-3543	DUKE ENERGY INDIANA, LLC	35-0594457
	(an Indiana limited liability company) 1000 East Main Street Plainfield, Indiana 46168 704-382-3853	
1-6196	PIEDMONT NATURAL GAS COMPANY, INC.	56-0556998
	(a North Carolina corporation) 4720 Piedmont Row Drive Charlotte, North Carolina 28210 704-364-3120	

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT: Name of each exchange o	n
Registrant <u>Title of each class</u> <u>Trading symbols</u> <u>which registered</u>	<u></u>
Duke Energy Corporation Common Stock, \$0.001 par value DUK New York Stock Exchange LLC (Duke Energy)	
Duke Energy 5.625% Junior Subordinated Debentures due DUKB New York Stock Exchange LLC September 15, 2078	
Duke Energy Depositary Shares, each representing a 1/1,000th DUK PR A New York Stock Exchange LLC interest in a share of 5.75% Series A Cumulative Redeemable Perpetual Preferred Stock, par value \$0.001 per share	
Duke Energy 3.10% Senior Notes due 2028 DUK 28A New York Stock Exchange LLC Duke Energy 3.85% Senior Notes due 2034 DUK 34 New York Stock Exchange LLC	
SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT: None	
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.	
Duke Energy Florida, LLC (Duke Energy Florida)	Yes 🗷 No 🗆
Duke Energy Carolinas, LLC (Duke Energy Carolinas) Yes 🗷 No 🗆 Duke Energy Ohio, Inc. (Duke Energy Ohio)	Yes 🗷 No 🗆
Progress Energy, Inc. (Progress Energy) Yes 🗆 No 🗷 Duke Energy Indiana, LLC (Duke Energy Indiana)	Yes 🗷 No 🗆
Duke Energy Progress, LLC (Duke Energy Progress) Yes 🗷 No 🗆 Piedmont Natural Gas Company, Inc. (Piedmont)	Yes 🗷 No 🗆
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes N applicable to all registrants.)	lo 🗷 (Response
Indicate by check mark whether the registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Excha during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject requirements for the past 90 days. Yes 🗷 No 🗆	
Indicate by check mark whether the registrants have submitted electronically every Interactive Data File required to be submitted pursuan Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to survey Yes IN No □	
Indicate by check mark whether Duke Energy is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company.	
Large Accelerated Filer 🗷 Accelerated Filer 🗆 Non-accelerated Filer 🗅 Smaller Reporting Company 🗅 Emerging Growth Comp	any □
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box	with any new or
Indicate by check mark whether each of Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke En Energy Indiana and Piedmont is a large accelerated filer, accelerated filer, non-accelerated filer, smaller reporting company, or emerging g See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b- Act.:	rowth company.
Large Accelerated Filer 🗆 Accelerated Filer 🗆 Non-accelerated Filer 🗵 Smaller Reporting Company 🗆 Emerging Growth Comp	any □
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.	with any new or
Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of i over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that puic accounting firm that	
If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant indicate by check mark whether the financial statements.	cluded in the filing
Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).	compensation
Indicate by check mark whether each of the registrants is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes 🗆	No 🗵
Estimated aggregate market value of the common equity held by nonaffiliates of Duke Energy at June 30, 2022. \$ Number of shares of Common Stock, \$0.001 par value, outstanding at January 31, 2023.	82,471,565 770,080,285
DOCUMENTS INCORPORATED BY REFERENCE	

Portions of the Duke Energy definitive proxy statement for the 2023 Annual Meeting of the Shareholders or an amendment to this Annual Report are incorporated by reference into PART III, Items 10, 11 and 13 hereof.

This combined Form 10-K is filed separately by eight registrants: Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont (collectively the Duke Energy Registrants). Information contained herein relating to any individual registrant is filed by such registrant solely on its own behalf. Each registrant makes no representation as to information relating exclusively to the other registrants.

Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont meet the

conditions set forth in General Instructions I(1)(a) and (b) of Form 10-K and are, therefore, filing this Form 10-K with the reduced disclosure format specified in General Instructions I(2) of Form 10-K.

Auditor Firm ID: 34 Auditor Name: Deloitte & Touche LLP Auditor Location: Charlotte, NC

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This document includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on management's beliefs and assumptions and can often be identified by terms and phrases that include "anticipate," "believe," "intend," "estimate," "expect," "continue," "should," "could," "may," "plan," "project," "predict," "will," "potential," "forecast," "target," "guidance," "outlook" or other similar terminology. Various factors may cause actual results to be materially different than the suggested outcomes within forward-looking statements; accordingly, there is no assurance that such results will be realized. These factors include, but are not limited to:

- The ability to implement our business strategy, including our carbon emission reduction goals;
- State, federal and foreign legislative and regulatory initiatives, including costs of compliance with existing and future environmental requirements, including those related to climate change, as well as rulings that affect cost and investment recovery or have an impact on rate structures or market prices;
- The extent and timing of costs and liabilities to comply with federal and state laws, regulations and legal requirements related to coal ash remediation, including amounts for required closure of certain ash impoundments, are uncertain and difficult to estimate;
- The ability to recover eligible costs, including amounts associated with coal ash impoundment retirement obligations, asset retirement and construction costs related to carbon emissions reductions, and costs related to significant weather events, and to earn an adequate return on investment through rate case proceedings and the regulatory process;
- The costs of decommissioning nuclear facilities could prove to be more extensive than amounts estimated and all costs may not be fully recoverable through the regulatory process;
- The impact of extraordinary external events, such as the pandemic health event resulting from COVID-19, and their collateral consequences, including the disruption of global supply chains or the economic activity in our service territories;
- Costs and effects of legal and administrative proceedings, settlements, investigations and claims;
- Industrial, commercial and residential growth or decline in service territories or customer bases resulting from sustained downturns of the economy, reduced customer usage due to cost pressures from inflation or fuel costs, and the economic health of our service territories or variations in customer usage patterns, including energy efficiency efforts, natural gas building and appliance electrification, and use of alternative energy sources, such as selfgeneration and distributed generation technologies;
- Federal and state regulations, laws and other efforts designed to promote and expand the use of energy efficiency measures, natural gas electrification, and distributed generation technologies, such as private solar and battery storage, in Duke Energy service territories could result in a reduced number of customers, excess generation resources as well as stranded costs;
- Advancements in technology;
- Additional competition in electric and natural gas markets and continued industry consolidation;
- The influence of weather and other natural phenomena on operations, including the economic, operational and other effects of severe storms, hurricanes, droughts, earthquakes and tornadoes, including extreme weather associated with climate change;
- Changing investor, customer and other stakeholder expectations and demands including heightened emphasis on environmental, social and governance concerns and costs related thereto;
- The ability to successfully operate electric generating facilities and deliver electricity to customers including direct or indirect effects to the company
 resulting from an incident that affects the United States electric grid or generating resources;
- Operational interruptions to our natural gas distribution and transmission activities;
- The availability of adequate interstate pipeline transportation capacity and natural gas supply;
- The impact on facilities and business from a terrorist or other attack, war, vandalism, cybersecurity threats, data security breaches, operational events, information technology failures or other catastrophic events, such as fires, explosions, pandemic health events or other similar occurrences;
- The inherent risks associated with the operation of nuclear facilities, including environmental, health, safety, regulatory and financial risks, including the financial stability of third-party service providers;
- The timing and extent of changes in commodity prices and interest rates and the ability to recover such costs through the regulatory process, where appropriate, and their impact on liquidity positions and the value of underlying assets;
- The results of financing efforts, including the ability to obtain financing on favorable terms, which can be affected by various factors, including credit ratings, interest rate fluctuations, compliance with debt covenants and conditions, an individual utility's generation mix, and general market and economic conditions;
- Credit ratings of the Duke Energy Registrants may be different from what is expected;
- Declines in the market prices of equity and fixed-income securities and resultant cash funding requirements for defined benefit pension plans, other postretirement benefit plans and nuclear decommissioning trust funds;

- Construction and development risks associated with the completion of the Duke Energy Registrants' capital investment projects, including risks related to financing, timing and receipt of necessary regulatory approvals, obtaining and complying with terms of permits, meeting construction budgets and schedules and satisfying operating and environmental performance standards, as well as the ability to recover costs from customers in a timely manner, or at all;
- Changes in rules for regional transmission organizations, including changes in rate designs and new and evolving capacity markets, and risks related to
 obligations created by the default of other participants;
- The ability to control operation and maintenance costs;
- The level of creditworthiness of counterparties to transactions;
- The ability to obtain adequate insurance at acceptable costs;
- Employee workforce factors, including the potential inability to attract and retain key personnel;
- The ability of subsidiaries to pay dividends or distributions to Duke Energy Corporation holding company (the Parent);
- The performance of projects undertaken by our nonregulated businesses and the success of efforts to invest in and develop new opportunities, as well as the successful sale of the Commercial Renewables Disposal Groups;
- The effect of accounting and reporting pronouncements issued periodically by accounting standard-setting bodies and the SEC;
- The impact of United States tax legislation to our financial condition, results of operations or cash flows and our credit ratings;
- The impacts from potential impairments of goodwill or equity method investment carrying values;
- Asset or business acquisitions and dispositions may not yield the anticipated benefits;
- The actions of activist shareholders could disrupt our operations, impact our ability to execute on our business strategy, or cause fluctuations in the trading price of our common stock; and

Additional risks and uncertainties are identified and discussed in the Duke Energy Registrants' reports filed with the SEC and available at the SEC's website at sec.gov. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than described. Forward-looking statements speak only as of the date they are made and the Duke Energy Registrants expressly disclaim an obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Glossary of Terms

The following terms or acronyms used in this Form 10-K are defined below:

Term or Acronym	Definition
2017 Settlement	Second Revised and Restated Settlement Agreement in 2017 among Duke Energy Florida, the Florida Office of Public Counsel and other customer advocates, which replaces and supplants the 2013 Settlement
2021 Settlement	Settlement Agreement in 2021 among Duke Energy Florida, the Florida Office of Public Counsel, the Florida Industrial Power Users Group, White Springs Agricultural Chemicals, Inc. d/b/a PSC Phosphate and NUCOR Steel Florida, Inc.
ACP	Atlantic Coast Pipeline, LLC, a limited liability company owned by Dominion and Duke Energy
ACP pipeline	The approximately 600-mile canceled interstate natural gas pipeline
AFS	Available for Sale
AFUDC	Allowance for funds used during construction
AMI	Advanced Metering Infrastructure
AMT	Alternative Minimum Tax
AOCI	Accumulated Other Comprehensive Income (Loss)
ARO	Asset Retirement Obligation
Audit Committee	Audit Committee of the Board of Directors
Belews Creek	Belews Creek Steam Station
Bison	Bison Insurance Company Limited
Board of Directors	Duke Energy Board of Directors
Brunswick	Brunswick Nuclear Plant
Cardinal	Cardinal Pipeline Company, LLC
Catawba	Catawba Nuclear Station
СС	Combined Cycle
CCR	Coal Combustion Residuals
CEP Rider	Duke Energy Ohio's Capital Expenditure Program Rider
Cinergy	Cinergy Corp. (collectively with its subsidiaries)
Citrus County CC	Citrus County Combined Cycle Facility
CO ₂	Carbon Dioxide
Coal Ash Act	North Carolina Coal Ash Management Act of 2014
the company	Duke Energy Corporation and its subsidiaries
Commercial Renewables Disposal Groups	Commercial Renewables business segment, excluding the offshore wind contract for Carolina Long Bay, marketed as two separate disposal groups, the utility-scale solar and wind group and the distributed generation group
COVID-19	Coronavirus Disease 2019
CPCN	Certificate of Public Convenience and Necessity
CRC	Cinergy Receivables Company LLC
Crystal River Unit 3	Crystal River Unit 3 Nuclear Plant
СТ	Combustion Turbine
DATC	Duke-American Transmission Company, LLC
DECON	A method of decommissioning in which structures, systems, and components that contain radioactive contamination are removed from a site and safely disposed at a commercially operated low-level waste disposal facility, or decontaminated to a level that permits the site to be released for unrestricted use shortly after it ceases operation
DEFR	Duke Energy Florida Receivables, LLC
Deloitte	Deloitte & Touche LLP, and the member firms of Deloitte Touche Tohmatsu and their respective affiliates
DEPR	Duke Energy Progress Receivables, LLC

DOE	U.S. Department of Energy
Dominion	Dominion Energy, Inc.
Dth	Dekatherms
Duke Energy	Duke Energy Corporation (collectively with its subsidiaries)
Duke Energy Carolinas	Duke Energy Carolinas, LLC
Duke Energy Florida	Duke Energy Florida, LLC
Duke Energy Indiana	Duke Energy Indiana, LLC
Duke Energy Kentucky	Duke Energy Kentucky, Inc.
Duke Energy Ohio	Duke Energy Ohio, Inc.
Duke Energy Progress	Duke Energy Progress, LLC
Duke Energy Registrants	Duke Energy, Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont
East Bend	East Bend Generating Station
EDIT	Excess deferred income tax
EE	Energy efficiency
EPA	U.S. Environmental Protection Agency
EPS	Earnings Per Share
ETR	Effective tax rate
EU&I	Electric Utilities and Infrastructure
Exchange Act	Securities Exchange Act of 1934
FASB	Financial Accounting Standards Board
FERC	Federal Energy Regulatory Commission
Form S-3	Registration statement
FPSC	Florida Public Service Commission
FTR	Financial transmission rights
GAAP	Generally Accepted Accounting Principles in the United States
GAAP Reported Earnings	Net Income Available to Duke Energy Corporation common stockholders
GAAP Reported EPS	Basic EPS Available to Duke Energy Corporation common stockholders
GHG	Greenhouse Gas
GIC	GIC Private Limited, Singapore's sovereign wealth fund and an experienced investor in U.S. infrastructure
GU&I	Gas Utilities and Infrastructure
GWh	Gigawatt-hour
Hardy Storage	Hardy Storage Company, LLC
Harris	Shearon Harris Nuclear Plant
HB 951	The Energy Solutions for North Carolina, or House Bill 951, passed in October 2021
IMPA	Indiana Municipal Power Agency
IMR	Integrity Management Rider
IRP	Integrated Resource Plans
IRS	Internal Revenue Service
ISO	Independent System Operator
ITC	Investment Tax Credit
IURC	Indiana Utility Regulatory Commission
Investment Trusts	Grantor trusts of Duke Energy Progress, Duke Energy Florida and Duke Energy Indiana
KO Transmission	KO Transmission Company
KPSC	Kentucky Public Service Commission

