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

FORM 10-K

(Mark One)

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

For the FISCAL YEAR ended December 31, 2020

OR

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

For the transition period from _____ to _____



Commission File Number	Registrant; State of Incorporation; Address; and Telephone Number	I.R.S. Employer Identification No.
333-21011	FIRSTENERGY CORP (An Ohio Corporation) 76 South Main Street Akron OH 44308 Telephone (800) 736-3402	34-1843785

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $0.10 par value per share	FE	New York Stock Exchange

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	☑
Accelerated Filer	☐
Non-accelerated Filer	☐
Smaller Reporting Company	☐

Emerging Growth Company ☐

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control 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 prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes ☐ No ☑

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and ask price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter.

$20,967,401,361 as of June 30, 2020

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date:

CLASS	AS OF JANUARY 31, 2021
Common Stock, $0.10 par value	543,215,090

Documents Incorporated By Reference

DOCUMENT	PART OF FORM 10-K INTO WHICH DOCUMENT IS INCORPORATED
Proxy Statement for 2021 Annual Meeting of Shareholders of FirstEnergy Corp. to be held May 18, 2021	Part III

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GLOSSARY OF TERMS

The following abbreviations and acronyms are used in this report to identify FirstEnergy Corp. and its current and former subsidiaries:

AE Supply	Allegheny Energy Supply Company, LLC, an unregulated generation subsidiary
AGC	Allegheny Generating Company, a generation subsidiary of MP
ATSI	American Transmission Systems, Incorporated, a subsidiary of FET, which owns and operates transmission facilities
BSPC	Bay Shore Power Company
CEI	The Cleveland Electric Illuminating Company, an Ohio electric utility operating subsidiary
CES	Competitive Energy Services, formerly a reportable operating segment of FirstEnergy
FE	FirstEnergy Corp., a public utility holding company
FENOC	Energy Harbor Nuclear Corp. (formerly known as FirstEnergy Nuclear Operating Company), a subsidiary of EH, which operates NG's nuclear generating facilities
FES	Energy Harbor LLC. (formerly known as FirstEnergy Solutions Corp.), a subsidiary of EH, which provides energy-related products and services
FES Debtors	FES, FENOC, FG, NG, FE Aircraft Leasing Corp., Norton Energy Storage LLC, and FGMUC
FESC	FirstEnergy Service Company, which provides legal, financial and other corporate support services
FET	FirstEnergy Transmission, LLC, formerly known as Allegheny Energy Transmission, LLC, which is the parent of ATSI, KATCo, MAIT and TrAIL, and has a joint venture in PATH
FEV	FirstEnergy Ventures Corp., which invests in certain unregulated enterprises and business ventures
FG	Energy Harbor Generation LLC (formerly known as FirstEnergy Generation, LLC), a subsidiary of EH, which owns and operates fossil generating facilities
FGMUC	FirstEnergy Generation Mansfield Unit 1 Corp., a wholly owned subsidiary of FG, which has certain leasehold interests in a portion of Unit 1 at the Bruce Mansfield plant
FirstEnergy	FirstEnergy Corp., together with its consolidated subsidiaries
Global Holding	Global Mining Holding Company, LLC, a joint venture between FEV, WMB Marketing Ventures, LLC and Pinesdale LLC
Global Rail	Global Rail Group, LLC, a subsidiary of Global Holding that owns coal transportation operations near Roundup, Montana
GPU	GPU, Inc., former parent of JCP&L, ME and PN, that merged with FE on November 7, 2001
GPUN	GPU Nuclear, Inc., a subsidiary of FE, which operates TMI-2
JCP&L	Jersey Central Power & Light Company, a New Jersey electric utility operating subsidiary
KATCo	Keystone Appalachian Transmission Company, a subsidiary of FET
MAIT	Mid-Atlantic Interstate Transmission, LLC, a subsidiary of FET, which owns and operates transmission facilities
ME	Metropolitan Edison Company, a Pennsylvania electric utility operating subsidiary
MP	Monongahela Power Company, a West Virginia electric utility operating subsidiary
NG	Energy Harbor Nuclear Generation LLC (formerly known as FirstEnergy Nuclear Generation, LLC), a subsidiary of EH, which owns nuclear generating facilities
OE	Ohio Edison Company, an Ohio electric utility operating subsidiary
Ohio Companies	CEI, OE and TE
PATH	Potomac-Appalachian Transmission Highline, LLC, a joint venture between FE and a subsidiary of AEP
PATH-Allegheny	PATH Allegheny Transmission Company, LLC
PATH-WV	PATH West Virginia Transmission Company, LLC
PE	The Potomac Edison Company, a Maryland and West Virginia electric utility operating subsidiary
Penn	Pennsylvania Power Company, a Pennsylvania electric utility operating subsidiary of OE
Pennsylvania Companies	ME, PN, Penn and WP
PN	Pennsylvania Electric Company, a Pennsylvania electric utility operating subsidiary
Signal Peak	Signal Peak Energy, LLC, an indirect subsidiary of Global Holding that owns mining operations near Roundup, Montana
TE	The Toledo Edison Company, an Ohio electric utility operating subsidiary
TrAIL	Trans-Allegheny Interstate Line Company, a subsidiary of FET, which owns and operates transmission facilities
Transmission Companies	ATSI, MAIT and TrAIL
Utilities	OE, CEI, TE, Penn, JCP&L, ME, PN, MP, PE and WP
WP	West Penn Power Company, a Pennsylvania electric utility operating subsidiary

The following abbreviations and acronyms are used to identify frequently used terms in this report:

ACE	Affordable Clean Energy	EGS	Electric Generation Supplier
ADIT	Accumulated Deferred Income Taxes	EGU	Electric Generation Units
AEP	American Electric Power Company, Inc.	EmPOWER Maryland	EmPOWER Maryland Energy Efficiency Act
AFS	Available-for-sale	ENEC	Expanded Net Energy Cost
AFUDC	Allowance for Funds Used During Construction	EPA	United States Environmental Protection Agency
AMT	Alternative Minimum Tax	EPS	Earnings per Share
AOCI	Accumulated Other Comprehensive Income (Loss)	ERO	Electric Reliability Organization
ARO	Asset Retirement Obligation	ESP IV	Electric Security Plan IV
ARP	Alternative Revenue Program	Facebook®	Facebook is a registered trademark of Facebook, Inc.
ASC	Accounting Standard Codification	FASB	Financial Accounting Standards Board
ASU	Accounting Standards Update	FERC	Federal Energy Regulatory Commission
AYE DCD	Allegheny Energy, Inc. Amended and Restated Revised Plan for Deferral of Compensation of Directors	FES Bankruptcy	FES Debtors' voluntary petitions for bankruptcy protection under Chapter 11 of the U.S. Bankruptcy Code with the Bankruptcy Court
AYE Director's Plan	Allegheny Energy, Inc. Non-Employee Director Stock Plan	Fitch	Fitch Ratings
Bankruptcy Court	U.S. Bankruptcy Court in the Northern District of Ohio in Akron	FMB	First Mortgage Bond
BCF	Beneficial Conversion Feature	FPA	Federal Power Act
BGS	Basic Generation Service	FTR	Financial Transmission Right
bps	Basis points	GAAP	Accounting Principles Generally Accepted in the United States of America
CAA	Clean Air Act	GHG	Greenhouse Gases
CBA	Collective Bargaining Agreement	HB 6	House Bill 6, as passed by Ohio's 133rd General Assembly
CCR	Coal Combustion Residuals	IBEW	International Brotherhood of Electrical Workers
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980	ICP 2007	FirstEnergy Corp. 2007 Incentive Compensation Plan
CFL	Compact Fluorescent Light	ICP 2015	FirstEnergy Corp. 2015 Incentive Compensation Plan
CFR	Code of Federal Regulations	IIP	Infrastructure Investment Program
CO2	Carbon Dioxide	IRS	Internal Revenue Service
CPP	EPA's Clean Power Plan	ISO	Independent System Operator
CSAPR	Cross-State Air Pollution Rule	ITC	Investment Tax Credit
CTA	Consolidated Tax Adjustment	JCP&L Reliability Plus	JCP&L Reliability Plus IIP
CWA	Clean Water Act	kV	Kilovolt
D.C. Circuit	United States Court of Appeals for the District of Columbia Circuit	KWH	Kilowatt-hour
DCPD	Deferred Compensation Plan for Outside Directors	LED	Light Emitting Diode
DCR	Delivery Capital Recovery	LIBOR	London Interbank Offered Rate
DMR	Distribution Modernization Rider	LOC	Letter of Credit
DSIC	Distribution System Improvement Charge	LS Power	LS Power Equity Partners III, LP
DSP	Default Service Plan	LSE	Load Serving Entity
DTA	Deferred Tax Asset	LTIIPs	Long-Term Infrastructure Improvement Plans
E&P	Earnings and Profits	MDPSC	Maryland Public Service Commission
EDC	Electric Distribution Company	MGP	Manufactured Gas Plants
EDCP	Executive Deferred Compensation Plan	MISO	Midcontinent Independent System Operator, Inc.
EDIS	Electric Distribution Investment Surcharge	Moody’s	Moody’s Investors Service, Inc.
EE&C	Energy Efficiency and Conservation	MW	Megawatt

MWH	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NAV	Net Asset Value
NDT	Nuclear Decommissioning Trust
NERC	North American Electric Reliability Corporation
NJBPU	New Jersey Board of Public Utilities
NOL	Net Operating Loss
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NSR	New Source Review
NUG	Non-Utility Generation
NYPSC	New York State Public Service Commission
OAG	Ohio Attorney General
OCA	Office of Consumer Advocate
OCC	Ohio Consumers' Counsel
OPEB	Other Post-Employment Benefits
OPEIU	Office and Professional Employees International Union
OPIC	Other Paid-in Capital
OSHA	Occupational Safety and Health Administration
OVEC	Ohio Valley Electric Corporation
PA DEP	Pennsylvania Department of Environmental Protection
PCRB	Pollution Control Revenue Bond
PJM	PJM Interconnection, L.L.C.
PJM Region	The aggregate of the zones within PJM
PJM Tariff	PJM Open Access Transmission Tariff
POLR	Provider of Last Resort
PPA	Purchase Power Agreement
PPB	Parts per Billion
PPUC	Pennsylvania Public Utility Commission
PUCO	Public Utilities Commission of Ohio
PURPA	Public Utility Regulatory Policies Act of 1978
RCRA	Resource Conservation and Recovery Act
REC	Renewable Energy Credit
Regulation FD	Regulation Fair Disclosure promulgated by the SEC
RFC	ReliabilityFirst Corporation
RFP	Request for Proposal
RGGI	Regional Greenhouse Gas Initiative
ROE	Return on Equity
RSS	Rich Site Summary
RTEP	Regional Transmission Expansion Plan
RTO	Regional Transmission Organization
S&P	Standard & Poor’s Ratings Service
SBC	Societal Benefits Charge
SCOH	Supreme Court of Ohio
SEC	United States Securities and Exchange Commission
SIP	State Implementation Plan(s) Under the Clean Air Act
SO2	Sulfur Dioxide
SOS	Standard Offer Service
SREC	Solar Renewable Energy Credit
SSO	Standard Service Offer
SVC	Static Var Compensator
Tax Act	Tax Cuts and Jobs Act adopted December 22, 2017
TMI-2	Three Mile Island Unit 2
TO	Transmission Owner
Twitter®	Twitter is a registered trademark of Twitter, Inc.
UCC	Official committee of unsecured creditors appointed in connection with the FES Bankruptcy
UWUA	Utility Workers Union of America
VEPCO	Virginia Electric and Power Company
VIE	Variable Interest Entity
VSCC	Virginia State Corporation Commission
WVPSC	Public Service Commission of West Virginia
ZEC	Zero Emissions Certificate

PART I

ITEM 1. BUSINESS

The Companies

FE and its subsidiaries are principally involved in the transmission, distribution and generation of electricity. FirstEnergy's ten utility operating companies comprise one of the nation's largest investor-owned electric systems, based on serving over 6 million customers in the Midwest and Mid-Atlantic regions. FirstEnergy's transmission operations include approximately 24,500 miles of lines and two regional transmission operation centers. AGC, JCP&L and MP control 3,790 MWs of total capacity, 210 MWs of which is related to the Yards Creek generating plant that is being sold pursuant to an asset purchase agreement as further discussed below.

FirstEnergy's revenues are primarily derived from electric service provided by the Utilities and Transmission Companies.

Regulated Utility Operating Subsidiaries

The Utilities' combined service areas encompass approximately 65,000 square miles in Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York. The areas they serve have a combined population of approximately 13.3 million.

OE owns property and does business as an electric public utility in Ohio. OE engages in the distribution and sale of electric energy to communities in a 7,000 square mile area of central and northeastern Ohio. The area it serves has a population of approximately 2.3 million.

OE owns all of Penn's outstanding common stock. Penn owns property and does business as an electric public utility in Pennsylvania. Penn furnishes electric service to communities in 1,100 square miles of western Pennsylvania. The area it serves has a population of approximately 0.4 million.

CEI does business as an electric public utility in Ohio. CEI engages in the distribution and sale of electric energy in an area of 1,600 square miles in northeastern Ohio. The area it serves has a population of approximately 1.6 million.

TE does business as an electric public utility in Ohio. TE engages in the distribution and sale of electric energy in an area of 2,300 square miles in northwestern Ohio. The area it serves has a population of approximately 0.7 million.

JCP&L owns property and does business as an electric public utility in New Jersey. JCP&L provides transmission and distribution services in 3,200 square miles of northern, western and east central New Jersey. The area it serves has a population of approximately 2.7 million. JCP&L also has a 50% ownership interest (210 MWs) in the Yards Creek hydroelectric generating facility.

ME owns property and does business as an electric public utility in Pennsylvania. ME provides distribution services in 3,300 square miles of eastern and south central Pennsylvania. The area it serves has a population of approximately 1.2 million.

PN owns property and does business as an electric public utility in Pennsylvania. PN provides distribution services in 17,600 square miles of western, northern and south central Pennsylvania. The area PN serves has a population of approximately 1.2 million. Also, PN, as lessee of the property of its subsidiary, the Waverly Electric Light & Power Company, serves approximately 4,000 customers in the Waverly, New York vicinity. On February 10, 2021, PN entered into an agreement to transfer its customers and the related assets in Waverly, New York to Tri-County Rural Electric Cooperative; the completion of such transfer is subject to several closing conditions including regulatory approval.

PE owns property and does business as an electric public utility in Maryland, Virginia, and West Virginia. PE provides transmission and distribution services in portions of Maryland and West Virginia and provides transmission services in Virginia in an area totaling approximately 5,500 square miles. The area it serves has a population of approximately 0.9 million.

MP owns property and does business as an electric public utility in West Virginia. MP provides generation, transmission and distribution services in 13,000 square miles of northern West Virginia. The area it serves has a population of approximately 0.8 million. MP is contractually obligated to provide power to PE to meet its load obligations in West Virginia. MP owns or contractually controls 3,580 MWs of generation capacity that is supplied to its electric utility business, including a 16.25% undivided interest in the Bath County pumped-storage hydroelectric generation facility in Virginia (487 MWs) through its wholly owned subsidiary AGC.

WP owns property and does business as an electric public utility in Pennsylvania. WP provides transmission and distribution services in 10,400 square miles of southwestern, south-central and northern Pennsylvania. The area it serves has a population of approximately 1.5 million.

Regulated Transmission Operating Subsidiaries

ATSI owns high-voltage transmission facilities, which consist of approximately 7,890 circuit miles of transmission lines with nominal voltages of 345 kV, 138 kV and 69 kV in the PJM Region, particularly Ohio and Pennsylvania.

TrAIL owns high-voltage transmission facilities in the PJM Region and has several transmission facilities in operation, including a 500 kV transmission line extending approximately 150 miles from southwestern Pennsylvania through West Virginia to a point of interconnection with VEPCO in northern Virginia.

MAIT owns high-voltage transmission facilities, which consist of approximately 4,260 circuit miles of transmission lines with nominal voltages of 500 kV, 345 kV, 230 kV, 138 kV, 115 kV, 69 kV and 46 kV in the PJM Region, particularly Pennsylvania.

Service Company

FESC provides legal, financial and other corporate support services at cost, in accordance with its cost allocation manual, to affiliated FirstEnergy companies. In addition, pursuant to the FES Bankruptcy settlement agreement discussed below, FE extended the availability of certain shared services to the FES Debtors through June 30, 2020. As of June 30, 2020, FirstEnergy had substantially ceased providing post-emergence services to FES Debtors under the terms of the amended and restated shared services agreement. In connection with the FES Debtors emergence from bankruptcy, FirstEnergy entered into an amended separation agreement with the FES Debtors to implement the separation of FES Debtors and their businesses from FirstEnergy.

Legacy CES Subsidiaries

On March 31, 2018, the FES Debtors announced that, in order to facilitate an orderly financial restructuring, they filed voluntary petitions under Chapter 11 of the United States Bankruptcy Code with the Bankruptcy Court. In September 2018, the Bankruptcy Court approved a FES Bankruptcy settlement agreement by and among FirstEnergy, two groups of key FES creditors (collectively, the FES Key Creditor Groups), the FES Debtors and the UCC. As of March 31, 2018, the FES Debtors were deconsolidated from FirstEnergy’s consolidated financial statements. The FES Debtors effectuated their plan of reorganization on February 27, 2020 and emerged from bankruptcy.

As part of the FES Bankruptcy settlement agreement, discussed below, AE Supply transferred the Pleasants Power Station and related assets to a newly formed subsidiary of FG on January 30, 2020. AE Supply will continue to provide Pleasants Power Station disposal access to the McElroy's Run impoundment facility pursuant to a separate agreement among the parties.

Substantially all of FirstEnergy’s subsidiaries’ operations that previously comprised the CES reportable operating segment, including FES, FENOC, BSPC and a portion of AE Supply (including the Pleasants Power Station), are presented as discontinued operations in FirstEnergy’s consolidated financial statements resulting from the FES Bankruptcy and actions taken as part of the strategic review to exit commodity-exposed generation and become a fully regulated utility.

Operating Segments

FirstEnergy's reportable operating segments are comprised of the Regulated Distribution and Regulated Transmission segments.

The **Regulated Distribution** segment distributes electricity through FirstEnergy’s ten utility operating companies, serving approximately six million customers within 65,000 square miles of Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York, and purchases power for its POLR, SOS, SSO and default service requirements in Ohio, Pennsylvania, New Jersey and Maryland. This segment also controls 3,790 MWs of regulated electric generation capacity located primarily in West Virginia, Virginia and New Jersey, of which, 210 MWs are related to the Yards Creek generating station that is being sold pursuant to an asset purchase agreement as further discussed below. The segment's results reflect the costs of securing and delivering electric generation from transmission facilities to customers, including the deferral and amortization of certain related costs.

As of December 31, 2020, FirstEnergy’s regulated generating portfolio consists of 3,790 MWs of capacity within the Regulated Distribution segment: 210 MWs consist of JCP&L's 50% ownership interest in the Yards Creek hydroelectric facility in New Jersey; and 3,580 MWs consist of MP's facilities, including 487 MWs from AGC's interest in the Bath County pumped-storage hydroelectric facility in Virginia, and 11 MWs of MP's 0.49% entitlement from OVEC's generation output. MP's other generation facilities are located in West Virginia.

The **Regulated Transmission** segment provides transmission infrastructure owned and operated by the Transmission Companies and certain of FirstEnergy's utilities (JCP&L, MP, PE and WP) to transmit electricity from generation sources to distribution facilities. The segment's revenues are primarily derived from forward-looking formula rates at the Transmission Companies as well as stated transmission rates at MP, PE and WP; although as explained in Note 14, "Regulatory Matters", effective January 1, 2021, subject to refund, MP's, PE's and WP's existing stated rates became forward-looking formula rates. JCP&L previously had stated transmission rates, however, effective January 1, 2020, JCP&L implemented forward-looking formula rates, subject to refund, pending further hearing and settlement proceedings. Both forward-looking formula and stated

rates recover costs that FERC determines are permitted to be recovered and provide a return on transmission capital investment. Under forward-looking formula rates, the revenue requirement is updated annually based on a projected rate base and projected costs, which is subject to an annual true-up based on actual costs. Revenue requirements under stated rates are calculated annually by multiplying the highest one-hour peak load in each respective transmission zone by the approved, stated rate in that zone. The segment's results also reflect the net transmission expenses related to the delivery of electricity on FirstEnergy's transmission facilities.

Corporate/Other reflects corporate support costs not charged to FE's subsidiaries, including FE's retained Pension and OPEB assets and liabilities of the FES Debtors, interest expense on FE's holding company debt and other businesses that do not constitute an operating segment. Additionally, reconciling adjustments for the elimination of inter-segment transactions and discontinued operations are included in Corporate/Other. As of December 31, 2020, 67 MWs of electric generating capacity, representing AE Supply's OVEC capacity entitlement, was included in continuing operations of Corporate/Other. As of December 31, 2020, Corporate/Other had approximately $8.2 billion of FE holding company debt.

Utility Regulation

Regulatory Accounting

FirstEnergy accounts for the effects of regulation through the application of regulatory accounting to the Utilities and the Transmission Companies since their rates are established by a third-party regulator with the authority to set rates that bind customers, are cost-based and can be charged to and collected from customers.

The Utilities and the Transmission Companies recognize, as regulatory assets and regulatory liabilities, costs which FERC and the various state utility commissions, as applicable, have authorized for recovery from/return to customers in future periods or for which authorization is probable. Without the probability of such authorization, costs currently recorded as regulatory assets and regulatory liabilities would have been charged/credited to income as incurred. All regulatory assets and liabilities are expected to be recovered from/returned to customers. Based on current ratemaking procedures, the Utilities and the Transmission Companies continue to collect cost-based rates for their transmission and distribution services; accordingly, it is appropriate that the Utilities and the Transmission Companies continue the application of regulatory accounting to those operations. Regulatory accounting is applied only to the parts of the business that meet the above criteria. If a portion of the business applying regulatory accounting no longer meets those requirements, previously recorded regulatory assets and liabilities are removed from the balance sheet in accordance with GAAP.

State Regulation

The following table summarizes the allowed ROE and the aggregate actual ROE of the Utilities by state for the year ended December 31, 2020, as determined for regulatory purposes:

State	Allowed ROE	Actual ROE[(1)]
Maryland	9.65%	8.7%
New Jersey	9.6%[(3)]	6.5%
Ohio	10.5%	13.3%
Pennsylvania	Settled[(2)]	9.0%
West Virginia	Settled[(2)]	7.2%

[(1)] Actual ROE based upon trailing twelve months ended December 31, 2020; assumes actual rate base for distribution assets only (except in West Virginia) and reflects state regulatory adjustments.
[(2)] Commission-approved settlement agreements did not disclose ROE rates.
[(3)] On October 28, 2020, the NJBPU approved JCP&L's distribution rate case settlement with an allowed ROE of 9.6%. Rates are effective for customers on November 1, 2021.

See "Outlook - State Regulation" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information and discussion.

Federal Regulation

See "Outlook - FERC Regulatory Matters" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information and discussion.

Nuclear Regulation

See "Outlook - Other Legal Matters - Nuclear Plant Matters" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information and discussion.

Environmental Matters

See "Outlook - Environmental Matters" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information and discussion.

Capital Requirements

FirstEnergy's business is capital intensive, requiring significant resources to fund operating expenses, construction expenditures, scheduled debt maturities and interest payments, dividend payments, and contributions to its pension plan. See "Capital Resources and Liquidity" in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information and discussion.

Fuel Supply

MP currently has coal contracts with various terms to acquire approximately 5.5 million tons of coal for the year 2021, which is approximately 90% of its forecasted 2021 coal requirements. This contracted coal is produced primarily from mines located in Pennsylvania and West Virginia. The contracts expire at various times through 2025. See "Outlook - Environmental Matters" in Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" for additional information pertaining to the impact of increased environmental regulations on coal supply.

System Demand

The maximum hourly demand for each of the Utilities was:

System Demand	2020	2019	2018
		(in MWs)	
OE	5,598	5,494	5,604
Penn	889	946	950
CEI	4,253	4,188	4,301
TE	2,265	2,787	2,367
JCP&L	5,902	6,056	5,977
ME	2,976	2,974	3,026
PN	2,908	3,020	2,993
MP	2,114	2,121	2,089
PE	2,905	3,609	3,498
WP	3,827	4,012	3,879

Supply Plan

Certain of the Utilities have default service obligations to provide power to non-shopping customers who have elected to continue to receive service under regulated retail tariffs. The volume of these sales can vary depending on the level of shopping that occurs. Supply plans vary by state and by service territory. JCP&L's default service, or BGS supply, is secured through a statewide competitive procurement process approved by the NJBPU. Default service for the Ohio Companies, Pennsylvania Companies and PE's Maryland jurisdiction are provided through a competitive procurement process approved by the PUCO (under ESP IV), PPUC (under the DSP) and MDPSC (under the SOS), respectively. If any supplier fails to deliver power to any one of those Utilities' service areas, the Utility serving that area may need to procure the required power in the market in their role as the default LSE. West Virginia electric generation continues to be regulated by the WVPSC.

Regional Reliability

All of FirstEnergy's facilities are located within the PJM Region and operate under the reliability oversight of a regional entity known as RFC. This regional entity operates under the oversight of NERC in accordance with a delegation agreement approved by FERC.

Competition

Within FirstEnergy's Regulated Distribution segment, generally there is no competition for electric distribution service in the Utilities' respective service territories in Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York. Additionally, there has traditionally been no competition for transmission service in PJM. However, pursuant to FERC's Order No. 1000 and subject to state and local siting and permitting approvals, non-incumbent developers now can compete for certain PJM transmission projects in the service territories of FirstEnergy's Regulated Transmission segment. This could result in additional competition to build transmission facilities in the Regulated Transmission segment's service territories while also allowing the Regulated Transmission segment the opportunity to seek to build facilities in non-incumbent service territories.

Seasonality

The sale of electric power is generally a seasonal business, and weather patterns can have a material impact on FirstEnergy's operating results. Demand for electricity in our service territories historically peaks during the summer and winter months. Accordingly, FirstEnergy's annual results of operations and liquidity position may depend disproportionately on its operating performance during the summer and winter. Mild weather conditions may result in lower power sales and consequently lower earnings.

Human Capital

FirstEnergy focuses on a number of human capital resources, measures, and objectives in managing its business, including: safety, diversity and inclusion, employee development, and compensation and benefits. Collectively, these focus areas may be material to understanding its business under certain circumstances.

Employees and Collective Bargaining Agreements

As of December 31, 2020, FirstEnergy had 12,153 employees located in the United States as follows:

	Total Employees	Bargaining Unit Employees
FESC	4,419	630
OE	1,135	754
CEI	902	603
TE	373	277
Penn	188	131
JCP&L	1,330	1,027
ME	644	466
PN	752	485
MP	1,131	753
PE	534	333
WP	745	477
Total	**12,153**	**5,936**

As of December 31, 2020, the IBEW, the UWUA and the OPEIU unions collectively represented approximately half of FirstEnergy's employees. There are 15 CBAs between FirstEnergy's subsidiaries and its unions, which have three, four- or five-year terms. In 2020, FirstEnergy's subsidiaries reached new agreements with 3 UWUA locals, covering 550 employees, and 1 OPEIU local, covering 77 employees.

Safety

Safety is a core value of FirstEnergy. FirstEnergy employees have the power and responsibility to keep each other safe and eliminate life-changing events, which are injuries that have life-changing impacts or fatal results. Safety metrics, such as injuries that result in days away or restricted time and life-changing events, are regularly monitored, internally reported, and are included in our annual incentive compensation program to reinforce that a safe work environment is crucial to FirstEnergy's success.

FirstEnergy continues to shift its focus from achieving low OSHA rates to proactively identifying and mitigating life-changing event exposure. This shift in focus strengthens FirstEnergy's safety-first culture by aligning our leadership around the same goal and driving safer decisions from an engaged workforce who puts safety first. To support that shift, FirstEnergy is transitioning from leader and employee training and exposure control concepts to a safety management system that cultivates job site exposure identification and mitigation to prevent life-changing events. Further, FirstEnergy continues to expand its "Leading with Safety" experiences with its employees to achieve excellence in personal, contractor and public safety.

Additionally, FirstEnergy's employees' well-being is essential to its core value of safety. FirstEnergy is taking a well-informed, decisive and measured response to the COVID-19 pandemic, as recommended by medical experts, to protect the health and safety of our employees and the public, while also continuing to serve our customers. FirstEnergy continues to provide flexibility for approximately 7,000 of its 12,000 employees to work from home. Pandemic safety and cleaning protocols were implemented for those workers who have continued to report to a FirstEnergy work location during this public health emergency, ensuring FirstEnergy employees can report directly to job sites and work with the same small group of employees every day. FirstEnergy developed a COVID-19 medical screening process under which a medical staff consisting of nurses, doctors and non-medical intake teams were assembled to manage COVID-19 related exposures, illnesses and quarantines; perform contact tracing; and ultimately safely return employees to work. FirstEnergy continues to implement state health directives as they emerge and adjusts its procedures as needed to continue to keep its employees safe.

Diversity and Inclusion

FirstEnergy seeks to expand the diversity of its team and create an inclusive workplace where employees feel valued, motivated and empowered to drive FirstEnergy's success. Diversity and inclusion metrics are included in FirstEnergy's annual incentive compensation program to emphasize that a diverse and inclusive work environment at FirstEnergy drives better service for customers, strong operational performance, innovation and a rewarding work experience for its employees.

Affirmative steps taken at FirstEnergy to promote the core value of diversity and inclusion includes:

- FirstEnergy sponsors an executive diversity and inclusion council consisting of senior management and other leaders across the company.
- A cross-functional working group oversees the development and implementation of diversity and inclusion action plans company-wide.
- Additional teams of employees are embedded throughout FirstEnergy to implement local actions supporting diversity and inclusion.
- FirstEnergy's employees have established multiple employee business resource groups, known as "EBRGs," to further support diversity and inclusion objectives through networking, mentoring, coaching, recruiting, development and community outreach.
- Employees are provided ongoing training and education on a variety of diversity and inclusion topics.
- FirstEnergy has enhanced the recruiting processes to increase the number of diverse candidates considered for open positions and expand the diversity of teams interviewing those candidates.

Employee Development

FirstEnergy's employees are empowered to take ownership of their careers with increased openness into FirstEnergy's internal and external hiring process and greater availability of tools and processes that support career management, talent reviews, succession planning and leadership selection. FirstEnergy is committed to preparing its high-performing workforce for the future and helping employees reach their full potential. That means developing employee skills and competencies and preparing emerging and experienced leaders for future management responsibilities.

Understanding FirstEnergy's rapidly changing industry and strategy is key to employees' ability to support FirstEnergy's mission and meet its customers' evolving needs. In 2020, FirstEnergy launched FE University as an initiative to brand and create synergies among FirstEnergy's many employee development and training initiatives. Key FirstEnergy development programs include:

- a mentoring program,
- Discover FE, which is designed to broaden and deepen knowledge of FirstEnergy and the electric utility industry generally,
- new supervisor and manager program,
- experienced leader program, and
- Power Systems Institute, an award-winning program for recruiting and developing the next generation of highly trained, dedicated and motivated line and substation workers.

Compensation and Benefits

FirstEnergy's total rewards program is designed to attract, motivate, retain and reward employees for their role in the success of FirstEnergy. The base pay program is designed to provide individual base pay levels that balance an employee's value to FirstEnergy with comparable jobs at peer companies. FirstEnergy is committed to ensuring that our internal policies and processes support pay equity. The annual incentive compensation program is designed to reward the achievement of near-term

corporate and business unit objectives. Additionally, FirstEnergy's long-term incentive compensation program is designed to reward eligible employees for FirstEnergy's achievement of longer-term goals intended to drive shareholder value and growth. In addition to base pay and incentive compensation plans, FirstEnergy offers a comprehensive benefits program, including a 401(k) Savings Plan and a defined benefit Pension Plan.

Information About Our Executive Officers (as of February 18, 2021)

Name	Age	Positions Held During Past Five Years	Dates
S. E. Strah	57	President and Acting Chief Executive Officer (A) (B)	2020-Present
		Senior Vice President and Chief Financial Officer (A) (B) (C) (E)	2018-2020
		President (D)	2017-2018
		President (E)	2016-2018
		Senior Vice President & President, FirstEnergy Utilities (B)	*-2018
		President (C)	*-2018
H. Park	59	Senior Vice President and Chief Legal Officer (A)	2021-Present
		LimNexus, Partner and General Counsel	2019-2021
		Latham & Watkins, Of Counsel	2017-2019
		PG&E Corporation, Senior Vice President and Special Counsel to Chairman	2017
		Senior Vice President and General Counsel	*-2017
K. Jon Taylor	47	Senior Vice President and Chief Financial Officer (A) (B) (C) (E)	2020-Present
		Vice President, Utility Operations (B)	2019-2020
		President (D)	2019-2020
		President, Ohio Operations (B)	2018-2019
		Vice President (C)	2018-2019
		Vice President and Controller (E)	2016-2018
		Vice President and Controller (C)	*-2018
		Vice President, Controller and Chief Accounting Officer (A) (B)	*-2018
		Vice President and Controller (D) (G)	*-2017
		Vice President and Controller (F)	*-2016
C. L. Walker	55	Senior Vice President and Chief Human Resources Officer (B)	2019-present
		Vice President, Human Resources (B)	2018-2019
		Executive Director, Talent Management (B)	2016-2018
G. D. Benz	61	Senior Vice President, Strategy (B)	*-present
J. J. Lisowski	39	Vice President, Controller and Chief Accounting Officer (A) (B)	2018-present
		Vice President and Controller (C) (E)	2018-present
		Controller and Treasurer (G)	2017-2018
		Controller and Treasurer (F)	2016-2018
		Assistant Controller (E)	2016-2017
		Assistant Controller (A) (B) (C) (D) (F) (G)	*-2017
S. L. Belcher	52	Senior Vice President and President, FirstEnergy Utilities (B)	2018-present
		President (C) (E)	2018-present
		President and Chief Nuclear Officer (G)	*-2018
		President, FirstEnergy Nuclear Operating Company (B)	*-2017

* Indicates position held at least since January 1, 2016
(A) Denotes position held at FE
(B) Denotes position held at FESC
(C) Denotes position held at the Ohio Companies, the Pennsylvania Companies, MP, PE, FET, KATCo, TrAIL and ATSI
(D) Denotes position held at AGC
(E) Denotes position held at MAIT
(F) Denotes position held at FES and FG
(G) Denotes position held at FENOC

FirstEnergy Website and Other Social Media Sites and Applications

FirstEnergy's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, amendments to those reports, and all other documents filed with or furnished to the SEC pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available free of charge on or through the "Investors" page of FirstEnergy's website at www.firstenergycorp.com. These documents are also available to the public from commercial document retrieval services and the website maintained by the SEC at www.sec.gov.

These SEC filings are posted on the website as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. Additionally, FirstEnergy routinely posts additional important information, including press releases, investor presentations, investor factbooks and notices of upcoming events under the "Investors" section of FirstEnergy's website and recognizes FirstEnergy's website as a channel of distribution to reach public investors and as a means of disclosing material non-public information for complying with disclosure obligations under Regulation FD. Investors may be notified of postings to the website by signing up for email alerts and RSS feeds on the "Investors" page of FirstEnergy's website. FirstEnergy also uses Twitter® and Facebook® as additional channels of distribution to reach public investors and as a supplemental means of disclosing material non-public information for complying with its disclosure obligations under Regulation FD. Information contained on FirstEnergy's website, Twitter® handle or Facebook® page, and any corresponding applications of those sites, shall not be deemed incorporated into, or to be part of, this report.

ITEM 1A. RISK FACTORS

We operate in a business environment that involves significant risks, many of which are beyond our control. Management regularly evaluates the most significant risks of its businesses and reviews those risks with the Board of Directors and appropriate Committees of the Board. The following risk factors and all other information contained in this report should be considered carefully when evaluating FirstEnergy. These risk factors could affect our financial results and cause such results to differ materially from those expressed in any forward-looking statements made by or on behalf of us. Below, we have identified risks we consider material. Additional information on risk factors is included in “Item 1. Business,” “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and in other sections of this Form 10-K that include forward-looking and other statements involving risks and uncertainties that could impact our business and financial results.

Risks Associated with the Ongoing Investigations

We Have Received Requests for Information Related to Government Investigations. The Investigations and Related Litigation Could Have a Material Adverse Effect on our Reputation, Business, Financial Condition, Results of Operations, Liquidity or Cash Flows

On July 21, 2020, we received subpoenas for records from the U.S. Attorney’s Office for the S.D. Ohio requesting the production of information concerning an investigation surrounding HB 6 involving the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. Following the announcement of the investigation surrounding HB 6, certain of our stockholders and customers filed several lawsuits against us and certain current and former directors, officers and other employees. In addition, on August 10, 2020, the SEC, through its Division of Enforcement, issued an order directing an investigation of possible securities laws violations by FirstEnergy, and on September 1, 2020, issued subpoenas to FirstEnergy and certain of its officers. We are cooperating with the U.S. Attorney’s Office and the SEC in their investigations. See Note 15, “Commitments, Guarantees and Contingencies,” of the Notes to Consolidated Financial Statements, for additional details on the government investigation and subsequent litigation surrounding the investigation of HB 6.

The investigations and related litigation could divert management’s focus and have resulted, and could continue to result in substantial investigation expenses, and the commitment of substantial corporate resources. The outcome of the government investigations and related litigation is inherently uncertain. If one or more legal matters, including the ongoing investigation, were resolved against us, our reputation, business, financial condition, results of operations, liquidity or cash flows may be adversely affected. Further, such an outcome could result in criminal liabilities, deferred prosecution agreements, significant monetary damages and fines, remedial corporate measures or other relief against us that could adversely impact our operations; in addition, certain of those outcomes could adversely impact our ability to maintain compliance with the covenants under our credit facilities or result in an event of default thereunder. These matters are likely to continue to have an adverse impact on the trading prices of our securities.

We are unable to predict the outcome, duration, scope, result or related costs of the investigations and related litigation and, therefore, any of these risks could impact us significantly beyond expectations. Moreover, we are unable to predict the potential for any additional investigations or litigation, any of which could exacerbate these risks or expose us to potential criminal or civil liabilities, sanctions or other remedial measures, and could have a material adverse effect on our reputation, business, financial condition, results of operations, liquidity or cash flows.

We Have Received Requests for Information Related to Government Investigations. Related Potential Adverse Impacts on Federal or State Regulatory Matters Could Have a Material Adverse Effect on our Reputation, Business, Financial Condition, Results of Operations, Liquidity or Cash Flows

On July 21, 2020, we received subpoenas for records from the U.S. Attorney’s Office for the S.D. Ohio requesting the production of information concerning an investigation surrounding HB 6 involving the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. On January 26, 2021, staff of FERC’s Division of Investigations issued a letter directing FirstEnergy to preserve and maintain all documents and information related to an ongoing audit being conducted by FERC’s Division of Audits and Accounting, including activities relating to lobbying and governmental affairs activities concerning HB 6. We are cooperating with the FERC in the ongoing audit and document preservation request. See Note 14, "Regulatory Matters," and Note 15, “Commitments, Guarantees and Contingencies,” of the Notes to Consolidated Financial Statements, for additional details on the government investigation and regulatory matters related to the investigation of HB 6.

We are subject to comprehensive regulation by various federal, state and local regulatory agencies that significantly influence our operating environment. As previously disclosed, among the matters considered with respect to the determination by the committee of independent members of the Board of Directors to terminate certain former members of senior management for violating certain FirstEnergy policies and its code of conduct related to a payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place since 2013. The counterparty to such agreement was an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. FirstEnergy believes that payments under the consulting agreement may have been for purposes other than those represented

within the consulting agreement. The matter is a subject of the ongoing internal investigation related to the government investigations.

Any appearance of non-compliance with anti-corruption laws, as well as any alleged failures to comply with anti-corruption laws, could have an adverse impact on our reputation or relationships with regulatory authorities, and result in a material inquiry or investigation by such federal, state and local regulatory agencies, and result in adverse rulings against us, which could have a material adverse impact on our financial condition, operating results and operations.

For example, there are several regulatory matters associated with the ongoing governmental investigations including, but not limited to, the following:

- On September 15, 2020, the PUCO opened a new proceeding to review the political and charitable spending by the Ohio Companies in support of HB 6 and the subsequent referendum effort, directing the Ohio Companies to show cause, demonstrating that the costs of any political or charitable spending in support of HB 6, or the subsequent referendum effort, were not included, directly or indirectly, in any rates or charges paid by ratepayers.
- On November 4, 2020, the PUCO initiated an additional corporate separation audit as a result of the termination of certain members of senior management.
- On December 30, 2020, the PUCO reinstated the requirement that the Ohio Companies file a distribution rate case by May 31, 2024, which requirement had previously been eliminated by the PUCO in November 2019.
- Also on December 30, 2020, the PUCO reopened the DMR audit docket, and directed PUCO staff to solicit a third-party auditor and conduct a full review of the DMR to ensure funds collected from ratepayers through the DMR were only used for the purposes established in ESP IV.
- On January 26, 2021, staff of FERC's Division of Investigations issued a letter directing FirstEnergy to preserve and maintain all documents and information related to an ongoing audit being conducted by FERC's Division of Audits and Accounting, including activities related to lobbying and governmental affairs activities concerning HB 6.
- In connection with the partial settlement with the OAG and other parties, the Ohio Companies filed an application with the PUCO on February 1, 2021, to set the respective decoupling riders (Rider CSR) to zero and, in a related action, the Ohio Companies will not seek to recover lost distribution revenue from residential and commercial customers; as a result, FirstEnergy recognized a $108 million pre-tax charge ($84 million after-tax) in the fourth quarter of 2020 and $77 million (pre-tax) of which is associated with forgoing collection of lost distribution revenue.

While FirstEnergy is committed to pursuing an open dialogue with stakeholders in an appropriate manner with respect to the numerous regulatory proceedings currently underway, the rates our Utilities and transmission operating companies are allowed to charge may be decreased as a result of actions taken by FERC or by a state regulatory commission to which our Utilities is subject to jurisdiction, whether as a result of the ongoing government investigations, the appearance of non-compliance with anti-corruption laws, or otherwise. Also, in connection with the internal investigation, FirstEnergy recently identified certain transactions, which, in some instances, extended back ten years or more, including vendor services, that were either improperly classified, misallocated to certain of the Utilities and Transmission Companies, or lacked proper supporting documentation. These transactions resulted in amounts collected from customers that were immaterial to FirstEnergy, and the Utilities and Transmission Companies will be working with the appropriate regulatory agencies to address these amounts.

We are unable to predict the adverse impacts on federal or state regulatory matters, including with respect to rates, and, therefore, any of these risks could impact us significantly beyond expectations. Moreover, we are unable to predict the potential for any additional regulatory actions, any of which could exacerbate these risks or expose us to adverse outcomes in pending or future rate cases, and could have a material adverse effect on our reputation, business, financial condition, results of operations, liquidity or cash flows.

We Have Identified a Material Weakness in our Internal Controls over Financial Reporting. If We Fail to Remediate such Material Weakness or Otherwise Fail to Develop, Implement and Maintain Effective Internal Controls in Future Periods, Our Ability to Report Our Financial Condition and Results of Operations Accurately and on a Timely Basis Could Be Adversely Affected

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles.

As previously disclosed, a committee of independent members of our Board of Directors is directing an internal investigation related to ongoing government investigations. In connection with our internal investigation, such committee determined that certain former members of senior management, including our former chief executive officer, violated certain FirstEnergy policies and our code of conduct. Such former members of senior management did not maintain and promote a control environment with an appropriate tone of compliance in certain areas of FirstEnergy’s business, nor sufficiently promote, monitor or enforce adherence to certain FirstEnergy policies and its code of conduct. Furthermore, certain former members of senior management did not reasonably ensure that relevant information was communicated within our organization and not withheld from our independent directors, our Audit Committee, and our independent auditor. Among the matters considered with respect to the determination by the committee of independent members of the Board of Directors that certain former members of senior management violated certain FirstEnergy policies and its code of conduct related to a payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place

since 2013. The counterparty to such agreement was an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. FirstEnergy believes that payments under the consulting agreement may have been for purposes other than those represented within the consulting agreement. The matter is a subject of the ongoing internal investigation related to the government investigations.

During the preparation of FirstEnergy's financial statements as of and for the quarter ended September 30, 2020, FirstEnergy identified a material weakness in that these certain former members of senior management did not set an appropriate tone at the top as discussed above, which are inconsistent with the standards to which FirstEnergy's Board of Directors and senior management are committed.

This control deficiency did not result in a material misstatement of our annual or interim consolidated financial statements. However, this control deficiency could have resulted in material misstatements to the annual or interim consolidated financial statements that would not have been prevented or detected. Accordingly, our management has concluded that this control deficiency constitutes a material weakness.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

We are in the process of remediating the identified material weakness in our internal control over financial reporting.

We cannot assure you that we will adequately remediate the material weakness or that additional material weaknesses in our internal controls will not be identified in the future. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those internal control systems determined to be effective can provide only a level of reasonable assurance with respect to financial statement preparation and presentation. Any failure to maintain or implement required new or improved controls, or any difficulties we encounter in the implementation, could result in additional material weaknesses, or could result in material misstatements in our financial statements. These misstatements could result in restatements of our financial statements, cause us to fail to meet our reporting obligations or cause investors to lose confidence in our reported financial information. Further, if we are unable to maintain adequate internal control over financial reporting, we may be unable to report our financial information on a timely basis, may violate applicable stock exchange listing rules or suffer other adverse regulatory consequences and may breach the covenants under our credit facilities. There could also be a negative reaction in the price of our common stock due to a loss of investor confidence in us and the reliability of our financial statements. See "Item 9a. Controls and Procedures" included elsewhere in this Annual Report on Form 10-K for a discussion of the material weakness and our remediation plans.

Failure to Comply with Debt Covenants in our Credit Agreements or Conditions Could Adversely Affect our Ability to Execute Future Borrowings and/or Require Early Repayment, and Could Restrict our Ability to Obtain Additional or Replacement Financing on Acceptable Terms or at All

Our debt and credit agreements contain various financial and other covenants including a consolidated debt to total capitalization ratio of no more than 65% measured at the end of each fiscal quarter.

Our credit agreements contain certain negative and affirmative covenants. Our ability to comply with the covenants and restrictions contained in our FE credit facility and FET credit facility may be affected by events related to the ongoing government investigations or otherwise.

On November 17, 2020, we and certain of our subsidiaries entered into amendments to the FE credit facility and the FET credit facility, respectively. The amendments provide for modifications and/or waivers of: (i) certain representations and warranties and (ii) certain affirmative and negative covenants, contained therein, which allowed FirstEnergy to regain compliance with such provisions. The non-compliance for which the waiver was necessary stemmed from the payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place since 2013 with an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. Among other things, the amendment to the FE credit facility reduces the sublimit applicable to FE to $1.5 billion, and the amendments increased certain tiers of pricing applicable to borrowings under the credit facilities. In addition, we may be required to seek additional covenant waivers in future periods, and there can be no assurance that we will be able to obtain such waivers on favorable terms, or at all.

A breach of any of the covenants contained in our credit agreements, including any breach related to alleged failures to comply with anti-corruption and anti-bribery laws, could result in an event of default under such agreements, and we would not be able to access our credit facilities for additional borrowings and letters of credit while any default exists. Upon the occurrence of such an event of default, all amounts outstanding under our credit facilities, which was $2.2 billion as of February 15, 2021, could be declared to be immediately due and payable and all applicable commitments to extend further credit could be terminated. If indebtedness under our credit facilities is accelerated, there can be no assurance that we will have sufficient assets to repay the

indebtedness. In addition, certain events, including but not limited to any covenant breach related to alleged failures to comply with anti-corruption and anti-bribery laws, an event of default under our credit agreements, and the acceleration of applicable commitments under such facilities could restrict our ability to obtain additional or replacement financing on acceptable terms or at all. The operating and financial restrictions and covenants in our credit facilities and any future financing agreements may adversely affect our ability to finance future operations or capital needs or to engage in other business activities.

Risks Associated with the Global Pandemic

The COVID-19 Global Pandemic Has Impacted Us and Could Have an Adverse Effect on Our Business, Results of Operations, Cash Flows and Financial Condition

The outbreak of COVID-19 has become a global pandemic and has impacted FirstEnergy. For instance, FirstEnergy's Utilities discontinued power shutoffs as of March 13, 2020, across its five-state service territory and ceased billing for certain late payment charges, and while some of these have been rescinded, similar actions could occur in the future. Furthermore, in response to the pandemic and related mitigation measures, FirstEnergy has implemented its pandemic plan as well as other precautionary measures on behalf of its customers and employees, including supporting remote work opportunities for most of its employees. While FirstEnergy believes that all these measures have been necessary or appropriate, they have resulted in additional costs and may adversely impact its business and results of operation in the future or expose it to additional unknown risks.

Although it is not possible to predict the ultimate impact of COVID-19, including on FirstEnergy's business, results of operations, cash flows or financial positions, such impacts that may be material include, but are not limited to: (i) lower commercial and industrial customer demand for electricity, (ii) impacts of rapidly-changing governmental and public health directives to contain and combat the pandemic together with executive and legislative initiatives imposing a moratorium on utility disconnections, (iii) increased credit risk, including increased failure or delay by customers to make their utility payments, (iv) reduced availability and productivity of its employees, (v) increased operational risks as a result of remote work arrangements, including the potential effects on internal controls, as well as cybersecurity risks and increased vulnerability to security breaches, information technology disruptions and other similar events, (vi) delays and disruptions in the availability of and timely delivery of materials and components used in its operations, as well as increased costs for such materials and components, (vii) continued volatility in market prices for our securities, and (viii) hampering our ability to access funds from financial institutions and the capital markets on the same or reasonably similar terms as were available to FirstEnergy before the COVID-19 pandemic. To the extent the duration of any of these conditions extends for a longer period of time, the adverse impact will generally be more severe.