LLC	Limited Liability Company
McGuire	McGuire Nuclear Station
MGP	Manufactured gas plant
MGP Settlement	Stipulation and Recommendation filed jointly by Duke Energy Ohio the staff of the PUCO, the Office of the Ohio Consumers' Counsel and the Ohio Energy Group on August 31, 2021
MISO	
MISO	Midcontinent Independent System Operator, Inc.
MTBE	Methyl tertiary butyl ether
MW	Megawatt
MWh	Megawatt-hour
MYRP	Multiyear rate plans
NCDEQ	North Carolina Department of Environmental Quality
NCUC	North Carolina Utilities Commission
NDTF	Nuclear decommissioning trust funds
New Source Review	Clean Air Act program that requires industrial facilities to install modern pollution control equipment when they are built or when making a change that increases emissions significantly
NMC	National Methanol Company
NOL	Net operating loss
NPNS	Normal purchase/normal sale
NRC	U.S. Nuclear Regulatory Commission
NYSE	New York Stock Exchange
Oconee	Oconee Nuclear Station
OPEB	Other Post-Retirement Benefit Obligations
OVEC	Ohio Valley Electric Corporation
the Parent	Duke Energy Corporation holding company
PBR	Performance-based regulation
PGA	Purchased Gas Adjustments
PHMSA	Pipeline and Hazardous Materials Safety Administration
Piedmont	Piedmont Natural Gas Company, Inc.
Pine Needle	Pine Needle LNG Company, LLC
Pioneer	Pioneer Transmission, LLC
PJM	PJM Interconnection, LLC
PMPA	Piedmont Municipal Power Agency
PISCC	Post-in-service carrying costs
PPA	Purchase Power Agreement
Progress Energy	Progress Energy, Inc.
PSCSC	Public Service Commission of South Carolina
PTC	Production Tax Credits
PUCO	Public Utilities Commission of Ohio
PURPA	Public Utility Regulatory Policies Act of 1978
QF	Qualifying Facility
REC	Renewable Energy Certificate
Relative TSR	TSR of Duke Energy stock relative to a predefined peer group
Robinson	Robinson Nuclear Plant
ROE	Return of equity
ROU	Right-of-use
RSU	Restricted Stock Unit

RTO	Regional Transmission Organization
Sabal Trail	Sabal Trail Transmission, LLC
SAFSTOR	A method of decommissioning in which a nuclear facility is placed and maintained in a condition that allows the facility to be safely stored and subsequently decontaminated to levels that permit release for unrestricted use
SEC	Securities and Exchange Commission
S&P	Standard & Poor's Rating Services
State utility commissions	NCUC, PSCSC, FPSC, PUCO, IURC, KPSC and TPUC (Collectively)
State electric utility commissions	NCUC, PSCSC, FPSC, PUCO, IURC and KPSC (Collectively)
State gas utility commissions	NCUC, PSCSC, PUCO, TPUC and KPSC (Collectively)
Subsidiary Registrants	Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont
Sutton	L.V. Sutton Combined Cycle Plant
the Tax Act	Tax Cuts and Jobs Act
TPUC	Tennessee Public Utility Commission
TSR	Total shareholder return
U.S.	United States
VIE	Variable Interest Entity
W.S. Lee CC	William States Lee Combined Cycle Facility
WVPA	Wabash Valley Power Association, Inc.

ITEM 1. BUSINESS

DUKE ENERGY

General

Duke Energy was incorporated on May 3, 2005, and is an energy company headquartered in Charlotte, North Carolina, subject to regulation by the FERC and other regulatory agencies listed below. Duke Energy operates in the U.S. primarily through its direct and indirect subsidiaries. Certain Duke Energy subsidiaries are also Subsidiary Registrants, including Duke Energy Carolinas, Progress Energy, Duke Energy Progress, Duke Energy Florida, Duke Energy Ohio, Duke Energy Indiana and Piedmont. When discussing Duke Energy's consolidated financial information, it necessarily includes the results of its separate Subsidiary Registrants, which along with Duke Energy, are collectively referred to as the Duke Energy Registrants.

The Duke Energy Registrants electronically file reports with the SEC, including Annual Reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to such reports.

The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at sec.gov. Additionally, information about the Duke Energy Registrants, including reports filed with the SEC, is available through Duke Energy's website at duke-energy.com. Such reports are accessible at no charge and are made available as soon as reasonably practicable after such material is filed with or furnished to the SEC.

Business Segments

Duke Energy's segment structure includes two reportable business segments: Electric Utilities and Infrastructure (EU&I) and Gas Utilities and Infrastructure (GU&I). The remainder of Duke Energy's operations is presented as Other. Commercial Renewables is reported as discontinued operations and is no longer a reportable segment beginning in the fourth quarter of 2022. See Note 2 for further details. Duke Energy's chief operating decision-maker routinely reviews financial information about each of these business segments in deciding how to allocate resources and evaluate the performance of the business. For additional information on each of these business segments, including financial and geographic information, see Note 3 to the Consolidated Financial Statements, "Business Segments." The following sections describe the business and operations of each of Duke Energy's business segments, as well as Other.

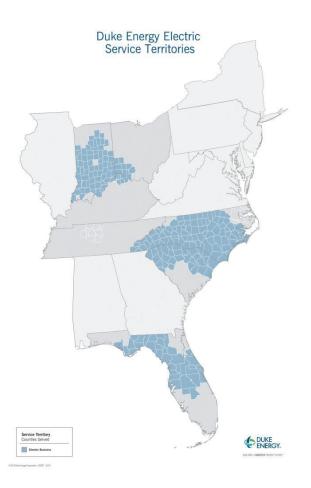
ELECTRIC UTILITIES AND INFRASTRUCTURE

EU&I conducts operations primarily through the regulated public utilities of Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Indiana and Duke Energy Ohio. EU&I provides retail electric service through the generation, transmission, distribution and sale of electricity to approximately 8.2 million customers within the Southeast and Midwest regions of the U.S. The service territory is approximately 92,000 square miles across six states with a total estimated population of 26 million. The operations include electricity sold wholesale to municipalities, electric cooperative utilities and other load-serving entities.

During 2021, Duke Energy executed an agreement providing for an investment by an affiliate of GIC in Duke Energy Indiana in exchange for a 19.9% minority interest issued by Duke Energy Indiana Holdco, LLC, the holding company for Duke Energy Indiana. The transaction was completed following two closings. Additionally, in November 2022, Duke Energy committed to a plan to sell the Commercial Renewables business segment, excluding the offshore wind contract for Carolina Long Bay, which was moved to EU&I. See Note 2 to the Consolidated Financial Statements, "Dispositions," for additional information.

EU&I is also a joint owner in certain electric transmission projects. EU&I has a 50% ownership interest in DATC, a partnership with American Transmission Company, formed to design, build and operate transmission infrastructure. DATC owns 72% of the transmission service rights to Path 15, an 84-mile transmission line in central California. EU&I also has a 50% ownership interest in Pioneer, which builds, owns and operates electric transmission facilities in North America. The following map shows the service territory for EU&I as of December 31, 2022.





The electric operations and investments in projects are subject to the rules and regulations of the FERC, the NRC, the NCUC, the PSCSC, the FPSC, the IURC, the PUCO and the KPSC.

The following table represents the distribution of GWh billed sales by customer class for the year ended December 31, 2022.

	Duke	Duke	Duke	Duke	Duke
	Energy	Energy	Energy	Energy	Energy
	Carolinas	Progress	Florida	Ohio	Indiana
Residential	33 %	26 %	47 %	38 %	30 %
General service	33 %	22 %	34 %	38 %	27 %
Industrial	23 %	16 %	8 %	22 %	28 %
Total retail sales	89 %	64 %	89 %	98 %	85 %
Wholesale and other sales	11 %	36 %	11 %	2 %	15 %
Total sales	100 %	100 %	100 %	100 %	100 %

The number of residential and general service customers within the EU&I service territory is expected to increase over time. Sales growth is expected within the service territory but continues to be impacted by adoption of energy efficiencies and self-generation. Migration into EU&I's service territories and continued remote work contributed to higher residential sales volumes in 2022 while higher data center usage contributed to growth in commercial sales volumes. This was partially offset by lower industrial sales volumes impacted by certain automotive customers experiencing supply chain constraints along with reduced volumes in the steel sector. The impact on customer's usage from these factors and other potential economic dynamics continues to be monitored. Over the longer time frame, it is still expected that the continued adoption of more efficient housing and appliances will have a negative impact on average usage per residential customer over time.

Seasonality and the Impact of Weather

Revenues and costs are influenced by seasonal weather patterns. Peak sales of electricity occur during the summer and winter months, which results in higher revenue and cash flows during these periods. By contrast, lower sales of electricity occur during the spring and fall, allowing for scheduled plant maintenance. Residential and general service customers are more impacted by weather than industrial customers. Estimated weather impacts are based on actual current period weather compared to normal weather conditions. Normal weather conditions are defined as the long-term average of actual historical weather conditions.

The estimated impact of weather on earnings is based on the temperature variances from a normal condition and customers' historic usage patterns. The methodology used to estimate the impact of weather does not consider all variables that may impact customer response to weather conditions such as humidity in the summer or wind chill in the winter. The precision of this estimate may also be impacted by applying long-term weather trends to shorter-term

periods.

Heating degree days measure the variation in weather based on the extent the average daily temperature falls below a base temperature. Cooling degree days measure the variation in weather based on the extent the average daily temperature rises above the base temperature. Each degree of temperature below the base temperature counts as one heating degree day and each degree of temperature above the base temperature counts as one cooling degree day.

Competition

Retail

EU&I's businesses operate as the sole supplier of electricity within their service territories, with the exception of Ohio, which has a competitive electricity supply market for generation service. EU&I owns and operates facilities necessary to generate, transmit, distribute and sell electricity. Services are priced by state commission-approved rates designed to include the costs of providing these services and a reasonable return on invested capital. This regulatory policy is intended to provide safe and reliable electricity at fair prices.

In Ohio, EU&I conducts competitive auctions for electricity supply. The cost of energy purchased through these auctions is recovered from retail customers. EU&I earns retail margin in Ohio on the transmission and distribution of electricity, but not on the cost of the underlying energy.

Competition in the regulated electric distribution business is primarily from the development and deployment of alternative energy sources including on-site generation from industrial customers and distributed generation, such as private solar, at residential, general service and/or industrial customer sites.

Wholesale

Duke Energy competes with other utilities and merchant generators for bulk power sales, sales to municipalities and cooperatives and wholesale transactions under primarily cost-based contracts approved by FERC. The principal factors in competing for these sales are availability of capacity and power, reliability of service and price. Prices are influenced primarily by market conditions and fuel costs.

Increased competition in the wholesale electric utility industry and the availability of transmission access could affect EU&'s load forecasts, plans for power supply and wholesale energy sales and related revenues. Wholesale energy sales will be impacted by the extent to which additional generation is available to sell to the wholesale market and the ability of EU&I to attract new customers and to retain existing customers.

Energy Capacity and Resources

EU&I owns approximately 49,870 MW of generation capacity. For additional information on owned generation facilities, see Item 2, "Properties."

Energy and capacity are also supplied through contracts with other generators and purchased on the open market. Factors that could cause EU&I to purchase power for its customers may include, but are not limited to, generating plant outages, extreme weather conditions, generation reliability, demand growth and price. EU&I has interconnections and arrangements with its neighboring utilities to facilitate planning, emergency assistance, sale and purchase of capacity and energy and reliability of power supply.

EU&I's generation portfolio is a balanced mix of energy resources having different operating characteristics and fuel sources designed to provide energy at the lowest possible cost to meet its obligation to serve retail customers. All options, including owned generation resources and purchased power opportunities, are continually evaluated on a real-time basis to select and dispatch the lowest-cost resources available to meet system load requirements.

Sources of Electricity

EU&I relies principally on natural gas, nuclear fuel and coal for its generation of electricity. The following table lists sources of electricity and fuel costs for the three years ended December 31, 2022.

	Gener	ation by Source			ivered Fuel pe ır Generated (
	2022	2021	2020	2022	2021	2020
Natural gas and fuel oil ^(a)	34.2 %	31.8 %	31.3 %	6.35	3.89	2.55
Nuclear ^(a)	26.6 %	29.8 %	29.6 %	0.58	0.58	0.58
Coal ^(a)	13.5 %	18.2 %	18.1 %	3.43	2.84	2.99
All fuels (cost based on weighted average) ^(a)	74.3 %	79.8 %	79.0 %	3.75	2.42	1.91
Hydroelectric and solar ^(b)	1.5 %	1.5 %	1.9 %			
Total generation	75.8 %	81.3 %	80.9 %			
Purchased power and net interchange	24.2 %	18.7 %	19.1 %			
Total sources of energy	100.0 %	100.0 %	100.0 %			

(a) Statistics related to all fuels reflect EU&I's public utility ownership interest in jointly owned generation facilities.

(b) Generating figures are net of output required to replenish pumped-storage facilities during off-peak periods.

Natural Gas and Fuel Oil

Natural gas and fuel oil supply, transportation and storage for EU&I's generation fleet is purchased under standard industry agreements from various suppliers, including Piedmont. Natural gas supply agreements typically provide for a percentage of forecasted burns being procured over time, with varied expiration dates. Electric Utilities and Infrastructure believes it has access to an adequate supply of natural gas and fuel oil for the reasonably foreseeable future.



EU&I has certain dual-fuel generating facilities that can operate utilizing both natural gas and fuel oil. The cost of EU&I's natural gas and fuel oil is fixed price or determined by published market prices as reported in certain industry publications, plus any transportation and freight costs. Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida and Duke Energy Indiana use derivative instruments to manage a portion of their exposure to price fluctuations for natural gas. Duke Energy Florida has temporarily agreed to not hedge natural gas prices, but retains an ability to propose hedging again in annual fuel docket filings.

EU&I has firm interstate and intrastate natural gas transportation agreements and storage agreements in place to support generation needed for load requirements. EU&I may purchase additional shorter-term natural gas transportation and utilize natural gas interruptible transportation agreements to support generation needed for load requirements. The EU&I natural gas plants are served by various supply zones and multiple pipelines.

Nuclear

The industrial processes for producing nuclear generating fuel generally involve the mining and milling of uranium ore to produce uranium concentrates and services to convert, enrich and fabricate fuel assemblies.

EU&I has contracted for uranium materials and services to fuel its nuclear reactors. Uranium concentrates, conversion services and enrichment services are primarily met through a diversified portfolio of long-term supply contracts. The contracts are diversified by supplier, country of origin and pricing. EU&I staggers its contracting so that its portfolio of long-term contracts covers the majority of its fuel requirements in the near term and decreasing portions of its fuel requirements over time thereafter. Near-term requirements not met by long-term supply contracts have been and are expected to be fulfilled with spot market purchases. Due to the technical complexities of changing suppliers of fuel fabrication services, EU&I generally source these services to a single domestic supplier on a plant-by-plant basis using multiyear contracts.

EU&I has entered into fuel contracts that cover 100% of its uranium concentrates through at least 2024, 100% of its conversion services through at least 2026, 100% of its enrichment services through at least 2026, and 100% of its fabrication services requirements for these plants through at least 2027. For future requirements not already covered under long-term contracts, EU&I believes it will be able to renew contracts as they expire or enter into similar contractual arrangements with other suppliers of nuclear fuel materials and services.