Risks Associated with Regulation of Our Distribution and Transmission Businesses

We are Focusing on Growing Our Regulated Transmission and Regulated Distribution Operations. Whether This Investment Strategy Will Deliver the Desired Result Is Subject to Certain Risks Which Could Adversely Affect Our Results of Operations and Financial Condition

We focus on capitalizing on investment opportunities available to our Regulated Transmission and Regulated Distribution operations as we focus on delivering enhanced customer service and reliability. The success of these efforts will depend, in part, on successful recovery of our transmission investments. Factors that may affect rate recovery of our transmission investments include: (1) FERC's timely approval of rates to recover such investments; (2) whether the investments are included in PJM's RTEP; (3) FERC's evolving policies with respect to incentive rates for transmission assets; (4) FERC's evolving policies with respect to the calculation of the base ROE component of transmission rates; (5) consideration and potential impact of the objections of those who oppose such investments and their recovery; and (6) timely development, construction, and operation of the new facilities.

The success of these efforts will also depend, in part, on any future distribution rate cases or other filings seeking cost recovery for distribution system enhancements in the states where our Utilities operate and transmission rate filings at FERC. Any denial of, or delay in, the approval of any future distribution or transmission rate requests could restrict us from fully recovering our cost of service, may impose risks on the Regulated Distribution and Regulated Transmission operations, and could have a material adverse effect on our regulatory strategy, results of operations and financial condition.

Our efforts also could be impacted by our ability to finance the proposed expansion projects while maintaining adequate liquidity. There can be no assurance that our investment strategy in our Regulated Transmission and Regulated Distribution operations will deliver the desired result which could adversely affect our results of operations and financial condition.

Complex and Changing Government Regulations and Actions, Including Those Associated with Rates, Could Have a Negative Impact on Our Business, Financial Condition, Results of Operations and Cash Flows

We are subject to comprehensive regulation by various federal, state and local regulatory agencies that significantly influence our operating environment. Changes in, or reinterpretations of, existing laws or regulations, or the imposition of new laws or regulations, could require us to incur additional costs or change the way we conduct our business, and therefore could have a material adverse impact on our results of operations and financial condition.

Our Utilities and Transmission Companies currently provide service at rates approved by one or more regulatory commissions. Thus, the rates the Utilities and Transmission Companies are allowed to charge may be decreased as a result of actions taken by FERC or by a state regulatory commission in the states in which our Utilities operate. Also, these rates may not be set to recover such applicable utility's expenses at any given time. Additionally, there may also be a delay between the timing of when costs are incurred and when costs are recovered, if at all. For example, we may be unable to timely recover the costs for our energy efficiency investments or expenses and additional capital or lost revenues resulting from the implementation of aggressive energy efficiency programs. While rate regulation is premised on providing an opportunity to earn a reasonable return on invested capital and recovery of operating expenses, there can be no assurance that the applicable regulatory commission will determine that all of our costs have been prudently incurred or that the regulatory process in which rates are determined will always result in rates that will produce full recovery of our costs in a timely manner. Further, there can be no assurance that we will retain the expected recovery in future rate cases.

State Rate Regulation May Delay or Deny Full Recovery of Costs and Impose Risks on Our Operations. Any Denial of or Delay in Cost Recovery Could Have an Adverse Effect on Our Business, Results of Operations, Liquidity, Cash Flows and Financial Condition

Each of the Utilities' retail rates are set by its respective regulatory agency for utilities in the state in which it operates - in Maryland by the MDPSC, in New Jersey by the NJBPU, in Ohio by the PUCO, in Pennsylvania by the PPUC, in West Virginia by the WVPSC and in New York by the NYPSC - through traditional, cost-based regulated utility ratemaking. As a result, any of the Utilities may not be permitted to recover its costs and, even if it is able to do so, there may be a significant delay between the time it incurs such costs and the time it is allowed to recover them. Factors that may affect outcomes in the distribution rate cases include: (i) the value of plant in service; (ii) authorized rate of return; (iii) capital structure (including hypothetical capital structures); (iv) depreciation rates; (v) the allocation of shared costs, including consolidated deferred income taxes and income taxes payable across the Utilities; (vi) regulatory approval of rate recovery mechanisms for capital spending programs; and (vii) the accuracy of forecasts used for ratemaking purposes in "future test year" cases.

FirstEnergy can provide no assurance that any base rate request filed by any of the Utilities will be granted in whole or in part. Any denial of, or delay in, any base rate request could restrict the applicable utility from fully recovering its costs of service, may impose risks on its operations, and may negatively impact its results of operations, cash flows and financial condition. In addition, to the extent that any of the Utilities seeks rate increases after an extended period of frozen or capped rates, pressure may be exerted on the applicable legislators and regulators to take steps to control rate increases, including through some form of rate increase moderation, reduction or freeze. Any related public discourse and debate can increase uncertainty associated with the regulatory process, the level of rates and revenues that are ultimately obtained, and the ability of the Utility to recover costs. Such uncertainty may restrict operational flexibility and resources, reduce liquidity and increase financing costs.

Federal Rate Regulation May Delay or Deny Full Recovery of Costs and Impose Risks on Our Operations. Any Denial or Reduction of, or Delay in Cost Recovery Could Have an Adverse Effect on Our Business, Results of Operations, Cash Flows and Financial Condition

FERC policy currently permits recovery of prudently incurred costs associated with cost-of-service-based wholesale power rates and the expansion and updating of transmission infrastructure within its jurisdiction. FERC’s policies on recovery of transmission costs continue to evolve, evidenced by ongoing proceedings to determine an appropriate ROE methodology to determine transmission ROEs and whether FERC’s existing policies on transmission rate incentives should be revised. If FERC were to adopt a different policy regarding recovery of transmission costs or if there is any resulting delay in cost recovery, our strategy of investing in transmission could be affected. If FERC were to lower the rate of return it has authorized for FirstEnergy's cost-based wholesale power rates or transmission investments and facilities, it could reduce future earnings and cash flows, and adversely impact our financial condition.

We Could be Subject to Higher Costs and/or Penalties Related to Mandatory Reliability Standards Set by NERC/FERC or Changes in the Rules of Organized Markets, Which Could Have an Adverse Effect on our Financial Condition

Owners, operators, and users of the bulk electric system are subject to mandatory reliability standards promulgated by NERC and approved by FERC. The standards are based on the functions that need to be performed to ensure that the bulk electric system operates reliably. NERC, RFC and FERC can be expected to continue to refine existing reliability standards as well as develop and adopt new reliability standards. Compliance with modified or new reliability standards may subject us to higher operating costs and/or increased capital expenditures. If we were found not to be in compliance with the mandatory reliability standards, we could be subject to sanctions, including substantial monetary penalties. FERC has authority to impose penalties up to and including $1.3 million per day for failure to comply with these mandatory electric reliability standards.

In addition to direct regulation by FERC, we are also subject to rules and terms of participation imposed and administered by various RTOs and ISOs that can have a material adverse impact on our business. For example, the independent market monitors of ISOs and RTOs may impose bidding and scheduling rules to curb the perceived potential for exercise of market power and to ensure the markets function appropriately. Such actions may materially affect our ability to sell, and the price we

receive for, our energy and capacity. In addition, PJM may direct our transmission-owning affiliates to build new transmission facilities to meet PJM's reliability requirements or to provide new or expanded transmission service under the PJM Tariff.

We may be allocated a portion of the cost of transmission facilities built by others due to changes in RTO transmission rate design. We may be required to expand our transmission system according to decisions made by an RTO rather than our own internal planning processes. Various proposals and proceedings before FERC may cause transmission rates to change from time to time. 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 us.

As a member of an RTO, we are subject to certain additional risks, including those associated with the allocation among members of losses caused by unreimbursed defaults of other participants in that RTO's market and those associated with complaint cases filed against the RTO that may seek refunds of revenues previously earned by its members.

In June and July 2020, as part of the PJM stakeholder process, certain competing amendments to the PJM Tariff were filed. The PJM TOs filed amendments that clarified responsibility as between PJM and the PJM TOs for planning for transmission facilities that are at the end of their useful life. Certain load groups filed competing amendments that would transfer authority for such planning from the PJM TOs to PJM. PJM supported the PJM TOs' filing and opposed the load groups' filing. In a series of decisions beginning in August 2020 and running through December 2020, FERC approved the PJM TOs' amendments, and rejected the loads' amendments. Certain of the load groups have filed a petition for review of FERC's decision before the D.C. Circuit and such appeal is currently pending. It is reasonable to believe that the PJM load interests will continue their efforts to limit transmission owner discretion in planning and investing in transmission assets, and further regulatory and appellate cases are expected. The inability to control the investment planning process could adversely affect our business operations, including the Energizing the Future program. In addition, the inability to control the investment planning process for our transmission business could adversely affect our results of operations and our financial condition.

Risks Associated with Environmental and Climate Matters

Mandatory Renewable Portfolio Requirements, Energy Efficiency and Peak Demand Reduction Mandates and Energy Price Increases Could Negatively Impact Our Financial Results

Where federal or state legislation mandates the use of renewable and alternative fuel sources, such as wind, solar, biomass and geothermal and such legislation does not also provide for adequate cost recovery, it could result in significant changes in our business, including material increases in REC purchase costs, purchased power costs and capital expenditures. Such mandatory renewable portfolio requirements may have an adverse effect on our financial condition and results of operations.

A number of regulatory and legislative bodies have introduced requirements and/or incentives to reduce peak demand and energy consumption. Such conservation programs could result in load reduction and adversely impact our financial results in different ways. We currently have energy efficiency riders in place in certain of our states to recover the cost of these programs either at or near a current recovery time frame in the states where we operate.

In our regulated operations, conservation could negatively impact us depending on the regulatory treatment of the associated impacts. Should we 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. We have already been adversely impacted by reduced electric usage due in part to energy conservation efforts such as the use of efficient lighting products such as CFLs, halogens and LEDs. We could also be adversely impacted if any future energy price increases result in a decrease in customer usage. We are unable to determine what impact, if any, conservation and increases in energy prices will have on our financial condition or results of operations.

Additionally, failure to meet regulatory or legislative requirements to reduce energy consumption or otherwise increase energy efficiency could result in penalties that could adversely affect our financial results.

We Have Coal-Fired Generation Capacity, Which Exposes Us to Risk from Regulations Relating to Coal, GHGs and CCRs and Could Lead to Increased Costs or the Need to Spend Significant Resources to Defend Allegations of Violation

Approximately 82% of FirstEnergy's generation capacity is coal-fired, totaling 3,160 MW, increasing to 88% upon completion of the Yards Creek sale. Historically, coal-fired generating plants have greater exposure to the costs of complying with federal, state and local environmental statutes, rules and regulations relating to air emissions, including GHGs and CCR disposal, than other types of electric generation facilities. These legal requirements and any future initiatives could impose substantial additional costs and, in the case of GHG requirements, could raise uncertainty about the future viability of fossil fuels, particularly coal, as an energy source for new and existing electric generation facilities and could require our coal-fired generation plants to curtail generation or cease to generate. Failure to comply with any such existing or future legal requirements may also result in the assessment of fines and penalties. Significant resources also may be expended to defend against allegations of violations of any such requirements.

The EPA is Conducting NSR Investigations at Generating Plants that We Currently or Formerly Owned, the Results of Which Could Negatively Impact Our Results of Business Operations, Cash Flows and Financial Condition

We may be subject to risks from changing or conflicting interpretations of existing laws and regulations, including, for example, the applicability of the EPA's NSR programs. Under the CAA, modification of our generation facilities in a manner that results in increased emissions could subject our existing generation facilities to the far more stringent new source standards applicable to new generation facilities.

The EPA has taken the view that many companies, including many energy producers, have been modifying emissions sources in violation of NSR standards during work considered by the companies to be routine maintenance. The EPA has investigated alleged violations of the NSR standards at certain of our existing and former generating facilities. We intend to vigorously pursue and defend our position, but we are unable to predict their outcomes. If NSR and similar requirements are imposed on our generation facilities, in addition to the possible imposition of fines, compliance could entail significant capital investments in pollution control technology, which could have an adverse impact on our business, results of operations, cash flows and financial condition.

Costs of Compliance with Environmental Laws are Significant, and the Cost of Compliance with New Environmental Laws, Including Limitations on GHG Emissions Related to Climate Change, Could Adversely Affect Cash Flows and Financial Condition

Our operations are subject to extensive federal, state and local environmental statutes, rules and regulations. Compliance with these legal requirements requires us to incur costs for, among other things, installation and operation of pollution control equipment, emissions monitoring and fees, remediation and permitting at our facilities. These expenditures have been significant in the past and may increase in the future. We may be forced to shut down other facilities or change their operating status, either temporarily or permanently, if we are unable to comply with these or other existing or new environmental requirements, or if the expenditures required to comply with such requirements are unreasonable.

Moreover, new environmental laws or regulations including, but not limited to GHG Emissions, CWA effluent limitations imposing more stringent water discharge regulations, or other changes to existing environmental laws or regulations may materially increase our costs of compliance or accelerate the timing of capital expenditures. Our compliance strategy, including but not limited to, our assumptions regarding estimated compliance costs, although reasonably based on available information, may not successfully address future relevant standards and interpretations. If we fail to comply with environmental laws and regulations or new interpretations of longstanding requirements, even if caused by factors beyond our control, that failure could result in the assessment of civil or criminal liability and fines. In addition, any alleged violation of environmental laws and regulations may require us to expend significant resources to defend against any such alleged violations. Due to the uncertainty of control technologies available to reduce GHG emissions, any legal obligation that requires substantial reductions of GHG emissions could result in substantial additional costs, adversely affecting cash flows and profitability, and raise uncertainty about the future viability of fossil fuels, particularly coal, as an energy source for new and existing electric generation facilities.

We Are or May Be Subject to Environmental Liabilities, Including Costs of Remediation of Environmental Contamination at Current or Formerly Owned Facilities, Which Could Have a Material Adverse effect on Our Results of Operations and Financial Condition

We may be subject to liability under environmental laws for the costs of remediating environmental contamination of property now or formerly owned or operated by us and of property contaminated by hazardous substances that we may have generated regardless of whether the liabilities arose before, during or after the time we owned or operated the facilities. We are currently involved in a number of proceedings relating to sites where hazardous substances have been released and we may be subject to additional proceedings in the future. We also have current or previous ownership interests in sites associated with the production of gas and the production and delivery of electricity for which we may be liable for additional costs related to investigation, remediation and monitoring of these sites. Remediation activities associated with our former MGP operations are one source of such costs. Citizen groups or others may bring litigation over environmental issues including claims of various types, such as property damage, personal injury, and citizen challenges to compliance decisions on the enforcement of environmental requirements, such as opacity and other air quality standards, which could subject us to penalties, injunctive relief and the cost of litigation. We cannot predict the amount and timing of all future expenditures (including the potential or magnitude of fines or penalties) related to such environmental matters, although we expect that they could be material. In addition, there can be no assurance that any liabilities, losses or expenditures we may incur related to such environmental liabilities or contamination will be covered under any applicable insurance policies or that the amount of insurance will be adequate.

In some cases, a third party who has acquired assets from us has assumed the liability we may otherwise have for environmental matters related to the transferred property. If the transferee fails to discharge the assumed liability or disputes its responsibility, a regulatory authority or injured person could attempt to hold us responsible, and our remedies against the transferee may be limited by the financial resources of the transferee.

The Risks Associated with Climate Change May Have an Adverse Impact on Our Business Operations, Financial Condition and Cash Flows

Physical risks of climate change, such as more frequent or more extreme weather events, changes in temperature and precipitation patterns, and other related phenomena, could affect some, or all, of our operations. Severe weather or other natural disasters could be destructive, which could result in increased costs, including supply chain costs. An extreme weather event within the Utilities' service areas can also directly affect their capital assets, causing disruption in service to customers due to downed wires and poles or damage to other operating equipment. Further, as extreme weather conditions increase system stress, we may incur costs relating to additional system backup or service interruptions, and in some instances, we may be unable to recover such costs. For all of these reasons, these physical risks could have an adverse financial impact on our business operations, financial condition and cash flows. Climate change poses other financial risks as well. To the extent weather conditions are affected by climate change, customers' energy use could increase or decrease depending on the duration and magnitude of the changes. Increased energy use due to weather changes may require us to invest in additional system assets and purchase additional power. Additionally, decreased energy use due to weather changes may affect our financial condition through decreased rates, revenues, margins or earnings.

We Could be Exposed to Private Rights of Action Relating to Environmental Matters Seeking Damages Under Various State and Federal Law Theories Which Could Have an Adverse Impact on Our Results of Operations, Financial Condition, Cash Flows and Business Operations

Private individuals may seek to enforce environmental laws and regulations against us and could allege personal injury, property damages or other relief. For example, claims have been made against certain energy companies alleging that CO_2 emissions from power generating facilities constitute a public nuisance under federal and/or state common law. While FirstEnergy is not a party to this litigation, it, and/or one of its subsidiaries, could be named in other actions making similar allegations. An unfavorable ruling in any such case could result in the need to make modifications to our coal-fired plants or reduce emissions, suspend operations or pay money damages or penalties. Adverse rulings in these or other types of actions could have an adverse impact on our results of operations, cash flows and financial condition and could significantly impact our business operations.

We Are and May Become Subject to Legal Claims Arising from the Presence of Asbestos or Other Regulated Substances at Some of Our Facilities that May Have an Adverse Impact on our Business Operations, Financial Condition and Cash Flows

We have been named as a defendant in pending asbestos litigations involving multiple plaintiffs and multiple defendants, in several states. The majority of these claims arise out of alleged past exposures by contractors (and in Pennsylvania, former employees) at both currently and formerly owned electric generation plants. In addition, asbestos and other regulated substances are, and may continue to be, present at currently owned facilities where suitable alternative materials are not available. We believe that any remaining asbestos at our facilities is contained and properly identified in accordance with applicable governmental regulations, including OSHA. The continued presence of asbestos and other regulated substances at these facilities, however, could result in additional actions being brought against us. This is further complicated by the fact that many diseases, such as mesothelioma and cancer, have long latency periods in which the disease process develops, thus making it impossible to accurately predict the types and numbers of such claims in the near future. While insurance coverages exist for many of these pending asbestos litigations, others have no such coverages, resulting in FirstEnergy being responsible for all defense expenditures, as well as any settlements or verdict payouts.

Risks Related to Business Operations Generally

Temperature Variations as well as Severe Weather Conditions or other Natural Disasters Could Have an Adverse Impact on Our Results of Operations and Financial Condition

Weather conditions directly influence the demand for electric power. Demand for power generally peaks during the summer and winter months, with market prices also typically peaking at that time. Overall operating results may fluctuate based on weather conditions. In addition, we have historically sold less power, and consequently received less revenue, when weather conditions are milder. Severe weather, such as tornadoes, hurricanes, ice or snowstorms, droughts, high winds or other natural disasters, may cause outages and property damage that may require us to incur additional costs that are generally not insured and that may not be recoverable from customers. The effect of the failure of our facilities to operate as planned under these conditions would be particularly burdensome during a peak demand period and could have an adverse effect on our financial condition and results of operations.

We Are Subject to Financial Performance Risks from Regional and General Economic Cycles as Well as Heavy Industries such as Shale Gas, Automotive and Steel

Our business follows economic cycles. Economic conditions impact the demand for electricity and declines in the demand for electricity will reduce our revenues. The regional economy in which our Utilities operate is influenced by conditions in industries

in our business territories, e.g. shale gas, automotive, chemical, steel and other heavy industries, and as these conditions change, our revenues will be impacted.

We Are Subject to Risks Arising from the Operation of Our Power Plants and Transmission and Distribution Equipment Which Could Reduce Revenues, Increase Expenses and Have a Material Adverse Effect on Our Business, Financial Condition and Results of Operations

Operation of generation, transmission and distribution facilities involves risk, including the risk of potential breakdown or failure of equipment or processes due to aging infrastructure, fuel supply or transportation disruptions, accidents, labor disputes or work stoppages by employees, human error in operations or maintenance, acts of terrorism or sabotage, construction delays or cost overruns, shortages of or delays in obtaining equipment, material and labor, operational restrictions resulting from environmental requirements and governmental interventions, and performance below expected levels. In addition, weather-related incidents and other natural disasters can disrupt generation, transmission and distribution delivery systems. Because our transmission facilities are interconnected with those of third parties, the operation of our facilities could be adversely affected by unexpected or uncontrollable events occurring on the systems of such third parties.

Failure to Provide Safe and Reliable Service and Equipment Could Result in Serious Injury or Loss of Life That May Harm Our Business Reputation and Adversely Affect Our Operating Results

We are committed to provide safe and reliable service and equipment in our franchised service territories. Meeting this commitment requires the expenditure of significant capital resources. However, our employees, contractors and the general public may be exposed to dangerous environments due to the nature of our operations. Failure to provide safe and reliable service and equipment due to various factors, including equipment failure, accidents and weather, could result in serious injury or loss of life that may harm our business reputation and adversely affect our operating results through reduced revenues, increased capital and operating costs, litigation or the imposition of penalties/fines or other adverse regulatory outcomes.

Cyber-Attacks, Data Security Breaches and Other Disruptions to Our Information Technology Systems Could Compromise Our Business Operations, Critical and Proprietary Information and Employee and Customer Data, Which Could Have a Material Adverse Effect on Our Business, Results of Operations, Financial Condition and Reputation

In the ordinary course of our business, we depend on information technology systems that utilize sophisticated operational systems and network infrastructure to run all facets of our generation, transmission and distribution services. Additionally, we store sensitive data, intellectual property and proprietary or personally identifiable information regarding our business, employees, shareholders, customers, suppliers, business partners and other individuals in our data centers and on our networks. The secure maintenance of information and information technology systems is critical to our operations.

Over the last several years, there has been an increase in the frequency of cyber-attacks by terrorists, hackers, international activist organizations, countries and individuals. These and other unauthorized parties may attempt to gain access to our network systems or facilities, or those of third parties with whom we do business in many ways, including directly through our network infrastructure or through fraud, trickery, or other forms of deceiving our employees, contractors and temporary staff. Additionally, our information and information technology systems may be increasingly vulnerable to data security breaches, damage and/or interruption due to viruses, human error, malfeasance, faulty password management or other malfunctions and disruptions. Further, hardware, software, or applications we develop or procure from third parties may contain defects in design or manufacture or other problems that could unexpectedly compromise information and/or security.

Despite security measures and safeguards we have employed, including certain measures implemented pursuant to mandatory NERC Critical Infrastructure Protection standards, our infrastructure may be increasingly vulnerable to such attacks as a result of the rapidly evolving and increasingly sophisticated means by which attempts to defeat our security measures and gain access to our information technology systems may be made. Also, we may be at an increased risk of a cyber-attack and/or data security breach due to the nature of our business.

Any such cyber-attack, data security breach, damage, interruption and/or defect could: (i) disable our generation, transmission (including our interconnected regional transmission grid) and/or distribution services for a significant period of time; (ii) delay development and construction of new facilities or capital improvement projects; (iii) adversely affect our customer operations; (iv) corrupt data; and/or (v) result in unauthorized access to the information stored in our data centers and on our networks, including, company proprietary information, supplier information, employee data, and personal customer data, causing the information to be publicly disclosed, lost or stolen or result in incidents that could result in economic loss and liability and harmful effects on the environment and human health, including loss of life. Additionally, because our generation, transmission and distribution services are part of an interconnected system, disruption caused by a cybersecurity incident at another utility, electric generator, RTO, or commodity supplier could also adversely affect our operations.

Although we maintain cyber insurance and property and casualty insurance, there can be no assurance that liabilities or losses we may incur, including as a result of cybersecurity-related litigation, will be covered under such policies or that the amount of insurance will be adequate. Further, as cyber threats become more difficult to detect and successfully defend against, there can

be no assurance that we can implement adequate preventive measures, accurately assess the likelihood of a cyber-incident or quantify potential liabilities or losses. Also, we may not discover any data security breach and loss of information for a significant period of time after the data security breach occurs.

For all of these reasons, any such cyber incident could result in significant lost revenue, the inability to conduct critical business functions and serve customers for a significant period of time, the use of significant management resources, legal claims or proceedings, regulatory penalties, significant remediation costs, increased regulation, increased capital costs, increased protection costs for enhanced cybersecurity systems or personnel, damage to our reputation and/or the rendering of our internal controls ineffective, all of which could materially adversely affect our business, results of operations, financial condition and reputation.

Physical Acts of War, Terrorism or Other Attacks on any of Our Facilities or Other Infrastructure Could Have an Adverse Effect on Our Business, Results of Operations, Cash Flows and Financial Condition

As a result of the continued threat of physical acts of war, terrorism, or other attacks in the United States, our electric generation, fuel storage, transmission and distribution facilities and other infrastructure, including power plants, transformer and high voltage lines and substations, or the facilities or other infrastructure of an interconnected company, could be direct targets of, or indirect casualties of, an act of war, terrorism, or other attack, which could result in disruption of our ability to generate, purchase, transmit or distribute electricity for a significant period of time, otherwise disrupt our customer operations and/or result in incidents that could result in harmful effects on the environment and human health, including loss of life. Any such disruption or incident could result in a significant decrease in revenue, significant additional capital and operating costs, including costs to implement additional security systems or personnel to purchase electricity and to replace or repair our assets over and above any available insurance reimbursement, higher insurance deductibles, higher premiums and more restrictive insurance policies, legal claims or proceedings, greater regulation with higher attendant costs, generally, and significant damage to our reputation, which could have a material adverse effect on our business, results of operations, cash flows and financial condition.

Capital Improvements and Construction Projects May Not be Completed Within Forecasted Budget, Schedule or Scope Parameters or Could be Canceled Which Could Adversely Affect Our Business and Results of Operations

Our business plan calls for execution of extensive capital investments in transmission and distribution, including but not limited to our *Energizing the Future* transmission expansion program. We also anticipate spending up to $1.7 billion per year in distribution capital expenditures through 2023. We may be exposed to the risk of substantial price increases in, or the adequacy or availability of, the costs of labor and materials used in construction, nonperformance of equipment and increased costs due to delays, including delays relating to the procurement of permits or approvals, adverse weather or environmental matters. We engage numerous contractors and enter into a large number of construction agreements to acquire the necessary materials and/or obtain the required construction-related services. As a result, we are also exposed to the risk that these contractors and other counterparties could breach their obligations to us. Such risk could include our contractors' inabilities to procure sufficient skilled labor as well as potential work stoppages by that labor force. Should the counterparties to these arrangements fail to perform, we may be forced to enter into alternative arrangements at then-current market prices that may exceed our contractual prices, with resulting delays in those and other projects. Although our agreements are designed to mitigate the consequences of a potential default by the counterparty, our actual exposure may be greater than these mitigation provisions. Also, because we enter into construction agreements for the necessary materials and to obtain the required construction related services, any cancellation by FirstEnergy of a construction agreement could result in significant termination payments or penalties. Any delays, increased costs or losses or cancellation of a construction project could adversely affect our business and results of operations, particularly if we are not permitted to recover any such costs in rates.

The Outcome of Litigation, Arbitration, Mediation, and Similar Proceedings Involving Our Business, or That of One or More of Our Operating Subsidiaries, Is Unpredictable and an Adverse Decision in Any Material Proceeding Could Have a Material Adverse Effect on Our Financial Condition and Results of Operations

We are involved in a number of litigation, arbitration, mediation, and similar proceedings. These and other matters may divert financial and management resources that would otherwise be used to benefit our operations. Further, no assurances can be given that the resolution of these matters will be favorable to us. If certain matters were ultimately resolved unfavorably to us, the results of operations and financial condition of FirstEnergy could be materially adversely impacted.

In addition, we are sometimes subject to investigations and inquiries by various state and federal regulators due to the heavily regulated nature of our industry. Any material inquiry or investigation could potentially result in an adverse ruling against us, which could have a material adverse impact on our financial condition and operating results.

We Face Certain Human Resource Risks Associated with Potential Labor Disruptions and/or With the Availability of Trained and Qualified Labor to Meet Our Future Staffing Requirements

We are continually challenged to find ways to balance the retention of our aging skilled workforce while recruiting new talent to mitigate losses in critical knowledge and skills due to retirements. Additionally, a significant number of our physical workforce are

represented by unions. While we believe that our relations with our employees are generally fair, we cannot provide assurances that the company will be completely free of labor disruptions such as work stoppages, work slowdowns, union organizing campaigns, strikes, lockouts or that any labor disruption will be favorably resolved. Mitigating these risks could require additional financial commitments and the failure to prevent labor disruptions and retain and/or attract trained and qualified labor could have an adverse effect on our business.

Significant Increases in Our Operation and Maintenance Expenses, Including Our Health Care and Pension Costs, Could Adversely Affect Our Future Earnings and Liquidity

We continually focus on limiting, and reducing where possible, our operation and maintenance expenses. However, we expect to continue to face increased cost pressures related to operation and maintenance expenses, including in the areas of health care and pension costs. We have experienced health care cost inflation in recent years, and we expect our cash outlay for health care costs, including prescription drug coverage, to continue to increase despite measures that we have taken requiring employees and retirees to bear a higher portion of the costs of their health care benefits. The measurement of our expected future health care and pension obligations and costs is highly dependent on a variety of assumptions, many of which relate to factors beyond our control. These assumptions include investment returns, interest rates, discount rates, health care cost trends, benefit design changes, salary increases, the demographics of plan participants and regulatory requirements. While we anticipate that our operation and maintenance expenses will continue to increase, if actual results differ materially from our assumptions, our costs could be significantly higher than expected which could adversely affect our results of operations, financial condition and liquidity.

Changes in Technology and Regulatory Policies May Make Our Facilities Significantly Less Competitive and Adversely Affect Our Results of Operations

Traditionally, electricity is generated at large, central station generation facilities. This method results in economies of scale and lower unit costs than newer generation technologies such as fuel cells, microturbines, windmills and photovoltaic solar cells. It is possible that advances in newer generation technologies will make newer generation technologies more cost-effective, or that changes in regulatory policy will create benefits that otherwise make these newer generation technologies even more competitive with central station electricity production. To the extent that newer generation technologies are connected directly to load, bypassing the transmission and distribution systems, potential impacts could include decreased transmission and distribution revenues, stranded assets and increased uncertainty in load forecasting and integrated resource planning and could adversely affect our business and results of operations.

Energy Companies are Subject to Adverse Publicity Causing Less Favorable Regulatory and Legislative Outcomes Which Could have an Adverse Impact on Our Business

Energy companies, including the Utilities and Transmission Companies, have been the subject of criticism on matters including the reliability of their distribution services and the speed with which they are able to respond to power outages, such as those caused by storm damage. Adverse publicity of this nature, as well as negative publicity associated with the operation or bankruptcy of nuclear and/or coal-fired facilities or proceedings seeking regulatory recoveries may cause less favorable legislative and regulatory outcomes and damage our reputation, which could have an adverse impact on our business.

Risks Associated with Markets and Financial Matters

Interest Rates and/or a Credit Rating Downgrade Could Negatively Affect Our or Our Subsidiaries' Financing Costs, Ability to Access Capital and Requirement to Post Collateral

We have near-term exposure to interest rates from outstanding indebtedness indexed to variable interest rates, and we have exposure to future interest rates to the extent we seek to raise debt in the capital markets to meet maturing debt obligations and fund construction or other investment opportunities. Past disruptions in capital and credit markets have resulted in higher interest rates on new publicly issued debt securities, increased costs for certain of our variable interest rate debt securities and failed remarketing of variable interest rate tax-exempt debt issued to finance certain of our facilities. Similar future disruptions could increase our financing costs and adversely affect our results of operations. Also, interest rates could change as a result of economic or other events that are beyond our risk management processes. As a result, we cannot always predict the impact that our risk management decisions may have if actual events lead to greater losses or costs that our risk management positions were intended to hedge. Although we employ risk management techniques to hedge against interest rate volatility, significant and sustained increases in market interest rates could materially increase our financing costs and negatively impact our reported results of operations.

We rely on access to bank and capital markets as sources of liquidity for cash requirements not satisfied by cash from operations. Additional downgrades in FirstEnergy or FirstEnergy subsidiaries' credit ratings from the nationally recognized credit rating agencies, particularly to levels below investment grade, could negatively affect our ability to access the bank and capital markets, especially in a time of uncertainty in either of those markets, and may require us to post cash collateral to support outstanding commodity positions in the wholesale market, as well as available letters of credit and other guarantees. Furthermore, additional downgrades could increase the cost of such capital by causing us to incur higher interest rates and fees

associated with such capital. Additional rating downgrades would further increase our interest expense on certain of FirstEnergy's long-term debt obligations and would also further increase the fees we pay on our various existing credit facilities, thus increasing the cost of our working capital. Such additional rating downgrades could also negatively impact our ability to grow our regulated businesses or execute on our business strategies by substantially increasing the cost of, or limiting access to, capital.

In addition, events related to the ongoing government investigations may expose us to higher interest rates for additional indebtedness, whether as a result of ratings downgrades or otherwise, and could restrict our ability to obtain additional or replacement financing on acceptable terms or at all. See *"Failure to Comply with Debt Covenants in our Credit Agreements or Conditions Could Adversely Affect our Ability to Execute Future Borrowings and/or Require Early Repayment, and Could Restrict our Ability to Obtain Additional or Replacement Financing on Acceptable Terms or at All."*

Financial Risks Associated with Owning Coal-Fired Generation may have an Adverse Impact on our Business Operations, Financial Condition and Cash Flows

86% of MP's generation fleet, totaling 3,093 MWs, is coal-fired. Recently, certain members of the investment community have adopted investment policies promoting the divestment of coal-fired generation or otherwise limiting new investments in coal-fired generation. The impact of such efforts may adversely affect the demand for and price of our common stock and impact our and MP's access to the capital and financial markets. Further, certain insurance companies have established policies limiting coal-related underwriting and investment. Consequently, these policies aimed at coal-fired generation could have a material adverse impact on our business operations, financial condition, and cash flows.

Our Results of Operations and Financial Condition May be Adversely Affected by the Volatility in Pension and OPEB Expenses Due to Capital Market Performance and Other Changes

FirstEnergy recognizes in income the change in the fair value of plan assets and net actuarial gains and losses for its pension and OPEB plans. This adjustment is recognized in the fourth quarter of each year and whenever a plan is determined to qualify for a remeasurement, resulting in greater volatility in pension and OPEB expenses and may materially impact our results of operations.

Our financial statements reflect the values of the assets held in trust to satisfy our obligations under pension and OPEB plans. Certain of the assets held in these trusts do not have readily determinable market values. Changes in the estimates and assumptions inherent in the value of these assets could affect the value of the trusts. If the value of the assets held by the trusts declines by a material amount, our funding obligation to the trusts could materially increase. These assets are subject to market fluctuations and will yield uncertain returns, which may fall below our projected return rates. Forecasting investment earnings and costs to pay future pension and other obligations requires significant judgment and actual results may differ significantly from current estimates. Capital market conditions that generate investment losses or that negatively impact the discount rate and increase the present value of liabilities may have significant impacts on the value of the pension and other trust funds, which could require significant additional funding and negatively impact our results of operations and financial position.

In the Event of Volatility or Unfavorable Conditions in the Capital and Credit Markets, Our Business, Including the Immediate Availability and Cost of Short-Term Funds for Liquidity Requirements, Our Ability to Meet Long-Term Commitments and the Competitiveness and Liquidity of Energy Markets May be Adversely Affected, Which Could Negatively Impact Our Results of Operations, Cash Flows and Financial Condition

We rely on the capital markets to meet our financial commitments and short-term liquidity needs if internal funds are not available from our operations. We also use letters of credit provided by various financial institutions to support our hedging operations. We also deposit cash in short-term investments. In the event of volatility in the capital and credit markets, our ability to draw on our credit facilities and cash may be adversely affected. Our access to funds under those credit facilities is dependent on the ability of the financial institutions that are parties to the facilities to meet their funding commitments. Those institutions may not be able to meet their funding commitments if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests within a short period of time. Any delay in our ability to access those funds, even for a short period of time, could have a material adverse effect on our results of operations and financial condition.

Should there be fluctuations in the capital and credit markets as a result of uncertainty, changing or increased regulation, reduced alternatives or failures of significant foreign or domestic financial institutions or foreign governments, our access to liquidity needed for our business could be adversely affected. Unfavorable conditions could require us to take measures to conserve cash until the markets stabilize or until alternative credit arrangements or other funding for our business needs can be arranged. Such measures could include deferring capital expenditures, changing hedging strategies to reduce collateral-posting requirements, and reducing or eliminating future dividend payments or other discretionary uses of cash.

Energy markets depend heavily on active participation by multiple counterparties, which could be adversely affected should there be disruptions in the capital and credit markets. Reduced capital and liquidity and failures of significant institutions that participate in the energy markets could diminish the liquidity and competitiveness of energy markets that are important to our business. Perceived weaknesses in the competitive strength of the energy markets could lead to pressures for greater regulation of those

markets or attempts to replace those market structures with other mechanisms for the sale of power, including the requirement of long-term contracts, which could have a material adverse effect on our results of operations and cash flows.

Our Use of Non-Derivative and Derivative Contracts to Mitigate Risks Could Result in Financial Losses That May Negatively Impact Our Financial Results

We may use a variety of non-derivative and derivative instruments, such as swaps, options, futures and forwards, to manage our financial market risks. In the absence of actively quoted market prices and pricing information from external sources, the valuation of some of these derivative instruments involves management's judgment or use of estimates. As a result, changes in the underlying assumptions or use of alternative valuation methods could affect the reported fair value of some of these contracts. Also, we could recognize financial losses as a result of volatility in the market value of these contracts if a counterparty fails to perform or if there is limited liquidity of these contracts in the market.

The Anticipated Phasing Out of LIBOR after 2021 Could Adversely Affect our Financial Results

A portion of FirstEnergy's indebtedness bears interest at fluctuating interest rates, primarily based on LIBOR. LIBOR tends to fluctuate based on general interest rates, rates set by the U.S. Federal Reserve and other central banks, the supply of and demand for credit in the London interbank market and general economic conditions. FirstEnergy has not hedged its interest rate exposure with respect to its floating rate debt. Accordingly, FirstEnergy's interest expense for any particular period will fluctuate based on LIBOR and other variable interest rates. On July 27, 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021, and there is considerable uncertainty regarding the publication of LIBOR beyond 2021. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is considering replacing U.S. dollar LIBOR with a newly created index (the secured overnight financing rate or SOFR), calculated based on repurchase agreements backed by treasury securities. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom, the United States or elsewhere. To the extent these interest rates increase, interest expense will increase. If sources of capital for FirstEnergy are reduced, capital costs could increase materially. Restricted access to capital markets and/or increased borrowing costs could have an adverse effect on our results of operations, cash flows, financial condition and liquidity.

We Must Rely on Cash from Our Subsidiaries and Any Restrictions on The Utilities and Transmission Companies' Ability to Pay Dividends or Make Cash Payments to Us May Adversely Affect Our Cash Flows and Financial Condition

We are a holding company and our investments in our subsidiaries are our primary assets. Substantially all of our business is conducted by our subsidiaries. Consequently, our cash flow, including our ability to pay dividends and service debt, is dependent on the operating cash flows of our subsidiaries and their ability to upstream cash to the holding company. Any inability of our subsidiaries to pay dividends or make cash payments to us may adversely affect our cash flows and financial condition.

Additionally, the Utilities and Transmission Companies are regulated by various state utility and federal commissions that generally possess broad powers to ensure that the needs of utility customers are being met. Those state and federal commissions could attempt to impose restrictions on the ability of the Utilities and Transmission Companies to pay dividends or otherwise restrict cash payments to us.

We Cannot Assure Common Shareholders that Future Dividend Payments Will be Made, or if Made, in What Amounts They May be Paid

Our Board of Directors will continue to regularly evaluate our common stock dividend and determine whether to declare a dividend, and an appropriate amount thereof, each quarter taking into account such factors as, among other things, our earnings, financial condition and cash flows from subsidiaries, as well as general economic and competitive conditions. We cannot assure common shareholders that dividends will be paid in the future, or that, if paid, dividends will be at the same amount or with the same frequency as in the past.

Certain FirstEnergy Companies Have Guaranteed the Performance of Third Parties, Which May Result in Substantial Costs or the Incurrence of Additional Debt and Adversely Affect Our Results of Operations, Cash Flows and Financial Condition

Certain FirstEnergy companies have issued guarantees of the performance of others, which obligates such FirstEnergy companies to perform in the event that the third parties do not perform. For instance, FE is a guarantor under a syndicated senior secured term loan facility, under which Global Holding's outstanding principal balance is approximately $108 million at December 31, 2020. In the event of non-performance by the third parties, FirstEnergy could incur substantial cost to fulfill this obligation and other obligations under such guarantees. Such performance guarantees could have a material adverse impact on our financial position and operating results.

Additionally, with respect to FEV's investment in Global Holding, it could require additional capital from its owners, including FEV, to fund operations and meet its obligations under its term loan facility. These capital requirements could be significant and if other partners do not fund the additional capital, resulting in FEV increasing its equity ownership and obtaining the ability to direct the

significant activities of Global Holding, FEV may be required to consolidate Global Holding, increasing FirstEnergy's debt by $108 million.

The Tax Characterization of Our Distributions to Shareholders Will Fluctuate

When we make distributions to shareholders, we are required to subsequently determine and report the tax characterization of those distributions for purposes of shareholders' income taxes. Whether a distribution is characterized as a dividend or a return of capital (and possible capital gain) depends upon an internal tax calculation to determine earnings and profits for income tax purposes (E&P). E&P should not be confused with earnings or net income under GAAP. Further, after we report the expected tax characterization of distributions we have paid, the actual characterization could vary from our expectation with the result that holders of our common stock could incur different income tax liabilities than expected.

In general, distributions are characterized as dividends to the extent the amount of such distributions do not exceed our calculation of current or accumulated E&P. Distributions in excess of current and accumulated E&P may be treated as a non-taxable return of capital. Generally, a non-taxable return of capital will reduce an investor's basis in our stock for federal tax purposes, which will impact the calculation of gain or loss when the stock is sold.

Our internal calculation of E&P can be impacted by a variety of factors. FirstEnergy exhausted its accumulated E&P in the second half of the 2019 tax year. This elimination of accumulated E&P will make it more likely that at least a portion of our current or future distributions will be characterized for shareholders' tax purposes as a return of capital. Upon such characterization, shareholders are urged to consult their own tax advisors regarding the income tax treatment of our distributions to them.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The first mortgage indentures for the Ohio Companies, Penn, MP, PE and WP constitute direct first liens on substantially all of the respective physical property, subject only to excepted encumbrances, as defined in the first mortgage indentures. See Note 11, "Capitalization," of the Notes to Consolidated Financial Statements for information concerning financing encumbrances affecting certain of the Utilities' properties.

FirstEnergy controls the following generation sources as of December 31, 2020, shown in the table below. Except for the OVEC participation referenced in the footnotes to the table, the Regulated Distribution segment generating units are owned by either JCP&L or MP.

Plant (Location)	Unit	Total	Corp/Other	Regulated Distribution
		Net Demonstrated Capacity (MW)		
Super-critical Coal-fired:				
Harrison (Haywood, WV)	1-3	1,984	—	1,984
Fort Martin (Maidsville, WV)	1-2	1,098	—	1,098
		3,082	—	3,082
Sub-critical and Other Coal-fired:				
OVEC (Cheshire, OH) (Madison, IN)	1-11	78 (1)	67	11
Pumped-storage Hydro:				
Bath County (Warm Springs, VA)	1-6	487 (2)	—	487
Yards Creek (Blairstown Twp., NJ)	1-3	210 (3)	—	210
		697	—	697
Total		**3,857**	**67**	**3,790**

(1) Represents AE Supply's 3.01% and MP's 0.49% entitlement based on their participation in OVEC.
(2) Represents AGC's 16.25% undivided interest in Bath County. The station is operated by VEPCO.
(3) Represents JCP&L's 50% ownership interest, which is being sold pursuant to an asset purchase agreement dated April 6, 2020, with the sale anticipated being completed in the first quarter of 2021.

The above generating plants and load centers are connected by a transmission system with various voltage ratings ranging from 23 kV to 500 kV. FirstEnergy's overhead and underground transmission lines aggregate 24,035 circuit miles.

The Utilities' electric distribution systems include 272,531 miles of overhead pole line and underground conduit carrying primary, secondary and street lighting circuits.

FirstEnergy owns substations with a total installed transformer capacity of 155,920,348 kV-amperes.

All of FirstEnergy's transmission, distribution and generation assets operate in PJM.

FirstEnergy's distribution and transmission systems as of December 31, 2020, consist of the following:

	Distribution Lines[1]	Transmission Lines[1]	Substation Transformer Capacity[2]
			kV Amperes
OE	67,852	—	7,202,811
Penn	13,644	—	915,584
CEI	33,073	—	9,219,531
TE	19,141	—	2,723,706
JCP&L	23,750	2,595	21,326,473
ME	19,014	—	4,765,730
PN	27,716	—	6,694,735
ATSI[3]	—	7,894	38,131,082
WP	25,114	4,322	14,298,948
MP	22,616	2,611	13,213,643
PE	20,611	2,086	10,537,204
TrAIL	—	262	13,835,000
MAIT	—	4,265	13,055,901
Total	272,531	24,035	155,920,348

(1) Circuit Miles
(2) Top rating of in-service power transformers only. Excludes grounding banks, station power transformers, and generator and customer-owned transformers.
(3) Represents transmission line assets of 69 kV and greater located in the service territories of the Ohio Companies and Penn.

ITEM 3. LEGAL PROCEEDINGS

Reference is made to Note 14, "Regulatory Matters," and Note 15, "Commitments, Guarantees and Contingencies," of the Notes to Consolidated Financial Statements for a description of certain legal proceedings involving FirstEnergy.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

COMMON STOCK

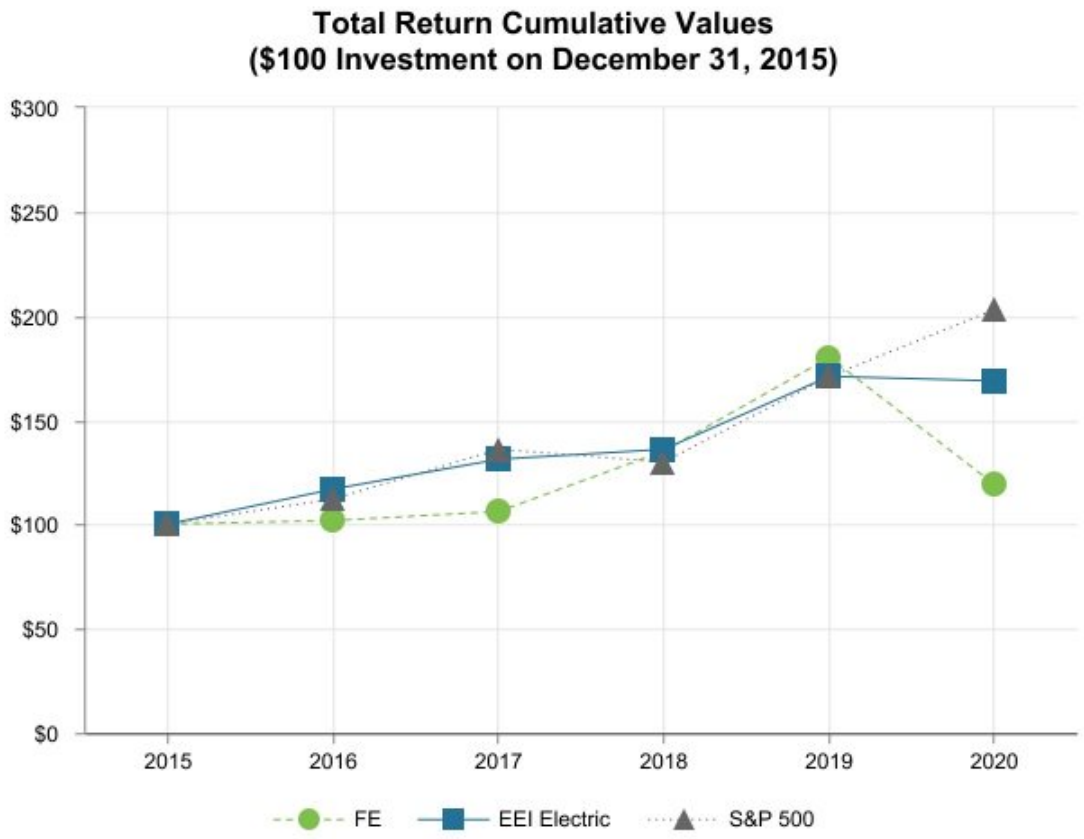
The common stock of FirstEnergy Corp. is listed on the New York Stock Exchange under the symbol "FE" and is traded on other registered exchanges.

HOLDERS OF COMMON STOCK

There were 67,527 holders of 543,117,533 shares of FE's common stock as of December 31, 2020, and 67,252 holders of 543,215,090 shares of FE's common stock as of January 31, 2021. We have historically paid quarterly cash dividends on our common stock. Dividend payments are subject to declaration by the Board and future dividend decisions determined by the Board may be impacted by earnings growth, cash flows, credit metrics and other business conditions. Information regarding retained earnings available for payment of cash dividends is given in Note 11, "Capitalization," of the Notes to Consolidated Financial Statements.

SHAREHOLDER RETURN

The following graph shows the total cumulative return from a $100 investment on December 31, 2015, in FE's common stock compared with the total cumulative returns of EEI's Index of Investor-Owned Electric Utility Companies and the S&P 500.



FirstEnergy had no transactions regarding purchases of FE common stock during the fourth quarter of 2020.

FirstEnergy does not have any publicly announced plan or program for share purchases.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements: This Form 10-K includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 based on information currently available to management. Such statements are subject to certain risks and uncertainties and readers are cautioned not to place undue reliance on these forward-looking statements. These statements include declarations regarding management's intents, beliefs and current expectations. These statements typically contain, but are not limited to, the terms "anticipate," "potential," "expect," "forecast," "target," "will," "intend," "believe," "project," "estimate," "plan" and similar words. Forward-looking statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements, which may include the following (see Glossary of Terms for definitions of capitalized terms):

- The results of the ongoing internal investigation matters and evaluation of our controls framework and remediation of our material weakness in internal control over financial reporting.
- The risks and uncertainties associated with government investigations regarding HB 6 and related matters including potential adverse impacts on federal or state regulatory matters including, but not limited to, matters relating to rates.
- The risks and uncertainties associated with litigation, arbitration, mediation and similar proceedings.
- Legislative and regulatory developments, including, but not limited to, matters related to rates, compliance and enforcement activity.
- The ability to accomplish or realize anticipated benefits from strategic and financial goals, including, but not limited to, maintaining financial flexibility, overcoming current uncertainties and challenges associated with the ongoing governmental investigations, executing our transmission and distribution investment plans, controlling costs, improving our credit metrics, strengthening our balance sheet and growing earnings.
- Economic and weather conditions affecting future operating results, such as a recession, significant weather events and other natural disasters, and associated regulatory events or actions in response to such conditions.
- Mitigating exposure for remedial activities associated with retired and formerly owned electric generation assets.
- The extent and duration of COVID-19 and the impacts to our business, operations and financial condition resulting from the outbreak of COVID-19 including, but not limited to, disruption of businesses in our territories, volatile capital and credit markets, legislative and regulatory actions, the effectiveness of our pandemic and business continuity plans, the precautionary measures we are taking on behalf of our customers, contractors and employees, our customers' ability to make their utility payment and the potential for supply-chain disruptions.
- The potential of non-compliance with debt covenants in our credit facilities due to matters associated with the government investigations regarding HB 6 and related matters.
- The ability to access the public securities and other capital and credit markets in accordance with our financial plans, the cost of such capital and overall condition of the capital and credit markets affecting us, including the increasing number of financial institutions evaluating the impact of climate change on their investment decisions.
- Actions that may be taken by credit rating agencies that could negatively affect either our access to or terms of financing or our financial condition and liquidity.
- Changes in assumptions regarding economic conditions within our territories, the reliability of our transmission and distribution system, or the availability of capital or other resources supporting identified transmission and distribution investment opportunities.
- Changes in customers' demand for power, including, but not limited to, the impact of climate change or energy efficiency and peak demand reduction mandates.
- Changes in national and regional economic conditions affecting us and/or our major industrial and commercial customers or others with which we do business.
- The risks associated with cyber-attacks and other disruptions to our information technology system, which may compromise our operations, and data security breaches of sensitive data, intellectual property and proprietary or personally identifiable information.
- The ability to comply with applicable reliability standards and energy efficiency and peak demand reduction mandates.
- Changes to environmental laws and regulations, including, but not limited to, those related to climate change.
- Changing market conditions affecting the measurement of certain liabilities and the value of assets held in our pension trusts and other trust funds, or causing us to make contributions sooner, or in amounts that are larger, than currently anticipated.
- Labor disruptions by our unionized workforce.
- Changes to significant accounting policies.
- Any changes in tax laws or regulations, or adverse tax audit results or rulings.
- The risks and other factors discussed from time to time in our SEC filings.

Dividends declared from time to time on our common stock during any period may in the aggregate vary from prior periods due to circumstances considered by our Board of Directors at the time of the actual declarations. A security rating is not a recommendation to buy or hold securities and is subject to revision or withdrawal at any time by the assigning rating agency. Each rating should be evaluated independently of any other rating.

These forward-looking statements are also qualified by, and should be read together with, the risk factors included in (a) Item 1A. Risk Factors, (b) Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, and (c) other factors discussed herein and in FirstEnergy's other filings with the SEC. The foregoing review of factors also should not be construed as exhaustive. New factors emerge from time to time, and it is not possible for management to predict all such factors, nor assess the impact of any such factor on our business or the extent to which any factor, or combination of factors, may cause results to differ materially from those contained in any forward-looking statements. We expressly disclaim any obligation to update or revise, except as required by law, any forward-looking statements contained herein or in the information incorporated by reference as a result of new information, future events or otherwise.

FIRSTENERGY'S BUSINESS

FE and its subsidiaries are principally involved in the transmission, distribution and generation of electricity through its reportable segments, Regulated Distribution and Regulated Transmission.

The **Regulated Distribution** segment distributes electricity through FirstEnergy's ten utility operating companies, serving approximately six million customers within 65,000 square miles of Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York, and purchases power for its POLR, SOS, SSO and default service requirements in Ohio, Pennsylvania, New Jersey and Maryland. This segment also controls 3,790 MWs of regulated electric generation capacity located primarily in West Virginia, Virginia and New Jersey, of which, 210 MWs are related to the Yards Creek generating station that is being sold pursuant to an asset purchase agreement as further discussed below. The segment's results reflect the costs of securing and delivering electric generation from transmission facilities to customers, including the deferral and amortization of certain related costs.

The service areas of, and customers served by, FirstEnergy's regulated distribution utilities as of December 31, 2020, are summarized below:

Company	Area Served	Customers Served
		(In thousands)
OE	Central and Northeastern Ohio	1,060
Penn	Western Pennsylvania	169
CEI	Northeastern Ohio	755
TE	Northwestern Ohio	314
JCP&L	Northern, Western and East Central New Jersey	1,147
ME	Eastern Pennsylvania	580
PN	Western Pennsylvania and Western New York	588
WP	Southwest, South Central and Northern Pennsylvania	734
MP	Northern, Central and Southeastern West Virginia	395
PE	Western Maryland and Eastern West Virginia	426
		6,168

The **Regulated Transmission** segment provides transmission infrastructure owned and operated by the Transmission Companies and certain of FirstEnergy's utilities (JCP&L, MP, PE and WP) to transmit electricity from generation sources to distribution facilities. The segment's revenues are primarily derived from forward-looking formula rates at the Transmission Companies as well as stated transmission rates at MP, PE and WP; although as explained in Note 14, "Regulatory Matters", effective January 1, 2021, subject to refund, MP's, PE's and WP's existing stated rates became forward-looking formula rates. JCP&L previously had stated transmission rates, however, effective January 1, 2020, JCP&L implemented forward-looking formula rates, subject to refund, pending further hearing and settlement proceedings. Both forward-looking formula and stated rates recover costs that FERC determines are permitted to be recovered and provide a return on transmission capital investment. Under forward-looking formula rates, the revenue requirement is updated annually based on a projected rate base and projected costs, which is subject to an annual true-up based on actual costs. Revenue requirements under stated rates are calculated annually by multiplying the highest one-hour peak load in each respective transmission zone by the approved, stated rate in that zone. The segment's results also reflect the net transmission expenses related to the delivery of electricity on FirstEnergy's transmission facilities.

Corporate/Other reflects corporate support costs not charged to FE's subsidiaries, including FE's retained Pension and OPEB assets and liabilities of the FES Debtors, interest expense on FE's holding company debt and other businesses that do not constitute an operating segment. Additionally, reconciling adjustments for the elimination of inter-segment transactions and discontinued operations are included in Corporate/Other. As of December 31, 2020, 67 MWs of electric generating capacity, representing AE Supply's OVEC capacity entitlement, was included in continuing operations of Corporate/Other. As of December 31, 2020, Corporate/Other had approximately $8.2 billion of FE holding company debt.

EXECUTIVE SUMMARY

FirstEnergy is a forward-thinking fully regulated electric utility focused on stable and predictable earnings and cash flow from its regulated business units - Regulated Distribution and Regulated Transmission - through delivering enhanced customer service and reliability that supports FE's dividend.

On July 21, 2020, a complaint and supporting affidavit containing federal criminal allegations were unsealed against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. Also, on July 21, 2020, and in connection with the investigation, FirstEnergy received subpoenas for records from the U.S. Attorney's Office for the S.D. Ohio. FirstEnergy was not aware of the criminal allegations, affidavit or subpoenas before July 21, 2020. In addition to the subpoenas referenced above, the OAG, certain FE shareholders and FirstEnergy customers filed several lawsuits against FirstEnergy and certain current and former directors, officers and other employees, each relating to the allegations against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. In addition, on August 10, 2020, the SEC, through its Division of Enforcement, issued an order directing an investigation of possible securities laws violations by FE, and on September 1, 2020, issued subpoenas to FE and certain FE officers.

As previously disclosed, a committee of independent members of the Board of Directors is directing an internal investigation related to ongoing government investigations. In connection with FirstEnergy's internal investigation, such committee determined on October 29, 2020, to terminate FirstEnergy's Chief Executive Officer, Charles E. Jones, together with two other executives: Dennis M. Chack, Senior Vice President of Product Development, Marketing, and Branding; and Michael J. Dowling, Senior Vice President of External Affairs. Each of these terminated executives violated certain FirstEnergy policies and its code of conduct. These executives were terminated as of October 29, 2020. Such former members of senior management did not maintain and promote a control environment with an appropriate tone of compliance in certain areas of FirstEnergy's business, nor sufficiently promote, monitor or enforce adherence to certain FirstEnergy policies and its code of conduct. Furthermore, certain former members of senior management did not reasonably ensure that relevant information was communicated within our organization and not withheld from our independent directors, our Audit Committee, and our independent auditor. Among the matters considered with respect to the determination by the committee of independent members of the Board of Directors that certain former members of senior management violated certain FirstEnergy policies and its code of conduct related to a payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place since 2013. The counterparty to such agreement was an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. FirstEnergy believes that payments under the consulting agreement may have been for purposes other than those represented within the consulting agreement. Immediately following these terminations, the independent members of its Board appointed Mr. Steven E. Strah to the position of Acting Chief Executive Officer and Mr. Christopher D. Pappas, a current member of the Board, to the temporary position of Executive Director, each effective as of October 29, 2020. Mr. Donald T. Misheff will continue to serve as Non-Executive Chairman of the Board. Additionally, on November 8, 2020, Robert P. Reffner, Senior Vice President and Chief Legal Officer, and Ebony L. Yeboah-Amankwah, Vice President, General Counsel, and Chief Ethics Officer, were separated from FirstEnergy due to inaction and conduct that the Board determined was influenced by the improper tone at the top. The matter is a subject of the ongoing internal investigation as it relates to the government investigations.

Also, in connection with the internal investigation, FirstEnergy recently identified certain transactions, which, in some instances, extended back ten years or more, including vendor services, that were either improperly classified, misallocated to certain of the Utilities and Transmission Companies, or lacked proper supporting documentation. These transactions resulted in amounts collected from customers that were immaterial to FirstEnergy, and the Utilities and Transmission Companies will be working with the appropriate regulatory agencies to address these amounts.

On January 31, 2021, FirstEnergy reached a partial settlement with the OAG and other parties regarding decoupling, which resulted in the Ohio Companies requesting PUCO approval to set the respective decoupling riders (Rider CSR) to zero effective February 9, 2021. While the partial settlement with the OAG focused specifically on decoupling, the Ohio Companies will of their own accord not seek to recover lost distribution revenue from residential and commercial customers. FirstEnergy is committed to pursuing an open dialogue in an appropriate manner with respect to a number of regulatory proceedings currently underway, including several audits, and multi-year SEET and ESP quadrennial review, among other matters. FirstEnergy believes a holistic, transparent discussion with the PUCO staff, and interested stakeholders in the regulatory process, is an important step towards removing uncertainties about regulatory concerns in Ohio and critical to re-establishing trust in FirstEnergy and restoring its reputation.

The Board has formed a new sub-committee of our Audit committee to, together with the Board, assess FirstEnergy's compliance program and implement potential changes, as appropriate. In addition, in his role of Executive Director, Mr. Pappas assisted the FirstEnergy leadership team with execution of strategic initiatives, engage with FirstEnergy's external stakeholders, and support the development of enhanced controls and governance policies and procedures. Additionally, on February 17, 2021, the Board appointed Mr. John Somerhalder to the positions of Vice Chairperson of the Board and Executive Director, each effective as of March 1, 2021, increasing the size of the Board from 10 to 11 members. Mr. Somerhalder has been elected to serve for a term expiring at the Company's 2021 Annual Meeting of Shareholders and until his successor shall have been

elected. Mr. Donald T. Misheff will continue to serve as Non-Executive Chairman of the Board. Mr. Pappas, who was named to the temporary role of Executive Director in October 2020, will continue to serve on the Board of the Company as an independent director. Mr. Somerhalder will help lead efforts to enhance the company's reputation.

Despite the many disruptions FirstEnergy is currently facing, the leadership team remains committed and focused on executing its strategy and running the business. See “Outlook - Other Legal Proceedings” below for additional details on the government investigation and subsequent litigation surrounding the investigation of HB 6. See also “Outlook - State Regulation - Ohio” below for details on the PUCO proceeding reviewing political and charitable spending and legislative activity in response to the investigation of HB 6. The outcome of the government investigations, PUCO proceedings, legislative activity, and any of these lawsuits is uncertain and could have a material adverse effect on FE’s or its subsidiaries’ financial condition, results of operations and cash flows. FirstEnergy is considering reductions to its Regulated Distribution and Regulated Transmission capital investment plans and reductions to operating expenses, as well as changes to its planned equity issuances, to allow for flexibility should a fine or other regulatory actions be imposed as a result of the government investigations.

FirstEnergy is also working to improve how it conducts business and serve its customers. To address opportunities for improvement, FirstEnergy kicked off a new initiative to make process and cultural improvements across our entire organization that will keep FirstEnergy moving forward in a positive direction. Called "FE Forward," the initiative will play a critical first step in our transformation journey as it looks to align business practices with our values and behaviors. FirstEnergy will do this by reviewing policies and practices as well as the structure and processes around how decisions are made. FirstEnergy expects that this project will not only help FirstEnergy overcome current uncertainties and challenges, but it will further our goal of creating a truly sustainable company and provide opportunities to reinvest in our employees and customers. The initial phase of FE Forward, which is expected to go through the first quarter of 2021, will involve a comprehensive assessment that will pinpoint the areas of opportunity across all business units and outline the project's scope.

The outbreak of COVID-19 is a global pandemic. FirstEnergy is taking steps to mitigate known risks and is continuously evaluating the rapidly evolving situation based on guidance from governmental officials and public health experts. The full impact on FirstEnergy’s business from the COVID-19 pandemic, including the governmental and regulatory responses, is unknown at this time and difficult to predict. FirstEnergy provides a critical and essential service to its customers and the health and safety of FirstEnergy’s employees, contractors and customers are its first priority. FirstEnergy is effectively managing its operations, while still providing flexibility for approximately 7,000 of its 12,000 employees to work from home.

Beginning March 13, 2020, FirstEnergy temporarily suspended customer disconnections for nonpayment and ceased collection activities as a result of the ongoing pandemic. Starting September 15, 2020, certain FirstEnergy utilities began non-residential disconnections for non-payment, and began the same on October 5, 2020 for residential disconnections. FirstEnergy is actively monitoring the impact COVID-19 is having on customers’ receivable balances, which include increasing arrears balance since the pandemic has begun. Additionally, FirstEnergy has incurred, and it is expected to incur for the foreseeable future, incremental uncollectible and other COVID-19 related expenses. Such incrementally incurred COVID-19 pandemic related expenses consist of additional costs that FirstEnergy is incurring to protect its employees, contractors and customers, and to support social distancing requirements. These costs include, but are not limited to, new or added benefits provided to employees, the purchase of additional personal protection equipment and disinfecting supplies, additional facility cleaning services, initiated programs and communications to customers on utility response, and increased technology expenses to support remote working, where possible. The Ohio Companies and JCP&L had existing regulatory mechanisms in place prior to the outbreak of COVID-19, where incremental uncollectible expenses are able to be recovered through riders with no material impact to earnings. Additionally, in response to the COVID-19 pandemic, the MDPSC, NJBPU and WVPSC issued orders allowing PE, JCP&L and MP to track and create a regulatory asset for future recovery of incremental costs, including uncollectible expenses, incurred as a result of the pandemic. In Pennsylvania, the PPUC authorized utilities to track all prudently incurred incremental costs arising from COVID-19, and to create a regulatory asset for future recovery of incremental uncollectible expense incurred as a result of COVID-19 above what is included in the Pennsylvania Companies’ existing rates.

FirstEnergy is continuously monitoring its supply chain and is working closely with essential vendors to understand the continued impact of COVID-19 to its business and does not currently expect disruptions in its ability to deliver service to customers or any material impact to its capital spending plan. FirstEnergy’s Distribution and Transmission revenues benefit from geographic and economic diversity across a five-state service territory. Two-thirds of base distribution revenues come from the residential customer class. FirstEnergy’s commercial and industrial revenues are primarily fixed and demand-based, rather than volume-based. As a result of this, FirstEnergy’s Distribution and Transmission investments provide stable and predictable earnings. However, due to the actions taken by state governments in our service territories limiting certain commercial and industrial activities, FirstEnergy’s residential load has increased, while commercial and industrial loads have declined; however, the magnitude of future load trends are currently unknown and difficult to predict. FirstEnergy believes it is well positioned to manage the economic slowdown resulting from the COVID-19 pandemic. However, the situation remains fluid and future impacts to FirstEnergy, that are presently unknown or unanticipated, may occur.

FE and the Utilities and FET and certain of its subsidiaries participate in two separate five-year syndicated revolving credit facilities providing for aggregate commitments of $3.5 billion, which are available until December 6, 2022. Under the FE credit facility, an aggregate amount of $2.5 billion is available to be borrowed, repaid and reborrowed, subject to separate borrowing sublimits for each borrower including FE and its regulated distribution subsidiaries. Under the FET credit facility, an aggregate

amount of $1.0 billion is available to be borrowed, repaid and reborrowed under a syndicated credit facility, subject to separate borrowing sublimits for each borrower including FE's transmission subsidiaries. On November 17, 2020, FE and the Utilities and FET and certain of its subsidiaries entered into amendments to the FE credit facility and the FET credit facility, respectively. The amendments provide for modifications and/or waivers of: (i) certain representations and warranties, and (ii) certain affirmative and negative covenants, contained therein, which allowed FirstEnergy to regain compliance with such provisions. In addition, among other things, the amendment to the FE credit facility reduces the sublimit applicable to FE to $1.5 billion, and the amendments increased certain tiers of pricing applicable to borrowings under the credit facilities.

On November 23, 2020, FE and its regulated distribution subsidiaries, JCP&L, ME, Penn, TE and WP, borrowed $950 million in the aggregate under the FE Revolving Facility, bringing the outstanding principal balance under the FE Revolving Facility to $1.2 billion, with $1.3 billion of remaining availability under the FE Revolving Facility. On November 23, 2020, FET and its regulated transmission subsidiary, ATSI, borrowed $1 billion in the aggregate under the FET Revolving Facility, bringing the outstanding principal balance under the FET Revolving Facility to $1 billion, with no remaining availability under the FET Revolving Facility. FE, FET and certain of their respective subsidiaries increased their borrowings under the Revolving Facilities as a proactive measure to increase their respective cash positions and preserve financial flexibility.

In 2020, FirstEnergy continues to execute its regulated growth plans, through the following achievements and plans:

- Implemented forward-looking rates, subject to refund, at JCP&L effective January 1, 2020,
- In October 2020, the NJBPU approved JCP&L's distribution base rate case settlement agreement, resulting in, among other things, a $94 million increase in annual base distribution revenues,
- Filed for rider recovery of smart meters in NJ, to be deployed beginning in 2023 with a total program cost estimated at $732 million,
- PAPUC-approved DSIC waiver for Penn, which increased the cap from 5% to 7.5% on March 12, 2020,
- Completed final step of FirstEnergy's strategy to exit the competitive generation business with FES Debtors' emergence from bankruptcy on February 27, 2020,
- Integrated resource plan filing in West Virginia made on December 30, 2020,
- Issued Climate Position and Strategy Statement, including a pledge to be carbon neutral by 2050, and
- FERC approval that converted the existing stated transmission rates of MP, PE and WP to a forward-looking formula transmission rate, effective January 1, 2021.

With an operating territory of 65,000 square miles, the scale and diversity of the ten Utilities that comprise the Regulated Distribution business uniquely position this business for growth through opportunities for additional investment. Over the past several years, Regulated Distribution has experienced rate base growth through investments that have improved reliability and added operating flexibility to the distribution infrastructure, which provide benefits to the customers and communities those Utilities serve. Additionally, this business is exploring other opportunities for growth, including investments in electric system improvement and modernization projects to increase reliability and improve service to customers, as well as exploring opportunities in customer engagement that focus on the electrification of customers' homes and businesses by providing a full range of products and services.

With approximately 24,500 miles of transmission lines in operation, the Regulated Transmission business is the centerpiece of FirstEnergy's regulated investment strategy with, 100% of its capital investments recovered under forward-looking formula rates at the Transmission Companies effective January 1, 2021. Regulated Transmission has also experienced significant growth as part of its Energizing the Future transmission plan with plans to invest up to $7 billion in capital from 2018 to 2023.

FirstEnergy believes there are incremental investment opportunities for its existing transmission infrastructure of over $20 billion beyond those identified through 2023, which are expected to strengthen grid and cyber-security and make the transmission system more reliable, robust, secure and resistant to extreme weather events, with improved operational flexibility.

While FirstEnergy continues to have customer-focused investment opportunities across its distribution and transmission businesses of up to $3 billion annually, it has discontinued providing a long-term compound annual growth rate until there is further clarity regarding Ohio regulatory matters and the ongoing government investigations.

In November 2018, the Board of Directors approved a dividend policy that includes a targeted payout ratio. Dividend payments are subject to declaration by the Board and future dividend decisions determined by the Board may be impacted by earnings, cash flows, credit metrics and other business conditions, including the risk and uncertainties of the government investigations.

In November 2020, FirstEnergy published its Climate Story which includes our climate position and strategy, as well as a new comprehensive and ambitious greenhouse gas emission goal. FirstEnergy pledged to achieve carbon neutrality by 2050 and set an interim goal for a 30% reduction in greenhouse gases within the company's direct operational control by 2030, based on 2019 levels. In addition, FirstEnergy has also set a fleet electrification goal in which beginning in 2021, FirstEnergy plans for 100% of new purchases for our light duty and aerial truck fleet to be electric or hybrid vehicles, creating a path to 30% fleet electrification by 2030. Also, in 2021, FirstEnergy will seek approval to construct a solar generation source of at least 50 MWs in West Virginia. Future resource plans to achieve carbon reductions, including any determination of retirement dates of our regulated coal-fired generating facilities, will be developed by working collaboratively with regulators in West Virginia. Determination of the useful life

of our regulated coal-fired generating facilities could result in changes in depreciation, and/or continued collection of net plant in rates after retirement, securitization, sale, impairment or regulatory disallowances. If MP is unable to recover these costs, it could have a material adverse effect on FE and/or MP's financial condition, results of operations, and cash flow.

In January 2021, our updated Strategic Plan – Powered by our Core Values & Behaviors was published. This comprehensive update provides a vision of our company's path forward in an evolving electric industry. It also articulates significant new goals that will help us achieve our long-term strategic commitments in a transparent, sustainable and responsible manner.

The $2.5 billion equity issuance in 2018 strengthened FirstEnergy's balance sheet and supported the company's transition to a fully regulated utility company. The shares of preferred stock participated in the dividend paid on common stock on an as-converted basis and were non-voting except in certain limited circumstances. Because of this equity issuance, FirstEnergy does not currently anticipate the need to issue additional equity through 2021 and expects to issue, subject to, among other things, market conditions, pricing terms and business operations, up to $600 million of equity annually in 2022 and 2023, including approximately $100 million in equity for its regular stock investment and employee benefit plans. FirstEnergy's expectations regarding the amount and timing of any potential equity issuances are subject to, among other matters, the ongoing government investigations and related lawsuits.

On March 31, 2018, the FES Debtors announced that, in order to facilitate an orderly financial restructuring, they filed voluntary petitions under Chapter 11 of the United States Bankruptcy Code with the Bankruptcy Court. In September 2018, the Bankruptcy Court approved a FES Bankruptcy settlement agreement by and among FirstEnergy, two groups of key FES creditors (collectively, the FES Key Creditor Groups), the FES Debtors and the UCC. The FES Bankruptcy settlement agreement resolved certain claims by FirstEnergy against the FES Debtors, all claims by the FES Debtors and the FES Key Creditor Groups against FirstEnergy, as well as releases from third parties who voted in favor of the FES Debtors' plan of reorganization, in return for among other things, a cash payment of $853 million upon emergence. The FES Bankruptcy settlement was conditioned on the FES Debtors confirming and effectuating a plan of reorganization acceptable to FirstEnergy.

On February 18, 2020, the FES Debtors and FirstEnergy entered into an IT Access Agreement that provided IT support to enable the FES Debtors to emerge from bankruptcy prior to full IT separation by the FES Debtors. As part of the IT Access Agreement, the FES Debtors and FirstEnergy resolved, among other things, the on-going reconciliation of outstanding tax sharing payments for tax years 2018, 2019 and 2020 for a total of $125 million. On February 25, 2020, the Bankruptcy Court approved the IT Access Agreement. On February 27, 2020, the FES Debtors effectuated their plan, emerged from bankruptcy and FirstEnergy tendered the settlement payments totaling $853 million and the $125 million tax sharing payment to the FES Debtors, with no material impact to net income in 2020.

As contemplated under the FES Bankruptcy settlement agreement, AE Supply entered into an agreement on December 31, 2018, to transfer the 1,300 MW Pleasants Power Station and related assets to FG, while retaining certain specified liabilities. Under the terms of the agreement, FG acquired the economic interests in Pleasants as of January 1, 2019, and AE Supply operated Pleasants until ownership was transferred on January 30, 2020. AE Supply will continue to provide access to the McElroy's Run CCR impoundment facility, which was not transferred, and FE will provide guarantees for certain retained environmental liabilities of AE Supply, including the McElroy's Run CCR impoundment facility.

As of June 30, 2020, FirstEnergy had substantially ceased providing post-emergence services to FES Debtors under the terms of the amended and restated shared services agreement. In connection with the FES Debtors emergence from bankruptcy, FirstEnergy entered into an amended separation agreement with the FES Debtors to implement the separation of FES Debtors and their businesses from FirstEnergy.

The emergence of the FES Debtors from bankruptcy represents the final step in FirstEnergy's previously announced strategy to exit the competitive generation business and become a fully regulated utility company with a stronger balance sheet, solid cash flows and more predictable earnings.

The Form 10-K discusses 2020 and 2019 items and year-over-year comparisons between 2020 and 2019. Discussions of 2018 items and year-over-year comparisons between 2019 and 2018 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the SEC on February 10, 2020.

RESULTS OF OPERATIONS

The financial results discussed below include revenues and expenses from transactions among FirstEnergy's business segments. A reconciliation of segment financial results is provided in Note 17, "Segment Information," of the Notes to Consolidated Financial Statements.

Net income by business segment was as follows:

(In millions, except per share amounts)	For the Years Ended December 31,			Increase (Decrease)	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Net Income By Business Segment:					
Regulated Distribution	$ 959	$ 1,076	$ 1,242	$ (117)	$ (166)
Regulated Transmission	464	447	397	17	50
Corporate/Other	(420)	(619)	(617)	199	(2)
Income from Continuing Operations	$ 1,003	$ 904	$ 1,022	$ 99	$ (118)
Discontinued Operations	76	8	326	68	(318)
Net Income	$ 1,079	$ 912	$ 1,348	$ 167	$ (436)
Earnings per share of common stock					
Basic - Continuing Operations	$ 1.85	$ 1.69	$ 1.33	$ 0.16	$ 0.36
Basic - Discontinued Operations	0.14	0.01	0.66	0.13	(0.65)
Basic - Net Income Attributable to Common Stockholders	$ 1.99	$ 1.70	$ 1.99	$ 0.29	$ (0.29)
Earnings per share of common stock					
Diluted - Continuing Operations	$ 1.85	$ 1.67	$ 1.33	$ 0.18	$ 0.34
Diluted - Discontinued Operations	0.14	0.01	0.66	0.13	(0.65)
Diluted - Net Income Attributable to Common Stockholders	$ 1.99	$ 1.68	$ 1.99	$ 0.31	$ (0.31)

Summary of Results of Operations — 2020 Compared with 2019

Financial results for FirstEnergy's business segments for the years ended December 31, 2020 and 2019, were as follows:

2020 Financial Results	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments	FirstEnergy Consolidated
		(In millions)		
Revenues:				
Electric	$ 9,130	$ 1,613	$ (139)	$ 10,604
Other	233	17	(64)	186
Total Revenues	9,363	1,630	(203)	10,790
Operating Expenses:				
Fuel	369	—	—	369
Purchased power	2,687	—	14	2,701
Other operating expenses	3,178	282	(169)	3,291
Provision for depreciation	896	313	65	1,274
Amortization (deferral) of regulatory assets, net	(64)	11	—	(53)
General taxes	770	232	44	1,046
Total Operating Expenses	7,836	838	(46)	8,628
Operating Income (Loss)	1,527	792	(157)	2,162
Other Income (Expense):				
Miscellaneous income, net	332	30	70	432
Pension and OPEB mark-to-market adjustment	(323)	(40)	(114)	(477)
Interest expense	(501)	(219)	(345)	(1,065)
Capitalized financing costs	37	39	1	77
Total Other Expense	(455)	(190)	(388)	(1,033)
Income (Loss) Before Income Taxes (Benefits)	1,072	602	(545)	1,129
Income taxes (benefits)	113	138	(125)	126
Income (Loss) From Continuing Operations	959	464	(420)	1,003
Discontinued Operations, net of tax	—	—	76	76
Net Income (Loss)	$ 959	$ 464	$ (344)	$ 1,079

2019 Financial Results	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments	FirstEnergy Consolidated
		(In millions)		
Revenues:				
Electric	$ 9,452	$ 1,510	$ (128)	$ 10,834
Other	246	16	(61)	201
Total Revenues	9,698	1,526	(189)	11,035
Operating Expenses:				
Fuel	497	—	—	497
Purchased power	2,910	—	17	2,927
Other operating expenses	2,836	272	(156)	2,952
Provision for depreciation	863	284	73	1,220
Amortization (deferral) of regulatory assets, net	(89)	10	—	(79)
General taxes	760	209	39	1,008
Total Operating Expenses	7,777	775	(27)	8,525
Operating Income (Loss)	1,921	751	(162)	2,510
Other Income (Expense):				
Miscellaneous income, net	174	15	54	243
Pension and OPEB mark-to-market adjustment	(290)	(47)	(337)	(674)
Interest expense	(495)	(192)	(346)	(1,033)
Capitalized financing costs	37	33	1	71
Total Other Expense	(574)	(191)	(628)	(1,393)
Income (Loss) Before Income Taxes (Benefits)	1,347	560	(790)	1,117
Income taxes (benefits)	271	113	(171)	213
Income (Loss) From Continuing Operations	1,076	447	(619)	904
Discontinued Operations, net of tax	—	—	8	8
Net Income (Loss)	$ 1,076	$ 447	$ (611)	$ 912

Changes Between 2020 and 2019 Financial Results Increase (Decrease)	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments	FirstEnergy Consolidated
		(In millions)		
Revenues:				
Electric	$ (322)	$ 103	$ (11)	$ (230)
Other	(13)	1	(3)	(15)
Total Revenues	(335)	104	(14)	(245)
Operating Expenses:				
Fuel	(128)	—	—	(128)
Purchased power	(223)	—	(3)	(226)
Other operating expenses	342	10	(13)	339
Provision for depreciation	33	29	(8)	54
Amortization (deferral) of regulatory assets, net	25	1	—	26
General taxes	10	23	5	38
Total Operating Expenses	59	63	(19)	103
Operating Income (Loss)	(394)	41	5	(348)
Other Income (Expense):				
Miscellaneous income, net	158	15	16	189
Pension and OPEB mark-to-market adjustment	(33)	7	223	197
Interest expense	(6)	(27)	1	(32)
Capitalized financing costs	—	6	—	6
Total Other Expense	119	1	240	360
Income (Loss) Before Income Taxes (Benefits)	(275)	42	245	12
Income taxes (benefits)	(158)	25	46	(87)
Income (Loss) From Continuing Operations	(117)	17	199	99
Discontinued Operations, net of tax	—	—	68	68
Net Income (Loss)	$ (117)	$ 17	$ 267	$ 167

Regulated Distribution — 2020 Compared with 2019

Regulated Distribution's net income decreased $117 million in 2020, as compared to 2019, primarily resulting from the charge associated with the impairment of an Ohio regulatory asset in 2020, as further discussed below, higher pension and OPEB mark-to-market adjustments, lower weather-related customer usage, the absence of the DMR revenues that ended in July 2019, and higher operating and maintenance expenses including the impact of non-deferred COVID-19 costs, partially offset by lower pension and OPEB non-service costs, higher revenues from incremental riders in Ohio and Pennsylvania and increased weather-adjusted residential sales due to the impact of COVID-19.

Revenues —

The $335 million decrease in total revenues resulted from the following sources:

	For the Years Ended December 31,		
Revenues by Type of Service	**2020**	**2019**	**Decrease**
		(In millions)	
Distribution services [1]	$ 5,302	$ 5,314	$ (12)
Generation sales:			
Retail	3,577	3,727	(150)
Wholesale	251	411	(160)
Total generation sales	3,828	4,138	(310)
Other	233	246	(13)
Total Revenues	$ 9,363	$ 9,698	$ (335)

[1] Includes $43 million and $181 million of ARP revenues for the years ended December 31, 2020 and 2019, respectively.

Distribution services revenues decreased $12 million in 2020, as compared to 2019, primarily resulting from the charge associated with the impairment of an Ohio regulatory asset in 2020, as further discussed below, the absence of the New Jersey storm recovery rider and DMR revenues that ended in July 2019, lower weather-related customer usage, the expiration of a NUG contract and lower commercial and industrial sales due to the impact of COVID-19, partially offset by higher rates associated with incremental riders in Ohio and Pennsylvania, including the recovery of distribution capital investment programs and transmission expenses, increased weather-adjusted residential sales due to the impact of COVID-19 and the implementation of the New Jersey Zero Emission Program in June 2019. Distribution services by customer class are summarized in the following table:

	For the Years Ended December 31,		
Electric Distribution MWH Deliveries	**2020**	**2019**	**Increase (Decrease)**
	(In thousands)		
Residential	54,978	54,159	1.5 %
Commercial[1]	34,811	37,888	(8.1) %
Industrial	52,034	55,649	(6.5) %
Total Electric Distribution MWH Deliveries	141,823	147,696	(4.0) %

[1] Includes street lighting.

Distribution services to residential customers primarily reflects an increase in weather-adjusted load due to the impact of COVID-19, partially offset by lower weather-related usage. Deliveries to commercial customers reflects lower weather-related usage and the impact of COVID-19. Heating degree days were 6% below 2019 and 10% below normal. Cooling degree days were 1% below 2019, and 14% above normal. Deliveries to industrial customers were also negatively impacted due to the impact of COVID-19, contributing to lower steel, mining, and educational services customer usage, partially offset by higher shale customer usage.

The following table summarizes the price and volume factors contributing to the $310 million decrease in generation revenues in 2020, as compared to 2019:

Source of Change in Generation Revenues	(Decrease)
	(In millions)
Retail:	
Change in sales volumes	$ (54)
Change in prices	(96)
	(150)
Wholesale:	
Change in sales volumes	(94)
Change in prices	(3)
Capacity revenue	(63)
	(160)
Change in Generation Revenues	$ (310)

Retail generation revenues decreased $150 million, primarily due to lower weather-related usage, partially offset by an increase in weather-adjusted residential load due to the impact of COVID-19 and decreased customer shopping in Pennsylvania and New Jersey. Total generation provided by alternative suppliers as a percentage of total MHW deliveries decreased to 64% from 66% in Pennsylvania and to 47% from 48% in New Jersey. The decrease in retail generation prices primarily resulted from lower non-shopping generation auction rates in New Jersey and Pennsylvania.

Wholesale generation revenues decreased $160 million, primarily due to decreased volumes associated with lower economic dispatch of MP's generating units, resulting from low spot market energy prices and an increase in the number of planned outages as compared to 2019, the expiration of a NUG contract and lower capacity revenues. The difference between current wholesale generation revenues and certain energy costs incurred are deferred for future recovery or refund, with no material impact to earnings.

Operating Expenses —

Total operating expenses increased $59 million primarily due to the following:

- Fuel expense decreased $128 million in 2020, as compared to 2019, primarily due to lower unit costs and lower fuel consumption as a result of economic dispatch and an increase in the number of planned outages as compared to 2019.

- Purchased power costs decreased $223 million in 2020, as compared to 2019, primarily due to lower prices and capacity expenses, the absence of the termination of Morgantown Energy Associates PPA and decreased purchases resulting from the expiration of a NUG contract, partially offset by the implementation of the New Jersey Zero Emission Program in June 2019 and an increase in the number of planned outages as compared to 2019.

Source of Change in Purchased Power	Increase (Decrease)
	(In millions)
Purchases	
Change due to unit costs	$ (185)
Change due to volumes	21
	(164)
Capacity expense	(59)
Change in Purchased Power Costs	$ (223)

- Other operating expenses increased $342 million primarily due to:

    - Higher incremental uncollectible and other COVID-19 related expenses of $157 million, of which $99 million was deferred for future recovery.
    - Higher storm restoration costs of $75 million, which were mostly deferred for future recovery, resulting in no material impact on current period earnings.

- Higher network transmission expenses of $49 million. These costs are deferred for future recovery, resulting in no material impact on current period earnings.
- Higher pension and OPEB service costs of $33 million.
- Higher employee benefit costs of approximately $30 million.
- Higher other operating and maintenance expense of $40 million, primarily associated with increased material and contractor spend and an additional planned generation outage in 2020,
- Lower energy efficiency program costs of $42 million, which are deferred for future recovery, resulting in no material impact on earnings.

- Depreciation expense increased $33 million, primarily due to a higher asset base.

- Net amortization (deferral) of regulatory assets increased $25 million, primarily due to lower generation and transmission deferrals including the absence of the termination of the Morgantown Energy Associates PPA, the recovery of distribution investment programs and lower energy efficiency related costs, partially offset by the deferral of higher storm restoration costs, and uncollectible and other COVID-19 related costs.

- General taxes increased $10 million primarily due to higher Ohio property taxes and payroll taxes.

Other Expense —

Total other expense decreased $119 million, primarily due to lower pension and OPEB non-service costs, partially offset by a $33 million increase in pension and OPEB mark-to-market adjustments, higher interest expense from debt issuances primarily at WP and MP, and increased borrowings under the Revolving Facilities. The 2020 mark-to-market adjustment resulted from a decrease in the discount rate used to measure benefit obligations, partially offset by higher than expected asset returns.

Income Taxes

Regulated Distribution's effective tax rate was 10.5% and 20.1% for 2020 and 2019, respectively. The change in the effective tax rate was primarily due to the recognition of $52 million in deferred gains relating to prior intercompany transfers of generation assets that were triggered by the deconsolidation of the FES Debtors from FirstEnergy's consolidated federal income tax group as a result of their emergence from bankruptcy in the first quarter of 2020. Additionally, FirstEnergy recorded a $40 million benefit related to reversals of certain tax regulatory liabilities resulting from the transfer of TMI-2.

Regulated Transmission — 2020 Compared with 2019

Regulated Transmission's operating results increased $17 million in 2020, as compared to 2019, primarily resulting from the impact of a higher rate base at ATSI, MAIT, and JCPL, and higher capitalized financing costs, partially offset by higher interest expense at FET and a true-up of the forward-looking formula rate at ATSI and MAIT.

Revenues —

Total revenues increased $104 million in 2020, as compared to 2019, primarily due to the recovery of incremental operating expenses and a higher rate base at ATSI, MAIT and JCP&L, partially offset by the impact of a true-up of the forward-looking rate.

Revenues by transmission asset owner are shown in the following table:

	For the Years Ended December 31,		
Revenues by Transmission Asset Owner	**2020**	**2019**	**Increase**
		(In millions)	
ATSI	$ 809	$ 758	$ 51
TrAIL	255	251	4
MAIT	254	227	27
JCP&L	178	160	18
Other	134	130	4
Total Revenues	$ 1,630	$ 1,526	$ 104

Operating Expenses —

Total operating expenses increased $63 million in 2020, as compared to 2019, primarily due to higher property taxes and depreciation due to a higher asset base. The majority of operating expenses are recovered through formula rates, resulting in no material impact on current period earnings.

Income Taxes —

Regulated Transmission's effective tax rate was 22.9% and 20.2% for 2020 and 2019, respectively due to changes in the amortization of excess deferred income taxes and the absence of certain tax benefits recognized in 2019.

Corporate/Other — 2020 Compared with 2019

Financial results from Corporate/Other and reconciling adjustments resulted in a $199 million increase in income from continuing operations for 2020 compared to 2019, primarily due to a $223 million decrease in the pension and OPEB mark-to-market adjustment, $10 million tax benefits from accelerated amortization of certain investment tax credits and lower other Pension and OPEB non-service costs. These were partially offset by higher other operating expenses from investigation-related costs and lower returns on certain equity method investments.

For the years ended December 31, 2020 and 2019, FirstEnergy recorded income from discontinued operations, net of tax, of $76 million and $8 million, respectively. The change in discontinued operations, net of tax was primarily due to lower settlement-related expenses with the FES Debtors, including adjustments to the estimated worthless stock deduction and Intercompany Tax Allocation Agreement, as well as the acceleration of net pension and OPEB prior service credits in 2020 and the absence of tax expense in 2019 associated with non-deductible interest.

REGULATORY ASSETS AND LIABILITIES

Regulatory assets represent incurred costs that have been deferred because of their probable future recovery from customers through regulated rates. Regulatory liabilities represent amounts that are expected to be credited to customers through future regulated rates or amounts collected from customers for costs not yet incurred. FirstEnergy, the Utilities and the Transmission Companies net their regulatory assets and liabilities based on federal and state jurisdictions.

Management assesses the probability of recovery of regulatory assets at each balance sheet date and whenever new events occur. Factors that may affect probability relate to changes in the regulatory environment, issuance of a regulatory commission order or passage of new legislation. Management applies judgment in evaluating the evidence available to assess the probability of recovery of regulatory assets from customers, including, but not limited to evaluating evidence related to precedent for similar items at FirstEnergy and information on comparable companies within similar jurisdictions, as well as assessing progress of communications between FirstEnergy and regulators. Certain of these regulatory assets, totaling approximately $117 million and $111 million as of December 31, 2020 and December 31, 2019, respectively, are recorded based on prior precedent or anticipated recovery based on rate making premises without a specific order, of which, $79 million and $73 million as of December 31, 2020 and December 31, 2019, respectively, are being sought for recovery in a formula rate amendment filing at ATSI that is pending before FERC. See Note 14, "Regulatory Matters" for additional information.

The following table provides information about the composition of net regulatory assets and liabilities as of December 31, 2020 and December 31, 2019, and the changes during the year ended December 31, 2020:

Net Regulatory Assets (Liabilities) by Source	December 31, 2020	December 31, 2019	Change
		(In millions)	
Customer payables for future income taxes	$ (2,369)	$ (2,605)	$ 236
Nuclear decommissioning and spent fuel disposal costs	(102)	(197)	95
Asset removal costs	(721)	(756)	35
Deferred transmission costs	316	298	18
Deferred generation costs	104	214	(110)
Deferred distribution costs	136	155	(19)
Contract valuations	41	51	(10)
Storm-related costs	748	551	197
Uncollectible and COVID-19 related costs	97	3	94
Other	6	25	(19)
Net Regulatory Liabilities included on the Consolidated Balance Sheets	$ (1,744)	$ (2,261)	$ 517

The following is a description of the regulatory assets and liabilities described above:

Customer payables for future income taxes - Reflects amounts to be recovered or refunded through future rates to pay income taxes that become payable when rate revenue is provided to recover items such as AFUDC-equity and depreciation of property, plant and equipment for which deferred income taxes were not recognized for ratemaking purposes, including amounts attributable to tax rate changes such as tax reform. These amounts are being amortized over the period in which the related deferred tax assets reverse, which is generally over the expected life of the underlying asset.

Nuclear decommissioning and spent fuel disposal costs - Reflects a regulatory liability representing amounts collected from customers and placed in external trusts including income, losses and changes in fair value thereon (as well as accretion of the related ARO) primarily for the future decommissioning of TMI-2 and spent nuclear fuel disposal costs. As further discussed below, TMI-2, along with the NDT and related decommissioning liabilities, was transferred to TMI-2 Solutions, LLC, a subsidiary of Energy*Solutions*, LLC, on December 18, 2020, and therefore the related regulatory liabilities were written off. The remaining balance as of December 31, 2020, reflects liabilities for spent nuclear fuel disposal costs from former nuclear generating facilities, Oyster Creek and TMI-2.

Asset removal costs - Primarily represents the rates charged to customers that include a provision for the cost of future activities to remove assets, including obligations for which an ARO has been recognized, that are expected to be incurred at the time of retirement.

Deferred transmission costs - Principally represents differences between revenues earned based on actual costs for the formula-rate Transmission Companies and the amounts billed. Amounts are recorded as a regulatory asset or liability and recovered or refunded, respectively, in subsequent periods.

Deferred generation costs - Primarily relates to regulatory assets associated with the securitized recovery of certain electric customer heating discounts, fuel and purchased power regulatory assets at the Ohio Companies (amortized through 2034) as well as the ENEC at MP and PE. MP and PE recover net power supply costs, including fuel costs, purchased power costs and related expenses, net of related market sales revenue through the ENEC. The ENEC rate is updated annually.

Deferred distribution costs - Primarily relates to the Ohio Companies' deferral of certain expenses resulting from distribution and reliability related expenditures, including interest (amortized through 2036), which are recorded as a regulatory asset or liability and recovered or refunded, respectively, in subsequent periods.

Contract valuations - Includes the amortization of purchase accounting adjustments at PE which were recorded in connection with the Allegheny Energy, Inc. merger representing the fair value of NUG purchased power contracts (amortized over the life of the contracts through 2030).

Storm-related costs - Relates to the recovery of storm costs, which vary by jurisdiction. Approximately $167 million and $193 million are currently being recovered through rates as of December 31, 2020 and 2019, respectively.

Uncollectible and COVID-19 related costs - Includes the deferral of prudently incurred incremental costs arising from COVID-19, including uncollectible expenses under new and existing riders prior to the pandemic.

The following table provides information about the composition of net regulatory assets that do not earn a current return as of December 31, 2020 and 2019, of which approximately $195 million and $228 million, respectively, are currently being recovered through rates over varying periods, through 2068, depending on the nature of the deferral and the jurisdiction:

Regulatory Assets by Source Not Earning a Current Return	December 31, 2020	December 31, 2019	Change
		(in millions)	
Deferred transmission costs	$ 29	$ 27	$ 2
Deferred generation costs	5	15	(10)
Storm-related costs	654	471	183
COVID-19 related costs	66	—	66
Other	35	32	3
Regulatory Assets Not Earning a Current Return	$ 789	$ 545	$ 244

CAPITAL RESOURCES AND LIQUIDITY

FirstEnergy's business is capital intensive, requiring significant resources to fund operating expenses, construction expenditures, scheduled debt maturities and interest payments, dividend payments, and contributions to its pension plan.

The $2.5 billion equity issuance in 2018 strengthened FirstEnergy's balance sheet and supported the company's transition to a fully regulated utility company. The shares of preferred stock participated in the dividend paid on common stock on an as-converted basis and were non-voting except in certain limited circumstances. Because of this equity issuance, FirstEnergy does not currently anticipate the need to issue additional equity through 2021 and expects to issue, subject to, among other things, market conditions, pricing terms and business operations, up to $600 million of equity annually in 2022 and 2023, including approximately $100 million in equity for its regular stock investment and employee benefit plans. FirstEnergy's expectations regarding the amount and timing of any potential equity issuances are subject to, among other matters, the ongoing government investigations and related lawsuits.
In addition to this equity investment, FE and its distribution and transmission subsidiaries expect their existing sources of liquidity to remain sufficient to meet their respective anticipated obligations. In addition to internal sources to fund liquidity and capital requirements for 2021 and beyond, FE and its distribution and transmission subsidiaries expect to rely on external sources of funds. Short-term cash requirements not met by cash provided from operations are generally satisfied through short-term borrowings. Long-term cash needs may be met through the issuance of long-term debt by FE and certain of its distribution and transmission subsidiaries to, among other things, fund capital expenditures and refinance short-term and maturing long-term debt, subject to market conditions and other factors.

On February 1, 2019, FirstEnergy made a $500 million voluntary cash contribution to the qualified pension plan. FirstEnergy expects no required contributions until 2022.

With an operating territory of 65,000 square miles, the scale and diversity of the ten Utilities that comprise the Regulated Distribution business uniquely position this business for growth through opportunities for additional investment. Over the past several years, Regulated Distribution has experienced rate base growth through investments that have improved reliability and added operating flexibility to the distribution infrastructure, which provide benefits to the customers and communities those Utilities serve. Additionally, this business is exploring other opportunities for growth, including investments in electric system improvement and modernization projects to increase reliability and improve service to customers, as well as exploring opportunities in customer engagement that focus on the electrification of customers' homes and businesses by providing a full range of products and services.

Capital expenditures for 2019 and 2020 and forecasted expenditures for 2021, 2022, and 2023 by reportable segment are included below:

Reportable Segment	2019 Actual	2020 Actual	2021 Forecast	2022 Forecast	2023 Forecast
			(In millions)		
Regulated Distribution	$1,698	$1,756	$1,725	$1,745	$1,680
Regulated Transmission	1,189	1,150	1,200	1,200 - 1,450	1,200 - 1,450
Corporate/Other	105	80	90	80	75
Total	$2,992	$2,986	Up to $3,015	Up to $3,025 - $3,275	Up to $2,955 - $3,205

FirstEnergy believes there are incremental investment opportunities for its existing transmission infrastructure of over $20 billion beyond those identified through 2023, which are expected to strengthen grid and cyber-security and make the transmission system more reliable, robust, secure and resistant to extreme weather events, with improved operational flexibility.

In alignment with FirstEnergy's strategy to invest in its Regulated Transmission and Regulated Distribution segments as a fully regulated company, FirstEnergy is focused on maintaining balance sheet strength and flexibility. Specifically, at the regulated businesses, regulatory authority has been obtained for various regulated distribution and transmission subsidiaries to issue and/or refinance debt.

Any financing plans by FE or any of its consolidated subsidiaries, including the issuance of equity and debt, and the refinancing of short-term and maturing long-term debt are subject to market conditions and other factors. No assurance can be given that any such issuances, financing or refinancing, as the case may be, will be completed as anticipated or at all. Any delay in the completion of financing plans could require FE or any of its consolidated subsidiaries to utilize short-term borrowing capacity, which could impact available liquidity. In addition, FE and its consolidated subsidiaries expect to continually evaluate any planned financings, which may result in changes from time to time.