Coal

EU&I meets its coal demand through a portfolio of long-term purchase contracts and short-term spot market purchase agreements. Large amounts of coal are purchased under long-term contracts with mining operators who mine both underground and at the surface. EU&I uses spot market purchases to meet coal requirements not met by long-term contracts. Expiration dates for its long-term contracts, which may have various price adjustment provisions and market reopeners, range from 2023 to 2027 for Duke Energy Carolinas and Duke Energy Indiana, 2023 to 2024 for Duke Energy Progress and 2023 to 2025 for Duke Energy Florida and Duke Energy Ohio. EU&I expects to renew these contracts or enter into similar contracts with other suppliers as existing contracts expire, though prices will fluctuate over time as coal markets change. EU&I has an adequate supply of coal under contract to meet its risk management guidelines regarding projected future consumption. As a result of volatility in natural gas prices and the associated impacts on coal-fired dispatch within the generation fleet, coal inventories will continue to fluctuate. EU&I continues to actively manage its portfolio and has worked with suppliers to obtain increased flexibility in its coal contracts.

Coal purchased for the Carolinas is primarily produced from mines in Central Appalachia, Northern Appalachia and the Illinois Basin. Coal purchased for Florida is primarily produced from mines in the Illinois Basin. Coal purchased for Kentucky is produced from mines along the Ohio River in Illinois, Ohio, West Virginia and Pennsylvania. Coal purchased for Indiana is primarily produced in Indiana and Illinois. There are adequate domestic coal reserves to serve EU&I's coal generation needs through end of life. The current average sulfur content of coal purchased by Electric Utilities and Infrastructure is between 0.5% and 3.5% for Duke Energy Carolinas and Duke Energy Progress, and between 0.5% and 4% for Duke Energy Florida, Duke Energy Ohio and Duke Energy Indiana. EU&I's environmental controls, in combination with the use of sulfur dioxide (SO₂) emission allowances, enable EU&I to satisfy current SO₂ emission limitations for its existing facilities.

Purchased Power

EU&I purchases a portion of its capacity and system requirements through purchase obligations, leases and purchase capacity contracts. EU&I believes it can obtain adequate purchased power capacity to meet future system load needs. However, during periods of high demand, the price and availability of purchased power may be significantly affected.

The following table summarizes purchased power for the previous three years:

	2022	2021	2020
Purchase obligations and leases (in millions of MWh) ^(a)	41.2	36.0	32.7
Purchase capacity under contract (in MW) ^(b)	4,028	4,259	4,716

(a) Represents approximately 16% of total system requirements for 2022, 14% for 2021 and 13% for 2020.

(b) For 2022, 2021 and 2020, these agreements include approximately 412 MW of firm capacity under contract by Duke Energy Florida with QFs.

Inventory

EU&I must maintain an adequate stock of fuel and materials and supplies in order to ensure continuous operation of generating facilities and reliable delivery to customers. As of December 31, 2022, the inventory balance for EU&I was approximately \$3.4 billion. For additional information on inventory, see Note 1 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies."

Ash Basin Management

During 2015, EPA issued regulations related to the management of CCR from power plants. These regulations classify CCR as nonhazardous waste under the Resource Conservation and Recovery Act (RCRA) and apply to electric generating sites with new and existing landfills and new and existing surface impoundments and establish requirements regarding landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring, protection and remedial procedures and other operational and reporting procedures for the disposal and management of CCR. In addition to the federal regulations, CCR landfills and surface impoundments (ash basins or impoundments) will continue to be regulated by existing state laws, regulations and permits, such as the North Carolina Coal Ash Management Act of 2014 (Coal Ash Act).

EU&I has and will periodically submit to applicable authorities required site-specific coal ash impoundment remediation or closure plans. Closure plans must be approved and all associated permits issued before any work can begin. Closure activities have begun in all of Duke Energy's jurisdictions. Excavation began in 2015 at the four sites specified as high priority by the Coal Ash Act and at the W.S. Lee Steam Station site in South Carolina in connection with other legal requirements. Excavation at these sites involves movement of CCR materials to appropriate engineered off-site or on-site lined landfills or for reuse in an approved beneficial application. Duke Energy has completed excavation of coal ash at the four high-priority North Carolina sites. At other sites where CCR management is required, planning and closure methods have been studied and factored into the estimated retirement and management costs, and closure activities have commenced.

The EPA CCR rule and the Coal Ash Act leave the decision on cost recovery determinations related to closure of coal ash surface impoundments to the normal ratemaking processes before utility regulatory commissions. Duke Energy's electric utilities have included compliance costs associated with federal and state requirements in their respective rate proceedings. During 2017, Duke Energy Carolinas' and Duke Energy Progress' wholesale contracts were amended to include the recovery of expenditures related to AROs for the closure of coal ash basins. The amended contracts have retail disallowance parity or provisions limiting challenges to CCR cost recovery actions at FERC. FERC approved the amended wholesale rate schedules in 2017. For additional information on the ash basins and recovery, see Item 7, "Other Matters" and Notes 4, 5 and 10 to the Consolidated Financial Statements, "Regulatory Matters," "Commitments and Contingencies" and "Asset Retirement Obligations," respectively.

Nuclear Matters

Duke Energy owns, wholly or partially, 11 operating nuclear reactors located at six operating stations. The Crystal River Unit 3 permanently ceased operation in February 2013. Nuclear insurance includes: nuclear liability coverage; property damage coverage; nuclear accident decontamination and premature decommissioning coverage; and accidental outage coverage for losses in the event of a major accidental outage. Joint owners reimburse Duke Energy for certain expenses associated with nuclear insurance in accordance with joint owner agreements. The Price-Anderson Act requires plant owners to provide for public nuclear liability claims resulting from nuclear incidents to the maximum total financial protection liability, which is approximately \$13.7 billion. For additional information on nuclear insurance, see Note 5 to the Consolidated Financial Statements, "Commitments and Contingencies."

Duke Energy has a significant future financial commitment to dispose of spent nuclear fuel and decommission and decontaminate each plant safely. The NCUC, PSCSC and FPSC require Duke Energy to update their cost estimates for decommissioning their nuclear plants every five years.

The following table summarizes the fair value of NDTF investments and the most recent site-specific nuclear decommissioning cost studies. Decommissioning costs are stated in 2018 or 2019 dollars, depending on the year of the cost study, and include costs to decommission plant components not subject to radioactive contamination.

	NDTF ^(a)			Decommissioning		
(in millions)		December 31, 2022		December 31, 2021	Costs ^(a)	Year of Cost Study
Duke Energy	\$	8,637	\$	10,401	\$ 9,105	2018 or 2019
Duke Energy Carolinas ^{(b)(c)}		4,783		5,759	4,365	2018
Duke Energy Progress ^(d)		3,430		4,089	4,181	2019
Duke Energy Florida ^(e)		424		553	559	N/A

(a) Amounts for Progress Energy equal the sum of Duke Energy Progress and Duke Energy Florida.

(b) Decommissioning cost for Duke Energy Carolinas reflects its ownership interest in jointly owned reactors. Other joint owners are responsible for decommissioning costs related to their interest in the reactors.

(c) Duke Energy Carolinas' site-specific nuclear decommissioning cost study completed in 2018 was filed with the NCUC and PSCSC in 2019. A new funding study was also completed and filed with the NCUC and PSCSC in 2019.

- (d) Duke Energy Progress' site-specific nuclear decommissioning cost study completed in 2019 was filed with the NCUC and PSCSC in March 2020. Duke Energy Progress also completed a funding study, which was filed with the NCUC and PSCSC in July 2020. In October 2021, Duke Energy Progress filed the 2019 nuclear decommissioning cost study with the FERC, as well as a revised date schedule for decommissioning expense to be collected from wholesale customers. The FERC accepted the filing, as filed on December 9, 2021.
- (e) During 2019, Duke Energy Florida reached an agreement to transfer decommissioning work for Crystal River Unit 3 to a third party and decommissioning costs are based on the agreement with this third party rather than a cost study. Regulatory approval was received from the NRC and the FPSC in April 2020 and August 2020, respectively. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for more information.

The NCUC, PSCSC, FPSC and FERC have allowed EU&I to recover estimated decommissioning costs through retail and wholesale rates over the expected remaining service periods of their nuclear stations. EU&I believes the decommissioning costs being recovered through rates, when coupled with the existing fund balances and expected fund earnings, will be sufficient to provide for the cost of future decommissioning. For additional information, see Note 10 to the Consolidated Financial Statements, "Asset Retirement Obligations."

The Nuclear Waste Policy Act of 1982 (as amended) provides the framework for development by the federal government of interim storage and permanent disposal facilities for high-level radioactive waste materials. The government has not yet developed a storage facility or disposal capacity, so EU&I will continue to store spent fuel on its reactor sites.

Under federal law, the DOE is responsible for the selection and construction of a facility for the permanent disposal of spent nuclear fuel and high-level radioactive waste. The DOE terminated the project to license and develop a geologic repository at Yucca Mountain, Nevada in 2010, and is currently taking no action to fulfill its responsibilities to dispose of spent fuel.

Until the DOE begins to accept the spent nuclear fuel, Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida will continue to safely manage their spent nuclear fuel. Under current regulatory guidelines, Harris has sufficient storage capacity in its spent fuel pools through the expiration of its renewed operating license. With certain modifications and approvals by the NRC to expand the on-site dry cask storage facilities, spent nuclear fuel dry storage facilities will be sufficient to provide storage space of spent fuel through the expiration of the operating licenses, including any license renewals, for Brunswick, Catawba, McGuire, Oconee and Robinson. Crystal River Unit 3 ceased operation in 2013 and was placed in a SAFSTOR condition in January 2018. As of January 2018, all spent fuel at Crystal River Unit 3 has been transferred from the spent fuel pool to dry storage at an on-site independent spent fuel storage installation. During 2020, the NRC and the FPSC approved an agreement to transfer ownership of spent fuel for Crystal River Unit 3 to a third party. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for more information.

The nuclear power industry faces uncertainties with respect to the cost and long-term availability of disposal sites for spent nuclear fuel and other radioactive waste, compliance with changing regulatory requirements, capital outlays for modifications and new plant construction.

EU&I is subject to the jurisdiction of the NRC for the design, construction and operation of its nuclear generating facilities. The following table includes the current year of expiration of nuclear operating licenses for nuclear stations in operation. In June 2021, Duke Energy Carolinas filed a subsequent license renewal application for the Oconee Nuclear Station (ONS) with the U.S. Nuclear Regulatory Commission to renew ONS's operating license for an additional 20 years. Duke Energy has announced its intention to seek 20-year operating license renewals for each of the reactors it operates in Duke Energy Carolinas and Duke Energy Progress. See Note 4 to the Consolidated Financial Statements, "Regulatory Matters," for additional information.

Unit	Year of Expiration
Duke Energy Carolinas	
Catawba Units 1 and 2	2043
McGuire Unit 1	2041
McGuire Unit 2	2043
Oconee Units 1 and 2	2033
Oconee Unit 3	2034
Duke Energy Progress	
Brunswick Unit 1	2036
Brunswick Unit 2	2034
Harris	2046
Robinson	2030

The NRC has acknowledged permanent cessation of operation and permanent removal of fuel from the reactor vessel at Crystal River Unit 3. Therefore, the license no longer authorizes operation of the reactor. For additional information on nuclear decommissioning activity, see Notes 4 and 10 to the Consolidated Financial Statements, "Regulatory Matters" and "Asset Retirement Obligations," respectively.

Regulation

State

The state electric utility commissions approve rates for Duke Energy's retail electric service within their respective states. The state electric utility commissions, to varying degrees, have authority over the construction and operation of EU&I's generating facilities. CPCNs issued by the state electric utility commissions, as applicable, authorize EU&I to construct and operate its electric facilities and to sell electricity to retail and wholesale customers. Prior approval from the relevant state electric utility commission is required for the entities within EU&I to issue securities. The underlying concept of utility ratemaking is to set rates at a level that allows the utility to collect revenues equal to its cost of providing service plus earn a reasonable rate of return on its invested capital, including equity.

In addition to rates approved in base rate cases, each of the state electric utility commissions allow recovery of certain costs through various cost recovery clauses to the extent the respective commission determines in periodic hearings that such costs, including any past over or under-recovered costs, are prudent.

Fuel, fuel-related costs and certain purchased power costs are eligible for recovery by EU&I. EU&I uses coal, hydroelectric, natural gas, oil, renewable generation and nuclear fuel to generate electricity, thereby maintaining a diverse fuel mix that helps mitigate the impact of cost increases in any one fuel. Due to the associated regulatory treatment and the method allowed for recovery, changes in fuel costs from year to year have no material impact on operating results of EU&I, unless a commission finds a portion of such costs to have been imprudent. However, delays between the expenditure for fuel costs and recovery from customers can adversely impact the timing of cash flows of EU&I.

The table below reflects significant electric rate case applications approved and effective in the past three years and applications currently pending approval.

	Regulatory Body	Annual Increase (Decrease) (in millions)	Return on Equity	Equity Component of Capital Structure	Effective Date
Approved Rate Cases:					
Duke Energy Progress 2022 South Carolina Rate Case	PSCSC	\$ 52	9.6 %	52.43 %	4/1/2023
Duke Energy Ohio 2021 Ohio Electric Rate Case	PUCO	23	9.5 %	50.5 %	1/3/2023
Duke Energy Progress 2019 North Carolina Rate Case	NCUC	178	9.6 %	52 %	6/1/2021
Duke Energy Carolinas 2019 North Carolina Rate Case	NCUC	33	9.6 %	52 %	6/1/2021
Duke Energy Indiana 2019 Indiana Rate Case ^(a)	IURC	146	9.7 %	54 %	7/30/2020
Duke Energy Kentucky 2019 Kentucky Electric Rate Case	KPSC	24	9.25 %	48.23 %	5/1/2020
Pending Rate Cases:					
Duke Energy Carolinas 2023 North Carolina Rate Case ^(b)	NCUC	\$ 823	10.4 %	53 %	1/1/2024
Duke Energy Kentucky 2022 Kentucky Electric Rate Case	KPSC	75	10.35 %	52.5 %	7/15/2023
Duke Energy Progress 2022 North Carolina Rate Case ^(c)	NCUC	615	10.4 %	53 %	10/1/2023

(a) Step 1 rates are approximately 75% of the total and became effective July 30, 2020. Step 2 rates are approximately 25% of the total rate case increase. They were approved on July 28, 2021, and implemented in August 2021.

(b) Year 1 rates are approximately 61% of the total. Year 2 rates are approximately 21% of the total rate case increase. Year 3 rates are approximately 18% of the total rate increase.

(c) Year 1 rates are approximately 53% of the total. Year 2 rates are approximately 25% of the total rate case increase. Year 3 rates are approximately 22% of the total rate increase. Implementation of interim rates is planned for June 1, 2023.

Additionally, in January 2021, Duke Energy Florida filed a settlement agreement with the FPSC that will allow annual increases to its base rates, an agreed upon return on equity ("ROE") and includes a base rate stay-out provision through 2024, among other provisions. The FPSC approved the 2021 Settlement on May 4, 2021, issuing an order on June 4, 2021. Revised customer rates became effective January 1, 2022, with subsequent base rate increases effective January 1, 2023, and January 1, 2024. For more information on rate matters and other regulatory proceedings, see Note 4 to the Consolidated Financial Statements, "Regulatory Matters."

Federal

The FERC approves EU&I's cost-based rates for electric sales to certain power and transmission wholesale customers. Regulations of FERC and the state electric utility commissions govern access to regulated electric and other data by nonregulated entities and services provided between regulated and nonregulated energy affiliates. These regulations affect the activities of nonregulated affiliates with EU&I.

RTOs

PJM and MISO are the ISOs and FERC-approved RTOs for the regions in which Duke Energy Ohio and Duke Energy Indiana operate. PJM and MISO operate energy, capacity and other markets, and control the day-to-day operations of bulk power systems through central dispatch.

Duke Energy Ohio is a member of PJM and Duke Energy Indiana is a member of MISO. Transmission owners in these RTOs have turned over control of their transmission facilities and their transmission systems are currently under the dispatch control of the RTOs. Transmission service is provided on a regionwide, open-access basis using the transmission facilities of the RTO members at rates based on the costs of transmission service.

Environmental

EU&I is subject to the jurisdiction of the EPA and state and local environmental agencies. For a discussion of environmental regulation, see "Environmental Matters" in this section. See the "Other Matters" section of Item 7 Management's Discussion and Analysis for a discussion about potential Global Climate Change legislation and other EPA regulations under development and the potential impacts such legislation and regulation could have on Duke Energy's operations.

GAS UTILITIES AND INFRASTRUCTURE

GU&I conducts natural gas operations primarily through the regulated public utilities of Piedmont, Duke Energy Ohio and Duke Energy Kentucky. The natural gas operations are subject to the rules and regulations of the NCUC, PSCSC, PUCO, KPSC, TPUC, PHMSA and the FERC. GU&I serves residential, commercial, industrial and power generation natural gas customers, including customers served by municipalities who are wholesale customers. GU&I has over 1.6 million total customers, including 1.1 million customers located in North Carolina, South Carolina and Tennessee, and an additional 550,000 customers located within southwestern Ohio and northern Kentucky. In the Carolinas, Ohio and Kentucky, the service areas are comprised of numerous cities, towns and communities. In Tennessee, the service area is the metropolitan area of Nashville. The following map shows the service territory and investments in operating pipelines for GU&I as of December 31, 2022.



The number of residential, commercial and industrial customers within the GU&I service territory is expected to increase over time. Average usage per residential customer is expected to remain flat or decline for the foreseeable future; however, decoupled rates in North Carolina and various rate design mechanisms in other jurisdictions partially mitigate the impact of the declining usage per customer on overall profitability.

GU&I also has investments in various pipeline transmission projects, renewable natural gas projects and natural gas storage facilities.

Natural Gas for Retail Distribution

GU&I is responsible for the distribution of natural gas to retail customers in its North Carolina, South Carolina, Tennessee, Ohio and Kentucky service territories. GU&I's natural gas procurement strategy is to contract primarily with major and independent producers and marketers for natural gas supply. It also purchases a diverse portfolio of transportation and storage service from interstate pipelines. This strategy allows GU&I to assure reliable natural gas supply and transportation for its firm customers during peak winter conditions. When firm pipeline services or contracted natural gas supplies are temporarily not needed due to market demand fluctuations, GU&I may release these services and supplies in the secondary market under FERC-approved capacity release provisions or make wholesale secondary market sales. In 2022, firm supply purchase commitment agreements provided 100% of the natural gas supply for both Piedmont and Duke Energy Ohio. Approximately 90% of forecasted demand was under contract prior to the winter heating season, with firm daily spot purchases making up the balance.

Impact of Weather

GU&I revenues are generally protected from the impact of weather fluctuations due to the regulatory mechanisms that are available in most service territories. In North Carolina, margin decoupling provides protection from both weather and other usage variations like conservation for residential and small and medium general service customers. Margin decoupling provides a set margin per customer independent of actual usage. In South Carolina, Tennessee and Kentucky, weather normalization adjusts revenues either up or down depending on how much warmer or colder than normal a given month has been. Weather normalization adjustments occur from November through March in South Carolina, from October through April in Tennessee and from November through April in Kentucky. Duke Energy Ohio collects most of its non-fuel revenue through a fixed monthly charge that is not impacted by usage fluctuations that result from weather changes or conservation.

Competition

GU&I's businesses operate as the sole provider of natural gas service within their retail service territories. GU&I owns and operates facilities necessary to transport and distribute natural gas. GU&I earns retail margin on the transmission and distribution of natural gas and not on the cost of the underlying commodity. Services are priced by state commission-approved rates designed to include the costs of providing these services and a reasonable return on invested capital. This regulatory policy is intended to provide safe and reliable natural gas service at fair prices.

In residential, commercial and industrial customer markets, natural gas distribution operations compete with other companies that supply energy, primarily electric companies, propane and fuel oil dealers, renewable energy providers and coal companies in relation to sources of energy for electric power plants, as well as nuclear energy. A significant competitive factor is price. GU&I's primary product competition is with electricity for heating, water heating and cooking. Increases in the price of natural gas or decreases in the price of other energy sources could negatively impact competitive position by decreasing the price benefits of natural gas to the consumer. In the case of industrial customers, such as manufacturing plants, adverse economic or market conditions, including higher natural gas costs, could cause these customers to suspend business operations or to use alternative sources of energy in favor of energy sources with lower per-unit costs.

Higher natural gas costs or decreases in the price of other energy sources may allow competition from alternative energy sources for applications that have traditionally used natural gas, encouraging some customers to move away from natural gas-fired equipment to equipment fueled by other energy sources. Competition between natural gas and other forms of energy is also based on efficiency, performance, reliability, safety and other non-price factors. Technological improvements in other energy sources and events that impair the public perception of the non-price attributes of natural gas could erode our competitive advantage. These factors in turn could decrease the demand for natural gas, impair our ability to attract new customers and cause existing customers to switch to other forms of energy or to bypass our systems in favor of alternative competitive sources. This could result in slow or no customer growth and could cause customers to reduce or cease using our product, thereby reducing our ability to make capital expenditures and otherwise grow our business, adversely affecting our earnings.

Natural Gas Investments

Duke Energy, through its GU&I segment, has a 7.5% equity ownership interest in Sabal Trail. Sabal Trail is a joint venture that owns the Sabal Trail Natural Gas Pipeline (Sabal Trail pipeline) to transport natural gas to Florida, regulated by FERC. The Sabal Trail Phase I mainline was placed into service in July 2017 and traverses Alabama, Georgia and Florida. The remaining lateral line to the Duke Energy Florida's Citrus County CC was placed into service in March 2018. Phase II of Sabal Trail went into service in May 2020, adding approximately 200,000 Dth of capacity to the Sabal Trail pipeline.

Duke Energy, through its GU&I segment, has a 47% equity ownership interest in ACP, which planned to build the ACP pipeline, an approximately 600-mile interstate natural gas pipeline. The ACP pipeline was intended to transport diverse natural gas supplies into southeastern markets and would be regulated by FERC. Dominion Energy owns 53% of ACP and was contracted to construct and operate the ACP pipeline upon completion. On July 5, 2020, Dominion announced a sale of substantially all of its natural gas transmission and storage segment assets, which were critical to the ACP pipeline. Further, permitting delays and legal challenges had materially affected the timing and cost of the pipeline. As a result, Duke Energy determined that they would no longer invest in the construction of the ACP pipeline.

Duke Energy, also through its GU&I segment, has investments in various renewable natural gas joint ventures.

GU&I has a 21.49% equity ownership interest in Cardinal, an intrastate pipeline located in North Carolina regulated by the NCUC, a 45% equity ownership in Pine Needle, an interstate liquefied natural gas storage facility located in North Carolina and a 50% equity ownership interest in Hardy Storage, an underground interstate natural gas storage facility located in Hardy and Hampshire counties in West Virginia. Pine Needle and Hardy Storage are regulated by FERC.

KO Transmission Company (KO Transmission), a wholly owned subsidiary of Duke Energy Ohio, is an interstate pipeline company engaged in the business of transporting natural gas and is subject to the rules and regulations of FERC. KO Transmission's 90-mile pipeline supplies natural gas to Duke Energy Ohio and interconnects with the Columbia Gulf Transmission pipeline and Tennessee Gas Pipeline. An approximately 70-mile portion of KO Transmission's pipeline facilities is co-owned by Columbia Gas Transmission, LLC. KO Transmission sold all of its pipeline facilities and related real property to Columbia Gas Transmission, LLC on February 1, 2023, for approximately book value.

See Notes 4, 13 and 18 to the Consolidated Financial Statements, "Regulatory Matters," "Investments in Unconsolidated Affiliates" and "Variable Interest Entities," respectively, for further information on Duke Energy's and GU&I's natural gas investments.

Inventory

GU&I must maintain adequate natural gas inventory in order to provide reliable delivery to customers. As of December 31, 2022, the inventory balance for GU&I was \$185 million. For more information on inventory, see Note 1 to the Consolidated Financial Statements, "Summary of Significant Accounting Policies."

Regulation

State

The state gas utility commissions approve rates for Duke Energy's retail natural gas service within their respective states. The state gas utility commissions, to varying degrees, have authority over the construction and operation of GU&I's natural gas distribution facilities. CPCNs issued by the state gas utility commissions or other government agencies, as applicable, authorize GU&I to construct and operate its natural gas distribution facilities and to sell natural gas to retail and wholesale customers. Prior approval from the relevant state gas utility commission is required for GU&I to issue securities. The underlying concept of utility ratemaking is to set rates at a level that allows the utility to collect revenues equal to its cost of providing service plus a reasonable rate of return on its invested capital, including equity.

In addition to amounts collected from customers through approved base rates, each of the state gas utility commissions allow recovery of certain costs through various cost recovery clauses to the extent the respective commission determines in periodic hearings that such costs, including any past over- or under-recovered costs, are prudent.

Natural gas costs are eligible for recovery by GU&I. Due to the associated regulatory treatment and the method allowed for recovery, changes in natural gas costs from year to year have no material impact on operating results of GU&I, unless a commission finds a portion of such costs to have been imprudent. However, delays between the expenditure for natural gas and recovery from customers can adversely impact the timing of cash flows of GU&I.

The following table summarizes certain components underlying recently approved and effective base rates or rate stabilization filings in the last three years and applications currently pending approval.

	Inc (De	nnual crease crease) nillions)	Return on Equity	Equity Component of Capital Structure	Effective Date
Approved Rate Cases:					
Piedmont 2020 Tennessee Natural Gas Base Rate Case	\$	16	9.8 %	50.5 %	January 2021
Piedmont 2021 North Carolina Natural Gas Base Rate Case		67	9.6 %	51.6 %	November 2021
Piedmont 2021 South Carolina Rate Stabilization Adjustment Filing		7	9.8 %	52.2 %	November 2021
Duke Energy Kentucky 2021 Natural Gas Base Rate Case ^(a)		9	9.38 %	51.3 %	January 2022
Piedmont 2022 South Carolina Natural Gas Base Rate Case ^(b)		2	9.3 %	52.2 %	November 2022
Pending Rate Cases:					
Duke Energy Ohio 2022 Natural Gas Base Rate Case		49	10.3 %	52.3 %	April 2023

(a) An ROE of 9.375% for natural gas base rates and 9.3% for natural gas riders was approved.

(b) Under the rate stabilization adjustment (RSA) mechanism, Piedmont resets rates in South Carolina based on updated costs and revenues on an annual basis. The SC RSA filing for 2022 did not reset the rates since Piedmont filed a General Rate Case in 2022.

GU&I has an IMR mechanism in North Carolina designed to separately track and recover certain costs associated with capital investments incurred to comply with federal pipeline safety and integrity programs. Piedmont has withdrawn from the Tennessee IMR mechanism subsequent to the authorization of the Tennessee Annual Review Mechanism effective January 2022. The following table summarizes information related to the recently approved IMR filing.

	Cumulative	Annual	Effective
(in millions)	 Investment	Revenues	Date
Piedmont 2022 IMR Filing – North Carolina	\$ 213	\$ 20	December 2022

In Ohio, GU&I has a Capital Expenditure Program Rider (CEP Rider) designed to recover costs between rate cases on PUCO approved capital expenditures. Duke Energy Ohio submits a filing each year for incremental investments to increase the revenue requirement up to the cap of approximately \$7 million. The cumulative investment under the CEP Rider is \$359 million with total annual revenue requirement of \$70 million.

For more information on rate matters and other regulatory proceedings, see Note 4 to the Consolidated Financial Statements, "Regulatory Matters."

Federal

GU&I is subject to various federal regulations, including regulations that are particular to the natural gas industry. These federal regulations include but are not limited to the following:

- Regulations of the FERC affect the certification and siting of new interstate natural gas pipeline projects, the purchase and sale of, the prices paid for, and the terms and conditions of service for the interstate transportation and storage of natural gas.
- Regulations of the PHMSA affect the design, construction, operation, maintenance, integrity, safety and security of natural gas distribution and transmission systems.
- Regulations of the EPA relate to the environment including proposed air emissions regulations that would expand to include emissions of methane.

Regulations of the FERC and the state gas utility commissions govern access to regulated natural gas and other data by nonregulated entities and services provided between regulated and nonregulated energy affiliates. These regulations affect the activities of nonregulated affiliates with Gas Utilities and Infrastructure.

Environmental

GU&I is subject to the jurisdiction of the EPA and state and local environmental agencies. For a discussion of environmental regulation, see "Environmental Matters" in this section. See "Other Matters" section of Item 7 Management's Discussion and Analysis for a discussion about potential Global Climate Change legislation and other EPA regulations under development and the potential impacts such legislation and regulation could have on Duke Energy's operations.

OTHER

The remainder of Duke Energy's operations is presented as Other. While it is not a business segment, Other primarily includes interest expense on holding company debt, unallocated corporate costs, amounts related to certain companywide initiatives and contributions made to the Duke Energy Foundation. Other also includes Bison and an investment in NMC.

The Duke Energy Foundation is a nonprofit organization funded by Duke Energy shareholders that makes charitable contributions to selected nonprofits and government subdivisions.

Bison, a wholly owned subsidiary of Duke Energy, is a captive insurance company with the principal activity of providing Duke Energy subsidiaries with indemnification for financial losses primarily related to property, workers' compensation and general liability.

Duke Energy owns a 17.5% equity interest in NMC. The joint venture company has production facilities in Jubail, Saudi Arabia, where it manufactures certain petrochemicals and plastics. The company annually produces approximately 1 million metric tons each of MTBE and methanol and has the capacity to produce 50,000 metric tons of polyacetal. The main feedstocks to produce these products are natural gas and butane. Duke Energy records the investment activity of NMC using the equity method of accounting and retains 25% of NMC's board of directors' representation and voting rights.

Human Capital Management

Governance

Our employees are critical to the success of our company. Our Human Resources organization is responsible for our human capital management strategy, which includes recruiting and hiring, onboarding and training, diversity and inclusion, workforce planning, talent and succession planning, performance management and employee development. Key areas of focus include fostering a high-performance and inclusive culture built on strong leadership and highly engaged and diverse employees, building a pipeline of skilled workers and ensuring knowledge transfer as employees retire.

Our Board of Directors provides oversight on certain human capital management matters, primarily through the Compensation and People Development Committee, which is responsible for reviewing strategies and policies related to human capital management, including with respect to matters such as diversity and inclusion, employee engagement and talent development.