On March 31, 2018, the FES Debtors announced that, in order to facilitate an orderly financial restructuring, they filed voluntary petitions under Chapter 11 of the United States Bankruptcy Code with the Bankruptcy Court. In September 2018, the Bankruptcy Court approved a FES Bankruptcy settlement agreement by and among FirstEnergy, two groups of key FES creditors

(collectively, the FES Key Creditor Groups), the FES Debtors and the UCC. The FES Bankruptcy settlement agreement resolved certain claims by FirstEnergy against the FES Debtors, all claims by the FES Debtors and the FES Key Creditor Groups against FirstEnergy, as well as releases from third parties who voted in favor of the FES Debtors' plan of reorganization, in return for among other things, a cash payment of $853 million upon emergence. The FES Bankruptcy settlement was conditioned on the FES Debtors confirming and effectuating a plan of reorganization acceptable to FirstEnergy.

On February 18, 2020, the FES Debtors and FirstEnergy entered into an IT Access Agreement that provided IT support to enable the FES Debtors to emerge from bankruptcy prior to full IT separation by the FES Debtors. As part of the IT Access Agreement, the FES Debtors and FirstEnergy resolved, among other things, the on-going reconciliation of outstanding tax sharing payments for tax years 2018, 2019 and 2020 for a total of $125 million. On February 25, 2020, the Bankruptcy Court approved the IT Access Agreement. On February 27, 2020, the FES Debtors effectuated their plan, emerged from bankruptcy and FirstEnergy tendered the settlement payments totaling $853 million and the $125 million tax sharing payment to the FES Debtors, with no material impact to net income in 2020.

The outbreak of COVID-19 is a global pandemic. FirstEnergy is continuously evaluating the global pandemic and taking steps to mitigate known risks. FirstEnergy is actively monitoring the continued impact COVID-19 is having on its customers' receivable balances, which include increasing arrears balances since the pandemic has begun. FirstEnergy has incurred, and it is expected to incur for the foreseeable future, incremental uncollectible and other COVID-19 pandemic related expenses. COVID-19 related expenses consist of additional costs that FirstEnergy is incurring to protect its employees, contractors and customers, and to support social distancing requirements. These costs include, but are not limited to, new or added benefits provided to employees, the purchase of additional personal protection equipment and disinfecting supplies, additional facility cleaning services, initiated programs and communications to customers on utility response, and increased technology expenses to support remote working, where possible. The full impact on FirstEnergy's business from the COVID-19 pandemic, including the governmental and regulatory responses, is unknown at this time and difficult to predict. FirstEnergy provides a critical and essential service to its customers and the health and safety of its employees, contractors and customers is its first priority. FirstEnergy is continuously monitoring its supply chain and is working closely with essential vendors to understand the continued impact the COVID-19 pandemic is having on its business, however, FirstEnergy does not currently expect disruptions in its ability to deliver service to customers or any material impact on its capital spending plan.

FirstEnergy continues to effectively manage operations during the pandemic in order to provide critical service to customers and believes it is well positioned to manage through the economic slowdown. FirstEnergy Distribution and Transmission revenues benefit from geographic and economic diversity across a five-state service territory, which also allows for flexibility with capital investments and measures to maintain sufficient liquidity over the next twelve months. However, the situation remains fluid and future impacts to FirstEnergy that are presently unknown or unanticipated may occur. Furthermore, the likelihood of an impact to FirstEnergy, and the severity of any impact that does occur, could increase the longer the global pandemic persists.

On July 21, 2020, a complaint and supporting affidavit containing federal criminal allegations were unsealed against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. Also, on July 21, 2020, and in connection with the investigation, FirstEnergy received subpoenas for records from the U.S. Attorney's Office for the S.D. Ohio. FirstEnergy was not aware of the criminal allegations, affidavit or subpoenas before July 21, 2020. In addition to the subpoenas referenced above, the OAG, certain FE shareholders and FirstEnergy customers filed several lawsuits against FirstEnergy and certain current and former directors, officers and other employees, each relating to the allegations against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. In addition, on August 10, 2020, the SEC, through its Division of Enforcement, issued an order directing an investigation of possible securities laws violations by FE, and on September 1, 2020, issued subpoenas to FE and certain FE officers.

The Board has formed a new sub-committee of our Audit committee to, together with the Board, assess FirstEnergy's compliance program and implement potential changes, as appropriate. In addition, in his role of Executive Director, Mr. Pappas assisted the FirstEnergy leadership team with execution of strategic initiatives, engage with FirstEnergy's external stakeholders, and support the development of enhanced controls and governance policies and procedures. Additionally, on February 17, 2021, the Board appointed Mr. John Somerhalder to the positions of Vice Chairperson of the Board and Executive Director, each effective as of March 1, 2021, increasing the size of the Board from 10 to 11 members. Mr. Somerhalder has been elected to serve for a term expiring at the Company's 2021 Annual Meeting of Shareholders and until his successor shall have been elected. Mr. Donald T. Misheff will continue to serve as Non-Executive Chairman of the Board. Mr. Pappas, who was named to the temporary role of Executive Director in October 2020, will continue to serve on the Board of the Company as an independent director. Mr. Somerhalder will help lead efforts to enhance the company's reputation.

Despite the many disruptions FirstEnergy is currently facing, the leadership team remains committed and focused on executing its strategy and running the business. See "Outlook - Other Legal Proceedings" below for additional details on the government investigation and subsequent litigation surrounding the investigation of HB 6. See also "Outlook - State Regulation - Ohio" below for details on the PUCO proceeding reviewing political and charitable spending and legislative activity in response to the investigation of HB 6. The outcome of the government investigations, PUCO proceedings, legislative activity, and any of these lawsuits is uncertain and could have a material adverse effect on FE's or its subsidiaries' financial condition, results of operations and cash flows. FirstEnergy is considering reductions to its Regulated Distribution and Regulated Transmission capital

investment plans and reductions to operating expenses, as well as changes to its planned equity issuances, to allow for flexibility should a fine or other regulatory actions be imposed as a result of the government investigations.

FirstEnergy is also working to improve how it conducts business and serve its customers. To address opportunities for improvement, FirstEnergy kicked off a new initiative to make process and cultural improvements across our entire organization that will keep FirstEnergy moving forward in a positive direction. Called "FE Forward," the initiative will play a critical first step in our transformation journey as it looks to align business practices with our values and behaviors. FirstEnergy will do this by reviewing policies and practices as well as the structure and processes around how decisions are made. FirstEnergy expects that this project will not only help FirstEnergy overcome current uncertainties and challenges, but it will further our goal of creating a truly sustainable company and provide opportunities to reinvest in our employees and customers. The initial phase of FE Forward, which is expected to go through the first quarter of 2021, will involve a comprehensive assessment that will pinpoint the areas of opportunity across all business units and outline the project's scope.

As further discussed below, in connection with a partial settlement with the OAG and other parties, the Ohio Companies filed an application with the PUCO on February 1, 2021, to set the respective decoupling riders (Rider CSR) to zero. While the partial settlement with the OAG focused specifically on decoupling, the Ohio Companies will of their own accord not seek to recover lost distribution revenue from residential and commercial customers. FirstEnergy is committed to pursuing an open dialogue with stakeholders in an appropriate manner with respect to the numerous regulatory proceedings currently underway as further discussed herein. As a result of the partial settlement, and the decision to not seek lost distribution revenue, FirstEnergy recognized a $108 million pre-tax charge ($84 million after-tax) in the fourth quarter of 2020, and $77 million (pre-tax) of which is associated with forgoing collection of lost distribution revenue. FirstEnergy does not believe a refund for previously collected amounts under decoupling, which was approximately $18 million, is probable. Furthermore, as FirstEnergy would not have financially benefited from the Clean Air Fund included in HB 6, which is the mechanism to provide support to nuclear energy in Ohio, there is no expected additional impact to FirstEnergy due to any repeal of that provision of HB 6.

As of December 31, 2020, FirstEnergy’s net deficit in working capital (current assets less current liabilities) was primarily due to accounts payable, short-term borrowings, and accrued interest, taxes, compensation and benefits. FirstEnergy believes its cash from operations and available liquidity will be sufficient to meet its current working capital needs.

Short-Term Borrowings / Revolving Credit Facilities

FE and the Utilities and FET and certain of its subsidiaries participate in two separate five-year syndicated revolving credit facilities providing for aggregate commitments of $3.5 billion, which are available until December 6, 2022. Under the FE credit facility, an aggregate amount of $2.5 billion is available to be borrowed, repaid and reborrowed, subject to separate borrowing sublimits for each borrower including FE and its regulated distribution subsidiaries. Under the FET credit facility, an aggregate amount of $1.0 billion is available to be borrowed, repaid and reborrowed under a syndicated credit facility, subject to separate borrowing sublimits for each borrower including FE's transmission subsidiaries.

Borrowings under the credit facilities may be used for working capital and other general corporate purposes, including intercompany loans and advances by a borrower to any of its subsidiaries. Generally, borrowings under each of the credit facilities are available to each borrower separately and mature on the earlier of 364 days from the date of borrowing or the commitment termination date, as the same may be extended. Each of the credit facilities contains financial covenants requiring each borrower to maintain a consolidated debt-to-total-capitalization ratio (as defined under each of the credit facilities) of no more than 65%, and 75% for FET, measured at the end of each fiscal quarter.

FirstEnergy’s revolving credit facilities bear interest at fluctuating interest rates, primarily based on LIBOR. LIBOR tends to fluctuate based on general interest rates, rates set by the U.S. Federal Reserve and other central banks, the supply of and demand for credit in the London interbank market and general economic conditions. FirstEnergy has not hedged its interest rate exposure with respect to its floating rate debt. Accordingly, FirstEnergy’s interest expense for any particular period will fluctuate based on LIBOR and other variable interest rates. On July 27, 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021, and there is considerable uncertainty regarding the publication of LIBOR beyond 2021. The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is considering replacing U.S. dollar LIBOR with a newly created index, calculated based on repurchase agreements backed by treasury securities. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom, the United States or elsewhere. To the extent these interest rates increase, interest expense will increase. If sources of capital for FirstEnergy are reduced, capital costs could increase materially. Restricted access to capital markets and/or increased borrowing costs could have an adverse effect on our results of operations, cash flows, financial condition and liquidity.

On November 17, 2020, FE and the Utilities and FET and certain of its subsidiaries entered into amendments to the FE credit facility and the FET credit facility, respectively. The amendments provide for modifications and/or waivers of: (i) certain representations and warranties, and (ii) certain affirmative and negative covenants, contained therein, which allowed FirstEnergy to regain compliance with such provisions. In addition, among other things, the amendment to the FE credit facility reduces the

sublimit applicable to FE to $1.5 billion, and the amendments increased certain tiers of pricing applicable to borrowings under the credit facilities.

On November 23, 2020, FE and its regulated distribution subsidiaries, JCP&L, ME, Penn, TE and WP, borrowed $950 million in the aggregate under the FE Revolving Facility, bringing the outstanding principal balance under the FE Revolving Facility to $1.2 billion, with $1.3 billion of remaining availability under the FE Revolving Facility. On November 23, 2020, FET and its regulated transmission subsidiary, ATSI, borrowed $1 billion in the aggregate under the FET Revolving Facility, bringing the outstanding principal balance under the FET Revolving Facility to $1 billion, with no remaining availability under the FET Revolving Facility. FE, FET and certain of their respective subsidiaries increased their borrowings under the Revolving Facilities as a proactive measure to increase their respective cash positions and preserve financial flexibility.

FirstEnergy had $2.2 billion and $1.0 billion of short-term borrowings as of December 31, 2020 and 2019, respectively. FirstEnergy's available liquidity from external sources as of February 15, 2021, was as follows:

Borrower(s)	Type	Maturity	Commitment	Available Liquidity
			(In millions)	
FirstEnergy[1]	Revolving	December 2022	$ 2,500	$ 1,296
FET[2]	Revolving	December 2022	1,000	—
		Subtotal	$ 3,500	$ 1,296
		Cash and cash equivalents	—	1,792
		Total	$ 3,500	$ 3,088

(1) FE and the Utilities. Available liquidity includes impact of $4 million of LOCs issued under various terms.
(2) Includes FET and the Transmission Companies.

The following table summarizes the borrowing sublimits for each borrower under the facilities, the limitations on short-term indebtedness applicable to each borrower under current regulatory approvals and applicable statutory and/or charter limitations as of January 31, 2021:

Borrower	FirstEnergy Revolving Credit Facility Sublimit	FET Revolving Credit Facility Sublimit	Regulatory and Other Short-Term Debt Limitations	
		(In millions)		
FE	$ 1,500	$ —	$ —	(1)
FET	—	1,000	—	(1)
OE	500	—	500	(2)
CEI	500	—	500	(2)
TE	300	—	300	(2)
JCP&L	500	—	500	(2)
ME	500	—	500	(2)
PN	300	—	300	(2)
WP	200	—	200	(2)
MP	500	—	500	(2)
PE	150	—	150	(2)
ATSI	—	500	500	(2)
Penn	100	—	100	(2)
TrAIL	—	400	400	(2)
MAIT	—	400	400	(2)

(1) No limitations.
(2) Includes amounts which may be borrowed under the regulated companies' money pool.

Subject to each borrower's sublimit, $250 million of the FE credit facility and $100 million of the FET credit facility, is available for the issuance of LOCs (subject to borrowings drawn under the Facilities) expiring up to one year from the date of issuance. The stated amount of outstanding LOCs will count against total commitments available under each of the Facilities and against the applicable borrower's borrowing sublimit.

The Facilities do not contain provisions that restrict the ability to borrow or accelerate payment of outstanding advances in the event of any change in credit ratings of the borrowers. Pricing is defined in "pricing grids," whereby the cost of funds borrowed

under the Facilities is related to the credit ratings of the company borrowing the funds. Additionally, borrowings under each of the Facilities are subject to the usual and customary provisions for acceleration upon the occurrence of events of default, including a cross-default for other indebtedness in excess of $100 million.

As of December 31, 2020, the borrowers were in compliance with the applicable debt-to-total-capitalization ratio covenants in each case as defined under the respective Facilities.

FirstEnergy Money Pools

FirstEnergy's utility operating subsidiary companies also have the ability to borrow from each other and FE to meet their short-term working capital requirements. Similar but separate arrangements exist among FirstEnergy's unregulated companies with AE Supply, FE, FET, FEV and certain other unregulated subsidiaries. FESC administers these money pools and tracks surplus funds of FE and the respective regulated and unregulated subsidiaries, as the case may be, as well as proceeds available from bank borrowings. Companies receiving a loan under the money pool agreements must repay the principal amount of the loan, together with accrued interest, within 364 days of borrowing the funds. The rate of interest is the same for each company receiving a loan from their respective pool and is based on the average cost of funds available through the pool. The average interest rate for borrowings in 2020 was 0.89% per annum for the regulated companies' money pool and 1.19% per annum for the unregulated companies' money pool.

Long-Term Debt Capacity

FE's and its subsidiaries' access to capital markets and costs of financing are influenced by the credit ratings of their securities. The following table displays FE's and its subsidiaries' credit ratings as of February 15, 2021:

	Corporate Credit Rating			Senior Secured			Senior Unsecured			Outlook/Watch [1]		
Issuer	**S&P**	**Moody's**	**Fitch**	**S&P**	**Moody's**	**Fitch**	**S&P**	**Moody's**	**Fitch**	**S&P**	**Moody's**	**Fitch**
FE	BB	Ba1	BB+				BB	Ba1	BB+	CW-N	N	N
AGC	BB	Baa2	BBB-							CW-N	S	N
ATSI	BB	A3	BBB-				BB+	A3	BBB	CW-N	S	N
CEI	BB	Baa2	BBB-	BBB	A3	BBB+	BB+	Baa2	BBB	CW-N	N	N
FET	BB	Baa2	BB+				BB	Baa2	BB+	CW-N	N	N
JCP&L	BB	A3	BBB-				BB+	A3	BBB	CW-N	S	N
ME	BB	A3	BBB-				BB+	A3	BBB	CW-N	S	N
MAIT	BB	A3	BBB-				BB+	A3	BBB	CW-N	S	N
MP	BB	Baa2	BBB-	BBB	A3	BBB+	BB+	Baa2		CW-N	S	N
OE	BB	A3	BBB-	BBB	A1	BBB+	BB+	A3	BBB	CW-N	N	N
PN	BB	Baa1	BBB-				BB+	Baa1	BBB	CW-N	S	N
Penn	BB	A3	BBB-	BBB	A1	BBB+				CW-N	S	N
PE	BB	Baa2	BBB-	BBB	A3	BBB+				CW-N	S	N
TE	BB	Baa1	BBB-	BBB	A2	BBB+				CW-N	N	N
TrAIL	BB	A3	BBB-				BB+	A3	BBB	CW-N	S	N
WP	BB	A3	BBB-	BBB	A1	BBB+				CW-N	S	N

[1] S = Stable, P = Positive, N = Negative, CW-N = CreditWatch with Negative implications

On May 27, 2020, Moody's upgraded the issuer and senior unsecured ratings of JCP&L to A3 from Baa1 and the rating outlook was changed to stable.

On July 23, 2020, S&P placed the ratings of FE and its subsidiaries on CreditWatch with negative implications.

On July 24, 2020, Moody's revised FE's ratings outlook to negative from stable. FE's Baa3 corporate credit rating and Baa3 senior unsecured rating were affirmed.

On July 28, 2020, Fitch revised FE and its subsidiaries, with the exception of MP, AGC and PE, ratings outlook to negative from stable. The outlook of MP, AGC and PE is stable. Fitch also affirmed FE and its subsidiary ratings.

On August 14, 2020, Moody's affirmed OE's A3 senior unsecured and issuer ratings and Penn's A3 issuer rating. The outlooks were changed to stable from positive.

On October 30, 2020, Fitch downgraded FE and FET's issuer default ratings and senior unsecured ratings one notch to BBB- from BBB. Fitch also downgraded FE's subsidiaries issuer default ratings one notch to BBB from BBB+, except for PE, MP, and AGC, whose ratings were affirmed at BBB. Senior unsecured issue ratings for the subsidiaries were downgraded one notch, where applicable, to BBB+ from A-. Senior secured issue ratings for the subsidiaries were downgraded one notch, where applicable, to A- from A. The rating outlook is negative for FE and its subsidiaries.

On October 30, 2020, S&P downgraded FE and its subsidiaries issuer credit ratings two notches to BB+ from BBB, except for AGC which was lowered to BB from BBB-. The senior unsecured issue ratings of FE and FET were changed one notch to BB+ from BBB-. The senior unsecured issue ratings of the subsidiaries, where applicable, were lowered one notch to BBB- from BBB. Additionally, the senior secured issue ratings of the subsidiaries, where applicable, were lowered one notch to BBB+ from A-. The ratings on FE and its subsidiaries remain on CreditWatch with negative implications.

On November 20, 2020, Fitch downgraded the issuer default rating (IDR) and senior unsecured ratings of FE and FET one notch, to BB+ from BBB-. The IDRs of the remaining subsidiaries were also lowered one notch to BBB- from BBB, the senior unsecured ratings were lowered (where applicable) one notch to BBB from BBB+, and the senior secured ratings were lowered (where applicable) one notch to BBB+ from A-. The outlook for FE and its subsidiaries remains negative.

On November 24, 2020, Moody's downgraded the ratings of FE Corp, including its senior unsecured rating to Ba1 from Baa3. Moody's also assigned a Ba1 Corporate Family Rating to FE and withdrew FE's Baa3 Issuer Rating. The outlook for FE remains negative. Additionally, the outlooks for OE, TE, CE, and FET were changed to negative from stable.

On November 24, 2020, S&P downgraded FE and its subsidiaries issuer credit ratings to BB from BB+ and affirmed the BB issuer credit rating of AGC. The senior unsecured ratings on FE and FET were lowered to BB from BB+. The subsidiary senior unsecured ratings were lowered, where applicable, to BB+ from BBB-, and the senior secured ratings, where applicable, were lowered to BBB from BBB+. The ratings remain on CreditWatch Negative.

On December 17, 2020, Moody's assigned senior secured ratings of A3 to PE and A1 to WP.

On December 21, 2020, S&P assigned senior secured ratings of BBB to PE, Penn and WP.

As of December 31, 2020, $20 million of collateral has been posted by FE or its subsidiaries, of which, $19 million was posted as a result of the credit rating downgrades in the fourth quarter of 2020.

The applicable undrawn and drawn margin on the FE and FET credit facilities are subject to ratings-based pricing grids. The applicable fee paid on the undrawn commitments under the FE and FET credit facilities are based on FE and FET's senior unsecured non-credit enhanced debt ratings as determined by S&P and Moody's. The fee paid on actual borrowings are determined based on each borrower's senior unsecured non-credit enhanced debt ratings as determined by S&P and Moody's.

The interest rate payable on approximately $3.85 billion in FE's senior unsecured notes are subject to adjustments from time to time if the ratings on the notes from any one or more of S&P, Moody's and Fitch decreases to a rating set forth in the applicable documents. Generally a one-notch downgrade by the applicable rating agency may result in a 25 bps coupon rate increase beginning at BB, Ba1, and BB+ for S&P, Moody's and Fitch, respectively, to the extent such rating is applicable to the series of outstanding senior unsecured notes, during the next interest period, subject to an aggregate cap of 2% from issuance interest rate.

Debt capacity is subject to the consolidated debt-to-total-capitalization limits in the credit facilities previously discussed. As of December 31, 2020, FE and its subsidiaries could issue additional debt of approximately $4.8 billion, or incur a $2.6 billion reduction to equity, and remain within the limitations of the financial covenants required by the FE credit facility.

Changes in Cash Position

As of December 31, 2020, FirstEnergy had $1,734 million of cash and cash equivalents and approximately $67 million of restricted cash compared to $627 million of cash and cash equivalents and approximately $52 million of restricted cash as of December 31, 2019, on the Consolidated Balance Sheets.

Cash Flows From Operating Activities

FirstEnergy's most significant sources of cash are derived from electric service provided by its distribution and transmission operating subsidiaries. Beyond the cash settlement and tax sharing payments to the FES Debtors in 2020, and pension contribution in 2019, the most significant use of cash from operating activities is buying electricity to serve non-shopping customers and paying fuel suppliers, employees, tax authorities, lenders and others for a wide range of materials and services.

Net cash provided from operating activities was $1,423 million during 2020, $2,467 million during 2019 and $1,410 million during 2018.

2020 compared with 2019

Cash flows from operations decreased $1,044 million in 2020 as compared with 2019. The year-over-year change in cash from operations is primarily due to the $978 million cash settlement and tax sharing payments made to the FES Debtors upon their emergence in February 2020, an increase to accounts receivable customer balances due to the impact of COVID-19, and higher storm restoration costs, partially offset by the absence of a $500 million cash contribution to the qualified pension plan in 2019.

FirstEnergy's Consolidated Statements of Cash Flows combine cash flows from discontinued operations with cash flows from continuing operations within each cash flow category. The following table summarizes the major classes of operating cash flow items from discontinued operations for the years ended December 31, 2020, 2019 and 2018:

	For the Years Ended December 31,		
(In millions)	**2020**	**2019**	**2018**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Income from discontinued operations	$ 76	$ 8	$ 326
Gain on disposal, net of tax	(76)	(59)	(435)
Depreciation and amortization, including nuclear fuel, regulatory assets, net, intangible assets and deferred debt-related costs	—	—	110
Deferred income taxes and investment tax credits, net	—	47	61
Unrealized (gain) loss on derivative transactions	—	—	(10)

Cash Flows From Financing Activities

Cash provided from financing activities was $2,607 million, $656 million, and $1,394 million in 2020, 2019, and 2018, respectively. The following table summarizes new equity and debt financing, redemptions, repayments, make-whole premiums paid on debt redemptions short-term borrowings and dividends:

	For the Years Ended December 31,		
Securities Issued or Redeemed / Repaid	**2020**	**2019**	**2018**
		(In millions)	
New Issues			
Preferred stock issuance	$ —	$ —	$ 1,616
Common stock issuance	—	—	850
Unsecured notes	3,250	1,850	850
PCRBs	—	—	74
FMBs	175	450	50
Term loan	—	—	500
	$ 3,425	$ 2,300	$ 3,940
Redemptions / Repayments			
Unsecured notes	$ (250)	$ (725)	$ (555)
PCRBs	—	—	(216)
FMBs	(50)	(1)	(325)
Term loan	(750)	—	(1,450)
Senior secured notes	(64)	(63)	(62)
	$ (1,114)	$ (789)	$ (2,608)
Tender premiums paid on debt redemptions	$ —	$ —	$ (89)
Short-term borrowings, net	$ 1,200	$ —	$ 950
Preferred stock dividend payments	$ —	$ (6)	$ (61)
Common stock dividend payments	$ (845)	$ (814)	$ (711)

On February 20, 2020, FE issued $1.75 billion in senior unsecured notes in three separate series: (i) $300 million aggregate principal amount of 2.050% Notes, Series A, due 2025, (ii) $600 million aggregate principal amount of 2.650% Notes, Series B, due 2030 and (iii) $850 million aggregate principal amount of 3.400% Notes, Series C, due 2050. Proceeds from the issuance of the notes, together with cash on hand, were used: (i) to repay the entire $750 million two-year term loan due September 2021, (ii) to make the $853 million in bankruptcy settlement payments and $125 million tax sharing agreement payment with the FES Debtors as discussed above, (iii) to repay $250 million of the $1 billion outstanding 364-day term loan due September 2020, and (iv) for working capital needs and general corporate purposes.

On March 31, 2020, MAIT issued $125 million of 3.60% senior unsecured notes due 2032 and $125 million of 3.70% senior unsecured notes due 2035. Proceeds from the issuance of the notes were used: (i) to refinance existing debt, (ii) for capital expenditures, and (iii) for general corporate purposes.

On April 20, 2020, PN issued $125 million of 3.61% senior unsecured notes due 2032 and $125 million of 3.71% senior unsecured notes due 2035. Proceeds of the issuance of the notes were used: (i) to refinance indebtedness, including short-term borrowings incurred under the FirstEnergy regulated money pool to repay a portion of the $250 million aggregate principle amount of PN's 5.20% Senior Notes due April 1, 2020, (ii) to fund capital expenditures, (iii) to fund general corporate purposes, or (iv) for any combination of the above.

On June 8, 2020, FE issued $750 million in senior unsecured notes in two separate series: (i) $300 million aggregate principal amounts of 1.600% Notes, Series A, due 2026 and (ii) $450 million aggregate principal amount of 2.250% Notes, Series B, due 2030. Proceeds from the issuance of the notes were used to repay all amounts outstanding under the 364-day term loan due September 2020.

On June 29, 2020, PE issued $75 million of 2.67% FMBs due 2032 and $100 million of 3.43% FMBs due 2051. Proceeds of the issuance of the FMBs were used to repay short-term borrowings under the FirstEnergy regulated money pool, to fund capital expenditures, and for general corporate purposes.

On July 20, 2020, CEI issued $150 million of 2.77% senior unsecured notes due 2034 and $100 million of 3.23% senior unsecured notes due 2040. Proceeds from the issuance of the notes were used to refinance existing short-term borrowings, to fund capital expenditures, and for general corporate purposes.

Cash Flows From Investing Activities

Cash used for investing activities in 2020 principally represented cash used for property additions. The following table summarizes investing activities for 2020, 2019 and 2018:

	For the Years Ended December 31,		
Cash Used for (Provided from) Investing Activities	**2020**	**2019**	**2018**
		(In millions)	
Property Additions:			
Regulated Distribution	$ 1,514	$ 1,473	$ 1,411
Regulated Transmission	1,067	1,090	1,104
Corporate/Other	76	102	160
Proceeds from asset sales	(2)	(47)	(425)
Investments	22	38	54
Notes receivable from affiliated companies	—	—	500
Asset removal costs	224	217	218
Other	7	—	(4)
	$ 2,908	$ 2,873	$ 3,018

FirstEnergy's Consolidated Statements of Cash Flows combines cash flows from discontinued operations with cash flows from continuing operations within each cash flow category. The following table summarizes the major classes of investing cash flow items from discontinued operations for the years ended December 31, 2020, 2019 and 2018:

	For the Years Ended December 31,		
(In millions)	**2020**	**2019**	**2018**
CASH FLOWS FROM INVESTING ACTIVITIES:			
Property additions	$ —	$ —	$ (27)
Sales of investment securities held in trusts	—	—	109
Purchases of investment securities held in trusts	—	—	(122)

CONTRACTUAL OBLIGATIONS

As of December 31, 2020, FirstEnergy's estimated undiscounted cash payments under existing contractual obligations that it considers firm obligations are as follows:

Contractual Obligations	Total	2021	2022-2023	2024-2025	Thereafter
			(In millions)		
Long-term debt[1]	$ 22,377	$ 132	$ 2,337	$ 3,269	$ 16,639
Short-term borrowings	2,200	2,200	—	—	—
Interest on long-term debt[2]	12,808	999	1,874	1,647	8,288
Operating leases[3]	366	50	95	74	147
Finance leases[3]	61	18	23	8	12
Fuel and purchased power[4]	3,049	499	883	652	1,015
Capital expenditures[5]	2,028	548	778	702	—
Pension funding	870	—	399	471	—
Total	$ 43,759	$ 4,446	$ 6,389	$ 6,823	$ 26,101

(1) Excludes unamortized discounts and premiums, fair value accounting adjustments and finance leases.
(2) Interest on variable-rate debt based on rates as of December 31, 2020.
(3) See Note 8, "Leases," of the Notes to Consolidated Financial Statements.
(4) Amounts under contract with fixed or minimum quantities based on estimated annual requirements.
(5) Amounts represent committed capital expenditures as of December 31, 2020.

Excluded from the table above are estimates for the cash outlays from power purchase contracts entered into by most of the Utilities and under which they procure the power supply necessary to provide generation service to their customers who do not choose an alternative supplier. Although actual amounts will be determined by future customer behavior and consumption levels, management currently estimates these cash outlays will be approximately $2.7 billion in 2021.

The table above also excludes regulatory liabilities (see Note 14, "Regulatory Matters"), AROs (see Note 13, "Asset Retirement Obligations"), reserves for litigation, injuries and damages, environmental remediation, and annual insurance premiums since the amount and timing of the cash payments are uncertain. The table also excludes accumulated deferred income taxes and investment tax credits since cash payments for income taxes are determined based primarily on taxable income for each applicable fiscal year.

GUARANTEES AND OTHER ASSURANCES

FirstEnergy has various financial and performance guarantees and indemnifications which are issued in the normal course of business. These contracts include performance guarantees, stand-by letters of credit, debt guarantees, surety bonds and indemnifications. FirstEnergy enters into these arrangements to facilitate commercial transactions with third parties by enhancing the value of the transaction to the third party. The maximum potential amount of future payments FirstEnergy and its subsidiaries could be required to make under these guarantees as of December 31, 2020, was approximately $1.7 billion, as summarized below:

Guarantees and Other Assurances	Maximum Exposure
	(In millions)
FE's Guarantees on Behalf of its Consolidated Subsidiaries	
AE Supply asset sales[1]	$ 570
Deferred compensation arrangements	475
Fuel related contracts and other	7
	1,052
FE's Guarantees on Other Assurances	
Global Holding Facility	108
Deferred compensation arrangements	146
Surety Bonds	328
LOCs and other	16
	598
Total Guarantees and Other Assurances	$ 1,650

(1) As a condition to closing AE Supply's sale of four natural gas generating plants and an approximately 59% portion of AGC's interest in the Bath Power Station, FE provided the purchaser two limited three-year guarantees totaling $555 million of certain obligations of AE Supply and AGC, which by their terms expire in May 2021. In addition, as a condition to closing AE Supply's transfer of Pleasants Power Station and as contemplated under the FES Bankruptcy settlement agreement, FE has provided two additional guarantees for certain retained liabilities of AE Supply, the first totaling up to $15 million for certain environmental liabilities associated with Pleasants Power Station, and the second being limited solely to environmental liabilities for the McElroy's Run CCR impoundment facility, for which an ARO of $46 million is reflected on FirstEnergy's Consolidated Balance Sheet, and which is not reflected on the table above.

Collateral and Contingent-Related Features

In the normal course of business, FE and its subsidiaries may enter into physical or financially settled contracts for the sale and purchase of electric capacity, energy, fuel and emission allowances. Certain agreements contain provisions that require FE or its subsidiaries to post collateral. This collateral may be posted in the form of cash or credit support with thresholds contingent upon FE's or its subsidiaries' credit rating from each of the major credit rating agencies. The collateral and credit support requirements vary by contract and by counterparty.

As of December 31, 2020, $20 million of collateral has been posted by FE or its subsidiaries, of which, $19 million was posted as a result of the credit rating downgrades in the fourth quarter of 2020, as further discussed above.

These credit-risk-related contingent features stipulate that if the subsidiary were to be downgraded or lose its investment grade credit rating (based on its senior unsecured debt rating), it would be required to provide additional collateral. The following table discloses the potential additional credit rating contingent contractual collateral obligations as of December 31, 2020:

Potential Collateral Obligations	Utilities and FET	FE	Total
		(In millions)	
Contractual Obligations for Additional Collateral			
Upon Further Downgrade	$ 37	$ —	$ 37
Surety Bonds (Collateralized Amount)[1]	55	258	313
Total Exposure from Contractual Obligations	$ 92	$ 258	$ 350

(1) Surety Bonds are not tied to a credit rating. Surety Bonds' impact assumes maximum contractual obligations, which is ordinarily 100% of the face amount of the surety bond except with the respect to $39 million of surety obligations for which the collateral obligation is capped at 60% of the face amount, and typical obligations require 30 days to cure.

Other Commitments and Contingencies

FE is a guarantor under a $120 million syndicated senior secured term loan facility due November 12, 2024, under which Global Holding's outstanding principal balance is $108 million as of December 31, 2020. Signal Peak, Global Rail, Global Mining Group, LLC and Global Coal Sales Group, LLC, each being a direct or indirect subsidiary of Global Holding, and FE continue to provide their joint and several guaranties of the obligations of Global Holding under the facility.

In connection with the facility, 69.99% of Global Holding's direct and indirect membership interests in Signal Peak, Global Rail and their affiliates along with FEV's and WMB Marketing Ventures, LLC's respective 33-1/3% membership interests in Global Holding, are pledged to the lenders under the current facility as collateral.

MARKET RISK INFORMATION

FirstEnergy uses various market risk sensitive instruments, including derivative contracts, primarily to manage the risk of price and interest rate fluctuations. FirstEnergy's Risk Policy Committee, comprised of members of senior management, provides general oversight for risk management activities throughout the company.

Commodity Price Risk

FirstEnergy has limited exposure to financial risks resulting from fluctuating commodity prices, including prices for electricity, natural gas, coal and energy transmission. FirstEnergy's Risk Management Committee is responsible for promoting the effective design and implementation of sound risk management programs and oversees compliance with corporate risk management policies and established risk management practice.

The valuation of derivative contracts is based on observable market information. As of December 31, 2020, FirstEnergy has a net liability of $3 million in non-hedge derivative contracts that are related to FTRs at certain of the Utilities. FTRs are subject to regulatory accounting and do not impact earnings.

Equity Price Risk

As of December 31, 2020, the FirstEnergy pension plan assets were allocated approximately as follows: 23% in equity securities, 35% in fixed income securities, 7% in hedge funds, 4% in insurance-linked securities, 9% in real estate, 5% in private equity and 17% in cash and short-term securities. A decline in the value of pension plan assets could result in additional funding requirements. FirstEnergy's funding policy is based on actuarial computations using the projected unit credit method. On February 1, 2019, FirstEnergy made a $500 million voluntary cash contribution to the qualified pension plan. As a result of this contribution and pension investment performance returns to date, FirstEnergy expects no required contributions until 2022. As of December 31, 2020, FirstEnergy's OPEB plan assets were allocated approximately 55% in equity securities, 28% in fixed income securities and 17% in cash and short-term securities. Investment markets experienced elevated market volatility during 2020 as a result of the U.S. general election and the COVID-19 pandemic. In order to reduce the effect of market volatility on the plan's funded status and to preserve capital gains experienced during the first half of 2020, approximately $1.4 billion of return-seeking assets were sold (including approximately $800 million of equity securities) during the third quarter of 2020. These assets are expected be reinvested in return seeking investments (including equity securities) during 2021, which will more consistently align the pension and OPEB trust portfolios to the company's target asset allocations. See Note 5, "Pension and Other Post-Employment Benefits," of the Notes to Consolidated Financial Statements for additional details on FirstEnergy's pension and OPEB plans.

During 2020, FirstEnergy's pension and OPEB plan assets gained approximately 14.8% and 13.2%, respectively, as compared to an annual expected return on plan assets of 7.50%. On February 27, 2020, FirstEnergy remeasured its plan assets, and from that date through December 31, 2020, FirstEnergy's pension and OPEB plan assets gained approximately 11.6% and 12.5%, respectively.

Interest Rate Risk

FirstEnergy's exposure to fluctuations in market interest rates is reduced since a significant portion of debt has fixed interest rates, as noted in the table below. FirstEnergy is subject to the inherent interest rate risks related to refinancing maturing debt by issuing new debt securities.

Comparison of Carrying Value to Fair Value

Year of Maturity	2021	2022	2023	2024	2025	There-after	Total	Fair Value
				(In millions)				
Assets:								
Investments Other Than Cash and Cash Equivalents:								
Fixed Income	$ —	$ —	$ —	$ —	$ —	$ 276	$ 276	$ 401
Average interest rate	— %	— %	— %	— %	— %	4.0 %	4.0 %	
Liabilities:								
Long-term Debt:								
Fixed rate	$ 132	$ 1,143	$ 1,194	$ 1,246	$ 2,023	$ 16,639	$ 22,377	$ 25,465
Average interest rate	3.7 %	4.1 %	4.1 %	4.7 %	3.8 %	4.6 %	4.5 %	

FirstEnergy recognizes net actuarial gains or losses for its pension and OPEB plans in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement. A primary factor contributing to these actuarial gains and losses are changes in the discount rates used to value pension and OPEB obligations as of the measurement date and the difference between expected and actual returns on the plans' assets.

CREDIT RISK

Credit risk is the risk that FirstEnergy would incur a loss as a result of nonperformance by counterparties of their contractual obligations. FirstEnergy maintains credit policies and procedures with respect to counterparty credit (including requirement that counterparties maintain specified credit ratings) and require other assurances in the form of credit support or collateral in certain circumstance in order to limit counterparty credit risk. In addition, in response to the COVID-19 pandemic, FirstEnergy has increased reviews of counterparties, customers and industries that have been negatively impacted, which could affect meeting contractual obligations with FirstEnergy. FirstEnergy has concentrations of suppliers and customers among electric utilities, financial institutions and energy marketing and trading companies. These concentrations may impact FirstEnergy's overall exposure to credit risk, positively or negatively, as counterparties may be similarly affected by changes in economic, regulatory or other conditions. In the event an energy supplier of the Ohio Companies, Pennsylvania Companies, JCP&L or PE defaults on its obligation, the affected company would be required to seek replacement power in the market. In general, subject to regulatory review or other processes, it is expected that appropriate incremental costs incurred by these entities would be recoverable from customers through applicable rate mechanisms, thereby mitigating the financial risk for these entities. FirstEnergy's credit policies to manage credit risk include the use of an established credit approval process, daily credit mitigation provisions, such as margin, prepayment or collateral requirements, and surveys to determine negative impacts to essential vendors as a result of the COVID-19 pandemic. FirstEnergy and its subsidiaries may request additional credit assurance, in certain circumstances, in the event that the counterparties' credit ratings fall below investment grade, their tangible net worth falls below specified percentages or their exposures exceed an established credit limit.

OUTLOOK

CARES ACT

On March 27, 2020, President Trump signed into law the CARES Act, an economic stimulus package in response to the COVID-19 pandemic containing several corporate income tax provisions, including making remaining AMT credits immediately refundable; providing a 5-year carryback of NOLs generated in tax years 2018, 2019, and 2020, and removing the 80% taxable income limitation on utilization of those NOLs if carried back to prior tax years or utilized in tax years beginning before 2021; and temporarily liberalizing the interest deductibility rules under Section 163(j) of the Tax Act, by raising the adjusted taxable income limitation from 30% to 50% for tax years 2019 and 2020 and giving taxpayers the election of using 2019 adjusted taxable income for purposes of computing 2020 interest deductibility. FirstEnergy has applied for refund of its remaining approximately $18 million refundable AMT credits. FirstEnergy does not expect to generate additional income tax refunds from the carryback of NOLs and expects interest to be fully deductible in the 2020 consolidated federal income tax return and going forward. FirstEnergy does not currently expect the other provisions of the CARES Act to have a material effect on current income tax expense or the realizability of deferred income tax assets.

On July 28, 2020, the IRS issued final regulations implementing interest expense deduction limitation rules under section 163(j) of the Internal Revenue Code. The final regulations changed certain rules on the computation of interest expense and limitation amount, as well as rules relevant to status as a regulated utility business and the allocation of consolidated group interest expense between utility and non-utility businesses. After reviewing the final regulations, FirstEnergy recorded a true-up to prior years' reserve estimates during the third quarter of 2020, which did not have a material impact to FirstEnergy's income statement. On January 6, 2021, the IRS released an additional set of final regulations under Section 163(j) primarily addressing partnership, real estate, and certain controlled foreign corporation issues, which do not materially impact FirstEnergy.

STATE REGULATION

Each of the Utilities' retail rates, conditions of service, issuance of securities and other matters are subject to regulation in the states in which it operates - in Maryland by the MDPSC, in New Jersey by the NJBPU, in Ohio by the PUCO, in Pennsylvania by the PPUC, in West Virginia by the WVPSC and in New York by the NYPSC. The transmission operations of PE in Virginia, ATSI in Ohio, and the Transmission Companies in Pennsylvania are subject to certain regulations of the VSCC, PUCO and PPUC, respectively. In addition, under Ohio law, municipalities may regulate rates of a public utility, subject to appeal to the PUCO if not acceptable to the utility. Further, if any of the FirstEnergy affiliates were to engage in the construction of significant new transmission facilities, depending on the state, they may be required to obtain state regulatory authorization to site, construct and operate the new transmission facility.

The following table summarizes the key terms of distribution rate orders in effect for the Utilities:

Company	Rates Effective	Allowed Debt/Equity	Allowed ROE
CEI	May 2009	51% / 49%	10.5%
ME[1]	January 2017	48.8% / 51.2%	Settled[2]
MP	February 2015	54% / 46%	Settled[2]
JCP&L[3]	January 2017	55% / 45%	9.6%
OE	January 2009	51% / 49%	10.5%
PE (West Virginia)	February 2015	54% / 46%	Settled[2]
PE (Maryland)	March 2019	47% / 53%	9.65%
PN[1]	January 2017	47.4% / 52.6%	Settled[2]
Penn[1]	January 2017	49.9% / 50.1%	Settled[2]
TE	January 2009	51% / 49%	10.5%
WP[1]	January 2017	49.7% / 50.3%	Settled[2]

[1] Reflects filed debt/equity as final settlement/orders do not specifically include capital structure.
[2] Commission-approved settlement agreements did not disclose ROE rates.
[3] On October 28, 2020, the NJBPU approved JCP&L's distribution rate case settlement with an allowed ROE of 9.6% and a 48.56% debt / 51.44% equity capital structure. Rates are effective for customers on November 1, 2021, but beginning January 1, 2021, JCP&L will offset the impact to customers' bills by amortizing an $86 million regulatory liability.

MARYLAND

PE operates under MDPSC approved base rates that were effective as of March 23, 2019. PE also provides SOS pursuant to a combination of settlement agreements, MDPSC orders and regulations, and statutory provisions. SOS supply is competitively procured in the form of rolling contracts of varying lengths through periodic auctions that are overseen by the MDPSC and a third-party monitor. Although settlements with respect to SOS supply for PE customers have expired, service continues in the same manner until changed by order of the MDPSC. PE recovers its costs plus a return for providing SOS.

The EmPOWER Maryland program requires each electric utility to file a plan to reduce electric consumption and demand 0.2% per year, up to the ultimate goal of 2% annual savings, for the duration of the 2018-2020 and 2021-2023 EmPOWER Maryland program cycles, to the extent the MDPSC determines that cost-effective programs and services are available. PE's approved 2018-2020 EmPOWER Maryland plan continues and expands upon prior years' programs, and adds new programs, for a projected total cost of $116 million over the three-year period. PE recovers program costs through an annually reconciled surcharge, with most costs subject to a five-year amortization. Maryland law only allows for the utility to recover lost distribution revenue attributable to energy efficiency or demand reduction programs through a base rate case proceeding, and to date, such recovery has not been sought or obtained by PE. On September 1, 2020, PE filed its proposed plan for the 2021-2023 EmPOWER Maryland program cycle. The new plan largely continues PE's existing programs and is estimated to cost approximately $148 million over the three-year period. The MDPSC approved the plan on December 18, 2020.

On January 19, 2018, PE filed a joint petition along with other utility companies, work group stakeholders and the MDPSC electric vehicle work group leader to implement a statewide electric vehicle portfolio in connection with a 2016 MDPSC proceeding to consider an array of issues relating to electric distribution system design, including matters relating to electric vehicles, distributed energy resources, advanced metering infrastructure, energy storage, system planning, rate design, and impacts on low-income customers. PE proposed an electric vehicle charging infrastructure program at a projected total cost of

$12 million, to be recovered over a five-year amortization. On January 14, 2019, the MDPSC approved the petition subject to certain reductions in the scope of the program. The MDPSC approved PE's compliance filing, which implements the pilot program, with minor modifications, on July 3, 2019.

On August 24, 2018, PE filed a base rate case with the MDPSC, which it supplemented on October 22, 2018, to update the partially forecasted test year with a full twelve months of actual data. The rate case requested an annual increase in base distribution rates of $19.7 million, plus creation of an EDIS to fund four enhanced service reliability programs. In responding to discovery, PE revised its request for an annual increase in base rates to $17.6 million. The proposed rate increase reflected $7.3 million in annual savings for customers resulting from the recent federal tax law changes. On March 22, 2019, the MDPSC issued a final order that approved a rate increase of $6.2 million, approved three of the four EDIS programs for four years, directed PE to file a new depreciation study within 18 months, and ordered the filing of a new base rate case in four years to correspond to the ending of the approved EDIS programs. On September 22, 2020, PE filed its depreciation study reflecting a depreciation expense of $36.2 million, which represented a slight increase, and as a result, is seeking difference in depreciation be deferred for future recovery in PE's next base rate case. The MDPSC has set the matter for hearing and delegated it to a public utility law judge. On November 6, 2020, an order was issued scheduling evidentiary hearings in April 2021. On January 29, 2021, the Maryland Office of People's Counsel filed testimony recommending a reduction in depreciation expense of $10.8 million, and the staff of the MDPSC filed testimony recommending a reduction of $9.6 million. PE's rebuttal testimony is due on March 2, 2021.

Maryland's Governor issued an order on March 16, 2020, forbidding utilities from terminating residential service or charging late fees for non-payment for the duration of the COVID-19 pandemic. On April 9, 2020, the MDPSC issued an order allowing utilities to track and create a regulatory asset for future recovery of all prudently incurred incremental costs arising from the COVID-19 pandemic, including incremental uncollectible expense, incurred from the date of the Governor's order (or earlier if the utility could show that the expenses related to suspension of service terminations). On July 8, 2020, the MDPSC issued a notice opening a public conference to collect information from utilities and other stakeholders about the impacts of the COVID-19 pandemic on the utilities and their customers. The MDPSC subsequently issued orders allowing Maryland electric and gas utilities to resume residential service terminations for non-payment on November 15, 2020, subject to various restrictions, and clarifying that utilities could resume charging late fees on October 1, 2020.

NEW JERSEY

JCP&L operates under NJBPU approved rates that were effective as of January 1, 2017. JCP&L provides BGS for retail customers who do not choose a third-party EGS and for customers of third-party EGSs that fail to provide the contracted service. All New Jersey EDCs participate in this competitive BGS procurement process and recover BGS costs directly from customers as a charge separate from base rates.

On April 18, 2019, pursuant to the May 2018 New Jersey enacted legislation establishing a ZEC program to provide ratepayer funded subsidies of New Jersey nuclear energy supply, the NJBPU approved the implementation of a non-bypassable, irrevocable ZEC charge for all New Jersey electric utility customers, including JCP&L's customers. Once collected from customers by JCP&L, these funds will be remitted to eligible nuclear energy generators.

In December 2017, the NJBPU issued proposed rules to modify its current CTA policy in base rate cases to: (i) calculate savings using a five-year look back from the beginning of the test year; (ii) allocate savings with 75% retained by the company and 25% allocated to ratepayers; and (iii) exclude transmission assets of electric distribution companies in the savings calculation, which were published in the NJ Register in the first quarter of 2018. JCP&L filed comments supporting the proposed rulemaking. On January 17, 2019, the NJBPU approved the proposed CTA rules with no changes. On May 17, 2019, the Rate Counsel filed an appeal with the Appellate Division of the Superior Court of New Jersey. Oral Argument is scheduled for March 10, 2021. JCP&L is contesting this appeal but is unable to predict the outcome of this matter.

Also, in December 2017, the NJBPU approved its IIP rulemaking. The IIP creates a financial incentive for utilities to accelerate the level of investment needed to promote the timely rehabilitation and replacement of certain non-revenue producing components that enhance reliability, resiliency, and/or safety. On May 8, 2019, the NJBPU approved a stipulation of settlement submitted by JCP&L, Rate Counsel, NJBPU staff and New Jersey Large Energy Users Coalition to implement JCP&L's infrastructure plan, JCP&L Reliability Plus. The plan provides that JCP&L will invest up to approximately $97 million in capital investments beginning on June 1, 2019 through December 31, 2020, to enhance the reliability and resiliency of JCP&L's distribution system and reduce the frequency and duration of power outages. JCP&L shall seek recovery of the capital investment through an accelerated cost recovery mechanism, provided for in the rules, that includes a revenue adjustment calculation and a process for two rate adjustments. The NJBPU approved adjusted rates that took effect on March 1, 2020. As further discussed below, JCP&L will recover the IIP capital investments, which totaled $97 million, as part of its distribution base rate case.