Employees

On December 31, 2022, Duke Energy had a total of 27,859 full-time, part-time and temporary employees, the majority of which were full-time employees. The total includes 5,081 employees who are represented by labor unions under various collective bargaining agreements that generally cover wages, benefits, working practices, and other terms and conditions of employment.

Compensation

The company seeks to attract and retain an appropriately qualified workforce and leverages Duke Energy's leadership imperatives to foster a culture focused on customers, innovation, and highly engaged employees. Our compensation program is market driven and designed to link pay to performance with the goal of attracting and retaining talented employees, rewarding individual performance, and encouraging long-term commitment to our business. Our market competitive pay program includes short-term and long-term variable pay components that help to align the interests of Duke Energy to our customers and shareholders. In addition to competitive base pay, we provide eligible employees with compensation and benefits under a variety of plans and programs, including health care benefits, retirement savings, pension, health savings and flexible spending accounts, wellness, family leaves, employee assistance, as well as other benefits including a charitable matching program. The company is committed to providing market competitive, and equitable compensation and regularly conducts internal pay equity reviews, and benchmarking against peer companies to ensure our pay is competitive.

Diversity and Inclusion

Duke Energy is committed to continuing to build a diverse workforce that reflects the communities we serve while strengthening a culture of inclusion where employees and customers feel respected and valued. Our Enterprise Diversity and Inclusion Council, chaired by our Chief Operating Officer in 2022, monitors the effectiveness and execution of our diversity and inclusion strategy and programs. Employee-led councils are also embedded across the company in our business units and focus on the specific diversity and inclusion needs of the business and help drive inclusion deeper into the employee experience. Leaders and individual contributors also have the opportunity to participate in voluntary diversity and inclusion training programs and facilitated conversations on insightful topics offered to further our commitment to building and enabling an inclusive work environment.

Our aspirational goals include achieving workforce representation of at least 25% female and 20% racial and ethnic diversity. We continue to strive toward reaching these aspirational goals and as of December 31, 2022, our workforce consisted of approximately 23.9% female and 20.4% racial and ethnic diversity.

The company also has 10 Employee Resource Groups (ERGs), with 37 chapters and more than 6,500 employees participating. ERGs are networks of employees formed around a common dimension of diversity whose goals and objectives align with the company's goals and objectives. These groups focus on employee professional development and networking, community outreach, cultural awareness, recruiting and retention. They also serve as a resource to the company for advocacy and community outreach and improving customer service through innovation. ERG-sponsored forums include networking events, mentoring, scholarship banquets for aspiring college students, and workshops on topics such as time management, stress reduction, career planning and work-life balance. Our ERGs are open to all employees.

Among other efforts, the company has developed partnerships with community organizations, community colleges and historically Black colleges and universities to support our strategy of building a diverse and highly skilled talent pipeline.

Operational Excellence

The foundation for our growth and success is our continued focus on operational excellence, the leading indicator of which is safety. As such, the safety of our workforce remains our top priority. The company closely monitors the total incident case rate (TICR), which is a metric based on strict OSHA definitions that measures the number of occupational injuries and illnesses per 100 employees. This objective emphasizes our focus on achieving an event-free and injury-free workplace. As an indication of our commitment to safety, we include safety metrics in both the short-term and long-term incentive plans based on the TICR for employees. Our employees delivered strong safety results in 2022, consistent with our industry-leading performance levels from 2017 through 2021.

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Information about Our Executive Officers

The following table sets forth the individuals who currently serve as executive officers. Executive officers serve until their successors are duly elected or appointed.

Name	Age ^(a)	Current and Recent Positions Held
Lynn J. Good	63	Chair, President and Chief Executive Officer. Ms. Good has served as Chair, President and Chief Executive Officer of Duke Energy since January 1, 2016, and was Vice Chairman, President and Chief Executive Officer of Duke Energy from July 2013 through December 2015. Prior to that, she served as Executive Vice President and Chief Financial Officer since 2009.
Brian D. Savoy	47	Executive Vice President and Chief Financial Officer. Mr. Savoy assumed the position of Executive Vice President and Chief Financial Officer in September 2022. Prior to that, he held the position of Executive Vice President, Chief Strategy and Commercial Officer from May 2021 through August 2022; Senior Vice President, Chief Transformation and Administrative Officer from October 2019 through April 2021; Senior Vice President, Business Transformation and Technology from May 2016 through September 2019; Senior Vice President, Controller and Chief Accounting Officer from September 2013 to May 2016; Director, Forecasting and Analysis from 2009 to September 2013; and Vice President and Controller of the Commercial Power segment from 2006 to 2009.
Kodwo Ghartey-Tagoe	59	Executive Vice President, Chief Legal Officer and Corporate Secretary. Mr. Ghartey-Tagoe assumed the position of Executive Vice President, Chief Legal Officer and Corporate Secretary in May 2020. He was appointed Executive Vice President and Chief Legal Officer in October 2019 after serving as President, South Carolina since 2017. Mr. Ghartey-Tagoe joined Duke Energy in 2002, and has held numerous management positions in Duke Energy's Legal Department, including Duke Energy's Senior Vice President of State and Federal Regulatory Legal Support.
T. Preston Gillespie	60	Executive Vice President, Chief Generation Officer and Enterprise Operational Excellence. Mr. Gillespie assumed the position of Executive Vice President, Chief Generation Officer and Enterprise Operational Excellence in January 2023. Prior to that, Mr. Gillespie served as the Chief Generation Officer since 2020.
R. Alexander Glenn	57	Senior Vice President and Chief Executive Officer, Duke Energy Florida and Midwest. Mr. Glenn assumed his current position in May 2021. Prior to that, Mr. Glenn served as Senior Vice President, State and Federal Regulatory Legal Support since 2017 and as State President of Duke Energy Florida's operations from 2012 to 2017.
Dhiaa M. Jamil	66	Executive Vice President and Chief Operating Officer. Mr. Jamil assumed the role of Chief Operating Officer in May 2016. Prior to his current position, he held the title Executive Vice President and President, Regulated Generation and Transmission since June 2015. Prior to that, he served as Executive Vice President and President, Regulated Generation since August 2014. He served as Executive Vice President and President of Duke Energy Nuclear from March 2013 to August 2014, and was Chief Nuclear Officer from February 2008 to February 2013.
Julia S. Janson	58	Executive Vice President and Chief Executive Officer, Duke Energy Carolinas. Ms. Janson assumed her current position in May 2021. Prior to that she held the position of Executive Vice President, External Affairs and President, Carolinas Region since October 2019 and the position of Executive Vice President, External Affairs and Chief Legal Officer since November 2018. She originally assumed the position of Executive Vice President, Chief Legal Officer and Corporate Secretary in December 2012, and then assumed the responsibilities for External Affairs in February 2016.
Cynthia S. Lee	56	Vice President, Chief Accounting Officer and Controller. Ms. Lee assumed her role as Vice President, Chief Accounting Officer and Controller in May 2021. Prior to that, she served as Director, Investor Relations since June 2019 and in various roles within the Corporate Controller's organization after joining the Corporation and its affiliates in 2002.
Ronald R. Reising	62	Senior Vice President and Chief Human Resources Officer. Mr. Reising assumed his current position in July 2020. Prior to that, he served as Senior Vice President of Operations Support since 2014. Prior to that, he served as Chief Procurement Officer since 2006.
Louis E. Renjel	49	Senior Vice President, External Affairs and Communications. Mr. Renjel assumed his current position in May 2021. Prior to that, he served as Senior Vice President of Federal Government and Corporate Affairs since 2019, and as Vice President, Federal Government Affairs and Strategic Policy since he joined Duke Energy in March 2017 until 2019. Prior to joining Duke Energy, Mr. Renjel served as Vice President of Strategic Infrastructure since 2009 for CSX Corp and as their Director of Environmental and Government Affairs from 2006 to 2008.
Harry K. Sideris	52	Executive Vice President, Customer Experience, Solutions and Services. Mr. Sideris assumed his current position in October 2019. Prior to that, he served as Senior Vice President and Chief Distribution Officer since June 2018; State President, Florida from January 2017 to June 2018; Senior Vice President of Environmental Health and Safety from August 2014 to January 2017; and Vice President of Power Generations for the company's Fossil/Hydro Operations in the western portions of North Carolina and South Carolina from July 2012 to August 2014.
Steven K. Young	64	Executive Vice President, Chief Strategy and Commercial Officer. Mr. Young assumed the position of Executive Vice President, Chief Strategy and Commercial Officer in September 2022. Prior to that, he held the position of Executive Vice President and Chief Financial Officer from August 2013 through August 2022; Vice President, Chief Accounting Officer and Controller, assuming the role of Chief Accounting Officer in July 2012 and the role of Controller in December 2006.

(a) The ages of the officers provided are as of January 31, 2023.

There are no family relationships between any of the executive officers, nor any arrangement or understanding between any executive officer and any other person involved in officer selection.

Environmental Matters

The Duke Energy Registrants are subject to federal, state and local laws and regulations with regard to air and water quality, hazardous and solid waste disposal and other environmental matters. Environmental laws and regulations affecting the Duke Energy Registrants include, but are not limited to:

- The Clean Air Act, as well as state laws and regulations impacting air emissions, including State Implementation Plans related to existing and new
 national ambient air quality standards for ozone and particulate matter. Owners and/or operators of air emission sources are responsible for
 obtaining permits and for annual compliance and reporting.
- The Clean Water Act, which requires permits for facilities that discharge wastewaters into navigable waters.
- The Comprehensive Environmental Response, Compensation and Liability Act, which can require any individual or entity that currently owns or in the past owned or operated a disposal site, as well as transporters or generators of hazardous substances sent to a disposal site, to share in remediation costs.
- The National Environmental Policy Act, which requires federal agencies to consider potential environmental impacts in their permitting and licensing decisions, including siting approvals.
- Coal Ash Act, as amended, which establishes requirements regarding the use and closure of existing ash basins, the disposal of ash at active coal plants and the handling of surface water and groundwater impacts from ash basins in North Carolina.
- The Solid Waste Disposal Act, as amended by RCRA, which creates a framework for the proper management of hazardous and nonhazardous solid waste; classifies CCR as nonhazardous waste; and establishes standards for landfill and surface impoundment placement, design, operation and closure, groundwater monitoring, corrective action, and post-closure care.
- The Toxic Substances Control Act, which gives EPA the authority to require reporting, recordkeeping and testing requirements, and to place restrictions relating to chemical substances and/or mixtures, including polychlorinated biphenyls.

For more information on environmental matters, see Notes 5 and 10 to the Consolidated Financial Statements, "Commitments and Contingencies – Environmental" and "Asset Retirement Obligations," respectively, and the "Other Matters" section of Item 7 Management's Discussion and Analysis. Except as otherwise described in these sections, costs to comply with current federal, state and local provisions regulating the discharge of materials into the environment or other potential costs related to protecting the environment are incorporated into the routine cost structure of our various business segments and are not expected to have a material adverse effect on the competitive position, consolidated results of operations, cash flows or financial position of the Duke Energy Registrants.

The "Other Matters" section of Item 7 Management's Discussion and Analysis includes more information on certain environmental regulations and a discussion of Global Climate Change including the potential impact of current and future legislation related to GHG emissions on the Duke Energy Registrants' operations. Recently passed and potential future environmental statutes and regulations could have a significant impact on the Duke Energy Registrants' results of operations, cash flows or financial position. However, if and when such statutes and regulations become effective, the Duke Energy Registrants will seek appropriate regulatory recovery of costs to comply within its regulated operations.

DUKE ENERGY CAROLINAS

Duke Energy Carolinas is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Carolinas' service area covers approximately 24,000 square miles and supplies electric service to 2.8 million residential, commercial and industrial customers. For information about Duke Energy Carolinas' generating facilities, see Item 2, "Properties." Duke Energy Carolinas is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Substantially all of Duke Energy Carolinas' operations are regulated and qualify for regulatory accounting. Duke Energy Carolinas operates one reportable business segment, EU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

PROGRESS ENERGY

Progress Energy is a public utility holding company primarily engaged in the regulated electric utility business and is subject to regulation by the FERC. Progress Energy conducts operations through its wholly owned subsidiaries, Duke Energy Progress and Duke Energy Florida. When discussing Progress Energy's financial information, it necessarily includes the results of Duke Energy Progress and Duke Energy Florida.

Substantially all of Progress Energy's operations are regulated and qualify for regulatory accounting. Progress Energy operates one reportable business segment, EU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

DUKE ENERGY PROGRESS

Duke Energy Progress is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of North Carolina and South Carolina. Duke Energy Progress' service area covers approximately 29,000 square miles and supplies electric service to approximately 1.7 million residential, commercial and industrial customers. For information about Duke Energy Progress' generating facilities, see Item 2, "Properties." Duke Energy Progress is subject to the regulatory provisions of the NCUC, PSCSC, NRC and FERC.

Substantially all of Duke Energy Progress' operations are regulated and qualify for regulatory accounting. Duke Energy Progress operates one reportable business segment, EU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

DUKE ENERGY FLORIDA

Duke Energy Florida is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Florida. Duke Energy Florida's service area covers approximately 13,000 square miles and supplies electric service to approximately 1.9 million residential, commercial and industrial customers. For information about Duke Energy Florida's generating facilities, see Item 2, "Properties." Duke Energy Florida is subject to the regulatory provisions of the FPSC, NRC and FERC.

Substantially all of Duke Energy Florida's operations are regulated and qualify for regulatory accounting. Duke Energy Florida operates one reportable business segment, EU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

DUKE ENERGY OHIO

Duke Energy Ohio is a regulated public utility primarily engaged in the transmission and distribution of electricity in portions of Ohio and Kentucky, in the generation and sale of electricity in portions of Kentucky and the transportation and sale of natural gas in portions of Ohio and Kentucky. Duke Energy Ohio also conducts competitive auctions for retail electricity supply in Ohio whereby recovery of the energy price is from retail customers. Operations in Kentucky are conducted through its wholly owned subsidiary, Duke Energy Kentucky. References herein to Duke Energy Ohio include Duke Energy Ohio and its subsidiaries, unless otherwise noted. Duke Energy Ohio is subject to the regulatory provisions of the PUCO, KPSC, PHMSA and FERC.

Duke Energy Ohio's service area covers approximately 3,000 square miles and supplies electric service to approximately 900,000 residential, commercial and industrial customers and provides transmission and distribution services for natural gas to approximately 550,000 customers. For information about Duke Energy Ohio's generating facilities, see Item 2, "Properties."

KO Transmission, a wholly owned subsidiary of Duke Energy Ohio, is an interstate pipeline company engaged in the business of transporting natural gas and is subject to the rules and regulations of FERC. KO Transmission's 90-mile pipeline supplies natural gas to Duke Energy Ohio and interconnects with the Columbia Gulf Transmission pipeline and Tennessee Gas Pipeline. An approximately 70-mile portion of KO Transmission's pipeline facilities is co-owned by Columbia Gas Transmission, LLC. KO Transmission sold all of its pipeline facilities and related real property to Columbia Gas Transmission, LLC on February 1, 2023, for approximately book value.