On February 18, 2020, JCP&L submitted a filing with the NJBPU requesting a distribution base rate increase of $186.9 million on an annual basis, which represents an overall average increase in JCP&L rates of 7.8%. The filing seeks to recover certain costs associated with providing safe and reliable electric service to JCP&L customers, along with recovery of previously incurred storm costs. JCP&L proposed a rate effective date of March 19, 2020. The NJBPU issued orders suspending JCP&L's proposed rates

until November 19, 2020. JCP&L filed updates to the requested distribution base rate in both June and July 2020, resulting in JCP&L seeking a total annual distribution base rate increase of approximately $185 million. On October 16, 2020, the parties submitted a stipulation of settlement to the administrative law judge, providing for, among other things, a $94 million annual base distribution revenues increase for JCP&L based on an ROE of 9.6%, which will become effective for customers on November 1, 2021. Until the rates become effective, and starting on January 1, 2021, JCP&L is permitted to amortize an existing regulatory liability totaling approximately $86 million to offset the base rate increase that otherwise would have occurred in this period. The parties also agreed that the actual net gain from the sale of JCP&L's interest in the Yards Creek pumped-storage hydro generation facility in New Jersey (210 MWs), as further discussed below, shall be applied to reduce JCP&L's existing regulatory asset for previously deferred storm costs. Lastly, the parties agreed that $95.1 million of Reliability Plus capital investment for projects through December 31, 2020 is included in rate base effective December 31, 2020, with a final prudence review of only those capital investment projects from July 1, 2020 through December 31, 2020 to occur in January 2021. On October 22, 2020, the administrative law judge entered an initial decision adopting the settlement. On October 28, 2020, the NJBPU approved the settlement and directed an upcoming management audit for JCP&L. On January 4, 2021, JCP&L submitted its review of storm costs as required under the stipulation of settlement. On January 15, 2021, JCP&L filed a written report for its Reliability Plus projects placed in service from July 1, 2020 through December 31, 2020, also as required under the stipulation of settlement.

On April 6, 2020, JCP&L signed an asset purchase agreement with Yards Creek Energy, LLC, a subsidiary of LS Power to sell its 50% interest in the Yards Creek pumped-storage hydro generation facility. Subject to terms and conditions of the agreement, the base purchase price is $155 million. On July 31, 2020, FERC approved the transfer of JCP&L's interest in the hydroelectric operating license. On October 8, 2020, FERC issued an order authorizing the transfer of JCP&L's ownership interest in the hydroelectric facilities. On October 28, 2020, the NJBPU approved the sale of Yards Creek. Completion of the transaction is subject to several closing conditions; there can be no assurance that all closing conditions will be satisfied or that the transaction will be consummated. JCP&L currently anticipates closing of the transaction to occur during the first quarter of 2021. Assets held for sale on FirstEnergy's Consolidated Balance Sheets associated with the transaction consist of property, plant and equipment of $45 million, which is included in the regulated distribution segment.

On August 27, 2020, JCP&L filed an AMI Program with the NJBPU, which proposes the deployment of approximately 1.2 million advanced meters over a three-year period beginning on January 1, 2023, at a total cost of approximately $418 million, including the pre-deployment phase. The 3-year deployment is part of the 20-year AMI Program that is expected to cost a total of approximately $732 million and proposes a cost recovery mechanism through a separate AMI tariff rider. On January 13, 2021, a procedural schedule was established, which includes evidentiary hearings the week of May 24, 2021.

On June 10, 2020, the NJBPU issued an order establishing a framework for the filing of utility-run energy efficiency and peak demand reduction programs in accordance with the New Jersey Clean Energy Act. Under the established framework, JCP&L will recover its program investments over a ten year amortization period and its operations and maintenance expenses on an annual basis, be eligible to receive lost revenues on energy savings that resulted from its programs and be eligible for incentives or subject to penalties based on its annual program performance, beginning in the fifth year of its program offerings. On September 25, 2020, JCP&L filed its energy efficiency and peak demand reduction program. JCP&L's program consists of 11 energy efficiency and peak demand reduction programs and subprograms to be run from July 1, 2021 through June 30, 2024. The program also seeks approval of cost recovery totaling approximately $230 million as well as lost revenues associated with the energy savings resulting from the programs. While a procedural order has been established in this matter, on January 20, 2021, JCP&L filed a letter requesting a suspension of the procedural schedule to allow for settlement discussions. The Clean Energy Act contemplates a final order from the NJBPU by May 2, 2021.

On July 2, 2020, the NJBPU issued an order allowing New Jersey utilities to track and create a regulatory asset for future recovery of all prudently incurred incremental costs arising from the COVID-19 pandemic beginning March 9, 2020 through September 30, 2021, or until the Governor issues an order stating that the COVID-19 pandemic is no longer in effect. New Jersey utilities can request recovery of such regulatory asset in a stand-alone COVID-19 regulatory asset filing or future base rate case. On August 21, 2020, the Governor of New Jersey issued a press release announcing that the New Jersey utilities agreed to extend their voluntary moratorium preventing shutoffs to both residential and commercial customers during the COVID-19 pandemic until October 15, 2020. On October 15, 2020, the Governor issued an Executive Order prohibiting utilities from terminating service to any residential gas, electric, public and private water customer, through March 15, 2021, requiring the reconnection of certain customers, and disallowing the charging of late payment charges or reconnection fees during the public health emergency. On October 28, 2020, the NJBPU issued an order expanding the scope of the proceeding to examine all pandemic issues, including recovery of the COVID-19 regulatory assets, by way of a generic proceeding. On November 30, 2020, JCP&L submitted comments.

The recent credit rating actions taken on October 28, 2020, by S&P and Fitch triggered a requirement from various NJBPU orders that JCP&L file a mitigation plan, which was filed on November 5, 2020, to demonstrate that JCP&L has sufficient liquidity to meet its BGS obligations. On December 11, 2020, the NJBPU held a public hearing on the mitigation plan. Written comments on JCP&L's mitigation plan were submitted on January 8, 2021.

OHIO

The Ohio Companies operate under base distribution rates approved by the PUCO effective in 2009. The Ohio Companies' residential and commercial base distribution revenues were decoupled, through a mechanism that took effect on February 1, 2020 and under which the Ohio Companies billed customers until February 9, 2021, to the base distribution revenue and lost distribution revenue associated with energy efficiency and peak demand reduction programs recovered as of the twelve-month period ending on December 31, 2018. The Ohio Companies currently operate under ESP IV effective June 1, 2016, and continuing through May 31, 2024, that continues the supply of power to non-shopping customers at a market-based price set through an auction process. ESP IV also continues the DCR rider, which supports continued investment related to the distribution system for the benefit of customers, with increased revenue caps of $20 million per year from June 1, 2019 through May 31, 2022; and $15 million per year from June 1, 2022 through May 31, 2024. In addition, ESP IV includes: (1) continuation of a base distribution rate freeze through May 31, 2024; (2) the collection of lost distribution revenue associated with energy efficiency and peak demand reduction programs, which is discussed further below; (3) a goal across FirstEnergy to reduce CO_2 emissions by 90% below 2005 levels by 2045; and (4) contributions, totaling $51 million to: (a) fund energy conservation programs, economic development and job retention in the Ohio Companies' service territories; (b) establish a fuel-fund in each of the Ohio Companies' service territories to assist low-income customers; and (c) establish a Customer Advisory Council to ensure preservation and growth of the competitive market in Ohio.

ESP IV further provided for the Ohio Companies to collect through the DMR $132.5 million annually for three years beginning in 2017, grossed up for federal income taxes, resulting in an approved amount of approximately $168 million annually in 2018 and 2019. On appeal, the SCOH, on June 19, 2019, reversed the PUCO's determination that the DMR is lawful, and remanded the matter to the PUCO with instructions to remove the DMR from ESP IV. The PUCO entered an order directing the Ohio Companies to cease further collection through the DMR, credit back to customers a refund of the DMR funds collected since July 2, 2019 and remove the DMR from ESP IV. On July 15, 2019, OCC filed a Notice of Appeal with the SCOH, challenging the PUCO's exclusion of the DMR revenues from the determination of the existence of significantly excessive earnings under ESP IV for calendar year 2017 for OE and claiming a $42 million refund is due to OE customers. On December 1, 2020, the SCOH reversed the PUCO's exclusion of the DMR revenues from the determination of the existence of significantly excessive earnings under ESP IV for OE for calendar year 2017, and remanded the case to the PUCO with instructions to conduct new proceedings which includes the DMR revenues in the analysis, determines the threshold against which the earned return is measured, and makes other necessary determinations. FirstEnergy is unable to predict the outcome of these proceedings but has not deemed a liability probable as of December 31, 2020.

On July 23, 2019, Ohio enacted HB 6, which established support for nuclear energy supply in Ohio. In addition to the provisions supporting nuclear energy, HB 6 included provisions implementing a decoupling mechanism for Ohio electric utilities and ending current energy efficiency program mandates on December 31, 2020, provided that statewide energy efficiency mandates are achieved as determined by the PUCO. On February 26, 2020, the PUCO ordered a wind-down of statutorily required energy efficiency programs to commence on September 30, 2020, that the programs terminate on December 31, 2020, with the Ohio Companies' existing portfolio plans extended through 2020 without changes.

On November 21, 2019, the Ohio Companies applied to the PUCO for approval of a decoupling mechanism, which would set residential and commercial base distribution related revenues at the levels collected in 2018. As such, those base distribution revenues would no longer be based on electric consumption, which allows continued support of energy efficiency initiatives while also providing revenue certainty to the Ohio Companies. On January 15, 2020, the PUCO approved the Ohio Companies' decoupling application, and the decoupling mechanism took effect on February 1, 2020. Legislation has been introduced in the first quarter of 2021 to, among other things, repeal parts of HB 6, the legislation that established support for nuclear energy supply in Ohio, provided for a decoupling mechanism for Ohio electric utilities, and provided for the ending of current energy efficiency program mandates. As further discussed below, in connection with a partial settlement with the OAG and other parties, the Ohio Companies filed an application with the PUCO on February 1, 2021, to set the respective decoupling riders (Rider CSR) to zero. While the partial settlement with the OAG focused specifically on decoupling, the Ohio Companies will of their own accord not seek to recover lost distribution revenue from residential and commercial customers. FirstEnergy is committed to pursuing an open dialogue with stakeholders in an appropriate manner with respect to the numerous regulatory proceedings currently underway as further discussed herein. As a result of the partial settlement, and the decision to not seek lost distribution revenue, FirstEnergy recognized a $108 million pre-tax charge ($84 million after-tax) in the fourth quarter of 2020, and $77 million (pre-tax) of which is associated with forgoing collection of lost distribution revenue. FirstEnergy does not believe a refund for previously collected amounts under decoupling, which was approximately $18 million, is probable. Furthermore, as FirstEnergy would not have financially benefited from the Clean Air Fund included in HB 6, which is the mechanism to provide support to nuclear energy in Ohio, there is no expected additional impact to FirstEnergy due to any repeal of that provision of HB 6.

On July 17, 2019, the PUCO approved, with no material modifications, a settlement agreement that provides for the implementation of the Ohio Companies' first phase of grid modernization plans, including the investment of $516 million over three years to modernize the Ohio Companies' electric distribution system, and for all tax savings associated with the Tax Act to flow back to customers. The settlement had broad support, including PUCO staff, the OCC, representatives of industrial and commercial customers, a low-income advocate, environmental advocates, hospitals, competitive generation suppliers and other parties.

In March 2020, the PUCO issued entries directing utilities to review their service disconnection and restoration policies and suspend, for the duration of the COVID-19 pandemic, otherwise applicable requirements that may impose a service continuity hardship or service restoration hardship on customers. The Ohio Companies are utilizing their existing approved cost recovery mechanisms where applicable to address the financial impacts of these directives. On July 31, 2020, the Ohio Companies filed with the PUCO their transition plan and requests for waivers to allow for the safe resumption of normal business operations, including service disconnections for non-payment. On September 23, 2020, the PUCO approved the Ohio Companies' transition plan, including approval of the resumption of service disconnections for non-payment, which the Ohio Companies began on October 5, 2020.

On July 29, 2020, the PUCO consolidated the Ohio Companies' Applications for determination of the existence of significantly excessive earnings, or SEET, under ESP IV for calendar years 2018 and 2019, which had been previously filed on July 15, 2019, and May 15, 2020, respectively, and set a procedural schedule with evidentiary hearings scheduled for October 29, 2020. The calculations included in the Ohio Companies' SEET filings for calendar years 2018 and 2019 demonstrate that the Ohio Companies did not have significantly excessive earnings, however, FirstEnergy and the Ohio Companies are unable to predict the PUCO's ultimate determination of the applications. On August 3, 2020, the OCC filed an interlocutory appeal asking the PUCO to stay the SEET proceeding until the SCOH determines whether DMR should be excluded from the SEET, as further discussed above. Furthermore, on January 21, 2021, Senate Bill 10 was introduced, which would repeal legislation passed in 2019 that permitted the Ohio Companies to file their SEET results on a consolidated basis instead of on an individual company basis. On September 4, 2020, the PUCO opened its quadrennial review of ESP IV, consolidated it with the Ohio Companies' 2018 and 2019 SEET Applications, and set a procedural schedule for the consolidated matters. On October 29, 2020, the PUCO issued an entry extending the deadline for the Ohio Companies to file quadrennial review of ESP IV testimony to March 1, 2021, with the evidentiary hearings to commence no sooner than May 3, 2021. On January 12, 2021, the PUCO consolidated these matters with the determination of the existence of significantly excessive earnings under ESP IV for calendar year 2017, which the SCOH had remanded to the PUCO.

On September 8, 2020, the OCC filed motions in the Ohio Companies' corporate separation audit and DMR audit dockets, requesting the PUCO to open an investigation and management audit, hire an independent auditor, and require FirstEnergy to show it did not improperly use money collected from consumers or violate any utility regulatory laws, rules or orders in its activities regarding HB 6. The Ohio Companies' filed a response in opposition to the OCC's motions on September 23, 2020. On December 30, 2020, in response to the OCC's motion, the PUCO reopened the DMR audit docket, and directed PUCO staff to solicit a third-party auditor and conduct a full review of the DMR to ensure funds collected from ratepayers through the DMR were only used for the purposes established in ESP IV. Deadlines relating to the selection of the auditor and the issuance of the final audit report have not yet been set.

On September 15, 2020, the PUCO opened a new proceeding to review the political and charitable spending by the Ohio Companies in support of HB 6 and the subsequent referendum effort, directing the Ohio Companies to show cause, demonstrating that the costs of any political or charitable spending in support of HB 6, or the subsequent referendum effort, were not included, directly or indirectly, in any rates or charges paid by ratepayers. The Ohio Companies filed a response on September 30, 2020, stating that any political and charitable spending in support of HB 6 or the subsequent referendum were not included in rates or charges paid for by its customers. Several parties requested that the PUCO broaden the scope of the review of political and charitable spending.

In connection with an on-going audit of the Ohio Companies' policies and procedures relating to the code of conduct rules between affiliates, on November 4, 2020, the PUCO initiated an additional corporate separation audit as a result of the FirstEnergy leadership transition announcement made on October 29, 2020, as further discussed below. The additional audit is to ensure compliance by the Ohio Companies and their affiliates with corporate separation laws and the Ohio Companies' corporate separation plan. The additional audit is for the period from November 2016 through October 2020, with a final audit report to be filed in June 2021. On January 27, 2021, the PUCO selected an auditor.

On November 24, 2020, the Environmental Law and Policy Center filed motions to vacate the PUCO's orders in proceedings related to the Ohio Companies' settlement that provides for the implementation of the first phase of grid modernization plans and for all tax savings associated with the Tax Act to flow back to customers, the Ohio Companies' energy efficiency portfolio plans for the period from 2013 through 2016, and the Ohio Companies' application for a two-year extension of the DMR, on the grounds that the former Chairman of the PUCO should have recused himself in these matters. On December 30, 2020, the PUCO denied the motions, and reinstated the requirement under ESP IV that the Ohio Companies file a base distribution rate case by May 31, 2024, the end of ESP IV, which the Ohio Companies had indicated they would not oppose.

In the fourth quarter of 2020, motions were filed with the PUCO requesting that the PUCO amend the Ohio Companies' riders for collecting charges required by HB 6, which the Ohio Companies are further required to remit to other Ohio electric distribution utilities or to the State Treasurer, to provide for refunds in the event HB 6 is repealed. The Ohio Companies contested the motions, which are pending before the PUCO.

On December 7, 2020, the Citizens' Utility Board of Ohio filed a complaint with the PUCO against the Ohio Companies. The complaint alleges that the Ohio Companies' new charges resulting from HB 6, and any increased rates resulting from proceedings over which the former PUCO Chairman presided, are unjust and unreasonable, and that the Ohio Companies violated Ohio corporate separation laws by failing to operate separately from unregulated affiliates. The complaint requests, among other things, that any rates authorized by HB 6 or authorized by the PUCO in a proceeding over which the former Chairman presided be made refundable; that the Ohio Companies be required to file a new distribution rate case at the earliest possible date; and that the Ohio Companies' corporate separation plans be modified to introduce institutional controls. The Ohio Companies are contesting the complaint.

On December 9, 2020, the Ohio Manufacturers' Association Energy Group filed an appeal to the SCOH challenging the PUCO's generic order directing the form of rider all Ohio electric distribution utilities must charge to recover the costs of the HB 6 Clean Air Fund. The appeal contends that the PUCO erred in adopting the rate design for the riders, in establishing the riders during ongoing proceedings and investigations related to HB 6, and in not requiring electric distribution utilities to include refund language in the rider tariffs. On December 30, 2020, the PUCO vacated its generic order establishing the Clean Air Fund riders, as required by a preliminary injunction issued by the Court of Common Pleas of Franklin County, Ohio. On January 11, 2021, the SCOH granted a joint application of the Ohio Manufacturers' Association Energy Group and the PUCO and dismissed the appeal.

See "Outlook - Other Legal Proceedings" below for additional details on the government investigation and subsequent litigation surrounding the investigation of HB 6.

PENNSYLVANIA

The Pennsylvania Companies operate under rates approved by the PPUC, effective as of January 27, 2017. These rates were adjusted for the net impact of the Tax Act, effective March 15, 2018. The net impact of the Tax Act for the period January 1, 2018 through March 14, 2018 was separately tracked and its treatment will be addressed in a future rate proceeding. The Pennsylvania Companies operate under DSPs for the June 1, 2019 through May 31, 2023 delivery period, which provide for the competitive procurement of generation supply for customers who do not choose an alternative EGS or for customers of alternative EGSs that fail to provide the contracted service. Under the 2019-2023 DSPs, supply will be provided by wholesale suppliers through a mix of 3, 12 and 24-month energy contracts, as well as two RFPs for 2-year SREC contracts for ME, PN and Penn.

Pursuant to Pennsylvania Act 129 of 2008 and PPUC orders, Pennsylvania EDCs implement energy efficiency and peak demand reduction programs. The Pennsylvania Companies' Phase III EE&C plans for the June 2016 through May 2021 period, which were approved in March 2016, with expected costs up to $390 million, are designed to achieve the targets established in the PPUC's Phase III Final Implementation Order with full recovery through the reconcilable EE&C riders. On June 18, 2020, the PPUC entered a Final Implementation Order for a Phase IV EE&C Plan, operating from June 2021 through May 2026. The Final Implementation Order set demand reduction targets, relative to 2007 to 2008 peak demands, at 2.9% MW for ME, 3.3% MW for PN, 2.0% MW for Penn, and 2.5% MW for WP; and energy consumption reduction targets, as a percentage of the Pennsylvania Companies' historic 2009 to 2010 reference load at 3.1% MWH for ME, 3.0% MWH for PN, 2.7% MWH for Penn, and 2.4% MWH for WP. The Pennsylvania Companies' Phase IV plans were filed November 30, 2020. A settlement has been reached in this matter, and a joint petition seeking approval of that settlement by the parties was filed on February 16, 2021. A PPUC decision on the settlement is expected in March 2021.

Pennsylvania EDCs may file with the PPUC for approval of an LTIIP for infrastructure improvements and costs related to highway relocation projects, after which a DSIC may be approved to recover LTIIP costs. On August 30, 2019, the Pennsylvania Companies filed Petitions for approval of new LTIIPs for the five-year period beginning January 1, 2020 and ending December 31, 2024 for a total capital investment of approximately $572 million for certain infrastructure improvement initiatives. On January 16, 2020, the PPUC approved the LTIIPs without modification. The Pennsylvania Companies' approved DSIC riders for quarterly cost recovery went into effect July 1, 2016. On August 30, 2019, Penn filed a Petition seeking approval of a waiver of the statutory DSIC cap of 5% of distribution rate revenue and approval to increase the maximum allowable DSIC to 11.81% of distribution rate revenue for the five-year period of its proposed LTIIP. On March 12, 2020, an order was entered approving a settlement by all parties to that case which provides for a temporary increase in the recoverability cap from 5% to 7.5%, to expire on the earlier of the effective date of new base rates following Penn's next base rate case or the expiration of its LTIIP II program.

Following the Pennsylvania Companies' 2016 base rate proceedings, the PPUC ruled in a separate proceeding related to the DSIC mechanisms that the Pennsylvania Companies were not required to reflect federal and state income tax deductions related to DSIC-eligible property in DSIC rates, which decision was appealed by the Pennsylvania OCA to the Pennsylvania Commonwealth Court. The Commonwealth Court reversed the PPUC's decision and remanded the matter to require the Pennsylvania Companies to revise their tariffs and DSIC calculations to include ADIT and state income taxes. On April 7, 2020, the Pennsylvania Supreme Court issued an order granting Petitions for Allowance of Appeal by both the PPUC and the Pennsylvania Companies of the Commonwealth Court's Opinion and Order. Briefs and Reply Briefs of the parties were filed, and oral argument before the Supreme Court was held on October 21, 2020. An adverse ruling by the Pennsylvania Supreme Court is not expected to result in a material impact to FirstEnergy.

The PPUC issued an order on March 13, 2020, forbidding utilities from terminating service for non-payment for the duration of the COVID-19 pandemic. On May 13, 2020, the PPUC issued a Secretarial letter directing utilities to track all prudently incurred incremental costs arising from the COVID-19 pandemic, and to create a regulatory asset for future recovery of incremental uncollectibles incurred as a result of the COVID-19 pandemic and termination moratorium. On October 13, 2020, the PPUC entered an order lifting the service termination moratorium effective November 9, 2020, subject to certain additional notification, payment procedures and exceptions, and permits the Pennsylvania Companies to create a regulatory asset for all incremental expenses associated with their compliance with the order.

WEST VIRGINIA

MP and PE provide electric service to all customers through traditional cost-based, regulated utility ratemaking and operate under rates approved by the WVPSC effective February 2015. MP and PE recover net power supply costs, including fuel costs, purchased power costs and related expenses, net of related market sales revenue through the ENEC. MP's and PE's ENEC rate is updated annually.

On March 13, 2020, the WVPSC urged all utilities to suspend utility service terminations except where necessary as a matter of safety or where requested by the customer. On May 15, 2020, the WVPSC issued an order to authorize MP and PE to record a deferral of additional, extraordinary costs directly related to complying with the various COVID-19 government shut-down orders and operational precautions, including impacts on uncollectible expense and cash flow related to temporary discontinuance of service terminations for non-payment and any credits to minimum demand charges associated with business customers adversely impacted by shut-downs or temporary closures related to the pandemic. MP and PE resumed disconnection activity for commercial and industrial customers on September 15, 2020, and for residential customers on November 4, 2020.

On August 28, 2020, MP and PE filed with the WVPSC their annual ENEC case requesting a decrease in ENEC rates of $55 million beginning January 1, 2021, representing a 4% decrease in rates compared to those in effect on August 28, 2020. The decrease in the ENEC rates is net of recovering approximately $10.5 million in previously deferred, incremental uncollectible and other related costs resulting from the COVID-19 pandemic. The WVPSC approved a unanimous settlement by the parties on December 16, 2020 with rates effective January 1, 2021.

Also, on August 28, 2020, MP and PE filed with the WVPSC for recovery of costs associated with modernization and improvement program for their coal-fired boilers. The proposed annual revenue increase for these environmental compliance projects is $5 million beginning January 1, 2021. The WVPSC approved a unanimous settlement by the parties on December 16, 2020 approving the recovery of those costs.

On December 30, 2020, MP and PE filed an integrated resource plan with the WVPSC. The plan projects a small capacity deficit but an energy surplus in MP’s and PE’s supply resources when compared with current WV load demand and projects the capacity deficit growing over the next 15 years. The plan does not recommend additional supply-side resources with a possible exception for small utility-scale solar resources and recommends that the capacity deficit be met through the PJM capacity market. MP currently expects to seek approval in 2021 to construct solar generation sources of up to 50 MWs.

On December 30, 2020, MP and PE filed with the WVPSC a determination of the rate impact of the Tax Act with respect to ADIT. The filing proposes an annual revenue reduction of $2.6 million annually, effective January 1, 2022, with reconciliation and any resulting adjustments incorporated into the annual ENEC proceedings.

FERC REGULATORY MATTERS

Under the FPA, FERC regulates rates for interstate wholesale sales, transmission of electric power, accounting and other matters, including construction and operation of hydroelectric projects. With respect to their wholesale services and rates, the Utilities, AE Supply and the Transmission Companies are subject to regulation by FERC. FERC regulations require JCP&L, MP, PE, WP and the Transmission Companies to provide open access transmission service at FERC-approved rates, terms and conditions. Transmission facilities of JCP&L, MP, PE, WP and the Transmission Companies are subject to functional control by PJM and transmission service using their transmission facilities is provided by PJM under the PJM Tariff.

The following table summarizes the key terms of rate orders in effect for transmission customer billings for FirstEnergy's transmission owner entities:

Company	Rates Effective	Capital Structure	Allowed ROE
ATSI	January 1, 2015	Actual (13-month average)	10.38%
JCP&L	January 2020[1]	Actual (13-month average)[1]	10.80%[1]
MP	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
PE	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
WP	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
MAIT	July 1, 2017	Lower of Actual (13-month average) or 60%	10.3%
TrAIL	July 1, 2008	Actual (year-end)	12.7% (TrAIL the Line & Black Oak SVC) 11.7% (All other projects)

[1] As filed in docket ER20-227, effective on January 1, 2020, which has been accepted by FERC, subject to refund, pending further hearing and settlement procedures. The settlement agreement that was filed on February 2, 2021, seeking approval by FERC sets JCP&L's Allowed ROE at 10.2%.
[2] Effective on January 1, 2021, MP, PE, and WP have implemented a forward-looking formula rate, which has been accepted by FERC, subject to refund, pending further hearing and settlement procedures.
[3] FERC-approved settlement agreements did not specify.
[4] See FERC Actions on Tax Act below.

FERC regulates the sale of power for resale in interstate commerce in part by granting authority to public utilities to sell wholesale power at market-based rates upon showing that the seller cannot exert market power in generation or transmission or erect barriers to entry into markets. The Utilities and AE Supply each have been authorized by FERC to sell wholesale power in interstate commerce at market-based rates and have a market-based rate tariff on file with FERC, although in the case of the Utilities major wholesale purchases remain subject to review and regulation by the relevant state commissions.

Federally enforceable mandatory reliability standards apply to the bulk electric system and impose certain operating, record-keeping and reporting requirements on the Utilities, AE Supply, and the Transmission Companies. NERC is the ERO designated by FERC to establish and enforce these reliability standards, although NERC has delegated day-to-day implementation and enforcement of these reliability standards to six regional entities, including RFC. All of the facilities that FirstEnergy operates are located within the RFC region. FirstEnergy actively participates in the NERC and RFC stakeholder processes, and otherwise monitors and manages its companies in response to the ongoing development, implementation and enforcement of the reliability standards implemented and enforced by RFC.

FirstEnergy believes that it is in material compliance with all currently effective and enforceable reliability standards. Nevertheless, in the course of operating its extensive electric utility systems and facilities, FirstEnergy occasionally learns of isolated facts or circumstances that could be interpreted as excursions from the reliability standards. If and when such occurrences are found, FirstEnergy develops information about the occurrence and develops a remedial response to the specific circumstances, including in appropriate cases “self-reporting” an occurrence to RFC. Moreover, it is clear that NERC, RFC and FERC will continue to refine existing reliability standards as well as to develop and adopt new reliability standards. Any inability on FirstEnergy's part to comply with the reliability standards for its bulk electric system could result in the imposition of financial penalties, or obligations to upgrade or build transmission facilities, that could have a material adverse effect on its financial condition, results of operations and cash flows.

ATSI Transmission Formula Rate

On May 1, 2020, ATSI filed amendments to its formula rate to recover regulatory assets for certain costs that ATSI incurred as a result of its 2011 move from MISO to PJM, certain costs allocated to ATSI by FERC for transmission projects that were constructed by other MISO transmission owners, certain income tax-related adjustments, including, but not limited to impacts from the Tax Act discussed further below, and certain costs for transmission-related vegetation management programs. The amount on FirstEnergy’s Consolidated Balance Sheet for these regulatory assets was approximately $79 million and $73 million, as of December 31, 2020 and December 31, 2019, respectively. Per prior FERC orders, ATSI included a “cost-benefit study” to support recovery of ATSI’s costs to move to PJM, and the MISO transmission project costs that were allocated to ATSI. Certain intervenors filed protests of the formula rate amendments on May 29, 2020, and ATSI filed a reply on June 15, 2020. On June 30, 2020, FERC issued an initial order accepting the tariff amendments subject to refund, suspending the effective date for five months to be effective December 1, 2020, and setting the matter for hearing and settlement proceedings. ATSI is engaged in settlement negotiations with the other parties to the formula rate amendments proceeding.

FERC Actions on Tax Act

On March 15, 2018, FERC initiated proceedings on the question of how to address possible changes to ADIT and bonus depreciation as a result of the Tax Act. Such possible changes could impact FERC-jurisdictional rates, including transmission rates. On November 21, 2019, FERC issued a final rule (Order No. 864). Order No. 864 requires utilities with transmission formula rates to update their formula rate templates to include mechanisms to (i) deduct any excess ADIT from or add any deficient ADIT to their rate base; (ii) raise or lower their income tax allowances by any amortized excess or deficient ADIT; and (iii) incorporate a new permanent worksheet into their rates that will annually track information related to excess or deficient ADIT. Per FERC directives, ATSI submitted its compliance filing on May 1, 2020. MAIT submitted its compliance filing on June 1, 2020. Certain intervenors filed protests of the compliance filings, to which ATSI and MAIT responded. On October 28, 2020, FERC staff requested additional information about ATSI's proposed rate base adjustment mechanism, and ATSI submitted the requested information on November 25, 2020. On May 15, 2020, TrAIL submitted its compliance filing and on June 1, 2020, PATH submitted its required compliance filing. These compliance filings each remain pending before FERC. MP, WP and PE (as holders of a "stated" transmission rate) are addressing these requirements in the transmission formula rates amendments that were filed on October 29, 2020. JCP&L is addressing these requirements as part of its pending transmission formula rate case.

Transmission ROE Methodology

FERC's methodology for calculating electric transmission utility ROE has been in transition as a result of an April 14, 2017 ruling by the D.C. Circuit that vacated FERC's then-effective methodology. On May 21, 2020, FERC issued Opinion No. 569-A that changed FERC's ROE methodology. Under this methodology FERC established an ROE that is based on three financial models – discounted cash flow, capital-asset pricing, and risk premium – to calculate a composite zone of reasonableness. FERC noted that utilities could, in utility-specific proceedings, ask to have the expected earnings methodology included in calculating the utility's authorized ROE. FERC also noted that, going forward, it will divide that zone into three equal parts, to be used for high risk, normal risk, and low risk utilities. A given utility will be assigned to one of these three parts of the zone of reasonableness, and its ROE will be set at the median or midpoint of the other utilities that are in the applicable third of the zone. FirstEnergy filed a request for rehearing, which FERC denied on July 22, 2020. On November 19, 2020, FERC issued Opinion No. 569-B, which affirmed the Opinion No. 569-A rulings. FirstEnergy initiated, but subsequently withdrew, appeals of these orders. Appeals of Opinion Nos. 569, 569-A and 569-B are pending before the D.C. Circuit. Any changes to FERC's transmission rate ROE and incentive policies would be applied on a prospective basis.

On March 20, 2020, FERC initiated a rulemaking proceeding on the transmission rate incentives provisions of Section 219 of the 2005 Energy Policy Act. Initial comments were submitted July 1, 2020, and reply comments were filed on July 16, 2020. FirstEnergy participated through EEI and through a consortium of PJM Transmission Owners. This proceeding is pending before FERC.

JCP&L Transmission Formula Rate

On October 30, 2019, JCP&L filed tariff amendments with FERC to convert JCP&L's existing stated transmission rate to a forward-looking formula transmission rate. JCP&L requested that the tariff amendments become effective January 1, 2020. On December 19, 2019, FERC issued its initial order in the case, allowing JCP&L to transition to a forward-looking formula rate as of January 1, 2020 as requested, subject to refund, pending further hearing and settlement proceedings. JCP&L and the parties to the FERC proceeding subsequently were able to reach settlement, and on February 2, 2021, a settlement agreement was filed for approval by FERC.

Allegheny Power Zone Transmission Formula Rate Filings

On October 29, 2020, MP, PE and WP filed tariff amendments with FERC to convert their existing stated transmission rate to a forward-looking formula transmission rate, effective January 1, 2021. In addition, on October 30, 2020, KATCo filed a proposed new tariff to establish a forward-looking formula rate and requested that the new rate become effective January 1, 2021. In its filing, KATCo explained that while it currently owns no transmission assets, it may build new transmission facilities in the Allegheny zone, and that it may seek required state and federal authorizations to acquire transmission assets from PE and WP by January 1, 2022. These transmission rate filings were approved by FERC on December 31, 2020, subject to refund, pending further hearing and settlement proceedings. MP, PE and WP, and KATCo are engaged in settlement negotiations with the other parties to the formula rate proceedings. KATCo will be included in the Regulated Transmission reportable segment.

ENVIRONMENTAL MATTERS

Various federal, state and local authorities regulate FirstEnergy with regard to air and water quality, hazardous and solid waste disposal, and other environmental matters. While FirstEnergy's environmental policies and procedures are designed to achieve compliance with applicable environmental laws and regulations, such laws and regulations are subject to periodic review and potential revision by the implementing agencies. FirstEnergy cannot predict the timing or ultimate outcome of any of these reviews or how any future actions taken as a result thereof may materially impact its business, results of operations, cash flows and financial condition.

Clean Air Act

FirstEnergy complies with SO_2 and NOx emission reduction requirements under the CAA and SIP(s) by burning lower-sulfur fuel, utilizing combustion controls and post-combustion controls and/or using emission allowances.

CSAPR requires reductions of NOx and SO_2 emissions in two phases (2015 and 2017), ultimately capping SO_2 emissions in affected states to 2.4 million tons annually and NOx emissions to 1.2 million tons annually. CSAPR allows trading of NOx and SO_2 emission allowances between power plants located in the same state and interstate trading of NOx and SO_2 emission allowances with some restrictions. The D.C. Circuit ordered the EPA on July 28, 2015, to reconsider the CSAPR caps on NOx and SO_2 emissions from power plants in 13 states, including West Virginia. This follows the 2014 U.S. Supreme Court ruling generally upholding the EPA's regulatory approach under CSAPR but questioning whether the EPA required upwind states to reduce emissions by more than their contribution to air pollution in downwind states. The EPA issued a CSAPR update rule on September 7, 2016, reducing summertime NOx emissions from power plants in 22 states in the eastern U.S., including West Virginia, beginning in 2017. Various states and other stakeholders appealed the CSAPR update rule to the D.C. Circuit in November and December 2016. On September 13, 2019, the D.C. Circuit remanded the CSAPR update rule to the EPA citing that the rule did not eliminate upwind states' significant contributions to downwind states' air quality attainment requirements within applicable attainment deadlines. Depending on the outcome of the appeals, the EPA's reconsideration of the CSAPR update rule and how the EPA and the states ultimately implement CSAPR, the future cost of compliance may materially impact FirstEnergy's operations, cash flows and financial condition.

In February 2019, the EPA announced its final decision to retain without changes the NAAQS for SO_2, specifically retaining the 2010 primary (health-based) 1-hour standard of 75 PPB. As of December 31, 2020, FirstEnergy has no power plants operating in areas designated as non-attainment by the EPA.

In March 2018, the State of New York filed a CAA Section 126 petition with the EPA alleging that NOx emissions from nine states (including West Virginia) significantly contribute to New York's inability to attain the ozone NAAQS. The petition seeks suitable emission rate limits for large stationary sources that are affecting New York's air quality within the three years allowed by CAA Section 126. On September 20, 2019, the EPA denied New York's CAA Section 126 petition. On October 29, 2019, the State of New York appealed the denial of its petition to the D.C. Circuit. On July 14, 2020, the D.C. Circuit reversed and remanded the New York petition to the EPA for further consideration. FirstEnergy is unable to predict the outcome of these matters or estimate the loss or range of loss.

Climate Change

There are a number of initiatives to reduce GHG emissions at the state, federal and international level. Certain northeastern states are participating in the RGGI and western states led by California, have implemented programs, primarily cap and trade mechanisms, to control emissions of certain GHGs. Additional policies reducing GHG emissions, such as demand reduction programs, renewable portfolio standards and renewable subsidies have been implemented across the nation.

At the international level, the United Nations Framework Convention on Climate Change resulted in the Kyoto Protocol requiring participating countries, which does not include the U.S., to reduce GHGs commencing in 2008 and has been extended through 2020. The Obama Administration submitted in March 2015, a formal pledge for the U.S. to reduce its economy wide GHG emissions by 26 to 28 percent below 2005 levels by 2025. In 2015, FirstEnergy set a goal of reducing company-wide CO2 emissions by at least 90 percent below 2005 levels by 2045. As of December 31, 2018, FirstEnergy has reduced its CO2 emissions by approximately 62 percent. In September 2016, the U.S. joined in adopting the agreement reached on December 12, 2015, at the United Nations Framework Convention on Climate Change meetings in Paris. The Paris Agreement's non-binding obligations to limit global warming to below two degrees Celsius became effective on November 4, 2016. On June 1, 2017, the Trump Administration announced that the U.S. would cease all participation in the Paris Agreement. On January 20, 2021, President Biden signed an executive order re-adopting the agreement on behalf of the U.S. FirstEnergy cannot currently estimate the financial impact of climate change policies, although potential legislative or regulatory programs restricting CO2 emissions, or litigation alleging damages from GHG emissions, could require material capital and other expenditures or result in changes to its operations.

In December 2009, the EPA released its final "Endangerment and Cause or Contribute Findings for GHG under the Clean Air Act," concluding that concentrations of several key GHGs constitutes an "endangerment" and may be regulated as "air pollutants" under the CAA and mandated measurement and reporting of GHG emissions from certain sources, including electric generating plants. The EPA released its final CPP regulations in August 2015 to reduce CO_2 emissions from existing fossil fuel fired EGUs and finalized separate regulations imposing CO_2 emission limits for new, modified, and reconstructed fossil fuel fired EGUs. Numerous states and private parties filed appeals and motions to stay the CPP with the D.C. Circuit in October 2015. On February 9, 2016, the U.S. Supreme Court stayed the rule during the pendency of the challenges to the D.C. Circuit and U.S. Supreme Court. On March 28, 2017, an executive order, entitled "Promoting Energy Independence and Economic Growth," instructed the EPA to review the CPP and related rules addressing GHG emissions and suspend, revise or rescind the rules if appropriate. On October 16, 2017, the EPA issued a proposed rule to repeal the CPP. On June 19, 2019, the EPA repealed the CPP and replaced it with the ACE rule that establishes guidelines for states to develop standards of performance to address GHG emissions from existing coal-fired power plants. On January 19, 2021, the D.C. Circuit remanded the ACE rule declaring

that the EPA was “arbitrary and capricious” in its rule making, as such, the ACE rule is no longer in effect and all actions thus far taken by States to implement the federally mandated rule are now null and void. The D.C. Circuit decision is subject to legal challenge. Depending on the outcomes of further appeals and how any final rules are ultimately implemented, the future cost of compliance may be material.

Clean Water Act

Various water quality regulations, the majority of which are the result of the federal CWA and its amendments, apply to FirstEnergy's facilities. In addition, the states in which FirstEnergy operates have water quality standards applicable to FirstEnergy's operations.

The EPA finalized CWA Section 316(b) regulations in May 2014, requiring cooling water intake structures with an intake velocity greater than 0.5 feet per second to reduce fish impingement when aquatic organisms are pinned against screens or other parts of a cooling water intake system to a 12% annual average and requiring cooling water intake structures exceeding 125 million gallons per day to conduct studies to determine site-specific controls, if any, to reduce entrainment, which occurs when aquatic life is drawn into a facility's cooling water system. Depending on any final action taken by the states with respect to impingement and entrainment, the future capital costs of compliance with these standards may be material.

On September 30, 2015, the EPA finalized new, more stringent effluent limits for the Steam Electric Power Generating category (40 CFR Part 423) for arsenic, mercury, selenium and nitrogen for wastewater from wet scrubber systems and zero discharge of pollutants in ash transport water. The treatment obligations were to phase-in as permits are renewed on a five-year cycle from 2018 to 2023. However, on April 13, 2017, the EPA granted a Petition for Reconsideration and on September 18, 2017, the EPA postponed certain compliance deadlines for two years. On August 31, 2020, the EPA issued a final rule revising the effluent limits for discharges from wet scrubber systems, retaining the zero-discharge standard for ash transport water, (with some limited discharge allowances), and extending the deadline for compliance to December 31, 2025 for both. In addition, the EPA allows for less stringent limits for sub-categories of generating units based on capacity utilization, flow volume from the scrubber system, and unit retirement date. Depending on the outcome of appeals, how final rules are ultimately implemented and the compliance options MP elects to take with the new rules, the compliance with these standards, which could include capital expenditures at the Ft. Martin and Harrison power stations, may be substantial and changes to MP’s operations at those power stations may also result.

On September 29, 2016, FirstEnergy received a request from the EPA for information pursuant to CWA Section 308(a) for information concerning boron exceedances of effluent limitations established in the NPDES Permit for the former Mitchell Power Station’s Mingo landfill, owned by WP. On November 1, 2016, WP provided an initial response that contained information related to a similar boron issue at the former Springdale Power Station’s landfill. The EPA requested additional information regarding the Springdale landfill and on November 15, 2016, WP provided a response and intends to fully comply with the Section 308(a) information request. On March 3, 2017, WP proposed to the PA DEP a re-route of its wastewater discharge to eliminate potential boron exceedances at the Springdale landfill. On January 29, 2018, WP submitted an NPDES permit renewal application to PA DEP proposing to re-route its wastewater discharge to eliminate potential boron exceedances at the Mingo landfill. On February 20, 2018, the DOJ issued a letter and tolling agreement on behalf of the EPA alleging violations of the CWA at the Springdale and Mingo landfills while seeking to enter settlement negotiations in lieu of filing a complaint. The EPA has proposed a penalty of $900,000 to settle alleged past boron exceedances at both facilities. Negotiations are continuing and WP is unable to predict the outcome of this matter.

Regulation of Waste Disposal

Federal and state hazardous waste regulations have been promulgated as a result of the RCRA, as amended, and the Toxic Substances Control Act. Certain CCRs, such as coal ash, were exempted from hazardous waste disposal requirements pending the EPA's evaluation of the need for future regulation.

In April 2015, the EPA finalized regulations for the disposal of CCRs (non-hazardous), establishing national standards for landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring and protection procedures and other operational and reporting procedures to assure the safe disposal of CCRs from electric generating plants. On September 13, 2017, the EPA announced that it would reconsider certain provisions of the final regulations. On July 17, 2018, the EPA Administrator signed a final rule extending the deadline for certain CCR facilities to cease disposal and commence closure activities, as well as, establishing less stringent groundwater monitoring and protection requirements. On August 21, 2018, the D.C. Circuit remanded sections of the CCR Rule to the EPA to provide additional safeguards for unlined CCR impoundments that are more protective of human health and the environment. On December 2, 2019, the EPA published a proposed rule accelerating the date that certain CCR impoundments must cease accepting waste and initiate closure to August 31, 2020. The proposed rule allows for an extension of the closure deadline based on meeting proscribed site-specific criteria. On July 29, 2020, the EPA published a final rule revising the date that certain CCR impoundments must cease accepting waste and initiate closure to April 11, 2021. The final rule allows for an extension of the closure deadline based on meeting proscribed site-specific criteria. On November 30, 2020, AE Supply submitted a closure deadline extension request to the EPA seeking to extend the closure date until 2024 of McElroy's Run CCR impoundment facility, for which AE Supply continues to provide access to FG.

FE or its subsidiaries have been named as potentially responsible parties at waste disposal sites, which may require cleanup under the CERCLA. Allegations of disposal of hazardous substances at historical sites and the liability involved are often unsubstantiated and subject to dispute; however, federal law provides that all potentially responsible parties for a particular site may be liable on a joint and several basis. Environmental liabilities that are considered probable have been recognized on the Consolidated Balance Sheets as of December 31, 2020, based on estimates of the total costs of cleanup, FirstEnergy's proportionate responsibility for such costs and the financial ability of other unaffiliated entities to pay. Total liabilities of approximately $107 million have been accrued through December 31, 2020. Included in the total are accrued liabilities of approximately $67 million for environmental remediation of former MGP and gas holder facilities in New Jersey, which are being recovered by JCP&L through a non-bypassable SBC. FE or its subsidiaries could be found potentially responsible for additional amounts or additional sites, but the loss or range of losses cannot be determined or reasonably estimated at this time.

OTHER LEGAL PROCEEDINGS

United States v. Larry Householder, et al.

On July 21, 2020, a complaint and supporting affidavit containing federal criminal allegations were unsealed against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. Also, on July 21, 2020, and in connection with the investigation, FirstEnergy received subpoenas for records from the U.S. Attorney's Office for the S.D. Ohio. FirstEnergy was not aware of the criminal allegations, affidavit or subpoenas before July 21, 2020. No contingency has been reflected in FirstEnergy's consolidated financial statements as a loss is neither probable, nor is a loss or range of a loss reasonably estimable.

Legal Proceedings Relating to United States v. Larry Householder, et al.

In addition to the subpoenas referenced above under "—United States v. Larry Householder, et. al.", certain FE stockholders and FirstEnergy customers filed several lawsuits against FirstEnergy and certain current and former directors, officers and other employees, and the complaints in each of these suits is related to allegations in the complaint and supporting affidavit relating to HB 6 and the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder.

- *Owens v. FirstEnergy Corp. et al.* and *Frand v. FirstEnergy Corp. et al.* (Federal District Court, S.D. Ohio); on July 28, 2020 and August 21, 2020, purported stockholders of FE filed putative class action lawsuits against FE and certain FE officers, purportedly on behalf of all purchasers of FE common stock from February 21, 2017 through July 21, 2020, asserting claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder, alleging misrepresentations or omissions by FirstEnergy concerning its business and results of operations. These actions have been consolidated and a lead plaintiff has been appointed by the court.
- *Gendrich v. Anderson, et al. and Sloan v. Anderson, et al.* (Common Pleas Court, Summit County, OH); on July 26, 2020 and July 31, 2020, respectively, purported stockholders of FE filed shareholder derivative action lawsuits against certain FE directors and officers, alleging, among other things, breaches of fiduciary duty. These actions have been consolidated.
- *Miller v. Anderson, et al.* (Federal District Court, N.D. Ohio); *Bloom, et al. v. Anderson, et al.; Employees Retirement System of the City of St. Louis v. Jones, et al.; Electrical Workers Pension Fund, Local 103, I.B.E.W. v. Anderson et al.; Massachusetts Laborers Pension Fund v. Anderson et al.; The City of Philadelphia Board of Pensions and Retirement v. Anderson et al.; Atherton v. Dowling et al; Behar v. Anderson, et al.* (U.S. District Court, S.D. Ohio, all actions have been consolidated); beginning on August 7, 2020, purported stockholders of FE filed shareholder derivative actions alleging the board and officers breached their fiduciary duties and committed violations of Section 14(a) of the Securities Exchange Act of 1934. The cases in the Southern District of Ohio have been consolidated and co-lead plaintiffs have been appointed by the court.
- *Smith v. FirstEnergy Corp. et al., Buldas v. FirstEnergy Corp. et al., and Hudock and Cameo Countertops, Inc. v. FirstEnergy Corp. et al.* (Federal District Court, S.D. Ohio); on July 27, 2020, July 31, 2020, and August 5, 2020, respectively, purported customers of FirstEnergy filed putative class action lawsuits against FE and FESC, as well as certain current and former FirstEnergy officers, alleging civil Racketeer Influenced and Corrupt Organizations Act violations and related state law claims. These actions have been consolidated.
- *State of Ohio ex rel. Dave Yost, Ohio Attorney General v. FirstEnergy Corp., et al. and City of Cincinnati and City of Columbus v. FirstEnergy Corp.* (Common Pleas Court, Franklin County, OH); on September 23, 2020 and October 27, 2020, the OAG and the cities of Cincinnati and Columbus, respectively, filed complaints against several parties including FE, each alleging civil violations of the Ohio Corrupt Activity Act in connection with the passage of HB 6. The OAG sought a preliminary injunction to prevent each of the defendants, including FE, through the end of 2020, from: (i) contributing to any groups whose purpose is to keep or modify HB 6; (ii) making any public statements for or against any repeal or modification legislation concerning HB 6; (iii) lobbying, consulting, or advising on these matters; or (iv) contributing to any Ohio legislative candidates. The court denied the OAG's request for preliminary injunctive relief on October 2, 2020. On January 13, 2021, the OAG filed a motion for a temporary restraining order and preliminary injunction against FirstEnergy seeking to enjoin FirstEnergy from collecting the Ohio Companies' decoupling rider. On January 31, 2021, FE reached a partial settlement with the OAG and the cities of Cincinnati and Columbus with respect

to the temporary restraining order and preliminary injunction request and related issues. In connection with the partial settlement, the Ohio Companies filed an application on February 1, 2021, with the PUCO to set their respective decoupling riders (Rider CSR) to zero. On February 2, 2021, the PUCO approved the application of the Ohio Companies setting the rider to zero and no additional customer bills will include new decoupling rider charges after February 8, 2021. The cities of Dayton and Toledo have also been added as plaintiffs to the action. These actions have been consolidated.

- *Emmons v. FirstEnergy Corp. et al.* (Common Pleas Court, Cuyahoga County, OH); on August 4, 2020, a purported customer of FirstEnergy filed a putative class action lawsuit against FE, FESC, OE, TE and CEI, along with FES, alleging several causes of action, including negligence and/or gross negligence, breach of contract, unjust enrichment, and unfair or deceptive consumer acts or practices. On October 1, 2020, plaintiffs filed a First Amended Complaint, adding as a plaintiff a purported customer of FirstEnergy and alleging a civil violation of the Ohio Corrupt Activity Act and civil conspiracy against FE, FESC and FES.