Substantially all of Duke Energy Ohio's operations are regulated and qualify for regulatory accounting. Duke Energy Ohio has two reportable segments, EU&I and GU&I. For additional information on these business segments, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

DUKE ENERGY INDIANA

Duke Energy Indiana is a regulated public utility primarily engaged in the generation, transmission, distribution and sale of electricity in portions of Indiana. Duke Energy Indiana's service area covers 23,000 square miles and supplies electric service to 890,000 residential, commercial and industrial customers. For information about Duke Energy Indiana's generating facilities, see Item 2, "Properties." Duke Energy Indiana is subject to the regulatory provisions of the IURC and FERC.

In 2021, Duke Energy executed an agreement providing for an investment in Duke Energy Indiana by GIC. The transaction was completed following two closings. For additional information, see Note 2 to the Consolidated Financial Statements, "Dispositions."

Substantially all of Duke Energy Indiana's operations are regulated and qualify for regulatory accounting. Duke Energy Indiana operates one reportable business segment, EU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

PIEDMONT

Piedmont is a regulated public utility primarily engaged in the distribution of natural gas to over 1.1 million residential, commercial, industrial and power generation customers in portions of North Carolina, South Carolina and Tennessee, including customers served by municipalities who are wholesale customers. For information about Piedmont's natural gas distribution facilities, see Item 2, "Properties." Piedmont is subject to the regulatory provisions of the NCUC, PSCSC, TPUC, PHMSA and FERC.

Substantially all of Piedmont's operations are regulated and qualify for regulatory accounting. Piedmont operates one reportable business segment, GU&I. For additional information regarding this business segment, including financial information, see Note 3 to the Consolidated Financial Statements, "Business Segments."

ITEM 1A. RISK FACTORS

In addition to other disclosures within this Form 10-K, including "Management's Discussion and Analysis of Financial Condition and Results of Operations – Matters Impacting Future Results" for each registrant in Item 7, and other documents filed with the SEC from time to time, the following factors should be considered in evaluating Duke Energy and its subsidiaries. Such factors could affect actual results of operations and cause results to differ substantially from those currently expected or sought. Unless otherwise indicated, risk factors discussed below generally relate to risks associated with all of the Duke Energy Registrants. Risks identified at the Subsidiary Registrant level are generally applicable to Duke Energy.

BUSINESS STRATEGY RISKS

Duke Energy's future results could be adversely affected if it is unable to implement its business strategy including achieving its carbon emissions reduction goals.

Duke Energy's results of operations depend, in significant part, on the extent to which it can implement its business strategy successfully. Duke Energy's clean energy transition, which includes achieving net-zero carbon emissions from electricity generation by 2050, modernizing the regulatory construct, transforming the customer experience, and digital transformation, is subject to business, policy, regulatory, technology, economic and competitive uncertainties and contingencies, many of which are beyond its control and may make those goals difficult to achieve.

Federal or state policies could be enacted that restrict the availability of fuels or generation technologies, such as natural gas or nuclear power, that enable Duke Energy to reduce its carbon emissions. Supportive policies may be needed to facilitate the siting and cost recovery of transmission and distribution upgrades needed to accommodate the build out of large volumes of renewables and energy storage. Further, the approval of our state regulators will be necessary for the company to continue to retire existing carbon emitting assets or make investments in new generating capacity. The company may be constrained by the ability to procure resources or labor needed to build new generation at a reasonable price as well as to construct projects on time. In addition, new technologies that are not yet commercially available or are unproven at utility scale will likely be needed including new resources capable of following electric load over long durations such as advanced nuclear, hydrogen and long-duration storage, If these technologies are not developed or are not available at reasonable prices, or if we invest in early stage technologies that are then supplanted by technological breakthroughs, Duke Energy's ability to achieve a net-zero target by 2050 at a cost-effective price could be at risk.

Achieving our carbon reduction goals will require continued operation of our existing carbon-free technologies including nuclear and renewables. The rapid transition to and expansion of certain low-carbon resources, such as renewables without cost-effective storage, may challenge our ability to meet customer expectations of reliability in a carbon constrained environment. Our nuclear fleet is central to our ability to meet these objectives and customer expectations. We are continuing to seek to renew the operating licenses of the 11 reactors we operate at six nuclear stations for an additional 20 years, extending their operating lives to and beyond midcentury. Failure to receive approval from the NRC for the relicensing of any of these reactors could affect our ability to achieve a net-zero target by 2050.

As a consequence, Duke Energy may not be able to fully implement or realize the anticipated results of its energy transition strategy, which may have an adverse effect on its financial condition.

REGULATORY, LEGISLATIVE AND LEGAL RISKS

The Duke Energy Registrants' regulated utility revenues, earnings and results of operations are dependent on state legislation and regulation that affect electric generation, electric and natural gas transmission, distribution and related activities, which may limit their ability to recover costs.

The Duke Energy Registrants' regulated electric and natural gas utility businesses are regulated on a cost-of-service/rate-of-return basis subject to statutes and regulatory commission rules and procedures of North Carolina, South Carolina, Florida, Ohio, Tennessee, Indiana and Kentucky. If the Duke Energy Registrants' regulated utility earnings exceed the returns established by the state utility commissions, retail electric and natural gas rates may be subject to review and possible reduction by the commissions, which may decrease the Duke Energy Registrants' earnings. Additionally, if regulatory or legislative bodies do not allow recovery of costs incurred in providing service, or do not do so on a timely basis, the Duke Energy Registrants' earnings could be negatively impacted. Differences in regulation between jurisdictions with concurrent operations, such as North Carolina and South Carolina in Duke Energy Carolinas' and Duke Energy Progress' service territory, may also result in failure to recover costs.

If legislative and regulatory structures were to evolve in such a way that the Duke Energy Registrants' exclusive rights to serve their regulated customers were eroded, their earnings could be negatively impacted. Federal and state regulations, laws, commercialization and reduction of costs and other efforts designed to promote and expand the use of EE measures and distributed generation technologies, such as private solar and battery storage, in Duke Energy service territories could reduce recovery of fixed costs in Duke Energy service territories or result in customers leaving the electric distribution system and an increase in customer net energy metering, which allows customers with private solar to receive bill credits for surplus power at the full retail amount. Over time, customer adoption of these technologies could result in Duke Energy not being able to fully recover the costs and investment in generation.

State regulators have approved various mechanisms to stabilize natural gas utility margins, including margin decoupling in North Carolina and rate stabilization in South Carolina. State regulators have approved other margin stabilizing mechanisms that, for example, allow for recovery of margin losses associated with negotiated transactions designed to retain large volume customers that could use alternative fuels or that may otherwise directly access natural gas supply through their own connection to an interstate pipeline. If regulators decided to discontinue the Duke Energy Registrants' use of tariff mechanisms, it would negatively impact results of operations, financial position and cash flows. In addition, regulatory authorities also review whether natural gas costs are prudently incurred and can disallow the recovery of a portion of natural gas costs that the Duke Energy Registrants seek to recover from customers, which would adversely impact earnings.

The rates that the Duke Energy Registrants' regulated utility businesses are allowed to charge are established by state utility commissions in rate case proceedings, which may limit their ability to recover costs and earn an appropriate return on investment.

The rates that the Duke Energy Registrants' regulated utility businesses are allowed to charge significantly influences the results of operations, financial position and cash flows of the Duke Energy Registrants. The regulation of the rates that the regulated utility businesses charge customers is determined, in large part, by state utility commissions in rate case proceedings. Negative decisions made by these regulators, or by any court on appeal of a rate case proceeding, have, and in the future could have, a material adverse effect on the Duke Energy Registrants' results of operations, financial position or cash flows and affect the ability of the Duke Energy Registrants to recover costs and an appropriate return on the significant infrastructure investments being made.

Deregulation or restructuring in the electric industry may result in increased competition and unrecovered costs that could adversely affect the Duke Energy Registrants' results of operations, financial position or cash flows and their utility businesses.

Increased competition resulting from deregulation or restructuring legislation could have a significant adverse impact on the Duke Energy Registrants' results of operations, financial position or cash flows and their utility businesses. If the retail jurisdictions served by the Duke Energy Registrants become subject to deregulation, the impairment of assets, loss of retail customers, lower profit margins or increased costs of capital, and recovery of stranded costs could have a significant adverse financial impact on the Duke Energy Registrants. Stranded costs primarily include the generation assets of the Duke Energy Registrants whose value in a competitive marketplace may be less than their current book value, as well as above-market purchased power commitments from QFs from whom the Duke Energy Registrants are legally obligated to purchase energy at an avoided cost rate under PURPA. The Duke Energy Registrants cannot predict the extent and timing of entry by additional competitors into the electric markets. The Duke Energy Registrants cannot predict to changes in legislation or regulation, nor can they predict the impact of these changes on their results of operations, financial position or cash flows.

The Duke Energy Registrants' businesses are subject to extensive federal regulation and a wide variety of laws and governmental policies, including taxes and environmental regulations, that may change over time in ways that affect operations and costs.

The Duke Energy Registrants are subject to regulations under a wide variety of U.S. federal and state regulations and policies, including by FERC, NRC, EPA and various other federal agencies as well as the North American Electric Reliability Corporation. Regulation affects almost every aspect of the Duke Energy Registrants' businesses, including, among other things, their ability to: take fundamental business management actions; determine the terms and rates of transmission and distribution services; make acquisitions; issue equity or debt securities; engage in transactions with other subsidiaries and affiliates; and pay dividends upstream to the Duke Energy Registrants. Changes to federal regulations are continuous and ongoing. There can be no assurance that laws, regulations and policies will not be changed in ways that result in material modifications of business models and objectives or affect returns on investment by restricting activities and products, subjecting them to escalating costs, causing delays, or prohibiting them outright.

The Duke Energy Registrants are subject to numerous environmental laws and regulations requiring significant capital expenditures that can increase the cost of operations, and which may impact or limit business plans, or cause exposure to environmental liabilities.

The Duke Energy Registrants are subject to numerous environmental laws and regulations affecting many aspects of their present and future operations, including CCRs, air emissions, water quality, wastewater discharges, solid waste and hazardous waste. These laws and regulations can result in increased capital, operating and other costs. These laws and regulations generally require the Duke Energy Registrants to obtain and comply with a wide variety of environmental licenses, permits, inspections and other approvals. Compliance with environmental laws and regulations can reguire significant expenditures, including expenditures for cleanup costs and damages arising from contaminated properties. Failure to comply with environmental regulations may result in the imposition of fines, penalties and injunctive measures affecting operating assets. The steps the Duke Energy Registrants could be required to take to ensure their facilities are in compliance could be prohibitively expensive. As a result, the Duke Energy Registrants may be required to shut down or alter the operation of their facilities, which may cause the Duke Energy Registrants to incur losses. Further, the Duke Energy Registrants may not be successful in recovering capital and operating costs incurred to comply with new environmental regulations through existing regulatory rate structures and their contracts with customers. Also, the Duke Energy Registrants may not be able to obtain or maintain from time to time all required environmental regulatory approvals for their operating assets or development projects. Delays in obtaining any required environmental regulatory approvals, failure to obtain and comply with them or changes in environmental laws or regulations to more stringent compliance levels could result in additional costs of operation for existing facilities or development of new facilities being prevented, delayed or subject to additional costs. Although it is not expected that the costs to comply with current environmental regulations will have a material adverse effect on the Duke Energy Registrants' results of operations, financial position and cash flows due to regulatory cost recovery, the Duke Energy Registrants are at risk that the costs of complying with environmental regulations in the future will have such an effect.

The EPA has enacted or proposed federal regulations governing the management of cooling water intake structures, wastewater and CO_2 emissions. New state legislation could impose carbon reduction goals that are more aggressive than the company's plans. These regulations may require the Duke Energy Registrants to make additional capital expenditures and increase operating and maintenance costs.

The Duke Energy Registrants' operations, capital expenditures and financial results may be affected by regulatory changes related to the impacts of global climate change.

There is continued concern, and increasing activism, both nationally and internationally, about climate change. The EPA and state regulators have, and may adopt and implement, additional regulations to restrict emissions of GHGs to address global climate change. Certain local and state jurisdictions have also enacted laws to restrict or prevent new natural gas infrastructure. Increased regulation of GHG emissions could impose significant additional costs on the Duke Energy Registrants' electric and natural gas operations, their suppliers and customers and affect demand for energy conservation and renewable products, which could impact both our electric and natural gas businesses. Regulatory changes could also result in generation facilities to be retired earlier than planned to meet our net-zero 2050 goal. Though we would plan to seek cost recovery for investments related to GHG emissions reductions through regulatory rate structures, changes in the regulatory climate could result in the delay in or failure to fully recover such costs and investment in generation.

OPERATIONAL RISKS

The Duke Energy Registrants' results of operations may be negatively affected by overall market, economic and other conditions that are beyond their control.

Sustained downturns or sluggishness in the economy generally affect the markets in which the Duke Energy Registrants operate and negatively influence operations. Declines in demand for electricity or natural gas as a result of economic downturns in the Duke Energy Registrants' regulated service territories will reduce overall sales and lessen cash flows, especially as industrial customers reduce production and, therefore, consumption of electricity and the use of natural gas. Although the Duke Energy Registrants' regulated electric and natural gas businesses are subject to regulated allowable rates of return and recovery of certain costs, such as fuel and purchased natural gas costs, under periodic adjustment clauses, overall declines in electricity or natural gas sold as a result of economic downturn or recession could reduce revenues and cash flows, thereby diminishing results of operations.

A continuation of adverse economic conditions including economic downturn or high commodity prices could also negatively impact the financial stability of certain of our customers and result in their inability to pay for electric and natural gas services. This could lead to increased bad debt expense and higher allowance for doubtful account reserves for the Duke Energy Registrants and result in delayed or unrecovered operating costs and lower financial results. Additionally, prolonged economic downturns that negatively impact the Duke Energy Registrants' results of operations and cash flows could result in future material impairment charges to write-down the carrying value of certain assets, including goodwill, to their respective fair values. The Duke Energy Registrants also monitor the impacts of inflation on the procurement of goods and services and seek to minimize its effects in future periods through pricing strategies, productivity improvements, and cost reductions. Rapidly rising prices as a result of inflation or other factors may impact the ability of the company to recover costs timely or execute on its business strategy including the achievement of growth objectives.

The Duke Energy Registrants sell electricity into the spot market or other competitive power markets on a contractual basis. With respect to such transactions, the Duke Energy Registrants are not guaranteed any rate of return on their capital investments through mandated rates, and revenues and results of operations are likely to depend, in large part, upon prevailing market prices. These market prices may fluctuate substantially over relatively short periods of time and could negatively impact the company's ability to accurately forecast the financial impact or reduce the Duke Energy Registrants' revenues and margins, thereby diminishing results of operations.

Factors that could impact sales volumes, generation of electricity and market prices at which the Duke Energy Registrants are able to sell electricity and natural gas are as follows:

- weather conditions, including abnormally mild winter or summer weather that cause lower energy or natural gas usage for heating or cooling purposes, as applicable, and periods of low rainfall that decrease the ability to operate facilities in an economical manner;
- supply of and demand for energy commodities;
- transmission or transportation constraints or inefficiencies that impact nonregulated energy operations;
- availability of purchased power;
- availability of competitively priced alternative energy sources, which are preferred by some customers over electricity produced from coal, nuclear
 or natural gas plants, and customer usage of energy-efficient equipment that reduces energy demand;
- natural gas, crude oil and refined products production levels and prices;
- ability to procure satisfactory levels of inventory, including materials, supplies, and fuel such as coal, natural gas and uranium; and
- capacity and transmission service into, or out of, the Duke Energy Registrants' markets.

Natural disasters or operational accidents may adversely affect the Duke Energy Registrants' operating results.

Natural disasters or operational accidents within the company or industry (such as forest fires, earthquakes, hurricanes or natural gas transmission pipeline explosions) could have direct or indirect impacts to the Duke Energy Registrants or to key contractors and suppliers. Further, the generation of electricity and the transportation and storage of natural gas involve inherent operating risks that may result in accidents involving serious injury or loss of life, environmental damage or property damage. Such events could impact the Duke Energy Registrants through changes to policies, laws and regulations whose compliance costs have a significant impact on the Duke Energy Registrants' results of operations, financial position and cash flows. In addition, if a serious operational accident were to occur, existing insurance policies may not cover all of the potential exposures or the actual amount of loss incurred, including potential litigation awards. Any losses not covered by insurance, or any increases in the cost of applicable insurance as a result of such accident, could have a material adverse effect on the results of operations, financial position of the Duke Energy Registrants' adverse effect on the results of operations, financial position of the Duke Energy Registrants' and interval.

The reputation and financial condition of the Duke Energy Registrants could be negatively impacted due to their obligations to comply with federal and state regulations, laws, and other legal requirements that govern the operations, assessments, storage, closure, remediation, disposal and monitoring relating to CCR, the high costs and new rate impacts associated with implementing these new CCR-related requirements and the strategies and methods necessary to implement these requirements in compliance with these legal obligations.

As a result of electricity produced for decades at coal-fired power plants, the Duke Energy Registrants manage large amounts of CCR that are primarily stored in dry storage within landfills or combined with water in surface impoundments, all in compliance with applicable regulatory requirements. A CCR-related operational incident could have a material adverse impact on the reputation and results of operations, financial position and cash flows of the Duke Energy Registrants.

During 2015, EPA regulations were enacted related to the management of CCR from power plants. These regulations classify CCR as nonhazardous waste under the RCRA and apply to electric generating sites with new and existing landfills and, new and existing surface impoundments, and establish requirements regarding landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring, protection and remedial procedures and other operational and reporting procedures for the disposal and management of CCR. In addition to the federal regulations, CCR landfills and surface impoundments will continue to be regulated by existing state laws, regulations and permits, as well as additional legal requirements that may be imposed in the future, such as the settlement reached with the NCDEQ to excavate seven of the nine remaining coal ash basins in North Carolina, and partially excavate the remaining two, and the EPA's January 11, 2022, issuance of a letter interpreting the CCR Rule, including its applicability and closure provisions. These federal and state laws, regulations and oher legal requirements may require or result in additional expenditures, including increased operating and maintenance costs, which could affect the results of operations, financial position and cash flows of the Duke Energy Registrants. The Duke Energy Registrants will continue to seek full cost recovery for expenditures through the normal ratemaking process with state and federal utility commissions, who permit recovery in rates of necessary and prudently incurred costs associated with the Duke Energy Registrants' regulated operations, and through other wholesale contracts with terms that contemplate recovery of such costs, although there is no guarantee of full cost recovery. In addition, the timing for and amount of recovery of such costs could have a material adverse impact on Duke Energy's cash flows.

The Duke Energy Registrants have recognized significant AROs related to these CCR-related requirements. Closure activities began in 2015 at the four sites specified as high priority by the Coal Ash Act and at the W.S. Lee Steam Station site in South Carolina in connection with other legal requirements. Excavation at these sites involves movement of CCR materials to off-site locations for use as structural fill, to appropriately engineered off-site or on-site lined landfills or conversion of the ash for beneficial use. Duke Energy has completed excavation of coal ash at the four high-priority North Carolina sites. At other sites, planning and closure methods have been studied and factored into the estimated retirement and management costs, and closure activities have commenced. As the closure and CCR management work progresses and final closure plans and corrective action measures are developed and approved at each site, the scope and complexity of work and the amount of CCR material could be greater than estimates and could, therefore, materially increase compliance expenditures and rate impacts.

The Duke Energy Registrants' results of operations, financial position and cash flows may be negatively affected by a lack of growth or slower growth in the number of customers, or decline in customer demand or number of customers.

Growth in customer accounts and growth of customer usage each directly influence demand for electricity and natural gas and the need for additional power generation and delivery facilities. Customer growth and customer usage are affected by several factors outside the control of the Duke Energy Registrants, such as mandated EE measures, demand-side management goals, distributed generation resources and economic and demographic conditions, such as inflation and interest rate volatility, population changes, job and income growth, housing starts, new business formation and the overall level of economic activity.

In addition, certain regulatory and legislative bodies have passed legislation implementing the extension of certain tax credits to be used toward the costs of residential solar installation or have introduced or are considering requirements and/or incentives to reduce energy consumption by certain dates in response to concerns related to climate change. Additionally, technological advances driven by federal laws mandating new levels of EE in end-use electric and natural gas devices or other improvements in or applications of technology could lead to declines in per capita energy consumption.

Advances in distributed generation technologies that produce power, including fuel cells, microturbines, wind turbines and solar cells, may reduce the cost of alternative methods of producing power to a level competitive with central power station electric production utilized by the Duke Energy Registrants. In addition, the electrification of buildings and appliances currently relying on natural gas could reduce the number of customers in our natural gas distribution business.

Some or all of these factors could result in a lack of growth or decline in customer demand for electricity or number of customers and may cause the failure of the Duke Energy Registrants to fully realize anticipated benefits from significant capital investments and expenditures, which could have a material adverse effect on their results of operations, financial position and cash flows.

Furthermore, the Duke Energy Registrants currently have EE riders in place to recover the cost of EE programs in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. Should the Duke Energy Registrants be required to invest in conservation measures that result in reduced sales from effective conservation, regulatory lag in adjusting rates for the impact of these measures could have a negative financial impact.

The Duke Energy Registrants future results of operations may be impacted by changing expectations and demands including heightened emphasis on environmental, social and governance concerns.

Duke Energy's ability to execute its strategy and achieve anticipated financial outcomes are influenced by the expectations of our customers, regulators, investors, and stakeholders. Those expectations are based in part on the core fundamentals of reliability and affordability but are also increasingly focused on our ability to meet rapidly changing demands for new and varied products, services and offerings. Additionally, the risks of global climate change continues to shape our customers' sustainability goals and energy needs as well as the investment and financing criteria of investors. Failure to meet these increasing expectations or to adequately address the risks and external pressures from regulators, customers, investors and other stakeholders may impact Duke Energy's reputation and affect its ability to achieve favorable outcomes in future rate cases and the results of operations for the Duke Energy Registrants. Furthermore, the increasing use of social media may accelerate and increase the potential scope of negative publicity we might receive and could increase the negative impact on our reputation, business, results of operations, and financial condition.

As it relates to electric generation, a diversified fleet with increasingly clean generation resources may facilitate more efficient financing and lower costs. Conversely, jurisdictions utilizing more carbon-intensive generation such as coal may experience difficulty attracting certain investors and obtaining the most economical financing terms available. Furthermore, with this heightened emphasis on environmental, social, and governance concerns, and climate change in particular, there is an increased risk of litigation, activism, and legislation from groups both in support of and opposed to various environmental, social and governance initiatives, which could cause delays and increase the costs of our clean energy transition.

The Duke Energy Registrants' operating results may fluctuate on a seasonal and quarterly basis and can be negatively affected by changes in weather conditions and severe weather, including extreme weather conditions and changes in weather patterns from climate change.

Electric power generation and natural gas distribution are generally seasonal businesses. In most parts of the U.S., the demand for power peaks during the warmer summer months, with market prices also typically peaking at that time. In other areas, demand for power peaks during the winter. Demand for natural gas peaks during the winter months. Further, changing frequency or magnitude of extreme weather conditions such as hurricanes, droughts, heat waves, winter storms and severe weather, including from climate change, could cause these seasonal fluctuations to be more pronounced. As a result, the overall operating results of the Duke Energy Registrants' businesses may fluctuate substantially on a seasonal and quarterly basis and thus make period-to-period comparison less relevant.

Sustained severe drought conditions could impact generation by hydroelectric plants, as well as fossil and nuclear plant operations, as these facilities use water for cooling purposes and for the operation of environmental compliance equipment. Furthermore, destruction caused by severe weather events, such as hurricanes, flooding, tornadoes, severe thunderstorms, snow and ice storms, including from climate change, can result in lost operating revenues due to outages, property damage, including downed transmission and distribution lines, and additional and unexpected expenses to mitigate storm damage. The cost of storm restoration efforts may not be fully recoverable through the regulatory process.

The Duke Energy Registrants' sales may decrease if they are unable to gain adequate, reliable and affordable access to transmission assets.

The Duke Energy Registrants depend on transmission and distribution facilities owned and operated by utilities and other energy companies to deliver electricity sold to the wholesale market. In addition, the growth of renewables and energy storage will put strains on existing transmission assets and require transmission and distribution upgrades. The FERC's power transmission regulations require wholesale electric transmission services to be offered on an open-access, non-discriminatory basis. If transmission is disrupted, or if transmission capacity is inadequate, the Duke Energy Registrants' ability to sell and deliver products may be hindered.

The different regional power markets have changing regulatory structures, which could affect growth and performance in these regions. In addition, the ISOs who oversee the transmission systems in regional power markets have imposed in the past, and may impose in the future, price limitations and other mechanisms to address volatility in the power markets. These types of price limitations and other mechanisms may adversely impact the profitability of the Duke Energy Registrants' wholesale power marketing business.

The availability of adequate interstate pipeline transportation capacity and natural gas supply may decrease.

The Duke Energy Registrants purchase almost all of their natural gas supply from interstate sources that must be transported to the applicable service territories. Interstate pipeline companies transport the natural gas to the Duke Energy Registrants' systems under firm service agreements that are designed to meet the requirements of their core markets. A significant disruption to interstate pipelines capacity or reduction in natural gas supply due to events including, but not limited to, operational failures or disruptions, hurricanes, tornadoes, floods, freeze off of natural gas wells, terrorist or cyberattacks or other acts of war or legislative or regulatory actions or requirements, including remediation related to integrity inspections or regulations and laws enacted to address climate change, could reduce the normal interstate supply of natural gas and thereby reduce earnings. Moreover, if additional natural gas infrastructure, including, but not limited to, exploration and drilling rigs and platforms, processing and gathering systems, offshore pipelines, interstate pipelines and storage, cannot be built at a pace that meets demand, then growth opportunities could be limited.

Fluctuations in commodity prices or availability may adversely affect various aspects of the Duke Energy Registrants' operations as well as their results of operations, financial position and cash flows.

The Duke Energy Registrants are exposed to the effects of market fluctuations in the price of natural gas, coal, fuel oil, nuclear fuel, electricity and other energy-related commodities as a result of their ownership of energy-related assets. Fuel costs are recovered primarily through cost recovery clauses, subject to the approval of state utility commissions.

Additionally, the Duke Energy Registrants are exposed to risk that counterparties will not be able to fulfill their obligations. Disruption in the delivery of fuel, including disruptions as a result of, among other things, bankruptcies, transportation delays, weather, labor relations, force majeure events or environmental regulations affecting any of these fuel suppliers, could limit the Duke Energy Registrants' ability to operate their facilities. Should counterparties fail to perform, the Duke Energy Registrants might be forced to replace the underlying commitment at prevailing market prices possibly resulting in losses in addition to the amounts, if any, already paid to the counterparties.

Certain of the Duke Energy Registrants' hedge agreements may result in the receipt of, or posting of, collateral with counterparties, depending on the daily market-based calculation of financial exposure of the derivative positions. Fluctuations in commodity prices that lead to the return of collateral received and/or the posting of collateral with counterparties could negatively impact liquidity. Downgrades in the Duke Energy Registrants' credit ratings could lead to additional collateral posting requirements. The Duke Energy Registrants continually monitor derivative positions in relation to market price activity.

Cyberattacks and data security breaches could adversely affect the Duke Energy Registrants' businesses.

Cybersecurity risks have increased in recent years as a result of the proliferation of new technologies and the increased sophistication, magnitude and frequency of cyberattacks and data security breaches. Duke Energy relies on the continued operation of sophisticated digital information technology systems and network infrastructure, which are part of an interconnected regional grid. Additionally, connectivity to the internet continues to increase through grid modernization and other operational excellence initiatives. Because of the critical nature of the infrastructure, increased connectivity to the internet and technology systems' inherent vulnerability to disability or failures due to hacking, viruses, acts of war or terrorism or other types of data security breaches, the Duke Energy Registrants face a heightened risk of cyberattack from foreign or domestic sources and have been subject, and will likely continue to be subject, to attempts to gain unauthorized access to information and/or information systems or to disrupt utility operations through computer viruses and phishing attempts either directly or indirectly through its material vendors or related third parties. In the event of a significant cybersecurity breach on either the Duke Energy Registrants or with one of our material vendors or related third parties, the Duke Energy Registrants could (i) have business operations disrupted, including the disruption of the operation of our natural gas and electric assets and the power grid, theft of confidential company, employee, retiree, shareholder, vendor or customer information, and general business systems and process interruption or compromise, including preventing the Duke Energy Registrants from servicing customers, collecting revenues or the recording, processing and/or reporting financial information correctly, (ii) experience substantial loss of revenues, repair and restoration costs, penalties and costs for lack of compliance with relevant regulations, implementation costs for additional security measures to avert future cyberattacks and other financial loss and (iii) be subject to increased regulation, litigation and reputational damage. While Duke Energy maintains insurance relating to cybersecurity events, such insurance is subject to a number of exclusions and may be insufficient to offset any losses, costs or damage experienced. Also, the market for cybersecurity insurance is relatively new and coverage available for cybersecurity events is evolving as the industry matures.

The Duke Energy Registrants are subject to standards enacted by the North American Electric Reliability Corporation and enforced by FERC regarding protection of the physical and cybersecurity of critical infrastructure assets required for operating North America's bulk electric system. The Duke Energy Registrants are also subject to regulations set by the Nuclear Regulatory Commission regarding the protection of digital computer and communication systems and networks required for the operation of nuclear power plants. The Duke Energy Registrants that operate designated critical pipelines that transport natural gas are also subject to security directives issued by the Department of Homeland Security's Transportation Security Administration (TSA) requiring such registrants to implement specific cybersecurity mitigation measures. While the Duke Energy Registrants believe they are in compliance with, or, in the case of recent TSA security directives, are in the process of implementing such standards and regulations, the Duke Energy Registrants have from time to time been, and may in the future be, found to be in violation of such standards and regulations. In addition, compliance with or changes in the applicable standards and regulations may subject the Duke Energy Registrants to higher operating costs and/or increased capital expenditures as well as substantial fines for non-compliance.