The plaintiffs in each of the above cases, seek, among other things, to recover an unspecified amount of damages (unless otherwise noted). In addition, on August 10, 2020, the SEC, through its Division of Enforcement, issued an order directing an investigation of possible securities laws violations by FE, and on September 1, 2020, issued subpoenas to FE and certain FE officers. Further, on January 26, 2021, staff of FERC's Division of Investigations issued a letter directing FirstEnergy to preserve and maintain all documents and information related to an ongoing audit being conducted by FERC's Division of Audits and Accounting, including activities related to lobbying and governmental affairs activities concerning HB 6. The outcome of any of these lawsuits, investigations and audit are uncertain and could have a material adverse effect on FE's or its subsidiaries' financial condition, results of operations and cash flows. No contingency has been reflected in FirstEnergy's consolidated financial statements as a loss is neither probable, nor is a loss or range of a loss reasonably estimable.

Internal Investigation Relating to United States v. Larry Householder, et al.

As previously disclosed, a committee of independent members of the Board of Directors is directing an internal investigation related to ongoing government investigations. In connection with FirstEnergy's internal investigation, such committee determined on October 29, 2020, to terminate FirstEnergy's Chief Executive Officer, Charles E. Jones, together with two other executives: Dennis M. Chack, Senior Vice President of Product Development, Marketing, and Branding; and Michael J. Dowling, Senior Vice President of External Affairs. Each of these terminated executives violated certain FirstEnergy policies and its code of conduct. These executives were terminated as of October 29, 2020. Such former members of senior management did not maintain and promote a control environment with an appropriate tone of compliance in certain areas of FirstEnergy's business, nor sufficiently promote, monitor or enforce adherence to certain FirstEnergy policies and its code of conduct. Furthermore, certain former members of senior management did not reasonably ensure that relevant information was communicated within our organization and not withheld from our independent directors, our Audit Committee, and our independent auditor. Among the matters considered with respect to the determination by the committee of independent members of the Board of Directors that certain former members of senior management violated certain FirstEnergy policies and its code of conduct related to a payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place since 2013. The counterparty to such agreement was an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. FirstEnergy believes that payments under the consulting agreement may have been for purposes other than those represented within the consulting agreement. Immediately following these terminations, the independent members of its Board appointed Mr. Steven E. Strah to the position of Acting Chief Executive Officer and Mr. Christopher D. Pappas, a current member of the Board, to the temporary position of Executive Director, each effective as of October 29, 2020. Mr. Donald T. Misheff will continue to serve as Non-Executive Chairman of the Board. Additionally, on November 8, 2020, Robert P. Reffner, Senior Vice President and Chief Legal Officer, and Ebony L. Yeboah-Amankwah, Vice President, General Counsel, and Chief Ethics Officer, were separated from FirstEnergy due to inaction and conduct that the Board determined was influenced by the improper tone at the top. The matter is a subject of the ongoing internal investigation as it relates to the government investigations.

Nuclear Plant Matters

On October 15, 2019, JCP&L, ME, PN and GPUN executed an asset purchase and sale agreement with TMI-2 Solutions, LLC, a subsidiary of Energy*Solutions*, LLC, concerning the transfer and dismantlement of TMI-2. This transfer of TMI-2 to TMI-2 Solutions, LLC will include the transfer of: (i) the ownership and operating NRC licenses for TMI-2; (ii) the external trusts for the decommissioning and environmental remediation of TMI-2; and (iii) related liabilities. On August 10, 2020, JCP&L, ME, PN, GPUN, TMI-2 Solutions, LLC, and the PA DEP reached a settlement agreement regarding the decommissioning of TMI-2. On December 2, 2020, the NJBPU issued an order approving the transfer and sale under the conditions requested by Rate Counsel and agreed to by JCP&L. Also, on December 2, 2020, the NRC issued its order approving the license transfer as requested. With the receipt of all required regulatory approvals, the transaction was consummated on December 18, 2020. See Note 1, "Organization and Basis of Presentation," for additional discussion.

FES Bankruptcy

On March 31, 2018, FES, including its consolidated subsidiaries, FG, NG, FE Aircraft Leasing Corp., Norton Energy

Storage L.L.C. and FGMUC, and FENOC filed voluntary petitions for bankruptcy protection under Chapter 11 of the United States Bankruptcy Code in the Bankruptcy Court and emerged on February 27, 2020. See Note 3, "Discontinued Operations," for additional discussion.

Other Legal Matters

There are various lawsuits, claims (including claims for asbestos exposure) and proceedings related to FirstEnergy's normal business operations pending against FE or its subsidiaries. The loss or range of loss in these matters is not expected to be material to FE or its subsidiaries. The other potentially material items not otherwise discussed above are described under Note 14, "Regulatory Matters."

FirstEnergy accrues legal liabilities only when it concludes that it is probable that it has an obligation for such costs and can reasonably estimate the amount of such costs. In cases where FirstEnergy determines that it is not probable, but reasonably possible that it has a material obligation, it discloses such obligations and the possible loss or range of loss if such estimate can be made. If it were ultimately determined that FE or its subsidiaries have legal liability or are otherwise made subject to liability based on any of the matters referenced above, it could have a material adverse effect on FE's or its subsidiaries' financial condition, results of operations and cash flows.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

FirstEnergy prepares consolidated financial statements in accordance with GAAP. Application of these principles often requires a high degree of judgment, estimates and assumptions that affect financial results. FirstEnergy's accounting policies require significant judgment regarding estimates and assumptions underlying the amounts included in the financial statements. Additional information regarding the application of accounting policies is included in the Notes to Consolidated Financial Statements.

Revenue Recognition

FirstEnergy follows the accrual method of accounting for revenues, recognizing revenue for electricity that has been delivered to customers but not yet billed through the end of the accounting period. The determination of electricity sales to individual customers is based on meter readings, which occur on a systematic basis throughout the month. At the end of each month, electricity delivered to customers since the last meter reading is estimated and a corresponding accrual for unbilled sales is recognized. The determination of unbilled sales and revenues requires management to make estimates regarding electricity available for retail load, transmission and distribution line losses, demand by customer class, applicable billing demands, weather-related impacts, number of days unbilled and tariff rates in effect within each customer class. FirstEnergy has elected the optional invoice practical expedient for most of its revenues and utilizes the optional short-term contract exemption for transmission revenues due to the annual establishment of revenue requirements, which eliminates the need to provide certain revenue disclosures regarding unsatisfied performance obligations. See Note 2, "Revenue," for additional information.

Regulatory Accounting

FirstEnergy’s Regulated Distribution and Regulated Transmission segments are subject to regulations that set the prices (rates) the Utilities and the Transmission Companies are permitted to charge customers based on costs that the regulatory agencies determine are permitted to be recovered. At times, regulators permit the future recovery through rates of costs that would be currently charged to expense by an unregulated company. This ratemaking process results in the recording of regulatory assets and liabilities based on anticipated future cash inflows and outflows. Management applies judgment in evaluating the evidence available to assess the probability of recovery of regulatory assets from customers, including, but not limited to evaluating evidence related to precedent for similar items experienced at the Company and comparable companies within similar jurisdictions, as well as assessing progress of communications between the Company and regulators. Certain regulatory assets are recorded based on prior precedent or anticipated recovery based on rate making premises without a specific rate order. FirstEnergy regularly reviews these assets to assess their ultimate recoverability within the approved regulatory guidelines. Impairment risk associated with these assets relates to potentially adverse legislative, judicial or regulatory actions in the future. See Note 14, "Regulatory Matters," for additional information.

FirstEnergy reviews the probability of recovery of regulatory assets at each balance sheet date and whenever new events occur. Similarly, FirstEnergy records regulatory liabilities when a determination is made that a refund is probable or when ordered by a commission. Factors that may affect probability include changes in the regulatory environment, issuance of a regulatory commission order or passage of new legislation. If recovery of a regulatory asset is no longer probable, FirstEnergy will write off that regulatory asset as a charge against earnings. FirstEnergy considers the entire regulatory asset balance as the unit of account for the purposes of balance sheet classification rather than the next years recovery and as such net regulatory assets and liabilities are presented in the non-current section on the FirstEnergy Consolidated Balance Sheets.

Pension and OPEB Accounting

FirstEnergy provides noncontributory qualified defined benefit pension plans that cover substantially all of its employees and non-qualified pension plans that cover certain employees. The plans provide defined benefits based on years of service and compensation levels. Under the cash-balance portion of the pension plan (for employees hired on or after January 1, 2014), FirstEnergy makes contributions to eligible employee retirement accounts based on a pay credit and an interest credit.

FirstEnergy provides a minimum amount of noncontributory life insurance to retired employees in addition to optional contributory insurance. Health care benefits, which include certain employee contributions, deductibles and co-payments, are also available upon retirement to certain employees, their dependents and, under certain circumstances, their survivors. FirstEnergy recognizes the expected cost of providing pension and OPEB to employees and their beneficiaries and covered dependents from the time employees are hired until they become eligible to receive those benefits. FirstEnergy also has obligations to former or inactive employees after employment, but before retirement, for disability-related benefits.

FirstEnergy recognizes a pension and OPEB mark-to-market adjustment for the change in the fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement. The remaining components of pension and OPEB expense, primarily service costs, interest on obligations, assumed return on assets and prior service costs, are recorded on a monthly basis.

Under the approved bankruptcy settlement agreement discussed above, upon emergence, FES and FENOC employees ceased earning years of service under the FirstEnergy pension and OPEB plans. The emergence on February 27, 2020, triggered a remeasurement of the affected pension and OPEB plans and as a result, FirstEnergy recognized a non-cash, pre-tax pension and OPEB mark-to-market adjustment of approximately $423 million in the first quarter of 2020. The first quarter 2020 pension and OPEB mark-to-market adjustment primarily reflects a 38 bps decrease in the discount rate used to measure benefit obligations from December 31, 2019, partially offset by a slightly higher than expected return on assets. In the fourth quarter 2020, FirstEnergy recognized a $54 million pension and OPEB mark-to-market adjustment, primarily reflecting a 29 bps decrease in the discount rate used to measure benefit obligations from February 27, 2020, partially offset by higher than expected return on assets. Of the $54 million, approximately $21 million was allocated to certain of the Transmission Companies that are expected to be recovered through formula transmission rates. The annual pension and OPEB mark-to-market adjustments for the years ended December 31, 2020, 2019, and 2018 were $477 million (including the $423 million in the first quarter of 2020 described above), $676 million, and $145 million, respectively. Of these amounts, approximately $2 million and $1 million are included in discontinued operations for the years ended December 31, 2019, and 2018, respectively. Furthermore, of these annual pension and OPEB mark-to-market amounts, approximately $40 million, $47 million and $8 million were allocated to certain of the Transmission Companies and expected to be recovered through formula transmission rates, respectively.

In selecting an assumed discount rate, FirstEnergy considers currently available rates of return on high-quality fixed income investments expected to be available during the period to maturity of the pension and OPEB obligations. The assumed discount rates for pension were 2.67%, 3.34% and 4.44% as of December 31, 2020, 2019 and 2018, respectively. The assumed discount rates for OPEB were 2.45%, 3.18% and 4.30% as of December 31, 2020, 2019 and 2018, respectively.

Effective in 2019, FirstEnergy changed the approach utilized to estimate the service cost and interest cost components of net periodic benefit cost for pension and OPEB plans. Historically, FirstEnergy estimated these components utilizing a single, weighted average discount rate derived from the yield curve used to measure the benefit obligation. FirstEnergy has elected to use a spot rate approach in the estimation of the components of benefit cost by applying specific spot rates along the full yield curve to the relevant projected cash flows, as this provides a better estimate of service and interest costs by improving the correlation between projected benefit cash flows to the corresponding spot yield curve rates. This election was considered a change in estimate and, accordingly, accounted for prospectively, and did not have a material impact on FirstEnergy's financial statements.

FirstEnergy’s assumed rate of return on pension plan assets considers historical market returns and economic forecasts for the types of investments held by the pension trusts. In 2020, FirstEnergy’s qualified pension and OPEB plan assets experienced gains of $1,225 million or 14.7%, compared to gains of $1,492 million, or 20.2% in 2019, and losses of $371 million, or (4)% in 2018 and assumed a 7.50% rate of return on plan assets in 2020, 2019 and 2018, which generated $651 million, $569 million and $605 million of expected returns on plan assets, respectively. The expected return on pension and OPEB assets is based on the trusts’ asset allocation targets and the historical performance of risk-based and fixed income securities. The gains or losses generated as a result of the difference between expected and actual returns on plan assets will decrease or increase future net periodic pension and OPEB cost as the difference is recognized annually in the fourth quarter of each fiscal year or whenever a plan is determined to qualify for remeasurement. The expected return on plan assets for 2021 is 7.50%.

During 2020, the Society of Actuaries published new mortality tables that include more current data than the RP-2014 tables as well as new improvement scales. An analysis of FirstEnergy pension and OPEB plan mortality data indicated the use of the Pri-2012 mortality table with projection scale MP-2020 was most appropriate. As such, the Pri-2012 mortality table with projection scale MP-2020 was utilized to determine the 2020 benefit cost and obligation as of December 31, 2020 for the FirstEnergy pension and OPEB plans. The impact of using the Pri-2012 mortality table with projection scale MP-2020 resulted in a decrease

to the projected benefit obligation of approximately $74 million and $2 million for the pension and OPEB plans, respectively, and was included in the 2020 pension and OPEB mark-to-market adjustment.

FirstEnergy expects its 2021 pre-tax net periodic benefit credit to be approximately $267 million based upon the following assumptions:

Assumptions	Pension	OPEB
Service cost weighted-average discount rate	3.10 %	3.03 %
Interest cost weighted-average discount rate	2.58 %	1.66 %
Expected long-term return on plan assets	7.50 %	7.50 %

The following table reflects the portion of pension and OPEB costs that were charged to expense, including any pension and OPEB mark-to-market adjustments, in the three years ended December 31, 2020, 2019, and 2018:

Postemployment Benefits Expense (Credits)	2020	2019	2018
		(In millions)	
Pension	$ 254	$ 622	$ 247
OPEB	(47)	(21)	(45)
Total	$ 207	$ 601	$ 202

Health care cost trends continue to increase and will affect future OPEB costs. The composite health care trend rate assumptions were approximately 6.0%-5.5% in 2020 and 2019, gradually decreasing to 4.5% in later years. In determining FirstEnergy's trend rate assumptions, included are the specific provisions of FirstEnergy's health care plans, the demographics and utilization rates of plan participants, actual cost increases experienced in FirstEnergy's health care plans, and projections of future medical trend rates.

The effects on 2021 pension and OPEB net periodic benefit costs from changes in key assumptions are as follows:

Increase in Net Periodic Benefit Costs from Adverse Changes in Key Assumptions

Assumption	Adverse Change	Pension	OPEB	Total
			(In millions)	
Discount rate	Decrease by 0.25%	$ 400	$ 16	$ 416
Long-term return on assets	Decrease by 0.25%	$ 22	$ 1	$ 23
Health care trend rate	Increase by 1.0%	N/A	$ 16	$ 16

See Note 5, "Pension and Other Postemployment Benefits," for additional information.

Income Taxes

FirstEnergy records income taxes in accordance with the liability method of accounting. Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts recognized for tax purposes. Investment tax credits, which were deferred when utilized, are being amortized over the recovery period of the related property. Deferred income tax liabilities related to temporary tax and accounting basis differences and tax credit carryforward items are recognized at the statutory income tax rates in effect when the liabilities are expected to be paid. Deferred tax assets are recognized based on income tax rates expected to be in effect when they are settled.

FirstEnergy accounts for uncertainty in income taxes in its financial statements using a benefit recognition model with a two-step approach, a more-likely-than-not recognition criterion and a measurement attribute that measures the position as the largest amount of tax benefit that is greater than 50% likely of being ultimately realized upon settlement. If it is not more likely than not that the benefit will be sustained on its technical merits, no benefit will be recorded. Uncertain tax positions that relate only to timing of when an item is included on a tax return are considered to have met the recognition threshold. FirstEnergy recognizes interest expense or income related to uncertain tax positions by applying the applicable statutory interest rate to the difference between the tax position recognized and the amount previously taken, or expected to be taken, on the tax return. FirstEnergy includes net interest and penalties in the provision for income taxes.

See Note 7, "Taxes," for additional information on FirstEnergy income taxes.

NEW ACCOUNTING PRONOUNCEMENTS

See Note 1, "Organization and Basis of Presentation," for a discussion of new accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information required by Item 7A relating to market risk is set forth in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The consolidated financial statements and supplementary data of FirstEnergy required in this item are set forth beginning on page 74.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of FirstEnergy Corp.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of FirstEnergy Corp. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of income, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO because a material weakness in internal control over financial reporting existed as of that date related to its senior management failing to set an appropriate tone at the top. Specifically, certain members of senior management failed to reinforce the need for compliance with the Company's policies and code of conduct, which resulted in inappropriate conduct that was inconsistent with the Company's policies and code of conduct.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the 2020 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

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

Recoverability of Regulatory Assets That Do Not Have an Order for Recovery

As described in Note 1 to the consolidated financial statements, the Company accounts for the effects of regulation through the application of regulatory accounting to its regulated distribution and transmission subsidiaries as their rates are established by a third-party regulator with the authority to set rates that bind customers, are cost-based and can be charged to and collected from customers. This ratemaking process results in the recording of regulatory assets and liabilities based on anticipated future cash inflows and outflows. Management assesses the probability of recovery of regulatory assets at each balance sheet date and whenever new events occur. Factors that may affect probability relate to changes in the regulatory environment, issuance of a regulatory commission order or passage of new legislation. Management applies judgment in evaluating the evidence available to assess the probability of recovery of regulatory assets from customers and certain of these assets, totaling approximately $117 million as of December 31, 2020, have been recorded based on precedent and rate making premises without a specific order.

The principal considerations for our determination that performing procedures relating to the recoverability of regulatory assets that do not have an order for recovery is a critical audit matter are (i) the significant judgment by management when assessing the probability of recovery of these regulatory assets from customers, which in turn led to (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating audit evidence related to the recoverability of these regulatory assets.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's regulatory accounting process, including controls over management's assessment of the recoverability of regulatory assets that do not have an order for recovery. These procedures also included, among others, evaluating the reasonableness of management's assessment of recoverability of regulatory assets. Testing the recoverability of regulatory assets involved evaluating evidence related to precedent for similar items at the Company and information on comparable companies within similar regulatory jurisdictions as well as assessing progress of communications between management and regulators.

/s/ PricewaterhouseCoopers LLP
Cleveland, Ohio
February 18, 2021

We have served as the Company's auditor since 2002.

FIRSTENERGY CORP.
CONSOLIDATED STATEMENTS OF INCOME

(In millions, except per share amounts)	For the Years Ended December 31, 2020	2019	2018
REVENUES:			
Distribution services and retail generation	$ 8,688	$ 8,720	$ 8,937
Transmission	1,613	1,510	1,335
Other	489	805	989
Total revenues[1]	10,790	11,035	11,261
OPERATING EXPENSES:			
Fuel	369	497	538
Purchased power	2,701	2,927	3,109
Other operating expenses	3,291	2,952	3,133
Provision for depreciation	1,274	1,220	1,136
Deferral of regulatory assets, net	(53)	(79)	(150)
General taxes	1,046	1,008	993
Total operating expenses	8,628	8,525	8,759
OPERATING INCOME	2,162	2,510	2,502
OTHER INCOME (EXPENSE):			
Miscellaneous income, net	432	243	205
Pension and OPEB mark-to-market adjustment	(477)	(674)	(144)
Interest expense	(1,065)	(1,033)	(1,116)
Capitalized financing costs	77	71	65
Total other expense	(1,033)	(1,393)	(990)
INCOME BEFORE INCOME TAXES	1,129	1,117	1,512
INCOME TAXES	126	213	490
INCOME FROM CONTINUING OPERATIONS	1,003	904	1,022
Discontinued operations (Note 3)[2]	76	8	326
NET INCOME	$ 1,079	$ 912	$ 1,348
INCOME ALLOCATED TO PREFERRED STOCKHOLDERS (Note 1)	—	4	367
NET INCOME ATTRIBUTABLE TO COMMON STOCKHOLDERS	$ 1,079	$ 908	$ 981
EARNINGS PER SHARE OF COMMON STOCK:			
Basic - Continuing Operations	$ 1.85	$ 1.69	$ 1.33
Basic - Discontinued Operations	0.14	0.01	0.66
Basic - Net Income Attributable to Common Stockholders	$ 1.99	$ 1.70	$ 1.99
Diluted - Continuing Operations	$ 1.85	$ 1.67	$ 1.33
Diluted - Discontinued Operations	0.14	0.01	0.66
Diluted - Net Income Attributable to Common Stockholders	$ 1.99	$ 1.68	$ 1.99
WEIGHTED AVERAGE NUMBER OF COMMON SHARES OUTSTANDING:			
Basic	542	535	492
Diluted	543	542	494

(1) Includes excise and gross receipts tax collections of $362 million, $373 million and $386 million in 2020, 2019 and 2018, respectively.

(2) Net of income tax benefit of $59 million, $5 million, and $1.3 billion in 2020, 2019 and 2018, respectively.

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

FIRSTENERGY CORP.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions)	For the Years Ended December 31, 2020	2019	2018
NET INCOME	$ 1,079	$ 912	$ 1,348
OTHER COMPREHENSIVE INCOME (LOSS):			
Pension and OPEB prior service costs	(34)	(31)	(83)
Amortized losses on derivative hedges	1	2	21
Change in unrealized gains on available-for-sale securities	—	—	(106)
Other comprehensive loss	(33)	(29)	(168)
Income tax benefits on other comprehensive loss	(8)	(8)	(67)
Other comprehensive loss, net of tax	(25)	(21)	(101)
COMPREHENSIVE INCOME	$ 1,054	$ 891	$ 1,247

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

FIRSTENERGY CORP.
CONSOLIDATED BALANCE SHEETS

(In millions, except share amounts)	December 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 1,734	$ 627
Restricted cash	67	52
Receivables-		
Customers	1,367	1,137
Less — Allowance for uncollectible customer receivables	164	46
	1,203	1,091
Affiliated companies, net of allowance for uncollectible accounts of $0 in 2020 and $1,063 in 2019	—	—
Other, net of allowance for uncollectible accounts of $26 in 2020 and $21 in 2019	236	203
Materials and supplies, at average cost	317	281
Prepaid taxes and other	157	157
Current assets - discontinued operations	—	33
	3,714	2,444
PROPERTY, PLANT AND EQUIPMENT:		
In service	43,654	41,767
Less — Accumulated provision for depreciation	11,938	11,427
	31,716	30,340
Construction work in progress	1,578	1,310
	33,294	31,650
PROPERTY, PLANT AND EQUIPMENT, NET - HELD FOR SALE (NOTE 15)	45	—
INVESTMENTS:		
Nuclear fuel disposal trust	283	270
Other	322	299
Investments - held for sale (Note 15)	—	882
	605	1,451
DEFERRED CHARGES AND OTHER ASSETS:		
Goodwill	5,618	5,618
Regulatory assets	82	99
Other	1,106	1,039
	6,806	6,756
	$ 44,464	$ 42,301
LIABILITIES AND CAPITALIZATION		
CURRENT LIABILITIES:		
Currently payable long-term debt	$ 146	$ 380
Short-term borrowings	2,200	1,000
Accounts payable	827	918
Accounts payable - affiliated companies	—	87
Accrued interest	282	249
Accrued taxes	640	545
Accrued compensation and benefits	349	258
Other	560	1,425
	5,004	4,862
CAPITALIZATION:		
Stockholders' equity-		
Common stock, $0.10 par value, authorized 700,000,000 shares - 543,117,533 and 540,652,222 shares outstanding as of December 31, 2020 and December 31, 2019, respectively	54	54
Other paid-in capital	10,076	10,868
Accumulated other comprehensive income (loss)	(5)	20
Accumulated deficit	(2,888)	(3,967)
Total stockholders' equity	7,237	6,975
Long-term debt and other long-term obligations	22,131	19,618
	29,368	26,593
NONCURRENT LIABILITIES:		
Accumulated deferred income taxes	3,095	2,849
Retirement benefits	3,345	3,065
Regulatory liabilities	1,826	2,360
Asset retirement obligations	159	165
Adverse power contract liability	30	49
Other	1,637	1,667
Noncurrent liabilities - held for sale (Note 15)	—	691
	10,092	10,846
COMMITMENTS, GUARANTEES AND CONTINGENCIES (Note 15)		

	$ 44,464	$ 42,301

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

FIRSTENERGY CORP.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In millions)	Series A Convertible Preferred Stock		Common Stock		OPIC	AOCI	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance, January 1, 2018	—	$ —	$ 445	$ 44	$ 10,001	$ 142	$ (6,262)	3,925
Net income							1,348	1,348
Other comprehensive loss, net of tax						(101)		(101)
Stock-based compensation					60			60
Cash dividends declared on common stock					(906)			(906)
Cash dividends declared on preferred stock					(71)			(71)
Stock Investment Plan and certain share-based benefit plans			4	1	61			62
Stock issuance (Note 11)[1]	1.6	162	30	3	2,297			2,462
Conversion of Series A Convertible Stock	(0.9)	(91)	33	3	88			—
Impact of adopting new accounting pronouncements							35	35
Balance, December 31, 2018	0.7	71	512	51	11,530	41	(4,879)	6,814
Net income							912	912
Other comprehensive loss, net of tax						(21)		(21)
Stock-based compensation					41			41
Cash dividends declared on common stock					(824)			(824)
Cash dividends declared on preferred stock					(3)			(3)
Stock Investment Plan and certain share-based benefit plans			3	—	56			56
Conversion of Series A Convertible Stock	(0.7)	(71)	26	3	68			—
Balance, December 31, 2019	—	—	541	54	10,868	20	(3,967)	6,975
Net income							1,079	1,079
Other comprehensive loss, net of tax						(25)		(25)
Stock-based compensation					26			26
Cash dividends declared on common stock					(846)			(846)
Stock Investment Plan and certain share-based benefit plans			2		28			28
Balance, December 31, 2020	—	$ —	543	$ 54	$ 10,076	$ (5)	$ (2,888)	$ 7,237

[1] The Preferred Stock included an embedded conversion option at a price that is below the fair value of the Common Stock on the commitment date. This BCF, which was approximately $296 million, was recorded to OPIC as well as the amortization of the BCF (deemed dividend) through the period from the issue date to the first allowable conversion date (July 22, 2018) and as such there is no net impact to OPIC for the year ended December 31, 2018.

Dividends declared for each share of common stock and as-converted share of preferred stock was $1.56 during 2020, $1.53 during 2019, and $1.82 during 2018.

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

FIRSTENERGY CORP.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions)	For the Years Ended December 31, 2020	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 1,079	$ 912	$ 1,348
Adjustments to reconcile net income to net cash from operating activities-			
Gain on disposal, net of tax (Note 3)	(76)	(59)	(435)
Depreciation and amortization	1,199	1,217	1,384
Pension trust contributions	—	(500)	(1,250)
Retirement benefits, net of payments	(301)	(108)	(137)
Pension and OPEB mark-to-market adjustment	477	676	144
Deferred income taxes and investment tax credits, net	113	252	485
Asset removal costs charged to income	36	28	42
Settlement agreement and tax sharing payments to the FES Debtors	(978)	—	—
Changes in current assets and liabilities-			
Receivables	(129)	271	(248)
Materials and supplies	(32)	(37)	24
Prepaid taxes and other	6	10	(61)
Accounts payable	(138)	(49)	109
Accrued taxes	159	12	—
Accrued interest	33	6	(25)
Accrued compensation and benefits	97	(60)	37
Other current liabilities	(16)	(21)	(121)
Other	(106)	(83)	114
Net cash provided from operating activities	1,423	2,467	1,410
CASH FLOWS FROM FINANCING ACTIVITIES:			
New financing-			
Long-term debt	3,425	2,300	1,474
Short-term borrowings, net	1,200	—	950
Preferred stock issuance	—	—	1,616
Common stock issuance	—	—	850
Redemptions and repayments-			
Long-term debt	(1,114)	(789)	(2,608)
Tender premiums paid on debt redemptions	—	—	(89)
Preferred stock dividend payments	—	(6)	(61)
Common stock dividend payments	(845)	(814)	(711)
Other	(59)	(35)	(27)
Net cash provided from financing activities	2,607	656	1,394
CASH FLOWS FROM INVESTING ACTIVITIES:			
Property additions	(2,657)	(2,665)	(2,675)
Proceeds from asset sales	2	47	425
Sales of investment securities held in trusts	186	1,637	909
Purchases of investment securities held in trusts	(208)	(1,675)	(963)
Notes receivable from affiliated companies	—	—	(500)
Asset removal costs	(224)	(217)	(218)
Other	(7)	—	4
Net cash used for investing activities	(2,908)	(2,873)	(3,018)
Net change in cash, cash equivalents and restricted cash	1,122	250	(214)
Cash, cash equivalents, and restricted cash at beginning of period	679	429	643
Cash, cash equivalents, and restricted cash at end of period	$ 1,801	$ 679	$ 429
SUPPLEMENTAL CASH FLOW INFORMATION:			
Non-cash transaction: beneficial conversion feature	$ —	$ —	$ 296
Non-cash transaction: deemed dividend convertible preferred stock	$ —	$ —	$ (296)
Cash paid during the year-			
Interest (net of amounts capitalized)	$ 970	$ 960	$ 1,071
Income taxes, net of refunds	$ 6	$ 12	$ 49

The accompanying Notes to Consolidated Financial Statements are an integral part of these financial statements.

FIRSTENERGY CORP. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND BASIS OF PRESENTATION

Unless otherwise indicated, defined terms and abbreviations used herein have the meanings set forth in the accompanying Glossary of Terms.

FE was incorporated under Ohio law in 1996. FE's principal business is the holding, directly or indirectly, of all of the outstanding equity of its principal subsidiaries: OE, CEI, TE, Penn (a wholly owned subsidiary of OE), JCP&L, ME, PN, FESC, MP, AGC (a wholly owned subsidiary of MP), PE, WP, and FET and its principal subsidiaries (ATSI, MAIT and TrAIL). In addition, FE holds all of the outstanding equity of other direct subsidiaries including: AE Supply, FirstEnergy Properties, Inc., FEV, FirstEnergy License Holding Company, GPUN, Allegheny Ventures, Inc., and Suvon, LLC doing business as both FirstEnergy Home and FirstEnergy Advisors.

FE and its subsidiaries are principally involved in the transmission, distribution and generation of electricity. FirstEnergy's ten utility operating companies comprise one of the nation's largest investor-owned electric systems, based on serving over 6 million customers in the Midwest and Mid-Atlantic regions. FirstEnergy's transmission operations include approximately 24,500 miles of lines and two regional transmission operation centers. AGC, JCP&L and MP control 3,790 MWs of total capacity, 210 MWs of which is related to the Yards Creek generating plant that is being sold pursuant to an asset purchase agreement as further discussed below.

FE and its subsidiaries follow GAAP and comply with the related regulations, orders, policies and practices prescribed by the SEC, FERC, and, as applicable, the NRC, the PUCO, the PPUC, the MDPSC, the NYPSC, the WVPSC, the VSCC and the NJBPU. The preparation of financial statements in conformity with GAAP requires management to make periodic estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and disclosure of contingent assets and liabilities. Actual results could differ from these estimates. The reported results of operations are not necessarily indicative of results of operations for any future period. FE and its subsidiaries have evaluated events and transactions for potential recognition or disclosure through the date the financial statements were issued.

FE and its subsidiaries consolidate all majority-owned subsidiaries over which they exercise control and, when applicable, entities for which they have a controlling financial interest. Intercompany transactions and balances are eliminated in consolidation as appropriate and permitted pursuant to GAAP. As further discussed below, FE and its subsidiaries consolidate a VIE when it is determined that it is the primary beneficiary. Investments in affiliates over which FE and its subsidiaries have the ability to exercise significant influence, but do not have a controlling financial interest, follow the equity method of accounting. Under the equity method, the interest in the entity is reported as an investment in the Consolidated Balance Sheets and the percentage of FE's ownership share of the entity's earnings is reported in the Consolidated Statements of Income and Comprehensive Income.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Restricted Cash

Restricted cash primarily relates to the consolidated VIE's discussed below. The cash collected from JCP&L, MP, PE and the Ohio Companies' customers is used to service debt of their respective funding companies.

COVID-19

The outbreak of COVID-19 is a global pandemic. FirstEnergy is continuously evaluating the global pandemic and taking steps to mitigate known risks. FirstEnergy is actively monitoring the continued impact COVID-19 is having on its customers' receivable balances, which include increasing arrears balances since the pandemic has begun. FirstEnergy has incurred, and it is expected to incur for the foreseeable future, incremental uncollectible and other COVID-19 pandemic related expenses. COVID-19 related expenses consist of additional costs that FirstEnergy is incurring to protect its employees, contractors and customers, and to support social distancing requirements. These costs include, but are not limited to, new or added benefits provided to employees, the purchase of additional personal protection equipment and disinfecting supplies, additional facility cleaning services, initiated programs and communications to customers on utility response, and increased technology expenses to support remote working, where possible. The full impact on FirstEnergy's business from the COVID-19 pandemic, including the governmental and regulatory responses, is unknown at this time and difficult to predict. FirstEnergy provides a critical and essential service to its customers and the health and safety of its employees, contractors and customers is its first priority. FirstEnergy is continuously monitoring its supply chain and is working closely with essential vendors to understand the continued impact the COVID-19 pandemic is having on its business, however, FirstEnergy does not currently expect disruptions in its ability to deliver service to customers or any material impact on its capital spending plan.

FirstEnergy continues to effectively manage operations during the pandemic in order to provide critical service to customers and believes it is well positioned to manage through the economic slowdown. FirstEnergy Distribution and Transmission revenues benefit from geographic and economic diversity across a five-state service territory, which also allows for flexibility with capital

investments and measures to maintain sufficient liquidity over the next twelve months. However, the situation remains fluid and future impacts to FirstEnergy that are presently unknown or unanticipated may occur. Furthermore, the likelihood of an impact to FirstEnergy, and the severity of any impact that does occur, could increase the longer the global pandemic persists.

RECEIVABLES

Activity in the allowance for uncollectible accounts on receivables for the years ended December 31, 2020, 2019 and 2018 are as follows:

(In millions)	2020	2019	2018
Customer Receivables			
Beginning of year balance	$ 46	$ 50	$ 49
Charged to income [1]	174	81	77
Charged to other accounts [2]	46	47	60
Write-offs	(102)	(132)	(136)
End of year balance	$ 164	$ 46	$ 50
Other Receivables			
Beginning of year balance	$ 21	$ 2	$ 1
Charged to income	7	27	13
Charged to other accounts [2]	10	1	—
Write-offs	(12)	(9)	(12)
End of year balance	$ 26	$ 21	$ 2
Affiliated Companies Receivables [3]			
Beginning of year balance	$ 1,063	$ 920	$ —
Charged to income	—	143	920
Charged to other accounts [2]	—	—	—
Write-offs	(1,063)	—	—
End of year balance	$ —	$ 1,063	$ 920

[1] Customer receivable amounts charged to income for the years ended December 31, 2020, 2019 and 2018 include approximately $103 million, $25 million, and $24 million respectively, deferred for future recovery.
[2] Represents recoveries and reinstatements of accounts previously written off for uncollectible accounts.
[3] Amounts relate to the FES Debtors and are included in discontinued operations. Write-off of $1.1 billion in 2020 was recognized upon their emergence in February 2020. See Note 3, "Discontinued Operations" for additional information.

Receivables from customers include retail electric sales and distribution deliveries to residential, commercial and industrial customers for the Utilities. There was no material concentration of receivables as of December 31, 2020 and 2019, with respect to any particular segment of FirstEnergy's customers. Billed and unbilled customer receivables as of December 31, 2020 and 2019, net of allowance for uncollectible accounts, are included below.

Customer Receivables	**December 31, 2020**	**December 31, 2019**
	(In millions)	
Billed	$ 636	$ 564
Unbilled	567	527
Total	$ 1,203	$ 1,091

The allowance for uncollectible customer receivables is based on historical loss information comprised of a rolling 36-month average net write-off percentage of revenues, in conjunction with a qualitative assessment of elements that impact the collectability of receivables to determine if allowances for uncollectible accounts should be further adjusted in accordance with the accounting guidance for credit losses. Management contemplates available current information such as changes in economic factors, regulatory matters, industry trends, customer credit factors, amount of receivable balances that are past-due, payment options and programs available to customers, and the methods that the Utilities are able to utilize to ensure payment.

FirstEnergy reviews its allowance for uncollectible customer receivables utilizing a quantitative and qualitative assessment, which includes consideration of the outbreak of COVID-19 and the impact on customer receivable balances outstanding and the ability of customers to continue payment since the pandemic began. Beginning March 13, 2020, FirstEnergy temporarily suspended customer disconnections for nonpayment and ceased collection activities as a result of the ongoing pandemic and in accordance with state regulatory requirements. The temporary suspension of disconnections for nonpayment and ceased collection activities extended into the fourth quarter of 2020 and resumed for most customers before the end of 2020. Customers are subject to each state's applicable regulations on winter moratoriums for residential customers, which begin as early as November 1, 2020, and are in effect until April 15, 2021. See Note 14, “Regulatory Matters,” for further discussion on applicable regulations that may alter residential customer disconnection and collection activity, such as winter moratoriums.

The impact of COVID-19 on customers’ ability to pay for service, along with the actions FirstEnergy has taken in response to the pandemic, is expected to result in an increase in customer receivable write-offs as compared to historically incurred losses. In order to estimate the additional losses and impacts expected, FirstEnergy analyzed the likelihood of loss based on increases in customer accounts in arrears since the pandemic began in mid-March 2020 as well as what collection methods are or were suspended, and that have historically been utilized to ensure payment. Based on this assessment, and consideration of other qualitative factors described above, FirstEnergy recognized incremental uncollectible expense of $121 million in the year 2020, of which approximately $90 million is not currently being collected through rates and as a result was deferred for future recovery under regulatory mechanisms described below.

The Ohio Companies and JCP&L had existing regulatory mechanisms in place prior to the outbreak of COVID-19, where incremental uncollectible expenses are able to be recovered through riders with no material impact to earnings. Additionally, in response to the COVID-19 pandemic, the MDPSC, NJBPU and WVPSC issued orders allowing PE, JCP&L and MP, respectively, to track and create a regulatory asset for future recovery of incremental costs, including uncollectible expenses, incurred as a result of the pandemic. In Pennsylvania, the PPUC has authorized the Pennsylvania Companies to track all prudently incurred incremental costs arising from COVID-19, and to create a regulatory asset for future recovery of incremental uncollectible expenses incurred as a result of COVID-19 above what is included in the Pennsylvania Companies existing rates. On October 13, 2020, the PPUC entered an order that permits the Pennsylvania Companies to create a regulatory asset for incremental expenses associated with lifting the service termination moratorium, as further discussed below.

Receivables from customers also include PJM receivables resulting from transmission and wholesale sales. FirstEnergy’s credit risk on PJM receivables is reduced due to the nature of PJM’s settlement process whereby members of PJM legally agree to share the cost of defaults and as a result there is no allowance for doubtful accounts.

ACCOUNTING FOR THE EFFECTS OF REGULATION

FirstEnergy accounts for the effects of regulation through the application of regulatory accounting to the Utilities and the Transmission Companies since their rates are established by a third-party regulator with the authority to set rates that bind customers, are cost-based and can be charged to and collected from customers.

FirstEnergy records regulatory assets and liabilities that result from the regulated rate-making process that would not be recorded under GAAP for non-regulated entities. These assets and liabilities are amortized in the Consolidated Statements of Income concurrent with the recovery or refund through customer rates. FirstEnergy believes that it is probable that its regulatory assets and liabilities will be recovered and settled, respectively, through future rates. FirstEnergy, the Utilities and the Transmission Companies net their regulatory assets and liabilities based on federal and state jurisdictions.

Management assesses the probability of recovery of regulatory assets at each balance sheet date and whenever new events occur. Factors that may affect probability relate to changes in the regulatory environment, issuance of a regulatory commission order or passage of new legislation. Management applies judgment in evaluating the evidence available to assess the probability of recovery of regulatory assets from customers, including, but not limited to evaluating evidence related to precedent for similar items at FirstEnergy and information on comparable companies within similar jurisdictions, as well as assessing progress of communications between FirstEnergy and regulators. Certain of these regulatory assets, totaling approximately $117 million and $111 million as of December 31, 2020 and December 31, 2019, respectively, are recorded based on prior precedent or anticipated recovery based on rate making premises without a specific order, of which, $79 million and $73 million as of December 31, 2020 and December 31, 2019, respectively, are being sought for recovery in a formula rate amendment filing at ATSI that is pending before FERC. See Note 14, "Regulatory Matters" for additional information.

The following table provides information about the composition of net regulatory assets and liabilities as of December 31, 2020 and December 31, 2019, and the changes during the year ended December 31, 2020:

Net Regulatory Assets (Liabilities) by Source	December 31, 2020	December 31, 2019	Change
		(In millions)	
Customer payables for future income taxes	$ (2,369)	$ (2,605)	$ 236
Nuclear decommissioning and spent fuel disposal costs	(102)	(197)	95
Asset removal costs	(721)	(756)	35
Deferred transmission costs	316	298	18
Deferred generation costs	104	214	(110)
Deferred distribution costs	136	155	(19)
Contract valuations	41	51	(10)
Storm-related costs	748	551	197
Uncollectible and COVID-19 related costs	97	3	94
Other	6	25	(19)
Net Regulatory Liabilities included on the Consolidated Balance Sheets	$ (1,744)	$ (2,261)	$ 517

The following table provides information about the composition of net regulatory assets that do not earn a current return as of December 31, 2020 and 2019, of which approximately $195 million and $228 million, respectively, are currently being recovered through rates over varying periods, through 2068, depending on the nature of the deferral and the jurisdiction:

Regulatory Assets by Source Not Earning a Current Return	December 31, 2020	December 31, 2019	Change
		(in millions)	
Deferred transmission costs	$ 29	$ 27	$ 2
Deferred generation costs	5	15	(10)
Storm-related costs	654	471	183
COVID-19 related costs	66	—	66
Other	35	32	3
Regulatory Assets Not Earning a Current Return	$ 789	$ 545	$ 244

EARNINGS PER SHARE OF COMMON STOCK

Basic EPS available to common stockholders is computed using the weighted average number of common shares outstanding during the relevant period as the denominator. The denominator for diluted EPS of common stock reflects the weighted average of common shares outstanding plus the potential additional common shares that could result if dilutive securities and other agreements to issue common stock were exercised.

During 2019 and 2018, EPS was computed using the two-class method required for participating securities. The convertible preferred stock issued in January 2018 were considered participating securities since the shares participated in dividends on common stock on an “as-converted” basis. All convertible preferred stock was converted to common stock during 2019.

The two-class method uses an earnings allocation formula that treats participating securities as having rights to earnings that otherwise would have been available only to common stockholders. Under the two-class method, net income attributable to common stockholders is derived by subtracting the following from income from continuing operations:

- preferred stock dividends,
- deemed dividends for the amortization of the beneficial conversion feature recognized at issuance of the preferred stock (if any), and
- an allocation of undistributed earnings between the common stock and the participating securities (convertible preferred stock) based on their respective rights to receive dividends.

Net losses were not allocated to the convertible preferred stock as they did not have a contractual obligation to share in the losses of FirstEnergy. FirstEnergy allocated undistributed earnings based upon income from continuing operations.

Diluted EPS reflects the dilutive effect of potential common shares from share-based awards and convertible shares of preferred stock. The dilutive effect of outstanding share-based awards was computed using the treasury stock method, which assumes any proceeds that could be obtained upon the exercise of the award would be used to purchase common stock at the average market price for the period. The dilutive effect of the convertible preferred stock was computed using the if-converted method, which assumes conversion of the convertible preferred stock at the beginning of the period, giving income recognition for the add-back of the preferred stock dividends, amortization of beneficial conversion feature, and undistributed earnings allocated to preferred stockholders.

	Year Ended December 31,		
Reconciliation of Basic and Diluted EPS of Common Stock	**2020**	**2019**	**2018**
(In millions, except per share amounts)			
EPS of Common Stock			
Income from continuing operations	$ 1,003	$ 904	$ 1,022
Less: Preferred dividends	—	(3)	(71)
Less: Amortization of beneficial conversion feature	—	—	(296)
Less: Undistributed earnings allocated to preferred stockholders[1]	N/A	(1)	—
Income from continuing operations available to common stockholders	1,003	900	655
Discontinued operations, net of tax	76	8	326
Less: Undistributed earnings allocated to preferred stockholders [1]	N/A	—	—
Income from discontinued operations available to common stockholders	76	8	326
Income attributable to common stockholders, basic	$ 1,079	$ 908	$ 981
Income allocated to preferred stockholders, preferred dilutive [2]	N/A	4	N/A
Income attributable to common stockholders, dilutive	$ 1,079	$ 912	$ 981
Share Count information:			
Weighted average number of basic shares outstanding	542	535	492
Assumed exercise of dilutive stock options and awards	1	3	2
Assumed conversion of preferred stock	—	4	—
Weighted average number of diluted shares outstanding	543	542	494
Income attributable to common stockholders, per common share:			
Income from continuing operations, basic	$ 1.85	$ 1.69	$ 1.33
Discontinued operations, basic	0.14	0.01	0.66
Income attributable to common stockholders, basic	$ 1.99	$ 1.70	$ 1.99
Income from continuing operations, diluted	$ 1.85	$ 1.67	$ 1.33
Discontinued operations, diluted	0.14	0.01	0.66
Income attributable to common stockholders, diluted	$ 1.99	$ 1.68	$ 1.99

(1) Undistributed earnings were not allocated to participating securities for the year ended December 31, 2018, as income from continuing operations less dividends declared (common and preferred) and deemed dividends were a net loss. Undistributed earning allocated to participating securities for the years ended December 31, 2019 and 2020 were immaterial.

(2) The shares of common stock issuable upon conversion of the preferred shares (26 million shares) were not included for 2018 as their inclusion would be anti-dilutive to basic EPS from continuing operations. Amounts allocated to preferred stockholders of $4 million for the year ended December 31, 2019 are included within Income from continuing operations available to common stockholders for diluted earnings.

For the year ended December 31, 2018, approximately 1 million shares from stock options and awards were excluded from the calculation of diluted shares outstanding, as their inclusion would be antidilutive. For the year ended December 31, 2019, no shares from stock options or awards were excluded from the calculation of diluted shares. For the year ended December 31, 2020, approximately 80 thousand shares from stock options and awards were excluded from the calculation of diluted shares outstanding, as their inclusion would be antidilutive.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment reflects original cost (net of any impairments recognized), including payroll and related costs such as taxes, employee benefits, administrative and general costs, and interest costs incurred to place the assets in service. The costs of normal maintenance, repairs and minor replacements are expensed as incurred. FirstEnergy recognizes liabilities for planned major maintenance projects as they are incurred. Property, plant and equipment balances by segment as of December 31, 2020 and 2019, were as follows:

	December 31, 2020				
Property, Plant and Equipment	**In Service[1]**	**Accum. Depr.**	**Net Plant**	**CWIP**	**Total**
			(In millions)		
Regulated Distribution	$ 29,775	$ (8,800)	$ 20,975	$ 841	$ 21,816
Regulated Transmission	12,912	(2,609)	10,303	671	10,974
Corporate/Other	1,039	(556)	483	66	549
Total	$ 43,726	$ (11,965)	$ 31,761	$ 1,578	$ 33,339

	December 31, 2019				
Property, Plant and Equipment	**In Service[1]**	**Accum. Depr.**	**Net Plant**	**CWIP**	**Total**
			(In millions)		
Regulated Distribution	$ 28,735	$ (8,540)	$ 20,195	$ 744	$ 20,939
Regulated Transmission	12,023	(2,383)	9,640	526	10,166
Corporate/Other	1,009	(504)	505	40	545
Total	$ 41,767	$ (11,427)	$ 30,340	$ 1,310	$ 31,650

[1] Includes finance leases of $153 million and $163 million as of December 31, 2020 and 2019, respectively.

The major classes of Property, plant and equipment are largely consistent with the segment disclosures above. Regulated Distribution has approximately $2.1 billion of total regulated generation property, plant and equipment. Included within Regulated Distribution is $882 million of assets classified as held for sale as of December 31, 2019 associated with the asset purchase and sale agreements with TMI-2 Solutions to transfer TMI-2 to TMI-2 Solutions, LLC. With the receipt of all required regulatory approvals, the transaction was consummated on December 18, 2020. As a result, during the fourth quarter of 2020 FirstEnergy recognized an after tax-gain of approximately $33 million, primarily associated with the write-off of a tax related regulatory liability. See Note 15, "Commitments, Guarantees and Contingencies" for additional information. Also included within the segment is $45 million of assets classified as held for sale as of December 31, 2020 associated with the asset purchase agreement with Yards Creek Energy, LLC to transfer JCP&L's 50% interest in the Yards Creek pumped-storage hydro generation station (210 MWs). See Note 14, "Regulatory Matters" for additional information.

FirstEnergy provides for depreciation on a straight-line basis at various rates over the estimated lives of property included in plant in service. The respective annual composite depreciation rates for FirstEnergy were 2.7%, 2.7% and 2.6% in 2020, 2019 and 2018, respectively.

For the years ended December 31, 2020, 2019 and 2018, capitalized financing costs on FirstEnergy's Consolidated Statements of Income include $49 million, $45 million and $46 million, respectively, of allowance for equity funds used during construction and $28 million, $26 million and $19 million, respectively, of capitalized interest.

Jointly Owned Plants

FE, through its subsidiary, AGC, owns an undivided 16.25% interest (487 MWs) in the 3,003 MW Bath County pumped-storage, hydroelectric station in Virginia, operated by the 60% owner, VEPCO, a non-affiliated utility. Total property, plant and equipment includes $157 million representing AGC's share in this facility as of December 31, 2020. AGC is obligated to pay its share of the costs of this jointly owned facility in the same proportion as its ownership interests using its own financing. AGC's share of direct expenses of the joint plant is included in operating expenses on FirstEnergy's Consolidated Statements of Income. AGC provides the generation capacity from this facility to its owner, MP.