The Duke Energy Registrants' operations have been and may be affected by pandemic health events, including COVID-19, in ways listed below and in ways the Duke Energy Registrants cannot predict at this time.

The COVID-19 pandemic and efforts to respond to it have resulted in widespread adverse consequences on the global economy and on the Duke Energy Registrants' customers, third-party vendors, and other parties with whom we do business. If the COVID-19 pandemic or other health epidemics and outbreaks that may occur are significantly prolonged, it could impact the Duke Energy Registrants' business strategy, results of operations, financial position and cash flows in the future as a result of delays in rate cases or other legal proceedings, an inability to obtain labor or equipment necessary for the construction of large capital projects, an inability to procure satisfactory levels of fuels or other necessary equipment for the continued production of electricity and delivery of natural gas, and the health and availability of our critical personnel and their ability to perform business functions.

Duke Energy Ohio's and Duke Energy Indiana's membership in an RTO presents risks that could have a material adverse effect on their results of operations, financial position and cash flows.

The rules governing the various regional power markets may change, which could affect Duke Energy Ohio's and Duke Energy Indiana's costs and/or revenues. To the degree Duke Energy Ohio and Duke Energy Indiana incur significant additional fees and increased costs to participate in an RTO, their results of operations may be impacted. Duke Energy Ohio and Duke Energy Indiana may be allocated a portion of the cost of transmission facilities built by others due to changes in RTO transmission rate design. Duke Energy Ohio and Duke Energy Indiana may be required to expand their transmission system according to decisions made by an RTO rather than their own internal planning process. In addition, RTOs have been developing rules associated with the allocation and methodology of assigning costs associated with improved transmission reliability, reduced transmission congestion and firm transmission rights that may have a financial impact on the results of operations, financial position and cash flows of Duke Energy Ohio and Duke Energy Indiana.

As members of an RTO, Duke Energy Ohio and Duke Energy Indiana are subject to certain additional risks, including those associated with the allocation among RTO members, of losses caused by unreimbursed defaults of other participants in the RTO markets and those associated with complaint cases filed against an RTO that may seek refunds of revenues previously earned by RTO members.

The Duke Energy Registrants may not recover costs incurred to begin construction on projects that are canceled.

Duke Energy's long-term strategy requires the construction of new projects, either wholly owned or partially owned, which involve a number of risks, including construction delays, delays in or failure to receive required regulatory approvals and/or sitting or environmental permits, nonperformance by equipment and other third-party suppliers, and increases in equipment and labor costs. To limit the risks of these construction projects, the Duke Energy Registrants enter into equipment purchase orders and construction contracts and incur engineering and design service costs in advance of receiving necessary regulatory approvals and/or siting or environmental permits. If any of these projects are canceled for any reason, including failure to receive necessary regulatory approvals and/or siting or environmental permits, significant cancellation penalties under the equipment purchase orders and construction contracts could occur. In addition, if any construction work or investments have been recorded as an asset, an impairment may need to be recorded in the event the project is canceled.

The Duke Energy Registrants are subject to risks associated with their ability to obtain adequate insurance at acceptable costs.

The financial condition of some insurance companies, actual or threatened physical or cyberattacks, and natural disasters, among other things, could have disruptive effects on insurance markets. The availability of insurance covering risks that the Duke Energy Registrants and their respective competitors typically insure against may decrease, and the insurance that the Duke Energy Registrants are able to obtain may have higher deductibles, higher premiums, and more restrictive policy terms. Further, the insurance policies may not cover all of the potential exposures or the actual amount of loss incurred. Any losses not covered by insurance, or any increases in the cost of applicable insurance, could adversely affect the results of operations, financial position or cash flows of the affected Duke Energy Registrant.

Our business could be negatively affected as a result of actions of activist shareholders.

While we strive to maintain constructive communications with our shareholders, activist shareholders may, from time to time, engage in proxy solicitations or advance shareholder proposals, or otherwise attempt to affect changes and assert influence on our Board and management. Perceived uncertainties as to the future direction or governance of the company may cause concern to our current or potential regulators, vendors or strategic partners, or make it more difficult to execute on our strategy or to attract and retain qualified personnel, which may have a material impact on our business and operating results.

In addition, actions such as those described above could cause fluctuations in the trading price of our common stock, based on temporary or speculative market perceptions or other factors that do not necessarily reflect the underlying fundamentals and prospects of our business.

NUCLEAR GENERATION RISKS

Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida may incur substantial costs and liabilities due to their ownership and operation of nuclear generating facilities.

Ownership interests in and operation of nuclear stations by Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida subject them to various risks. These risks include, among other things: the potential harmful effects on the environment and human health resulting from the current or past operation of nuclear facilities and the storage, handling and disposal of radioactive materials; limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with nuclear operations; and uncertainties with respect to the technological and financial aspects of decommissioning nuclear plants at the end of their licensed lives.

Ownership and operation of nuclear generation facilities requires compliance with licensing and safety-related requirements imposed by the NRC. In the event of non-compliance, the NRC may increase regulatory oversight, impose fines or shut down a unit depending upon its assessment of the severity of the situation. Revised security and safety requirements promulgated by the NRC, which could be prompted by, among other things, events within or outside of the control of Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, such as a serious nuclear incident at a facility owned by a third party, could necessitate substantial capital and other expenditures, as well as assessments to cover third-party losses. In addition, if a serious nuclear incident were to occur, it could have a material adverse effect on the results of operations, financial position, cash flows and reputation of the Duke Energy Registrants.

LIQUIDITY, CAPITAL REQUIREMENTS AND COMMON STOCK RISKS

The Duke Energy Registrants rely on access to short-term borrowings and longer-term debt and equity markets to finance their capital requirements and support their liquidity needs. Access to those markets can be adversely affected by a number of conditions, many of which are beyond the Duke Energy Registrants' control.

The Duke Energy Registrants' businesses are significantly financed through issuances of debt and equity. The maturity and repayment profile of debt used to finance investments often does not correlate to cash flows from their assets. Accordingly, as a source of liquidity for capital requirements not satisfied by the cash flows from their operations and to fund investments originally financed through debt instruments with disparate maturities, the Duke Energy Registrants rely on access to short-term money markets as well as longer-term capital markets. The Subsidiary Registrants also rely on access to short-term intercompany borrowings. If the Duke Energy Registrants are not able to access debt or equity at competitive rates or at all, the ability to finance their operations and implement their strategy and business plan as scheduled could be adversely affected. An inability to access debt and equity may limit the Duke Energy Registrants' ability to pursue improvements or acquisitions that they may otherwise rely on for future growth.

Market disruptions may increase the cost of borrowing or adversely affect the ability to access one or more financial markets. Such disruptions could include: economic downturns, unfavorable capital market conditions, market prices for natural gas and coal, geopolitical risks, actual or threatened terrorist attacks, or the overall health of the energy industry. Additionally, rapidly rising interest rates could impact the ability to affordably finance the capital plan or increase rates to customers and could have an impact on our ability to execute on our clean energy transition. The availability of credit under Duke Energy's Master Credit Facility depends upon the ability of the banks providing commitments under the facility to provide funds when their obligations to do so arise. Systemic risk of the banking system and the financial markets could prevent a bank from meeting its obligations under the facility agreement.

Duke Energy maintains a revolving credit facility to provide backup for its commercial paper program and letters of credit to support variable rate demand taxexempt bonds that may be put to the Duke Energy Registrant issuer at the option of the holder. The facility includes borrowing sublimits for the Duke Energy Registrants, each of whom is a party to the credit facility, and financial covenants that limit the amount of debt that can be outstanding as a percentage of the total capital for the specific entity. Failure to maintain these covenants at a particular entity could preclude Duke Energy from issuing commercial paper or the Duke Energy Registrants from issuing letters of credit or borrowing under the Master Credit Facility.

The Duke Energy Registrants must meet credit quality standards and there is no assurance they will maintain investment grade credit ratings. If the Duke Energy Registrants are unable to maintain investment grade credit ratings, they would be required under credit agreements to provide collateral in the form of letters of credit or cash, which may materially adversely affect their liquidity.

Each of the Duke Energy Registrants' senior long-term debt issuances is currently rated investment grade by various rating agencies. The Duke Energy Registrants cannot ensure their senior long-term debt will be rated investment grade in the future.

If the rating agencies were to rate the Duke Energy Registrants below investment grade, borrowing costs would increase, perhaps significantly. In addition, the potential pool of investors and funding sources would likely decrease. Further, if the short-term debt rating were to fall, access to the commercial paper market could be significantly limited.

A downgrade below investment grade could also require the posting of additional collateral in the form of letters of credit or cash under various credit, commodity and capacity agreements and trigger termination clauses in some interest rate derivative agreements, which would require cash payments. All of these events would likely reduce the Duke Energy Registrants' liquidity and profitability and could have a material effect on their results of operations, financial position and cash flows.

Non-compliance with debt covenants or conditions could adversely affect the Duke Energy Registrants' ability to execute future borrowings.

The Duke Energy Registrants' debt and credit agreements contain various financial and other covenants. Failure to meet those covenants beyond applicable grace periods could result in accelerated due dates and/or termination of the agreements.

Market performance and other changes may decrease the value of the NDTF investments of Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida, which then could require significant additional funding.

Ownership and operation of nuclear generation facilities also requires the maintenance of funded trusts that are intended to pay for the decommissioning costs of the respective nuclear power plants. The performance of the capital markets affects the values of the assets held in trust to satisfy these future obligations. Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida have significant obligations in this area and hold significant assets in these trusts. These assets are subject to market fluctuations and will yield uncertain returns, which may fall below projected rates of return. Although a number of factors impact funding requirements, a decline in the market value of the assets may increase the funding requirements of the obligations for decommissioning nuclear plants. If Duke Energy Carolinas, Duke Energy Progress and Duke Energy Florida are unable to successfully manage their NDTF assets, their results of operations, financial position and cash flows could be negatively affected.

Poor investment performance of the Duke Energy pension plan holdings and other factors impacting pension plan costs could unfavorably impact the Duke Energy Registrants' liquidity and results of operations.

The costs of providing non-contributory defined benefit pension plans are dependent upon a number of factors, such as the rates of return on plan assets, discount rates, the level of interest rates used to measure the required minimum funding levels of the plans, future government regulation and required or voluntary contributions made to the plans. The Subsidiary Registrants are allocated their proportionate share of the cost and obligations related to these plans. Without sustained growth in the pension investments over time to increase the value of plan assets and, depending upon the other factors impacting costs as listed above, Duke Energy could be required to fund its plans with significant amounts of cash. Such cash funding obligations, and the Subsidiary Registrants' proportionate share of such cash funding obligations, could have a material adverse impact on the Duke Energy Registrants' results of operations, financial position and cash flows.

Duke Energy is a holding company and depends on the cash flows from its subsidiaries to meet its financial obligations.

Because Duke Energy is a holding company with no operations or cash flows of its own, its ability to meet its financial obligations, including making interest and principal payments on outstanding indebtedness and to pay dividends on its common stock, is primarily dependent on the net income and cash flows of its subsidiaries and the ability of those subsidiaries to pay upstream dividends or to repay borrowed funds. Prior to funding Duke Energy, its subsidiaries have regulatory restrictions and financial obligations that must be satisfied. These subsidiaries are separate legal entities and have no obligation to provide Duke Energy with funds. In addition, Duke Energy may provide capital contributions or debt financing to its subsidiaries under certain circumstances, which would reduce the funds available to meet its financial obligations, including making interest and principal payments on outstanding indebtedness and to pay dividends on Duke Energy's common stock.

GENERAL RISKS

The failure of Duke Energy information technology systems, or the failure to enhance existing information technology systems and implement new technology, could adversely affect the Duke Energy Registrants' businesses.

Duke Energy's operations are dependent upon the proper functioning of its internal systems, including the information technology systems that support our underlying business processes. Any significant failure or malfunction of such information technology systems may result in disruptions of our operations. In the ordinary course of business, we rely on information technology systems, including the internet and third-party hosted services, to support a variety of business processes and activities and to store sensitive data, including (i) intellectual property, (ii) proprietary business information, (iii) personally identifiable information of our customers, employees, retirees and shareholders and (iv) data with respect to invoicing and the collection of payments, accounting, procurement, and supply chain activities. Our information technology systems are dependent upon global communications and cloud service providers, as well as their respective vendors, many of whom have at some point experienced significant system failures and outages in the past and may experience such failures and outages in the future. These providers' systems are susceptible to cybersecurity and data breaches, outages from fire, floods, power loss, telecommunications failures, break-ins and similar events. Failure to prevent or mitigate data loss from system failures or outages could materially affect the results of operations, financial position and cash flows of the Duke Energy Registrants.

In addition to maintaining our current information technology systems, Duke Energy believes the digital transformation of its business is key to driving internal efficiencies as well as providing additional capabilities to customers. Duke Energy's information technology systems are critical to cost-effective, reliable daily operations and our ability to effectively serve our customers. We expect our customers to continue to demand more sophisticated technology-driven solutions and we must enhance or replace our information technology systems in response. This involves significant development and implementation costs to keep pace with changing technologies and customer demand. If we fail to successfully implement critical technology, or if it does not provide the anticipated benefits or meet customer demands, such failure could materially adversely affect our business strategy as well as impact the results of operations, financial position and cash flows of the Duke Energy Registrants.

Potential terrorist activities, or military or other actions, could adversely affect the Duke Energy Registrants' businesses.

The continued threat of terrorism and the impact of retaliatory military and other action by the U.S. and its allies may lead to increased political, economic and financial market instability and volatility in prices for natural gas and oil, which may have material adverse effects in ways the Duke Energy Registrants cannot predict at this time. In addition, future acts of terrorism and possible reprisals as a consequence of action by the U.S. and its allies could be directed against companies operating in the U.S. Information technology systems, transportation systems for our fuel sources including natural gas pipelines, transmission and distribution and generation facilities such as nuclear plants could be potential targets of terrorist activities or harmful activities by individuals or groups that could have a material adverse effect on Duke Energy Registrants' businesses. In particular, the Duke Energy Registrants may experience increased capital and operating costs to implement increased security for their information technology systems, transmission and distribution and generation facilities, including nuclear power plants under the NRC's design basis threat requirements. These increased costs could include additional physical plant security and security personnel or additional capability following a terrorist incident.

Failure to attract and retain an appropriately qualified workforce could unfavorably impact the Duke Energy Registrants' results of operations.

Certain events, such as an aging workforce, mismatch of skill set or complement to future needs, or unavailability of contract resources may lead to operating challenges and increased costs. The challenges include lack of resources, loss of knowledge base and the lengthy time required for skill development. In this case, costs, including costs for contractors to replace employees, productivity costs and safety costs, may increase. Failure to hire and adequately train replacement employees, including the transfer of significant internal historical knowledge and expertise to new employees, or future availability and cost of contract labor may adversely affect the ability to manage and operate the business, especially considering the workforce needs associated with nuclear generation facilities and new skills required to operate a modernized, technology-enabled power grid. If the Duke Energy Registrants are unable to successfully attract and retain an appropriately qualified workforce, their results of operations, financial position and cash flows could be negatively affected.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.