Asset Retirement Obligations

FE recognizes an ARO for the future remediation of environmental liabilities associated with all of its long-lived assets. The ARO liability represents an estimate of the fair value of FirstEnergy's current obligation related to nuclear decommissioning and the retirement or remediation of environmental liabilities of other assets. A fair value measurement inherently involves uncertainty in the amount and timing of settlement of the liability. FirstEnergy uses an expected cash flow approach to measure the fair value of the nuclear decommissioning and environmental remediation AROs, considering the expected timing of settlement of the ARO based on the expected economic useful life of associated asset and/or regulatory requirements. The fair value of an ARO is

recognized in the period in which it is incurred. The associated asset retirement costs are capitalized as part of the carrying value of the long-lived asset and are depreciated over the life of the related asset. In certain circumstances, FirstEnergy has recovery of asset retirement costs and, as such, certain accretion and depreciation is offset against regulatory assets.

Conditional retirement obligations associated with tangible long-lived assets are recognized at fair value in the period in which they are incurred if a reasonable estimate can be made, even though there may be uncertainty about timing or method of settlement. When settlement is conditional on a future event occurring, it is reflected in the measurement of the liability, not the timing of the liability recognition.

AROs as of December 31, 2020, including the transfer of TMI-2, its NDT and related decommissioning liabilities to TMI-2 Solutions, LLC, a subsidiary of Energy*Solutions*, LLC, in the fourth quarter of 2020, are described further in Note 13, "Asset Retirement Obligations."

Asset Impairments

FirstEnergy evaluates long-lived assets classified as held and used for impairment when events or changes in circumstances indicate the carrying value of the long-lived assets may not be recoverable. First, the estimated undiscounted future cash flows attributable to the assets is compared with the carrying value of the assets. If the carrying value is greater than the undiscounted future cash flows, an impairment charge is recognized equal to the amount the carrying value of the assets exceeds its estimated fair value.

GOODWILL

In a business combination, the excess of the purchase price over the estimated fair value of the assets acquired and liabilities assumed is recognized as goodwill. FirstEnergy evaluates goodwill for impairment annually on July 31 and more frequently if indicators of impairment arise. In evaluating goodwill for impairment, FirstEnergy assesses qualitative factors to determine whether it is more likely than not (that is, likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying value (including goodwill). If FirstEnergy concludes that it is not more likely than not that the fair value of a reporting unit is less than its carrying value, then no further testing is required. However, if FirstEnergy concludes that it is more likely than not that the fair value of a reporting unit is less than its carrying value or bypasses the qualitative assessment, then the quantitative goodwill impairment test is performed to identify a potential goodwill impairment and measure the amount of impairment to be recognized, if any.

As of July 31, 2020, FirstEnergy performed a qualitative assessment of the Regulated Distribution and Regulated Transmission reporting units' goodwill, assessing economic, industry and market considerations in addition to the reporting units' overall financial performance. Key factors used in the assessment included: growth rates, interest rates, expected capital expenditures, utility sector market performance, regulatory and legal developments, and other market considerations. It was determined that the fair values of these reporting units were, more likely than not, greater than their carrying values and a quantitative analysis was not necessary.

FirstEnergy's reporting units are consistent with its reportable segments and consist of Regulated Distribution and Regulated Transmission. The following table presents goodwill by reporting unit as of December 31, 2020:

(In millions)	**Regulated Distribution**	**Regulated Transmission**	**Consolidated**
Goodwill	$ 5,004	$ 614	$ 5,618

INVENTORY

Materials and supplies inventory includes fuel inventory and the distribution, transmission and generation plant materials, net of reserve for excess and obsolete inventory. Materials are generally charged to inventory at weighted average cost when purchased and expensed or capitalized, as appropriate, when used or installed. Fuel inventory is accounted for at weighted average cost when purchased and recorded to fuel expense when consumed.

DERIVATIVES

FirstEnergy is exposed to financial risks resulting from fluctuating interest rates and commodity prices, including prices for electricity, coal and energy transmission. To manage the volatility related to these exposures, FirstEnergy’s Risk Policy Committee, comprised of senior management, provides general management oversight for risk management activities throughout FirstEnergy. The Risk Policy Committee is responsible for promoting the effective design and implementation of sound risk management programs and oversees compliance with corporate risk management policies and established risk management practice. FirstEnergy may use a variety of derivative instruments for risk management purposes including forward contracts, options, futures contracts and swaps.

FirstEnergy accounts for derivative instruments on its Consolidated Balance Sheets at fair value unless they meet the normal purchases and normal sales criteria. Derivative instruments meeting the normal purchases and normal sales criteria are accounted for under the accrual method of accounting with their effects included in earnings at the time of contract performance.

VARIABLE INTEREST ENTITIES

FirstEnergy performs qualitative analyses based on control and economics to determine whether a variable interest classifies FirstEnergy as the primary beneficiary (a controlling financial interest) of a VIE. An enterprise has a controlling financial interest if it has both power and economic control, such that an entity has: (i) the power to direct the activities of a VIE that most significantly impact the entity's economic performance; and (ii) the obligation to absorb losses of the entity that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE. FirstEnergy consolidates a VIE when it is determined that it is the primary beneficiary.

In order to evaluate contracts for consolidation treatment and entities for which FirstEnergy has an interest, FirstEnergy aggregates variable interests into categories based on similar risk characteristics and significance.

Consolidated VIEs

VIEs in which FirstEnergy is the primary beneficiary consist of the following (included in FirstEnergy's consolidated financial statements):

- *Ohio Securitization* - In June 2013, SPEs formed by the Ohio Companies issued approximately $445 million of pass-through trust certificates supported by phase-in recovery bonds to securitize the recovery of certain all electric customer heating discounts, fuel and purchased power regulatory assets.
- *JCP&L Securitization* - JCP&L Transition Funding II sold transition bonds to securitize the recovery of deferred costs associated with JCP&L's supply of BGS.
- *MP and PE Environmental Funding Companies* - Bankruptcy remote, special purpose limited liability companies that are indirect subsidiaries of MP and PE which issued environmental control bonds.

See Note 11, "Capitalization," for additional information on securitized bonds.

Unconsolidated VIEs

FirstEnergy is not the primary beneficiary of the following VIEs:

- ***Global Holding*** - FEV holds a 33-1/3% equity ownership in Global Holding, the holding company for a joint venture in the Signal Peak mining and coal transportation operations with coal sales in U.S. and international markets. FEV is not the primary beneficiary of the joint venture, as it does not have control over the significant activities affecting the joint ventures economic performance. FEV's ownership interest is subject to the equity method of accounting. As of December 31, 2020, the carrying value of the equity method investment was $30 million.

  As discussed in Note 15, "Commitments, Guarantees and Contingencies," FE is the guarantor under Global Holding's $120 million syndicated senior secured term loan facility due November 12, 2024, under which Global Holding's outstanding principal balance is $108 million as of December 31, 2020. Failure by Global Holding to meet the terms and conditions under its term loan facility could require FE to be obligated under the provisions of its guarantee, resulting in consolidation of Global Holding by FE.

- ***PATH WV*** - PATH, a proposed transmission line from West Virginia through Virginia into Maryland which PJM cancelled in 2012, is a series limited liability company that is comprised of multiple series, each of which has separate rights, powers and duties regarding specified property and the series profits and losses associated with such property. A subsidiary of FE owns 100% of the Allegheny Series (PATH-Allegheny) and 50% of the West Virginia Series (PATH-WV), which is a joint venture with a subsidiary of AEP. FirstEnergy is not the primary beneficiary of PATH-WV, as it does not have control over the significant activities affecting the economics of PATH-WV. FirstEnergy's ownership interest in PATH-WV is subject to the equity method of accounting. As of December 31, 2020, the carrying value of the equity method investment was $18 million.

- ***Purchase Power Agreements*** - FirstEnergy evaluated its PPAs and determined that certain NUG entities at its Regulated Distribution segment may be VIEs to the extent that they own a plant that sells substantially all of its output to the applicable utilities and the contract price for power is correlated with the plant's variable costs of production.

  FirstEnergy maintains six long-term PPAs with NUG entities that were entered into pursuant to PURPA. FirstEnergy was not involved in the creation of, and has no equity or debt invested in, any of these entities. FirstEnergy has determined that for all but one of these NUG entities, it does not have a variable interest, or the entities do not meet the criteria to be considered a VIE. FirstEnergy may hold a variable interest in the remaining one entity; however, it applied the scope exception that exempts enterprises unable to obtain the necessary information to evaluate entities.

Because FirstEnergy has no equity or debt interests in the NUG entities, its maximum exposure to loss relates primarily to the above-market costs incurred for power. FirstEnergy expects any above-market costs incurred at its Regulated Distribution segment to be recovered from customers. Purchased power costs related to the contract that may contain a variable interest were $113 million and $116 million, respectively, during the years ended December 31, 2020 and 2019.

NEW ACCOUNTING PRONOUNCEMENTS

Recently Adopted Pronouncements

ASU 2016-13, "*Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*" (Issued June 2016 and subsequently updated): ASU 2016-13 removes all recognition thresholds and will require companies to recognize an allowance for credit losses for the difference between the amortized cost basis of a financial instrument and the amount of amortized cost that the company expects to collect over the instrument's contractual life. Prior to adoption, FirstEnergy analyzed its financial instruments within the scope of this guidance, primarily trade receivables and AFS debt securities. The adoption of this standard upon January 1, 2020 did not have a material impact to FirstEnergy's financial statements and required additional disclosures in these Notes to the Consolidated Financial Statements. Please see above for additional information on FirstEnergy's allowance for uncollectible customer receivables.

ASU 2018-15, "*Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*" (Issued August 2018): ASU 2018-15 allows implementation costs incurred by customers in cloud computing arrangements to be deferred and recognized over the term of the arrangement, if those costs would be capitalized by the customers in a software licensing arrangement. FirstEnergy adopted this standard as of January 1, 2020, with no material impact to its financial statements.

ASU 2020-04, "*Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting"* (Issued March 2020 and subsequently updated): ASU 2020-04 provides temporary optional expedients and exceptions to the current guidance on contract modifications to ease the financial reporting burdens related to the expected market transition from LIBOR and other interbank offered rates to alternative reference rates. FirstEnergy's $3.5 billion Revolving Credit Facility bears interest at fluctuating interest rates based on LIBOR and contains provisions (requiring an amendment) in the event that LIBOR can no longer be used. As of December 31, 2020, FirstEnergy has not utilized any of the expedients discussed within this ASU.

Recently Issued Pronouncements - The following new authoritative accounting guidance issued by the FASB has not yet been adopted. Unless otherwise indicated, FirstEnergy is currently assessing the impact such guidance may have on its financial statements and disclosures, as well as the potential to early adopt where applicable. FirstEnergy has assessed other FASB issuances of new standards not described below based upon the current expectation that such new standards will not significantly impact FirstEnergy's financial reporting.

ASU 2019-12, "*Simplifying the Accounting for Income Taxes"* (Issued in December 2019): ASU 2019-12 enhances and simplifies various aspects of the income tax accounting guidance including the elimination of certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The new guidance also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The guidance will be effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. FirstEnergy continues to evaluate the new guidance, but currently does not expect a material impact upon adopting this standard.

2. REVENUE

FirstEnergy accounts for revenues from contracts with customers under ASC 606, "*Revenue from Contracts with Customers.*" Revenue from leases, financial instruments, other contractual rights or obligations and other revenues that are not from contracts with customers are outside the scope of the standard and accounted for under other existing GAAP.

FirstEnergy has elected to exclude sales taxes and other similar taxes collected on behalf of third parties from revenue as prescribed in the standard. As a result, tax collections and remittances are excluded from recognition in the income statement and instead recorded through the balance sheet. Excise and gross receipts taxes that are assessed on FirstEnergy are not subject to the election and are included in revenue. FirstEnergy has elected the optional invoice practical expedient for most of its revenues and utilizes the optional short-term contract exemption for transmission revenues due to the annual establishment of revenue requirements, which eliminates the need to provide certain revenue disclosures regarding unsatisfied performance obligations.

FirstEnergy's revenues are primarily derived from electric service provided by the Utilities and Transmission Companies. The following represents a disaggregation of revenue from contracts with customers for the year ended December 31, 2020:

Revenues by Type of Service	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments [1]	Total
		(In millions)		
Distribution services[2]	$ 5,259	$ —	$ (88)	$ 5,171
Retail generation	3,577	—	(60)	3,517
Wholesale sales	251	—	9	260
Transmission[2]	—	1,613	—	1,613
Other	140	—	—	140
Total revenues from contracts with customers	$ 9,227	$ 1,613	$ (139)	$ 10,701
ARP [3]	43	—	—	43
Other non-customer revenue	93	17	(64)	46
Total revenues	$ 9,363	$ 1,630	$ (203)	$ 10,790

[1] Includes eliminations and reconciling adjustments of inter-segment revenues.
[2] Includes reductions to revenue related to amounts subject to refund resulting from the Tax Act ($2 million at Regulated Distribution and $7 million at Regulated Transmission).
[3] ARP revenue for the year ended December 31, 2020, is primarily related to shared savings revenue in Ohio.

The following represents a disaggregation of revenue from contracts with customers for the year ended December 31, 2019:

Revenues by Type of Service	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments [1]	Total
		(In millions)		
Distribution services[2]	$ 5,133	$ —	$ (83)	$ 5,050
Retail generation	3,727	—	(57)	3,670
Wholesale sales[2]	411	—	12	423
Transmission[2]	—	1,510	—	1,510
Other	150	—	2	152
Total revenues from contracts with customers	$ 9,421	$ 1,510	$ (126)	$ 10,805
ARP [3]	181	—	—	181
Other non-customer revenue	96	16	(63)	49
Total revenues	$ 9,698	$ 1,526	$ (189)	$ 11,035

[1] Includes eliminations and reconciling adjustments of inter-segment revenues.
[2] Includes reductions to revenue related to amounts subject to refund resulting from the Tax Act ($16 million at Regulated Distribution and $19 million at Regulated Transmission).
[3] ARP revenue for the year ended December 31, 2019, includes DMR revenue, lost distribution and shared savings revenue in Ohio.

The following represents a disaggregation of revenue from contracts with customers for the year ended December 31, 2018:

Revenues by Type of Service	Regulated Distribution	Regulated Transmission	Corporate/Other and Reconciling Adjustments [1]	Total
		(In millions)		
Distribution services[2]	$ 5,159	$ —	$ (104)	$ 5,055
Retail generation	3,936	—	(54)	3,882
Wholesale sales[2]	502	—	22	524
Transmission[2]	—	1,335	—	1,335
Other	144	—	4	148
Total revenues from contracts with customers	$ 9,741	$ 1,335	$ (132)	$ 10,944
ARP [3]	254	—	—	254
Other non-customer revenue	108	18	(63)	63
Total revenues	$ 10,103	$ 1,353	$ (195)	$ 11,261

[1] Includes eliminations and reconciling adjustments of inter-segment revenues.
[2] Includes reductions to revenue related to amounts subject to refund resulting from the Tax Act ($131 million at Regulated Distribution and $16 million at Regulated Transmission).
[3] ARP revenue for the year ended December 31, 2018, includes DMR revenue, lost distribution and shared savings revenue in Ohio.

Other non-customer revenue includes revenue from late payment charges of $31 million, $37 million and $39 million, respectively, for the years ended December 31, 2020, 2019 and 2018. During 2020, certain late payment charges began to be waived in response to the COVID-19 pandemic, and as a result, FirstEnergy did not recognize these revenues. Late payment charges have resumed for most customers as of December 31, 2020. See Note 1, “Organization and Basis of Presentation,” for further discussion on the COVID-19 pandemic.

Other non-customer revenue also includes revenue from derivatives of $14 million, $8 million and $18 million, respectively, for the years ended December 31, 2020, 2019 and 2018.

Regulated Distribution

The **Regulated Distribution** segment distributes electricity through FirstEnergy’s ten utility operating companies and also controls 3,790 MWs of regulated electric generation capacity located primarily in West Virginia, Virginia and New Jersey, 210 MWs of which are related to the Yards Creek generating plant that is being sold pursuant to an asset purchase agreement as further discussed below. Each of the Utilities earns revenue from state-regulated rate tariffs under which it provides distribution services to residential, commercial and industrial customers in its service territory. The Utilities are obligated under the regulated construct to deliver power to customers reliably, as it is needed, which creates an implied monthly contract with the end-use customer. See Note 14 "Regulatory Matters," for additional information on rate recovery mechanisms. Distribution and electric revenues are recognized over time as electricity is distributed and delivered to the customer and the customers consume the electricity immediately as delivery occurs.

Retail generation sales relate to POLR, SOS, SSO and default service requirements in Ohio, Pennsylvania, New Jersey and Maryland, as well as generation sales in West Virginia that are regulated by the WVPSC. Certain of the Utilities have default service obligations to provide power to non-shopping customers who have elected to continue to receive service under regulated retail tariffs. The volume of these sales varies depending on the level of shopping that occurs. Supply plans vary by state and by service territory. Default service for the Ohio Companies, Pennsylvania Companies, JCP&L and PE's Maryland jurisdiction are provided through a competitive procurement process approved by each state's respective commission. Retail generation revenues are recognized over time as electricity is delivered and consumed immediately by the customer.

The following table represents a disaggregation of the Regulated Distribution segment revenue from contracts with **distribution service and retail generation** customers for the years ended December 31, 2020, 2019 and 2018 by class:

	For the Years Ended December 31,		
Revenues by Customer Class	**2020**	**2019**	**2018**
		(In millions)	
Residential	$ 5,539	$ 5,412	$ 5,598
Commercial	2,140	2,252	2,350
Industrial	1,076	1,106	1,056
Other	81	90	91
Total	$ 8,836	$ 8,860	$ 9,095

Wholesale sales primarily consist of generation and capacity sales into the PJM market from FirstEnergy's regulated electric generation capacity and NUGs. Certain of the Utilities may also purchase power in the PJM markets to supply power to their customers. Generally, these power sales from generation and purchases to serve load are netted hourly and reported as either revenues or purchased power on the Consolidated Statements of Income based on whether the entity was a net seller or buyer each hour. Capacity revenues are recognized ratably over the PJM planning year at prices cleared in the annual PJM Reliability Pricing Model Base Residual Auction and Incremental Auctions. Capacity purchases and sales through PJM capacity auctions are reported within revenues on the Consolidated Statements of Income. Certain capacity income (bonuses) and charges (penalties) related to the availability of units that have cleared in the auctions are unknown and not recorded in revenue until, and unless, they occur.

The Utilities' distribution customers are metered on a cycle basis. An estimate of unbilled revenues is calculated to recognize electric service provided from the last meter reading through the end of the month. This estimate includes many factors, among which are historical customer usage, load profiles, estimated weather impacts, customer shopping activity and prices in effect for each class of customer. In each accounting period, the Utilities accrue the estimated unbilled amount as revenue and reverse the related prior period estimate. Customer payments vary by state but are generally due within 30 days.

ASC 606 excludes industry-specific accounting guidance for recognizing revenue from ARPs as these programs represent contracts between the utility and its regulators, as opposed to customers. Therefore, revenue from these programs are not within the scope of ASC 606 and regulated utilities are permitted to continue to recognize such revenues in accordance with existing practice but are presented separately from revenue arising from contracts with customers. FirstEnergy currently has ARPs in Ohio, primarily under the DMR, lost distribution and shared savings revenue in 2019, and shared savings in 2020.

Regulated Transmission

The **Regulated Transmission** segment provides transmission infrastructure owned and operated by the Transmission Companies and certain of FirstEnergy's utilities (JCP&L, MP, PE and WP) to transmit electricity from generation sources to distribution facilities. The segment's revenues are primarily derived from forward-looking formula rates at the Transmission Companies, as well as stated transmission rates at JCP&L, MP, PE and WP, although as further discussed in Note 14, "Regulatory Matters," MP, PE and WP filed with FERC on October 29, 2020, to convert their existing stated transmission rates to forward-looking formula rates, effective January 1, 2021. JCP&L had stated rates in 2019, but moved to forward-looking formula rates, subject to a refund, effective January 1, 2020, as further discussed in Note 14, "Regulatory Matters."

Both the forward-looking formula and stated rates recover costs that the regulatory agencies determine are permitted to be recovered and provide a return on transmission capital investment. Under forward-looking formula rates, the revenue requirement is updated annually based on a projected rate base and projected costs, which is subject to an annual true-up based on actual costs. Revenue requirements under stated rates are calculated annually by multiplying the highest one-hour peak load in each respective transmission zone by the approved, stated rate in that zone. Revenues and cash receipts for the stand-ready obligation of providing transmission service are recognized ratably over time.

The following table represents a disaggregation of revenue from contracts with regulated transmission customers for the years ended December 31, 2020, 2019 and 2018:

Transmission Owner	For the Years Ended December 31, 2020	2019	2018
		(In millions)	
ATSI	$ 804	$ 754	$ 664
TrAIL	247	242	237
MAIT	250	224	150
JCP&L	178	160	159
Other	134	130	125
Total Revenues	$ 1,613	$ 1,510	$ 1,335

3. DISCONTINUED OPERATIONS

FES and FENOC Chapter 11 Bankruptcy Filing

On March 31, 2018, the FES Debtors announced that, in order to facilitate an orderly financial restructuring, they filed voluntary petitions under Chapter 11 of the United States Bankruptcy Code with the Bankruptcy Court. In September 2018, the Bankruptcy Court approved a FES Bankruptcy settlement agreement by and among FirstEnergy, two groups of key FES creditors (collectively, the FES Key Creditor Groups), the FES Debtors and the UCC. The FES Bankruptcy settlement agreement resolved certain claims by FirstEnergy against the FES Debtors, all claims by the FES Debtors and the FES Key Creditor Groups against FirstEnergy, as well as releases from third parties who voted in favor of the FES Debtors' plan of reorganization, in return for among other things, a cash payment of $853 million upon emergence. The FES Bankruptcy settlement was conditioned on the FES Debtors confirming and effectuating a plan of reorganization acceptable to FirstEnergy.

On February 18, 2020, the FES Debtors and FirstEnergy entered into an IT Access Agreement that provided IT support to enable the FES Debtors to emerge from bankruptcy prior to full IT separation by the FES Debtors. As part of the IT Access Agreement, the FES Debtors and FirstEnergy resolved, among other things, the on-going reconciliation of outstanding tax sharing payments for tax years 2018, 2019 and 2020 for a total of $125 million. On February 25, 2020, the Bankruptcy Court approved the IT Access Agreement. On February 27, 2020, the FES Debtors effectuated their plan, emerged from bankruptcy and FirstEnergy tendered the settlement payments totaling $853 million and the $125 million tax sharing payment to the FES Debtors, with no material impact to net income in 2020.

By eliminating a significant portion of its competitive generation fleet with the deconsolidation of the FES Debtors, FirstEnergy has concluded the FES Debtors meet the criteria for discontinued operations, as this represents a significant event in management’s strategic review to exit commodity-exposed generation and transition to a fully regulated company.

Services Agreement

Pursuant to the FES Bankruptcy settlement agreement, FirstEnergy entered into an amended and restated shared services agreement with the FES Debtors to extend the availability of shared services until June 30, 2020, subject to reductions in services if requested by the FES Debtors, and extensions of time, subject to FirstEnergy’s approval. Under the amended shared services agreement, and consistent with the prior shared services agreements, costs are directly billed or assigned at no more than cost.

As of June 30, 2020, FirstEnergy had substantially ceased providing post-emergence services to FES Debtors under the terms of the amended and restated shared services agreement. In connection with the FES Debtors emergence from bankruptcy, FirstEnergy entered into an amended separation agreement with the FES Debtors to implement the separation of FES Debtors and their businesses from FirstEnergy.

Income Taxes

For U.S. federal income taxes, the FES Debtors were included in FirstEnergy’s consolidated tax return until emergence from bankruptcy on February 27, 2020. As a result of the FES Debtors’ deconsolidation, FirstEnergy recognized a worthless stock deduction for the remaining tax basis in the FES Debtors of approximately $4.9 billion, net of unrecognized tax benefits of $316 million. Tax-effected, the worthless stock deduction is approximately $1.1 billion, net of valuation allowances recorded against the state tax benefit ($80 million) and the aforementioned unrecognized tax benefits ($72 million).

Additionally, the Tax Act amended Section 163(j) of the Internal Revenue Code, limiting interest expense deductions for corporations but with exemption for certain regulated utilities. Based on interpretation of subsequently issued proposed regulations, FirstEnergy estimated the amount of deductible interest for its consolidated group in 2018 and 2019, with

nondeductible portions being carried forward with an indefinite life and for which deferred tax assets were recorded. However, full valuation allowances were recorded against the deferred tax assets related to the carryforward of nondeductible interest as future utilization of the carryforwards requires taxable income from sources other than regulated utility businesses. Final regulations under Section 163(j) were issued in July 2020 and January 2021 but do not materially change these results. All tax expense related to nondeductible interest in 2018 and 2019 was recorded in discontinued operations as it was entirely attributed to the inclusion of the FES Debtors in FirstEnergy's consolidated tax group. Pursuant to certain safe harbor rules in the final regulations under Section 163(j), and due to the FES Debtors' emergence from bankruptcy on February 27, 2020, FirstEnergy expects all interest expense for 2020 to be fully deductible. See Note 7, "Income Taxes" for further information

Upon emergence, FirstEnergy paid the FES Debtors $125 million to settle all reconciliations under the Intercompany Tax Allocation Agreement for 2018, 2019 and 2020 tax years, including all issues regarding nondeductible interest. In September 2020, FirstEnergy filed its 2019 federal income tax return with the IRS and recognized a $6 million charge to discontinued operations in the third quarter of 2020, resulting from final adjustments to 2019 intercompany tax sharing related to the FES Debtors. The final intercompany tax sharing adjustment for the 2020 federal income tax return to be filed during 2021 is an estimated $12 million tax benefit and was recorded during the fourth quarter of 2020 in discontinued operations.

Competitive Generation Asset Sales

As contemplated under the FES Bankruptcy settlement agreement, AE Supply entered into an agreement on December 31, 2018, to transfer the 1,300 MW Pleasants Power Station and related assets to FG, while retaining certain specified liabilities. Under the terms of the agreement, FG acquired the economic interests in Pleasants as of January 1, 2019, and AE Supply operated Pleasants until ownership was transferred on January 30, 2020. AE Supply will continue to provide access to the McElroy's Run CCR impoundment facility, which was not transferred, and FE will provide guarantees for certain retained environmental liabilities of AE Supply, including the McElroy's Run CCR impoundment facility. During the first quarter of 2020, FG paid AE Supply approximately $65 million of cash for related materials and supplies (at book value) and the settlement of FG's economic interest in Pleasants.

Summarized Results of Discontinued Operations

Summarized results of discontinued operations for the years ended December 31, 2020, 2019, and 2018 were as follows:

	For the Years Ended December 31,		
(In millions)	**2020**	**2019**	**2018[1]**
Revenues	$ 7	$ 188	$ 989
Fuel	(6)	(140)	(304)
Purchased power	—	—	(84)
Other operating expenses	(6)	(63)	(435)
Provision for depreciation	—	—	(96)
General taxes	—	(14)	(35)
Pleasants economic interest[2]	5	27	—
Other expense, net	—	(2)	(83)
Loss from discontinued operations, before tax	—	(4)	(48)
Income tax expense (benefit)	—	47	61
Loss from discontinued operations, net of tax	—	(51)	(109)
Removal of investment in FES and FENOC	—	—	2,193
Assumption of benefit obligations retained at FE	—	—	(820)
Guarantees and credit support provided by FE	—	—	(139)
Reserve on receivables and allocated pension/OPEB mark-to-market	—	—	(914)
Settlement consideration and services credit	(1)	7	(1,197)
Accelerated net pension and OPEB prior service credits	18	—	—
Gain (loss) on Disposal of FES and FENOC, before tax	17	7	(877)
Income tax benefit including worthless stock deduction	(59)	(52)	(1,312)
Gain on disposal of FES and FENOC, net of tax	76	59	435
Income from discontinued operations	$ 76	$ 8	$ 326

[1] Discontinued operations include results of FES and FENOC through March 31, 2018, when deconsolidated from FirstEnergy's financial statements.
[2] Reflects the estimated amounts owed from FG for its economic interests in Pleasants effective January 1, 2019. As discussed above, settlement of the economic interests occurred during the first quarter of 2020.

FirstEnergy's Consolidated Statements of Cash Flows combines cash flows from discontinued operations with cash flows from continuing operations within each cash flow category. The following table summarizes the major classes of cash flow items from discontinued operations for the years ended December 31, 2020, 2019 and 2018:

	For the Years Ended December 31,		
(In millions)	**2020**	**2019**	**2018**
CASH FLOWS FROM OPERATING ACTIVITIES:			
Income from discontinued operations	$ 76	$ 8	$ 326
Gain on disposal, net of tax	(76)	(59)	(435)
Depreciation and amortization, including nuclear fuel, regulatory assets, net, intangible assets and deferred debt-related costs	—	—	110
Deferred income taxes and investment tax credits, net	—	47	61
Unrealized (gain) loss on derivative transactions	—	—	(10)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Property additions	—	—	(27)
Sales of investment securities held in trusts	—	—	109
Purchases of investment securities held in trusts	—	—	(122)

4. ACCUMULATED OTHER COMPREHENSIVE INCOME

The changes in AOCI for the years ended December 31, 2020, 2019 and 2018, for FirstEnergy are shown in the following table:

	Gains & Losses on Cash Flow Hedges [1]	Unrealized Gains on AFS Securities	Defined Benefit Pension & OPEB Plans	Total
		(In millions)		
AOCI Balance, January 1, 2018	$ (22)	$ 67	$ 97	$ 142
Other comprehensive income before reclassifications	—	(97)	(9)	(106)
Amounts reclassified from AOCI	8	(1)	(74)	(67)
Deconsolidation of FES and FENOC	13	(8)	—	5
Other comprehensive income (loss)	21	(106)	(83)	(168)
Income tax (benefits) on other comprehensive income (loss)	10	(39)	(38)	(67)
Other comprehensive income (loss), net of tax	11	(67)	(45)	(101)
AOCI Balance, December 31, 2018	$ (11)	$ —	$ 52	$ 41
Other comprehensive income before reclassifications	—	—	(2)	(2)
Amounts reclassified from AOCI	2	—	(29)	(27)
Other comprehensive income (loss)	2	—	(31)	(29)
Income tax (benefits) on other comprehensive income (loss)	—	—	(8)	(8)
Other comprehensive income (loss), net of tax	2	—	(23)	(21)
AOCI Balance, December 31, 2019	$ (9)	$ —	$ 29	$ 20
Amounts reclassified from AOCI	1	—	(34)	(33)
Other comprehensive income (loss)	1	—	(34)	(33)
Income tax (benefits) on other comprehensive income (loss)	—	—	(8)	(8)
Other comprehensive income (loss), net of tax	1	—	(26)	(25)
AOCI Balance, December 31, 2020	$ (8)	$ —	$ 3	$ (5)

[1] Relates to previous cash flow hedges used to hedge fixed rate long-term debt securities prior to their issuance.

The following amounts were reclassified from AOCI for FirstEnergy in the years ended December 31, 2020, 2019 and 2018:

Reclassifications from AOCI [1]	Year Ended December 31, 2020	2019	2018 [2]	Affected Line Item in Consolidated Statements of Income
	(In millions)			
Gains & losses on cash flow hedges				
Commodity contracts	$ —	$ —	$ 1	Other operating expenses
Long-term debt	1	2	7	Interest expense
	—	—	(2)	Income taxes
	$ 1	$ 2	$ 6	Net of tax
Unrealized gains on AFS securities				
Realized gains on sales of securities	$ —	$ —	$ (1)	Discontinued operations
Defined benefit pension and OPEB plans				
Prior-service costs	$ (34)	$ (29)	$ (74)	[3]
	8	8	19	Income taxes
	$ (26)	$ (21)	$ (55)	Net of tax

[1] Amounts in parenthesis represent credits to the Consolidated Statements of Income (Loss) from AOCI.

[2] Includes stranded tax amounts reclassified from AOCI in connection with the adoption of ASU 2018-02, "*Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*".

[3] Prior-service costs are reported within Miscellaneous income, net within Other Income (Expense) on FirstEnergy's Consolidated Statements of Income. Components are included in the computation of net periodic cost (credits), see Note 5, "Pension and Other Postemployment Benefits," for additional details.

5. PENSION AND OTHER POST-EMPLOYMENT BENEFITS

FirstEnergy provides noncontributory qualified defined benefit pension plans that cover substantially all of its employees and non-qualified pension plans that cover certain employees. The plans provide defined benefits based on years of service and compensation levels. Under the cash-balance portion of the pension plan (for employees hired on or after January 1, 2014), FirstEnergy makes contributions to eligible employee retirement accounts based on a pay credit and an interest credit. In addition, FirstEnergy provides a minimum amount of noncontributory life insurance to retired employees in addition to optional contributory insurance. Health care benefits, which include certain employee contributions, deductibles and co-payments, are also available upon retirement to certain employees, their dependents and, under certain circumstances, their survivors. FirstEnergy recognizes the expected cost of providing pension and OPEB to employees and their beneficiaries and covered dependents from the time employees are hired until they become eligible to receive those benefits. FirstEnergy also has obligations to former or inactive employees after employment, but before retirement, for disability-related benefits.

FirstEnergy recognizes a pension and OPEB mark-to-market adjustment for the change in the fair value of plan assets and net actuarial gains and losses annually in the fourth quarter of each fiscal year and whenever a plan is determined to qualify for a remeasurement. The remaining components of pension and OPEB expense, primarily service costs, interest on obligations, assumed return on assets and prior service costs, are recorded on a monthly basis.

Under the approved bankruptcy settlement agreement discussed above, upon emergence, FES and FENOC employees ceased earning years of service under the FirstEnergy pension and OPEB plans. The emergence on February 27, 2020, triggered a remeasurement of the affected pension and OPEB plans and as a result, FirstEnergy recognized a non-cash, pre-tax pension and OPEB mark-to-market adjustment of approximately $423 million in the first quarter of 2020. The first quarter 2020 pension and OPEB mark-to-market adjustment primarily reflects a 38 bps decrease in the discount rate used to measure benefit obligations from December 31, 2019, partially offset by a slightly higher than expected return on assets. In the fourth quarter 2020, FirstEnergy recognized a $54 million pension and OPEB mark-to-market adjustment, primarily reflecting a 29 bps decrease in the discount rate used to measure benefit obligations from February 27, 2020, partially offset by higher than expected return on assets. Of the $54 million, approximately $21 million was allocated to certain of the Transmission Companies that are expected to be recovered through formula transmission rates. The annual pension and OPEB mark-to-market adjustments for the years ended December 31, 2020, 2019, and 2018 were $477 million (including the $423 million in the first quarter of 2020 described above), $676 million, and $145 million, respectively. Of these amounts, approximately $2 million and $1 million are included in discontinued operations for the years ended December 31, 2019, and 2018, respectively. Furthermore, of these annual pension and OPEB mark-to-market amounts, approximately $40 million, $47 million and $8 million were allocated to certain of the Transmission Companies and expected to be recovered through formula transmission rates, respectively.

FirstEnergy's pension and OPEB funding policy is based on actuarial computations using the projected unit credit method. In January 2018, FirstEnergy satisfied its minimum required funding obligations to its qualified pension plan of $500 million and addressed anticipated required funding obligations through 2020 to its pension plan with an additional contribution of $750 million. On February 1, 2019, FirstEnergy made a $500 million voluntary cash contribution to the qualified pension plan. FirstEnergy expects no required contributions until 2022.

Pension and OPEB costs are affected by employee demographics (including age, compensation levels and employment periods), the level of contributions made to the plans and earnings on plan assets. Pension and OPEB costs may also be affected by changes in key assumptions, including anticipated rates of return on plan assets, the discount rates and health care trend rates used in determining the projected benefit obligations for pension and OPEB costs. FirstEnergy uses a December 31 measurement date for its pension and OPEB plans. The fair value of the plan assets represents the actual market value as of the measurement date.

FirstEnergy's assumed rate of return on pension plan assets considers historical market returns and economic forecasts for the types of investments held by the pension trusts. In 2020, FirstEnergy's qualified pension and OPEB plan assets experienced gains of $1,225 million or 14.7%, compared to gains of $1,492 million, or 20.2% in 2019, and losses of $371 million, or (4.0)% in 2018 and assumed a 7.50% rate of return on plan assets in 2020, 2019 and 2018, which generated $651 million, $569 million and $605 million of expected returns on plan assets, respectively. The expected return on pension and OPEB assets is based on the trusts' asset allocation targets and the historical performance of risk-based and fixed income securities. The gains or losses generated as a result of the difference between expected and actual returns on plan assets will decrease or increase future net periodic pension and OPEB cost as the difference is recognized annually in the fourth quarter of each fiscal year or whenever a plan is determined to qualify for remeasurement. The expected return on plan assets for 2021 is 7.50%.

During 2020, the Society of Actuaries published new mortality tables that include more current data than the RP-2014 tables as well as new improvement scales. An analysis of FirstEnergy pension and OPEB plan mortality data indicated the use of the Pri-2012 mortality table with projection scale MP-2020 was most appropriate. As such, the Pri-2012 mortality table with projection scale MP-2020 was utilized to determine the 2020 benefit cost and obligation as of December 31, 2020 for the FirstEnergy pension and OPEB plans. The impact of using the Pri-2012 mortality table with projection scale MP-2020 resulted in a decrease to the projected benefit obligation of approximately $74 million and $2 million for the pension and OPEB plans, respectively, and was included in the 2020 pension and OPEB mark-to-market adjustment.

Effective in 2019, FirstEnergy changed the approach utilized to estimate the service cost and interest cost components of net periodic benefit cost for pension and OPEB plans. Historically, FirstEnergy estimated these components utilizing a single, weighted average discount rate derived from the yield curve used to measure the benefit obligation. FirstEnergy has elected to use a spot rate approach in the estimation of the components of benefit cost by applying specific spot rates along the full yield curve to the relevant projected cash flows, as this provides a better estimate of service and interest costs by improving the correlation between projected benefit cash flows to the corresponding spot yield curve rates. This election was considered a change in estimate and, accordingly, accounted for prospectively, and did not have a material impact on FirstEnergy's financial statements.

Service costs, net of capitalization, are reported within Other operating expenses on FirstEnergy's Consolidated Statements of Income. Non-service costs, other than the pension and OPEB mark-to-market adjustment, which is separately shown, are reported within Miscellaneous income, net, within Other Income (Expense) on FirstEnergy's Consolidated Statements of Income.

	Pension		OPEB	
Obligations and Funded Status - Qualified and Non-Qualified Plans	**2020**	**2019**	**2020**	**2019**
		(In millions)		
Change in benefit obligation:				
Benefit obligation as of January 1	$ 11,050	$ 9,462	$ 654	$ 608
Service cost	194	193	4	3
Interest cost	287	373	15	22
Plan participants' contributions	—	—	4	4
Plan amendments	9	2	—	—
Special termination benefits	—	14	—	—
Medicare retiree drug subsidy	—	—	1	1
Actuarial loss	1,011	1,535	41	64
Benefits paid	(616)	(529)	(43)	(48)
Benefit obligation as of December 31	$ 11,935	$ 11,050	$ 676	$ 654
Change in fair value of plan assets:				
Fair value of plan assets as of January 1	$ 8,395	6,984	$ 458	408
Actual return on plan assets	1,165	1,419	60	73
Company contributions	24	521	23	21
Plan participants' contributions	—	—	4	4
Benefits paid	(616)	(529)	(43)	(48)
Fair value of plan assets as of December 31	$ 8,968	$ 8,395	$ 502	$ 458
Funded Status:				
Qualified plan	$ (2,500)	(2,203)	$ —	—
Non-qualified plans	(467)	(452)	—	—
Funded Status (Net liability as of December 31)	$ (2,967)	$ (2,655)	$ (174)	$ (196)
Accumulated benefit obligation	$ 11,376	$ 10,439	$ —	$ —
Amounts Recognized in AOCI:				
Prior service cost (credit)	$ 12	$ 24	$ (39)	$ (85)
Assumptions Used to Determine Benefit Obligations (as of December 31)				
Discount rate	2.67 %	3.34 %	2.45 %	3.18 %
Rate of compensation increase	4.10 %	4.10 %	N/A	N/A
Cash balance weighted average interest crediting rate	2.57 %	2.57 %	N/A	N/A
Assumed Health Care Cost Trend Rates (as of December 31)				
Health care cost trend rate assumed (pre/post-Medicare)	N/A	N/A	6.0%-5.5%	6.0%-5.5%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	N/A	N/A	4.5 %	4.5 %
Year that the rate reaches the ultimate trend rate	N/A	N/A	2028	2028
Allocation of Plan Assets (as of December 31)				
Equity securities	23 %	29 %	55 %	54 %
Fixed Income	35 %	36 %	28 %	30 %
Hedge funds	7 %	9 %	— %	— %
Insurance-linked securities	4 %	2 %	— %	— %
Real estate funds	9 %	7 %	— %	— %
Private equity funds	5 %	4 %	— %	— %
Cash and short-term securities	17 %	13 %	17 %	16 %
Total	100 %	100 %	100 %	100 %

Components of Net Periodic Benefit Costs for the Years Ended December 31,	Pension			OPEB		
	2020	2019	2018	2020	2019	2018
	(In millions)					
Service cost	$ 194	$ 193	$ 224	$ 4	$ 3	$ 5
Interest cost	287	373	372	15	22	25
Expected return on plan assets	(618)	(540)	(574)	(33)	(29)	(31)
Amortization of prior service costs (credits) [1]	12	7	7	(46)	(36)	(81)
Special termination costs [2]	—	14	31	—	—	8
One-time termination benefits [3]	8	—	—	—	—	—
Pension & OPEB mark-to-market	463	656	227	14	20	(82)
Net periodic benefit costs (credits)	$ 346	$ 703	$ 287	$ (46)	$ (20)	$ (156)

[1] 2020 includes the acceleration of approximately $18 million in net credits as a result of the FES Debtors' emergence during the first quarter of 2020 and is a component of discontinued operations in FirstEnergy's Consolidated Statements of Income.
[2] Subject to a cap, FirstEnergy agreed to fund a pension enhancement through its pension plan, for voluntary enhanced retirement packages offered to certain FES employees, as well as offer certain other employee benefits. The costs are a component of discontinued operations in FirstEnergy's Consolidated Statements of Income.
[3] Costs represent additional benefits provided to FES and FENOC employees under the approved settlement agreement and are a component of discontinued operations in FirstEnergy's Consolidated Statements of Income.

Assumptions Used to Determine Net Periodic Benefit Cost for the Years Ended December [1]	Pension			OPEB		
	2020	2019	2018	2020	2019	2018
Service cost weighted-average discount rate [2]	3.60%/3.24%	4.66 %	3.75 %	3.63%/3.29%	4.67 %	3.50 %
Interest cost weighted-average discount rate [3]	3.27%/2.90%	4.37 %	3.75 %	2.71%/2.30%	3.89 %	3.50 %
Expected long-term return on plan assets	7.50 %	7.50 %	7.50 %	7.50 %	7.50 %	7.50 %
Rate of compensation increase	4.10 %	4.10 %	4.20 %	N/A	N/A	N/A

[1] Excludes impact of pension and OPEB mark-to-market adjustment.

[2] Weighted-average discount rates effect from January 1, 2020, through February 26, 2020, were 3.60% and 3.63% for pension and OPEB service cost, respectively. Discount rates were 3.24% and 3.29% for pension and OPEB service cost, respectively, for the period February 27, 2020 through December 31, 2020.

[3] Weighted-average discount rates in effect from January 1, 2020, through February 26, 2020, were 3.27% and 2.71% for pension and OPEB interest cost, respectively. Discount rates were 2.90% and 2.30% for pension and OPEB interest cost, respectively, for the period February 27, 2020, through December 31, 2020.

In selecting an assumed discount rate, FirstEnergy considers currently available rates of return on high-quality fixed income investments expected to be available during the period to maturity of the pension and OPEB obligations. The assumed rates of return on plan assets consider historical market returns and economic forecasts for the types of investments held by FirstEnergy's pension trusts. The long-term rate of return is developed considering the portfolio's asset allocation strategy.

The following tables set forth pension financial assets that are accounted for at fair value by level within the fair value hierarchy. See Note 10, "Fair Value Measurements," for a description of each level of the fair value hierarchy. There were no significant transfers between levels during 2020 and 2019.

	December 31, 2020				
	Level 1	Level 2	Level 3	Total	Asset Allocation
	(In millions)				
Cash and short-term securities	$ —	$ 1,493	$ —	$ 1,493	17 %
Equities	1,903	162	—	2,065	23 %
Fixed income:					
Corporate bonds	—	2,672	—	2,672	31 %
Other[3]	—	387	—	387	4 %
Alternatives:					
Derivatives	(13)	—	—	(13)	— %
Total [1]	$ 1,890	$ 4,714	$ —	$ 6,604	75 %
Private equity funds [2]				465	5 %
Insurance-linked securities [2]				323	4 %
Hedge funds [2]				645	7 %
Real estate funds [2]				815	9 %
Total Investments				$ 8,852	100 %

[1] Excludes $116 million as of December 31, 2020, of receivables, payables, taxes and accrued income associated with financial instruments reflected within the fair value table.
[2] Net Asset Value used as a practical expedient to approximate fair value.
[3] Includes insurance annuities, bank loans and emerging markets debt.

	December 31, 2019				
	Level 1	Level 2	Level 3	Total	Asset Allocation
	(In millions)				
Cash and short-term securities	$ —	$ 1,069	$ —	$ 1,069	13 %
Equities	1,532	828	—	2,360	29 %
Fixed income:					
Corporate bonds	—	2,064	—	2,064	25 %
Other[3]	—	880	—	880	11 %
Alternatives:					
Derivatives	(40)	—	—	(40)	— %
Total [1]	$ 1,492	$ 4,841	$ —	$ 6,333	78 %

Private equity funds [2]	342	4 %
Insurance-linked securities [2]	186	2 %
Hedge funds [3]	774	9 %
Real estate funds [2]	584	7 %
Total Investments	$ 8,219	100 %

(1) Excludes $176 million as of December 31, 2019, of receivables, payables, taxes and accrued income associated with financial instruments reflected within the fair value table.
(2) Net Asset Value used as a practical expedient to approximate fair value.
(3) Includes insurance annuities, bank loans and emerging markets debt.

As of December 31, 2020, and 2019, the OPEB trust investments measured at fair value were as follows:

	December 31, 2020				
	Level 1	Level 2	Level 3	Total	Asset Allocation
	(In millions)				
Cash and short-term securities	$ —	$ 84	$ —	$ 84	17 %
Equity investment:					
Domestic	283	—	—	283	55 %
Fixed income:					
Government bonds	—	104	—	104	20 %
Corporate bonds	—	34	—	34	7 %
Mortgage-backed securities (non-government)		7	—	7	1 %
Total [1]	$ 283	$ 229	$ —	$ 512	100 %

(1) Excludes $(10) million as of December 31, 2020, of receivables, payables, taxes and accrued income associated with financial instruments reflected within the fair value table.

	December 31, 2019				
	Level 1	Level 2	Level 3	Total	Asset Allocation
	(In millions)				
Cash and short-term securities	$ —	$ 72	$ —	$ 72	16 %
Equity investment:					
Domestic	246	—	—	246	54 %
Fixed income:					
Government bonds	—	100	—	100	22 %
Corporate bonds	—	34	—	34	7 %
Mortgage-backed securities (non-government)	—	5	—	5	1 %
Total [1]	$ 246	$ 211	$ —	$ 457	100 %

(1) Excludes $1 million as of December 31, 2019, of receivables, payables, taxes and accrued income associated with financial instruments reflected within the fair value table.

FirstEnergy follows a total return investment approach using a mix of equities, fixed income and other available investments while taking into account the pension plan liabilities to optimize the long-term return on plan assets for a prudent level of risk. Risk tolerance is established through careful consideration of plan liabilities, plan funded status and corporate financial condition. The investment portfolio contains a diversified blend of equity and fixed-income investments. Equity investments are diversified across U.S. and non-U.S. stocks, as well as growth, value, and small and large capitalization funds. Other assets such as real estate and private equity are used to enhance long-term returns while improving portfolio diversification. Derivatives may be used to gain market exposure in an efficient and timely manner; however, derivatives are not used to leverage the portfolio beyond the market value of the underlying investments. Investment risk is measured and monitored on a continuing basis through periodic investment portfolio reviews, annual liability measurements and periodic asset/liability studies.

Investment markets experienced elevated market volatility during 2020 as a result of the U.S. general election and the COVID-19 pandemic. In order to reduce the effect of market volatility on the plan's funded status and to preserve capital gains experienced during the first half of 2020, approximately $1.4 billion of return-seeking assets were sold (including approximately $800 million of equity securities) during the third quarter of 2020. These assets are expected be reinvested in return seeking investments (including equity securities) during 2021, which will more consistently align the pension and OPEB trust portfolios to the company’s target asset allocations.

FirstEnergy’s target asset allocations for its pension and OPEB trust portfolios for 2020 and 2019 are shown in the following table:

Target Asset Allocations		
	2020	2019
Equities	38 %	38 %
Fixed income	30 %	30 %
Hedge funds	8 %	8 %
Real estate	10 %	10 %
Alternative investments	8 %	8 %
Cash	6 %	6 %
	100 %	100 %

Taking into account estimated employee future service, FirstEnergy expects to make the following benefit payments from plan assets and other payments, net of participant contributions:

	OPEB	
Pension	Benefit Payments	Subsidy Receipts
	(In millions)	

2021	$ 579	$ 49	$ (1)
2022	583	47	(1)
2023	598	46	(1)
2024	601	45	(1)
2025	610	44	(1)
Years 2026-2030	3,129	197	(2)

6. STOCK-BASED COMPENSATION PLANS

FirstEnergy grants stock-based awards through the ICP 2020, primarily in the form of restricted stock and performance-based restricted stock units. There are also awards currently outstanding issued through the ICP 2015 primarily in the form of restricted stock and performance-based restricted stock units. The ICP 2020 and ICP 2015 include shareholder authorization to each issue 10 million shares of common stock or their equivalent. As of December 31, 2020, approximately 13.7 million shares were available for future grants under the ICP 2020 assuming maximum performance metrics are achieved for the outstanding cycles of restricted stock units. No shares are available for future grants under ICP 2015. Shares not issued due to forfeitures or cancellations originally granted through the ICP 2015 may be added back to the ICP 2020. Shares granted under the ICP 2020 and ICP 2015 are issued from authorized but unissued common stock. Vesting periods for stock-based awards range from two to ten years, with the majority of awards having a vesting period of three years. FirstEnergy also issues stock through its 401(k) Savings Plan, EDCP, and DCPD. Currently, FirstEnergy records the compensation costs for stock-based compensation awards that will be paid in stock over the vesting period based on the fair value on the grant date. FirstEnergy accounts for forfeitures as they occur.

FirstEnergy adjusts the compensation costs for stock-based compensation awards that will be paid in cash based on changes in the fair value of the award as of each reporting date. FirstEnergy records the actual tax benefit realized from tax deductions when awards are exercised or settled. Actual income tax benefits realized during the years ended December 31, 2020, 2019 and 2018, were $20 million, $24 million and $15 million, respectively. The income tax effects of awards are recognized in the income statement when the awards vest, are settled or are forfeited.

Stock-based compensation costs and the amount of stock-based compensation costs capitalized related to FirstEnergy plans for the years ended December 31, 2020, 2019 and 2018, are included in the following tables:

Stock-based Compensation Plan	For the Years Ended December 31, 2020	2019	2018
		(In millions)	
Restricted Stock Units	$ 22	$ 73	$ 102
Restricted Stock	1	1	1
401(k) Savings Plan	33	33	33
EDCP & DCPD	(5)	9	7
Total	$ 51	$ 116	$ 143
Stock-based compensation costs capitalized	$ 26	$ 54	$ 60

There was no stock option expense for the years ended December 31, 2020, 2019 and 2018. Income tax benefits associated with stock-based compensation plan expense were $3 million, $10 million and $18 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Restricted Stock Units

Beginning with the performance-based restricted stock units granted in 2015, two-thirds of each award will be paid in stock and one-third will be paid in cash. Restricted stock units payable in stock provide the participant the right to receive, at the end of the period of restriction, a number of shares of common stock equal to the number of stock units set forth in the agreement, subject to adjustment based on FirstEnergy's performance relative to financial and operational performance targets applicable to each award. The grant date fair value of the stock portion of the restricted stock unit award is measured based on the average of the high and low prices of FE common stock on the date of grant. Beginning with awards granted in 2018, restricted stock units include a performance metric consisting of a relative total shareholder return modifier utilizing the S&P 500 Utility Index as a comparator group. The estimated grant date fair value for these awards is calculated using the Monte Carlo simulation method.

Restricted stock units payable in cash provide the participant the right to receive cash based on the number of stock units set forth in the agreement and value of the equivalent number of shares of FE common stock as of the vesting date. The cash portion of the restricted stock unit award is considered a liability award, which is remeasured each period based on FE's stock price and projected performance adjustments. The liability recorded for the portion of performance-based restricted stock units payable in cash in the future as of December 31, 2020, was $16 million. During 2020, approximately $27 million was paid in relation to the cash portion of restricted stock unit obligations that vested in 2020.

The vesting period for the performance-based restricted stock unit awards granted in 2018, 2019 and 2020, were each 3 years. Dividend equivalents are received on the restricted stock units and are reinvested in additional restricted stock units and subject to the same performance conditions as the underlying award.

Restricted stock unit activity for the year ended December 31, 2020, was as follows:

Restricted Stock Unit Activity	Shares *(in millions)*	Weighted-Average Grant Date Fair Value (per share)
Nonvested as of January 1, 2020	2.6	$ 36.20
Granted in 2020	1.6	44.42
Forfeited in 2020	(0.6)	39.15
Vested in 2020[(1)]	(1.8)	44.40
Nonvested as of December 31, 2020	1.8	$ 40.25

[(1)] Excludes dividend equivalents of approximately 220 thousand shares earned during vesting period.

The weighted-average fair value of awards granted in 2020, 2019 and 2018 was $44.42, $41.23 and $36.78 per share, respectively. For the years ended December 31, 2020, 2019, and 2018, the fair value of restricted stock units vested was $80 million, $91 million, and $62 million, respectively. As of December 31, 2020, there was approximately $23 million of total unrecognized compensation cost related to nonvested share-based compensation arrangements granted for restricted stock units, which is expected to be recognized over a period of approximately three years.

Restricted Stock

Certain employees receive awards of FE restricted stock (as opposed to "units" with the right to receive shares at the end of the restriction period) subject to restrictions that lapse over a defined period of time or upon achieving performance results. The fair

value of restricted stock is measured based on the average of the high and low prices of FE common stock on the date of grant. Dividends are received on the restricted stock and are reinvested in additional shares of restricted stock, subject to the vesting conditions of the underlying award. Restricted stock activity for the year ended December 31, 2020, was not material.

Stock Options

Stock options have been granted to certain employees allowing them to purchase a specified number of common shares at a fixed exercise price over a defined period of time. Stock options generally expire ten years from the date of grant. There were no stock options granted in 2020. Stock option activity for the year ended December 31, 2020 was as follows:

Stock Option Activity	Number of Shares *(in millions)*	Weighted Average Exercise Price (per share)
Balance, January 1, 2020 (all options exercisable)	0.1	$ 37.75
Options exercised	—	—
Options forfeited	(0.1)	37.75
Balance, December 31, 2020 (all options exercisable)	—	$ —

Approximately $23 million and $12 million of cash was received from the exercise of stock options in 2019 and 2018, respectively.

401(k) Savings Plan

In 2020 and 2019, approximately 1 million shares of FE common stock, respectively, were issued and contributed to participants' accounts.

EDCP

Under the EDCP, certain employees can defer a portion of their compensation, including base salary, annual incentive awards and/or long-term incentive awards, into unfunded accounts. Annual incentive and long-term incentive awards may be deferred in FE stock accounts. Base salary and annual incentive awards may be deferred into a retirement cash account which earns interest. Dividends are calculated quarterly on stock units outstanding and are credited in the form of additional stock units. The form of payout as stock or cash vary depending upon the form of the award, the duration of the deferral and other factors. Certain types of deferrals such as dividend equivalent units, annual incentive awards, and performance share awards are required to be paid in cash. Until 2015, payouts of the stock accounts typically occurred three years from the date of deferral, although participants could have elected to defer their shares into a retirement stock account that would pay out in cash upon retirement. In 2015, FirstEnergy amended the EDCP to eliminate the right to receive deferred shares after three years, effective for deferrals made on or after November 1, 2015. Awards deferred into a retirement stock account will pay out in cash upon separation from service, death or disability. Interest accrues on the cash allocated to the retirement cash account and the balance will pay out in cash over a time period as elected by the participant.

DCPD

Under the DCPD, members of FE's Board of Directors can elect to defer all or a portion of their equity retainers to a deferred stock account and their cash retainers to deferred stock or deferred cash accounts. The net liability recognized for DCPD of approximately $7 million and $9 million as of December 31, 2020 and December 31, 2019, respectively, is included in the caption “Retirement benefits,” on the Consolidated Balance Sheets.

7. TAXES

FirstEnergy records income taxes in accordance with the liability method of accounting. Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts recognized for tax purposes. Investment tax credits, which were deferred when utilized, are being amortized over the recovery period of the related property. Deferred income tax liabilities related to temporary tax and accounting basis differences and tax credit carryforward items are recognized at the statutory income tax rates in effect when the liabilities are expected to be paid. Deferred tax assets are recognized based on income tax rates expected to be in effect when they are settled.

FE and its subsidiaries are party to an intercompany income tax allocation agreement that provides for the allocation of consolidated tax liabilities. Net tax benefits attributable to FE, excluding any tax benefits derived from interest expense associated with acquisition indebtedness from the merger with GPU, are reallocated to the subsidiaries of FE that have taxable income. That allocation is accounted for as a capital contribution to the company receiving the tax benefit. Effective as of their emergence from bankruptcy, February 27, 2020, the FES Debtors no longer are part of FirstEnergy's consolidated federal income tax group or the intercompany income tax allocation agreement. Upon emergence, FirstEnergy paid the FES Debtors

$125 million to settle all reconciliations under the Intercompany Tax Allocation Agreement for 2018, 2019 and 2020 tax years, including all issues regarding nondeductible interest.

On March 27, 2020, President Trump signed into law the CARES Act, an economic stimulus package in response to the COVID-19 pandemic containing several corporate income tax provisions, including making remaining AMT credits immediately refundable; providing a 5-year carryback of NOLs generated in tax years 2018, 2019, and 2020, and removing the 80% taxable income limitation on utilization of those NOLs if carried back to prior tax years or utilized in tax years beginning before 2021; and temporarily liberalizing the interest deductibility rules under Section 163(j) of the Tax Act, by raising the adjusted taxable income limitation from 30% to 50% for tax years 2019 and 2020 and giving taxpayers the election of using 2019 adjusted taxable income for purposes of computing 2020 interest deductibility. FirstEnergy has applied for refund of its remaining approximately $18 million refundable AMT credits. FirstEnergy does not expect to generate additional income tax refunds from the carryback of NOLs and expects interest to be fully deductible in the 2020 consolidated federal income tax return and going forward. FirstEnergy does not currently expect the other provisions of the CARES Act to have a material effect on current income tax expense or the realizability of deferred income tax assets.

On December 27, 2020, President Trump signed into law the Consolidated Appropriations Act, 2021, an additional stimulus package providing financial relief for individuals and small businesses. The Appropriations Act contains a variety of tax provisions, including full expensing of business meals in 2021 and 2022, extensions of various energy tax incentives (including the ITC), and expansion of the employee retention tax credit. FirstEnergy does not currently expect the Appropriations Act to have a material tax impact.

On July 28, 2020, the IRS issued final regulations implementing interest expense deduction limitation rules under section 163(j) of the Internal Revenue Code. The final regulations changed certain rules on the computation of interest expense and limitation amount, as well as rules relevant to status as a regulated utility business and the allocation of consolidated group interest expense between utility and non-utility businesses. After reviewing the final regulations, FirstEnergy recorded a true-up to prior years' reserve estimates during the third quarter of 2020, which did not have a material impact to FirstEnergy's income statement. On January 6, 2021, the IRS released an additional set of final regulations under Section 163(j) primarily addressing partnership, real estate, and certain controlled foreign corporation issues, which do not materially impact FirstEnergy.

	For the Years Ended December 31,		
INCOME TAXES[1]	**2020**	**2019**	**2018**
		(In millions)	
Currently payable (receivable)-			
Federal [2]	$ (14)	$ (16)	$ (16)
State[3]	21	24	17
	7	8	1
Deferred, net-			
Federal[4]	171	150	252
State[5]	(38)	60	243
	133	210	495
Investment tax credit amortization	(14)	(5)	(6)
Total income taxes	$ 126	$ 213	$ 490

(1) Income Taxes on Income from Continuing Operations.
(2) Excludes $6 million of federal tax expense associated with discontinued operations for the year ended December 31, 2020.
(3) Excludes $1 million of state tax expense associated with discontinued operations for the year ended December 31, 2018.
(4) Excludes $66 million, $9 million and $1.3 billion of federal tax benefit associated with discontinued operations for the years ended December 31, 2020, 2019 and 2018, respectively.
(5) Excludes $1 million, $4 million and $12 million of state tax expense associated with discontinued operations for the years ended December 31, 2020, 2019 and 2018, respectively.

FirstEnergy tax rates are affected by permanent items, such as AFUDC equity and other flow-through items, as well as discrete items that may occur in any given period but are not consistent from period to period. The following tables provide a reconciliation of federal income tax expense (benefit) at the federal statutory rate to the total income taxes (benefits) for the years ended December 31, 2020, 2019 and 2018:

	For the Years Ended December 31,		
	2020	2019	2018
	(In millions)		
Income from Continuing Operations, before income taxes	$ 1,129	$ 1,117	$ 1,512
Federal income tax expense at statutory rate (21%)	$ 237	$ 235	$ 318
Increases (reductions) in taxes resulting from-			
State income taxes, net of federal tax benefit	75	96	90
AFUDC equity and other flow-through	(38)	(36)	(31)
Amortization of investment tax credits	(14)	(5)	(5)
Remeasurement of deferred taxes	—	—	24
WV unitary group remeasurement	—	—	126
Excess deferred tax amortization due to the Tax Act	(56)	(74)	(60)
TMI-2 reversal of tax regulatory liabilities	(40)	—	—
Uncertain tax positions	(1)	(11)	2
Valuation allowances	(49)	5	21
Other, net	12	3	5
Total income taxes	$ 126	$ 213	$ 490
Effective income tax rate	11.2 %	19.1 %	32.4 %

FirstEnergy's effective tax rate on continuing operations for 2020 and 2019 was 11.2% and 19.1%, respectively. The change in effective tax rate was primarily due to a $52 million reduction in valuation allowances from the recognition of deferred gains on prior intercompany generation asset transfers triggered by the FES Debtors' emergence from bankruptcy and deconsolidation from FirstEnergy's consolidated federal income tax group in the first quarter of 2020, a $10 million benefit from accelerated amortization of certain investment tax credits in the second quarter of 2020, and a $40 million benefit related to reversals of certain tax regulatory liabilities resulting from the transfer of TMI-2. See Note 3, "Discontinued Operations," for other tax matters relating to the FES Bankruptcy that were recognized in discontinued operations.

Accumulated deferred income taxes as of December 31, 2020 and 2019, are as follows:

	As of December 31,	
	2020	2019
	(In millions)	
Property basis differences	$ 5,396	$ 5,037
Pension and OPEB	(769)	(698)
TMI-2 nuclear decommissioning	—	89
AROs	(28)	(226)
Regulatory asset/liability	440	445
Deferred compensation	(165)	(154)
Estimated worthless stock deduction	—	(1,007)
Loss carryforwards and AMT credits	(1,995)	(836)
Valuation reserve	496	441
All other	(280)	(242)
Net deferred income tax liability	$ 3,095	$ 2,849

FirstEnergy has recorded as deferred income tax assets the effect of Federal NOLs and tax credits that will more likely than not be realized through future operations and through the reversal of existing temporary differences. As of December 31, 2020, FirstEnergy's loss carryforwards primarily consisted of $6.8 billion ($1.4 billion, net of tax) of Federal NOL carryforwards that will begin to expire in 2031.

The table below summarizes pre-tax NOL carryforwards and their respective anticipated expirations for state and local income tax purposes of approximately $12.4 billion ($540 million, net of tax) for FirstEnergy, of which approximately $3.8 billion ($155 million, net of tax) is expected to be utilized based on current estimates and assumptions. The ultimate utilization of these NOLs may be impacted by statutory limitations on the use of NOLs imposed by state and local tax jurisdictions, changes in statutory tax rates, and changes in business which, among other things, impact both future profitability and the manner in which future taxable income is apportioned to various state and local tax jurisdictions.

Expiration Period	State	Local
	(In millions)	
2021-2025	$ 2,253	$ 4,353
2026-2030	1,447	—
2031-2035	1,152	—
2036-2040	1,087	—
Indefinite	2,091	—
	$ 8,030	$ 4,353

The following table summarizes the changes in valuation allowances on federal, state and local DTAs related to disallowed interest and certain employee remuneration, in addition to state and local NOLs discussed above for the years ended December 31, 2020, 2019 and 2018:

(In millions)	2020	2019	2018
Beginning of year balance	$ 441	$ 394	$ 312
Charged to income	55	47	82
Charged to other accounts	—	—	—
Write-offs	—	—	—
End of year balance	$ 496	$ 441	$ 394

FirstEnergy accounts for uncertainty in income taxes recognized in its financial statements. A recognition threshold and measurement attribute are utilized for financial statement recognition and measurement of tax positions taken or expected to be taken on the tax return. As of December 31, 2020, and 2019, FirstEnergy's total unrecognized income tax benefits were approximately $139 million and $164 million, respectively. The change in unrecognized income tax benefits from the prior year is primarily attributable to a decrease of approximately $21 million for reserves on the estimated worthless stock deduction (see Note 3, "Discontinued Operations," for further discussion), as well as decreases of $2 million for an effective settlement with certain state taxing authorities and $2 million due to the lapse in statute in certain state taxing jurisdictions. If ultimately recognized in future years, approximately $121 million of unrecognized income tax benefits would impact the effective tax rate.

As of December 31, 2020, it is reasonably possible that approximately $57 million of unrecognized tax benefits may be resolved during 2021 as a result of settlements with taxing authorities or the statute of limitations expiring, of which $55 million would affect FirstEnergy's effective tax rate.

The following table summarizes the changes in unrecognized tax positions for the years ended December 31, 2020, 2019 and 2018:

	(In millions)
Balance, January 1, 2018	$ 80
Current year increases	125
Prior year decreases	(45)
Decrease for lapse in statute	(2)
Balance, December 31, 2018	$ 158
Current year increases	22
Prior year decreases	(12)
Decrease for lapse in statute	(4)
Balance, December 31, 2019	$ 164
Current year increases	7
Prior years decreases	(28)
Decrease for lapse in statute	(2)
Effectively settled with taxing authorities	(2)
Balance, December 31, 2020	$ 139

FirstEnergy recognizes interest expense or income and penalties related to uncertain tax positions in income taxes by applying the applicable statutory interest rate to the difference between the tax position recognized and the amount previously taken, or expected to be taken, on the tax return. FirstEnergy's recognition of net interest associated with unrecognized tax benefits in 2020, 2019 and 2018, was not material. For the years ended December 31, 2020 and 2019, the cumulative net interest payable recorded by FirstEnergy was not material.

FirstEnergy has tax returns that are under review at the audit or appeals level by the IRS and state taxing authorities. Tax years 2018 and 2019 are currently under review by the IRS. FirstEnergy's tax returns for some state jurisdictions are open from 2009-2019.

General Taxes

General tax expense for the years ended December 31, 2020, 2019 and 2018, recognized in continuing operations is summarized as follows:

	For the Years Ended December 31,		
	2020	**2019**	**2018**
	(In millions)		
KWH excise	$ 183	$ 191	$ 198
State gross receipts	182	185	192
Real and personal property	541	504	478
Social security and unemployment	112	100	103
Other	28	28	22
Total general taxes	$ 1,046	$ 1,008	$ 993

8. LEASES

FirstEnergy primarily leases vehicles as well as building space, office equipment, and other property and equipment under cancellable and non-cancelable leases. FirstEnergy does not have any material leases in which it is the lessor.

FirstEnergy adopted ASU 2016-02, *"Leases (Topic 842)"* on January 1, 2019, and elected a number of transitional practical expedients provided within the standard. These included a "package of three" expedients that must be taken together and allowed entities to: (1) not reassess whether existing contracts contain leases, (2) carryforward the existing lease classification, and (3) not reassess initial direct costs associated with existing leases. In addition, FirstEnergy elected the option to apply the requirements of the standard in the period of adoption (January 1, 2019) with no restatement of prior periods. Adoption of the standard on January 1, 2019, did not result in a material cumulative effect adjustment upon adoption. FirstEnergy did not evaluate land easements under the new guidance as they were not previously accounted for as leases. FirstEnergy also elected not to separate lease components from non-lease components as non-lease components were not material.

Leases with an initial term of 12 months or less are recognized as lease expense on a straight-line basis over the lease term and not recorded on the balance sheet. Most leases include one or more options to renew, with renewal terms that can extend the lease term from 1 to 40 years, and certain leases include options to terminate. The exercise of lease renewal options is at FirstEnergy's sole discretion. Renewal options are included within the lease liability if they are reasonably certain based on various factors relative to the contract. Certain leases also include options to purchase the leased property. The depreciable life of leased assets and leasehold improvements are limited by the expected lease term unless there is a transfer of title or purchase option reasonably certain of exercise. FirstEnergy's lease agreements do not contain any material restrictive covenants.

For vehicles leased under master lease agreements, the lessor is guaranteed a residual value up to a stated percentage of the equipment cost at the end of the lease term. As of December 31, 2020, the maximum potential loss for these lease agreements at the end of the lease term is approximately $16 million.

Finance leases for assets used in regulated operations are recognized in FirstEnergy's Consolidated Statements of Income such that amortization of the right-of-use asset and interest on lease liabilities equals the expense allowed for ratemaking purposes. Finance leases for regulated and non-regulated operations are accounted for as if the assets were owned and financed, with associated expense recognized in Interest expense and Provision for depreciation on FirstEnergy's Consolidated Statements of Income, while all operating lease expenses are recognized in Other operating expense. The components of lease expense were as follows:

	For the Year Ended December 31, 2020			
(In millions)	**Vehicles**	**Buildings**	**Other**	**Total**
Operating lease costs [1]	$ 35	$ 8	$ 17	$ 60
Finance lease costs:				
Amortization of right-of-use assets	14	—	1	15
Interest on lease liabilities	2	3	—	5
Total finance lease cost	16	3	1	20
Total lease cost	$ 51	$ 11	$ 18	$ 80

[1] Includes $17 million of short-term lease costs.

	For the Year Ended December 31, 2019			
(In millions)	**Vehicles**	**Buildings**	**Other**	**Total**
Operating lease costs [1]	$ 28	$ 9	$ 12	$ 49
Finance lease costs:				
Amortization of right-of-use assets	15	1	1	17
Interest on lease liabilities	3	3	—	6
Total finance lease cost	18	4	1	23
Total lease cost	$ 46	$ 13	$ 13	$ 72

[1] Includes $13 million of short-term lease costs.

Supplemental cash flow information related to leases was as follows:

(In millions)	For the Years Ended, December 31, 2020	December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	$ 44	$ 29
Operating cash flows from finance leases	4	5
Finance cash flows from finance leases	15	25
Right-of-use assets obtained in exchange for lease obligations:		
Operating leases	$ 67	$ 83
Finance leases	—	3

Lease terms and discount rates were as follows:

	As of December 31, 2020	As of December 31, 2019
Weighted-average remaining lease terms (years)		
Operating leases	8.55	9.42
Finance leases	7.74	4.62
Weighted-average discount rate [1]		
Operating leases	4.21 %	4.51 %
Finance leases	11.58 %	10.45 %

[1] When an implicit rate is not readily determinable, an incremental borrowing rate is utilized, determining the present value of lease payments. The rate is determined based on expected term and information available at the commencement date.

Supplemental balance sheet information related to leases was as follows:

(In millions)	Financial Statement Line Item	As of December 31, 2020	2019
Assets			
Operating lease [1]	Deferred charges and other assets	$ 265	$ 231
Finance lease [2]	Property, plant and equipment	57	73
Total leased assets		$ 322	$ 304
Liabilities			
Current:			
Operating	Other current liabilities	$ 42	$ 32
Finance	Currently payable long-term debt	14	15
Noncurrent:			
Operating	Other noncurrent liabilities	263	241
Finance	Long-term debt and other long-term obligations	31	45
Total leased liabilities		$ 350	$ 333

[1] Operating lease assets are recorded net of accumulated amortization of $51 million and $23 million as of December 31, 2020 and 2019, respectively.
[2] Finance lease assets are recorded net of accumulated amortization of $96 million and $90 million as of December 31, 2020 and 2019, respectively.

Maturities of lease liabilities as of December 31, 2020, were as follows:

(In millions)	Operating Leases	Finance Leases	Total
2021	$ 50	$ 18	$ 68
2022	49	15	64
2023	46	8	54
2024	38	4	42
2025	36	4	40
Thereafter	147	12	159
Total lease payments [1]	366	61	427
Less imputed interest	61	16	77
Total net present value	$ 305	$ 45	$ 350

[1] Operating lease payments for certain leases are offset by sublease receipts of $11 million over 12 years.

As of December 31, 2020, additional operating leases agreements, primarily for vehicles, that have not yet commenced are $14 million. These leases are expected to commence within the next 18 months with lease terms of 5 to 10 years.

9. INTANGIBLE ASSETS

As of December 31, 2020, intangible assets classified in Other Deferred Charges on FirstEnergy's Consolidated Balance Sheets include the following:

	Intangible Assets			Amortization Expense						
				Actual	Estimated					
(In millions)	Gross	Accumulated Amortization	Net	2020	2021	2022	2023	2024	2025	Thereafter
NUG contracts[1]	$ 124	$ 51	$ 73	$ 5	$ 5	$ 5	$ 5	$ 5	$ 5	$ 48
Coal contracts[2]	102	102	—	2	—	—	—	—	—	—
	$ 226	$ 153	$ 73	$ 7	$ 5	$ 5	$ 5	$ 5	$ 5	$ 48

[1] NUG contracts are subject to regulatory accounting and their amortization does not impact earnings.
[2] The coal contracts were recorded with a regulatory offset and their amortization does not impact earnings.

10. FAIR VALUE MEASUREMENTS

RECURRING FAIR VALUE MEASUREMENTS

Authoritative accounting guidance establishes a fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy gives the highest priority to Level 1 measurements and the lowest priority to Level 3 measurements. The three levels of the fair value hierarchy and a description of the valuation techniques are as follows:

Level 1
- Quoted prices for identical instruments in active market

Level 2
- Quoted prices for similar instruments in active market
- Quoted prices for identical or similar instruments in markets that are not active
- Model-derived valuations for which all significant inputs are observable market data

Models are primarily industry-standard models that consider various assumptions, including quoted forward prices for commodities, time value, volatility factors and current market and contractual prices for the underlying instruments, as well as other relevant economic measures.

Level 3
- Valuation inputs are unobservable and significant to the fair value measurement

FirstEnergy produces a long-term power and capacity price forecast annually with periodic updates as market conditions change. When underlying prices are not observable, prices from the long-term price forecast are used to measure fair value.

FTRs are financial instruments that entitle the holder to a stream of revenues (or charges) based on the hourly day-ahead congestion price differences across transmission paths. FTRs are acquired by FirstEnergy in the annual, monthly and long-term PJM auctions and are initially recorded using the auction clearing price less cost. After initial recognition, FTRs' carrying values are periodically adjusted to fair value using a mark-to-model methodology, which approximates market. The primary inputs into the model, which are generally less observable than objective sources, are the most recent PJM auction clearing prices and the FTRs' remaining hours. The model calculates the fair value by multiplying the most recent auction clearing price by the remaining FTR hours less the prorated FTR cost. Significant increases or decreases in inputs in isolation may have resulted in a higher or lower fair value measurement.

NUG contracts represent PPAs with third-party non-utility generators that are transacted to satisfy certain obligations under PURPA. NUG contract carrying values are recorded at fair value and adjusted periodically using a mark-to-model methodology, which approximates market. The primary unobservable inputs into the model are regional power prices and generation MWH. Pricing for the NUG contracts is a combination of market prices for the current year and next two years based on observable data and internal models using historical trends and market data for the remaining years under contract. The internal models use forecasted energy purchase prices as an input when prices are not defined by the contract. Forecasted market prices are based on Intercontinental Exchange, Inc. quotes and management assumptions. Generation MWH reflects data provided by contractual arrangements and historical trends. The model calculates the fair value by multiplying the prices by the generation MWH. Significant increases or decreases in inputs in isolation may have resulted in a higher or lower fair value measurement.

For investments reported at NAV where there is no readily determinable fair value, a practical expedient is available that allows the NAV to approximate fair value. Investments that use NAV as a practical expedient are excluded from the requirement to be categorized within the fair value hierarchy tables. Instead, these investments are reported outside of the fair value hierarchy tables to assist in the reconciliation of investment balances reported in the tables to the balance sheet. FirstEnergy has elected the NAV practical expedient for investments in private equity funds, insurance-linked securities, hedge funds (absolute return) and real estate funds held within the pension plan. See Note 5, "Pension And Other Post-Employment Benefits" for the pension financial assets accounted for at fair value by level within the fair value hierarchy.

FirstEnergy primarily applies the market approach for recurring fair value measurements using the best information available. Accordingly, FirstEnergy maximizes the use of observable inputs and minimizes the use of unobservable inputs. There were no changes in valuation methodologies used as of December 31, 2020, from those used as of December 31, 2019. The determination of the fair value measures takes into consideration various factors, including but not limited to, nonperformance risk, counterparty credit risk and the impact of credit enhancements (such as cash deposits, LOCs and priority interests). The impact of these forms of risk was not significant to the fair value measurements.

The following tables set forth the recurring assets and liabilities that are accounted for at fair value by level within the fair value hierarchy:

	December 31, 2020				December 31, 2019			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets			*(In millions)*					
Corporate debt securities	$ —	$ —	$ —	$ —	$ —	$ 135	$ —	$ 135
Derivative assets FTRs[1]	—	—	3	3	—	—	4	4
Equity securities	2	—	—	2	2	—	—	2
U.S. state debt securities	—	276	—	276	—	271	—	271
Other[2]	1,734	41	—	1,775	627	789	—	1,416
Total assets	$ 1,736	$ 317	$ 3	$ 2,056	$ 629	$ 1,195	$ 4	$ 1,828
Liabilities								
Derivative liabilities FTRs[1]	$ —	$ —	$ —	$ —	$ —	$ —	$ (1)	$ (1)
Derivative liabilities NUG contracts[1]	—	—	—	—	—	—	(16)	(16)
Total liabilities	$ —	$ —	$ —	$ —	$ —	$ —	$ (17)	$ (17)
Net assets (liabilities)[3]	$ 1,736	$ 317	$ 3	$ 2,056	$ 629	$ 1,195	$ (13)	$ 1,811

(1) Contracts are subject to regulatory accounting treatment and changes in market values do not impact earnings.
(2) Primarily consists of short-term cash investments.
(3) Excludes $1 million and $(16) million as of December 31, 2020, and December 31, 2019, respectively, of receivables, payables, taxes and accrued income associated with financial instruments reflected within the fair value table.

Rollforward of Level 3 Measurements

The following table provides a reconciliation of changes in the fair value of NUG contracts and FTRs that are classified as Level 3 in the fair value hierarchy for the years ended December 31, 2020 and December 31, 2019:

	NUG Contracts[1]			FTRs[1]		
	Derivative Assets	Derivative Liabilities	Net	Derivative Assets	Derivative Liabilities	Net
			(In millions)			
January 1, 2019 Balance	$ —	$ (44)	$ (44)	$ 10	$ (1)	$ 9
Unrealized gain (loss)	—	(11)	(11)	(1)	—	(1)
Purchases	—	—	—	6	(4)	2
Settlements	—	39	39	(11)	4	(7)
December 31, 2019 Balance	$ —	$ (16)	$ (16)	$ 4	$ (1)	$ 3
Unrealized gain (loss)	—	(3)	(3)	(3)	—	(3)
Purchases	—	—	—	7	(2)	5
Settlements	—	19	19	(5)	3	(2)
December 31, 2020 Balance	$ —	$ —	$ —	$ 3	$ —	$ 3

(1) Contracts are subject to regulatory accounting treatment and changes in market values do not impact earnings.

Level 3 Quantitative Information

The following table provides quantitative information for FTRs contracts that are classified as Level 3 in the fair value hierarchy for the year ended December 31, 2020:

	Fair Value, Net (In millions)	Valuation Technique	Significant Input	Range		Weighted Average	Units
FTRs	$ 3	Model	RTO auction clearing prices	$0.40	to $2.20	$1.10	Dollars/MWH

INVESTMENTS

All temporary cash investments purchased with an initial maturity of three months or less are reported as cash equivalents on the Consolidated Balance Sheets at cost, which approximates their fair market value. Investments other than cash and cash equivalents include equity securities, AFS debt securities and other investments. FirstEnergy has no debt securities held for trading purposes.

Generally, unrealized gains and losses on equity securities are recognized in income whereas unrealized gains and losses on AFS debt securities are recognized in AOCI. However, the NDTs of JCP&L, ME and PN are subject to regulatory accounting with all gains and losses on equity and AFS debt securities offset against regulatory assets. On October 15, 2019, JCP&L, ME, PN and GPUN executed an asset purchase and sale agreement with TMI-2 Solutions, LLC, a subsidiary of EnergySolutions, LLC, concerning the transfer and dismantlement of TMI-2. With the receipt of all required regulatory approvals, the transaction was consummated, including the transfer of external trusts for the decommissioning and environmental remediation of TMI-2, on December 18, 2020. Please see Note 15, "Commitments, Guarantees and Contingencies," for further information.

Nuclear Decommissioning and Nuclear Fuel Disposal Trusts

JCP&L holds debt securities within the nuclear fuel disposal trust, which are classified as AFS securities, recognized at fair market value.

The following table summarizes the amortized cost basis, unrealized gains, unrealized losses and fair values of investments held in NDT and nuclear fuel disposal trusts as of December 31, 2020 and December 31, 2019:

	December 31, 2020[1]				December 31, 2019[2]			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value[3]
	(In millions)							
Debt securities	$ 275	$ 7	$ (6)	$ 276	$ 403	$ 9	$ (11)	$ 401

(1) Excludes short-term cash investments of $9 million.
(2) Excludes short-term cash investments of $751 million, of which $747 million is classified as held for sale.
(3) Includes $135 million classified as held for sale as of December 31, 2019.

Proceeds from the sale of investments in equity and AFS debt securities, realized gains and losses on those sales and interest and dividend income for the years ended December 31, 2020, 2019 and 2018, were as follows:

	For the Years Ended December 31,		
	2020	2019[1]	2018[1]
	(In millions)		
Sale Proceeds	$ 186	$ 1,637	$ 800
Realized Gains	12	98	41
Realized Losses	(8)	(31)	(48)
Interest and Dividend Income	22	38	41

(1) Excludes amounts classified as discontinued operations.

Other Investments

Other investments include employee benefit trusts, which are primarily invested in corporate-owned life insurance policies, and equity method investments. Other investments were $322 million and $299 million as of December 31, 2020 and December 31, 2019, respectively, and are excluded from the amounts reported above.

LONG-TERM DEBT AND OTHER LONG-TERM OBLIGATIONS

All borrowings with initial maturities of less than one year are defined as short-term financial instruments under GAAP and are reported as Short-term borrowings on the Consolidated Balance Sheets at cost. Since these borrowings are short-term in nature, FirstEnergy believes that their costs approximate their fair market value. The following table provides the approximate fair value and related carrying amounts of long-term debt, which excludes finance lease obligations and net unamortized debt issuance costs, unamortized fair value adjustments, premiums and discounts as of December 31, 2020 and 2019:

	As of December 31,	
	2020	2019
	(In millions)	
Carrying Value [1]	$ 22,377	$ 20,066
Fair Value	25,465	22,928

(1) The carrying value as of December 31, 2020, includes $3,425 million of debt issuances and $1,114 million of redemptions that occurred during 2020.

The fair values of long-term debt and other long-term obligations reflect the present value of the cash outflows relating to those securities based on the current call price, the yield to maturity or the yield to call, as deemed appropriate at the end of each respective period. The yields assumed were based on securities with similar characteristics offered by corporations with credit ratings similar to those of FirstEnergy. FirstEnergy classified short-term borrowings, long-term debt and other long-term obligations as Level 2 in the fair value hierarchy as of December 31, 2020 and December 31, 2019.

11. CAPITALIZATION

COMMON STOCK

Retained Earnings and Dividends

As of December 31, 2020, FirstEnergy had an accumulated deficit of $2.9 billion. Dividends declared in 2020 and 2019 were $1.56 and $1.53 per share, respectively. Dividends of $0.39 per share and $0.38 per share were paid in the first, second, third and fourth quarters in 2020 and 2019, respectively. On December 15, 2020, the Board of Directors declared a quarterly dividend of $0.39 per share to be paid from OPIC in the first quarter of 2021. The amount and timing of all dividend declarations are subject to the discretion of the Board of Directors and its consideration of business conditions, results of operations, financial condition and other factors.

In addition to paying dividends from retained earnings, OE, CEI, TE, Penn, JCP&L, ME and PN have authorization from FERC to pay cash dividends to FirstEnergy from paid-in capital accounts, as long as their FERC-defined equity-to-total-capitalization ratio remains above 35%. In addition, AGC has authorization from FERC to pay cash dividends to its parent from paid-in capital accounts, as long as its FERC-defined equity-to-total-capitalization ratio remains above 45%. The articles of incorporation, indentures, regulatory limitations and various other agreements relating to the long-term debt of certain FirstEnergy subsidiaries contain provisions that could further restrict the payment of dividends on their common stock. None of these provisions materially restricted FirstEnergy's subsidiaries' abilities to pay cash dividends to FE as of December 31, 2020.

Common Stock Issuance

FE issued approximately 2 million shares of common stock in 2020, 3 million shares of common stock in 2019 and 3.2 million shares of common stock in 2018 to registered shareholders and its directors and the employees of its subsidiaries under its Stock Investment Plan and certain share-based benefit plans.

Additionally, on January 22, 2018, FE entered into a Common Stock Purchase Agreement for the private placement of 30,120,482 shares of FE's common stock, par value $0.10 per share, representing an investment of $850 million ($3 million of common shares and $847 million of OPIC). Please see below for information on preferred stock converted into shares of common stock during 2018 and 2019.

PREFERRED AND PREFERENCE STOCK

FirstEnergy and the Utilities were authorized to issue preferred stock and preference stock as of December 31, 2020, as follows:

	Preferred Stock		Preference Stock	
	Shares Authorized	Par Value	Shares Authorized	Par Value
FE	5,000,000	$ 100		
OE	6,000,000	$ 100	8,000,000	no par
OE	8,000,000	$ 25		
Penn	1,200,000	$ 100		
CEI	4,000,000	no par	3,000,000	no par
TE	3,000,000	$ 100	5,000,000	$ 25
TE	12,000,000	$ 25		
JCP&L	15,600,000	no par		
ME	10,000,000	no par		
PN	11,435,000	no par		
MP	940,000	$ 100		
PE	10,000,000	$ 0.01		
WP	32,000,000	no par		

As of December 31, 2020 and 2019, there were no preferred stock or preference stock outstanding.

Preferred Stock Issuance

In January of 2018, FE entered into a Preferred Stock Purchase Agreement for the private placement of 1,616,000 shares of mandatorily convertible preferred stock, designated as the Series A Convertible Preferred Stock, par value $100 per share, representing an investment of nearly $1.62 billion ($162 million of mandatorily convertible preferred stock and $1.46 billion of OPIC).

During 2018, 911,411 shares of preferred stock were converted into 33,238,910 shares of common stock at the option of the preferred stockholders. During 2019, the remaining 704,589 shares of preferred stock were converted into 25,696,168 shares of common stock at the option of the preferred stockholders.

LONG-TERM DEBT AND OTHER LONG-TERM OBLIGATIONS

The following tables present outstanding long-term debt and finance lease obligations for FirstEnergy as of December 31, 2020 and 2019:

	As of December 31, 2020		As of December 31,	
(Dollar amounts in millions)	**Maturity Date**	**Interest Rate**	**2020**	**2019**
FMBs and secured notes - fixed rate	2021-2059	2.670% - 8.250%	$ 4,802	$ 4,741
Unsecured notes - fixed rate	2022-2050	1.600% - 7.375%	17,575	14,575
Unsecured notes - variable rate			—	750
Finance lease obligations			45	60
Unamortized debt discounts			(34)	(33)
Unamortized debt issuance costs			(118)	(103)
Unamortized fair value adjustments			7	8
Currently payable long-term debt			(146)	(380)
Total long-term debt and other long-term obligations			$ 22,131	$ 19,618

On February 20, 2020, FE issued $1.75 billion in senior unsecured notes in three separate series: (i) $300 million aggregate principal amount of 2.050% Notes, Series A, due 2025, (ii) $600 million aggregate principal amount of 2.650% Notes, Series B, due 2030 and (iii) $850 million aggregate principal amount of 3.400% Notes, Series C, due 2050. Proceeds from the issuance of the notes, together with cash on hand, were used: (i) to repay the entire $750 million two-year term loan due September 2021, (ii) to make the $853 million in bankruptcy settlement payments and $125 million tax sharing agreement payment with the FES Debtors as discussed above, (iii) to repay $250 million of the $1 billion outstanding 364-day term loan due September 2020, and (iv) for working capital needs and general corporate purposes.

On March 31, 2020, MAIT issued $125 million of 3.60% senior unsecured notes due 2032 and $125 million of 3.70% senior unsecured notes due 2035. Proceeds from the issuance of the notes were used: (i) to refinance existing debt, (ii) for capital expenditures, and (iii) for general corporate purposes.

On April 20, 2020, PN issued $125 million of 3.61% senior unsecured notes due 2032 and $125 million of 3.71% senior unsecured notes due 2035. Proceeds of the issuance of the notes were used: (i) to refinance indebtedness, including short-term borrowings incurred under the FirstEnergy regulated money pool to repay a portion of the $250 million aggregate principle amount of PN's 5.20% Senior Notes due April 1, 2020, (ii) to fund capital expenditures, (iii) to fund general corporate purposes, or (iv) for any combination of the above.

On June 8, 2020, FE issued $750 million in senior unsecured notes in two separate series: (i) $300 million aggregate principal amounts of 1.600% Notes, Series A, due 2026 and (ii) $450 million aggregate principal amount of 2.250% Notes, Series B, due 2030. Proceeds from the issuance of the notes were used to repay all amounts outstanding under the 364-day term loan due September 2020.

On June 29, 2020, PE issued $75 million of 2.67% FMBs due 2032 and $100 million of 3.43% FMBs due 2051. Proceeds of the issuance of the FMBs were used to repay short-term borrowings under the FirstEnergy regulated money pool, to fund capital expenditures, and for general corporate purposes.

On July 20, 2020, CEI issued $150 million of 2.77% senior unsecured notes due 2034 and $100 million of 3.23% senior unsecured notes due 2040. Proceeds from the issuance of the notes were used to refinance existing short-term borrowings, to fund capital expenditures, and for general corporate purposes.

See Note 8, "Leases," for additional information related to finance leases.

Securitized Bonds

Environmental Control Bonds

The consolidated financial statements of FirstEnergy include environmental control bonds issued by two bankruptcy remote, special purpose limited liability companies that are indirect subsidiaries of MP and PE. Proceeds from the bonds were used to construct environmental control facilities. Principal and interest owed on the environmental control bonds is secured by, and payable solely from, the proceeds of the environmental control charges. Creditors of FirstEnergy, other than the limited liability company SPEs, have no recourse to any assets or revenues of the special purpose limited liability companies. As of December 31, 2020 and 2019, $300 million and $333 million of environmental control bonds were outstanding, respectively.

Transition Bonds

In August 2006, JCP&L Transition Funding II sold transition bonds to securitize the recovery of deferred costs associated with JCP&L's supply of BGS. JCP&L did not purchase and does not own any of the transition bonds, which are included as long-term debt on FirstEnergy's Consolidated Balance Sheets. The transition bonds are the sole obligations of JCP&L Transition Funding II and are collateralized by its equity and assets, which consist primarily of bondable transition property. As of December 31, 2020 and 2019, $9 million and $25 million of the transition bonds were outstanding, respectively.

Phase-In Recovery Bonds

In June 2013, the SPEs formed by the Ohio Companies issued approximately $445 million of pass-through trust certificates supported by phase-in recovery bonds to securitize the recovery of certain all electric customer heating discounts, fuel and purchased power regulatory assets. The phase-in recovery bonds are payable only from, and secured by, phase in recovery property owned by the SPEs. The bondholder has no recourse to the general credit of FirstEnergy or any of the Ohio Companies. Each of the Ohio Companies, as servicer of its respective SPE, manages and administers the phase in recovery property including the billing, collection and remittance of usage-based charges payable by retail electric customers. In the aggregate, the Ohio Companies are entitled to annual servicing fees of $445 thousand that are recoverable through the usage-based charges. The SPEs are considered VIEs and each one is consolidated into its applicable utility. As of December 31, 2020 and 2019, $245 million and $268 million of the phase-in recovery bonds were outstanding, respectively.

Other Long-term Debt

The Ohio Companies and Penn each have a first mortgage indenture under which they can issue FMBs secured by a direct first mortgage lien on substantially all of their property and franchises, other than specifically excepted property.

Based on the amount of FMBs authenticated by the respective mortgage bond trustees as of December 31, 2020, the sinking fund requirement for all FMBs issued under the various mortgage indentures was zero.

The following table presents scheduled debt repayments for outstanding long-term debt, excluding finance leases, fair value purchase accounting adjustments and unamortized debt discounts and premiums, for the next five years as of December 31, 2020. PCRBs that are scheduled to be tendered for mandatory purchase prior to maturity are reflected in the applicable year in which such PCRBs are scheduled to be tendered.

Year		
		(In millions)
2021	$	132
2022	$	1,143
2023	$	1,194
2024	$	1,246
2025	$	2,023

Certain PCRBs allow bondholders to tender their PCRBs for mandatory purchase prior to maturity. As of December 31, 2020, MP has a $74 million PCRB classified as current portion of long-term debt, which the debt holders may exercise their right to tender in 2021.

Debt Covenant Default Provisions

FirstEnergy has various debt covenants under certain financing arrangements, including its revolving credit facilities and term loans. The most restrictive of the debt covenants relate to the nonpayment of interest and/or principal on such debt and the maintenance of certain financial ratios. The failure by FirstEnergy to comply with the covenants contained in its financing arrangements could result in an event of default, which may have an adverse effect on its financial condition. As of December 31, 2020, FirstEnergy remains in compliance with all debt covenant provisions.

Additionally, there are cross-default provisions in a number of the financing arrangements. These provisions generally trigger a default in the applicable financing arrangement of an entity if it or any of its significant subsidiaries, excluding AE Supply, default under another financing arrangement in excess of a certain principal amount, typically $100 million. Although such defaults by any of the Utilities, ATSI, TrAIL or MAIT would generally cross-default FE financing arrangements containing these provisions, defaults by AE Supply would generally not cross-default to applicable financing arrangements of FE. Also, defaults by FE would generally not cross-default applicable financing arrangements of any of FE's subsidiaries. Cross-default provisions are not typically found in any of the senior notes or FMBs of FE or the Utilities.

12. SHORT-TERM BORROWINGS AND BANK LINES OF CREDIT

FirstEnergy had $2.2 billion and $1.0 billion of short-term borrowings as of December 31, 2020 and 2019, respectively.

FE and the Utilities and FET and certain of its subsidiaries participate in two separate five-year syndicated revolving credit facilities providing for aggregate commitments of $3.5 billion, which are available until December 6, 2022. Under the FE credit facility, an aggregate amount of $2.5 billion is available to be borrowed, repaid and reborrowed, subject to separate borrowing sublimits for each borrower including FE and its regulated distribution subsidiaries. Under the FET credit facility, an aggregate amount of $1.0 billion is available to be borrowed, repaid and reborrowed under a syndicated credit facility, subject to separate borrowing sublimits for each borrower including FE's transmission subsidiaries.

On November 17, 2020, FE and the Utilities and FET and certain of its subsidiaries entered into amendments to the FE credit facility and the FET credit facility, respectively. The amendments provide for modifications and/or waivers of: (i) certain representations and warranties, and (ii) certain affirmative and negative covenants, contained therein, which allowed FirstEnergy to regain compliance with such provisions. In addition, among other things, the amendment to the FE credit facility reduces the sublimit applicable to FE to $1.5 billion, and the amendments increased certain tiers of pricing applicable to borrowings under the credit facilities.

On November 23, 2020, FE and its regulated distribution subsidiaries, JCP&L, ME, Penn, TE and WP, borrowed $950 million in the aggregate under the FE Revolving Facility, bringing the outstanding principal balance under the FE Revolving Facility to $1.2 billion, with $1.3 billion of remaining availability under the FE Revolving Facility. On November 23, 2020, FET and its regulated transmission subsidiary, ATSI, borrowed $1 billion in the aggregate under the FET Revolving Facility, bringing the outstanding principal balance under the FET Revolving Facility to $1 billion, with no remaining availability under the FET Revolving Facility. FE, FET and certain of their respective subsidiaries increased their borrowings under the Revolving Facilities as a proactive measure to increase their respective cash positions and preserve financial flexibility. As of December 31, 2020, available liquidity under the FE revolving credit facility was $1,296 million (reflecting $4 million of LOCs issued under various terms) and there was no available liquidity under the FET revolving credit facility.

Borrowings under the credit facilities may be used for working capital and other general corporate purposes, including intercompany loans and advances by a borrower to any of its subsidiaries. Generally, borrowings under each of the credit facilities are available to each borrower separately and mature on the earlier of 364 days from the date of borrowing or the commitment termination date, as the same may be extended. Each of the credit facilities contains financial covenants requiring each borrower to maintain a consolidated debt-to-total-capitalization ratio (as defined under each of the credit facilities) of no more than 65%, and 75% for FET, measured at the end of each fiscal quarter.

Subject to each borrower's sublimit, $250 million of the FE credit facility and $100 million of the FET credit facility, is available for the issuance of LOCs (subject to borrowings drawn under the Facilities) expiring up to one year from the date of issuance. The stated amount of outstanding LOCs will count against total commitments available under each of the Facilities and against the applicable borrower's borrowing sublimit.

The Facilities do not contain provisions that restrict the ability to borrow or accelerate payment of outstanding advances in the event of any change in credit ratings of the borrowers. Pricing is defined in "pricing grids," whereby the cost of funds borrowed under the Facilities is related to the credit ratings of the company borrowing the funds. Additionally, borrowings under each of the Facilities are subject to the usual and customary provisions for acceleration upon the occurrence of events of default, including a cross-default for other indebtedness in excess of $100 million.

As of December 31, 2020, the borrowers were in compliance with the applicable debt-to-total-capitalization ratio covenants in each case as defined under the respective Facilities.

FirstEnergy Money Pools

FirstEnergy's utility operating subsidiary companies also have the ability to borrow from each other and FE to meet their short-term working capital requirements. Similar but separate arrangements exist among FirstEnergy's unregulated companies with AE Supply, FE, FET, FEV and certain other unregulated subsidiaries. FESC administers these money pools and tracks surplus funds of FE and the respective regulated and unregulated subsidiaries, as the case may be, as well as proceeds available from bank borrowings. Companies receiving a loan under the money pool agreements must repay the principal amount of the loan, together

with accrued interest, within 364 days of borrowing the funds. The rate of interest is the same for each company receiving a loan from their respective pool and is based on the average cost of funds available through the pool. The average interest rate for borrowings in 2020 was 0.89% per annum for the regulated companies' money pool and 1.19% per annum for the unregulated companies' money pool.

Weighted Average Interest Rates

The weighted average interest rates on short-term borrowings outstanding, including borrowings under the FirstEnergy Money Pools, as of December 31, 2020 and 2019, were 1.86% and 2.88%, respectively.

13. ASSET RETIREMENT OBLIGATIONS

FirstEnergy has recognized applicable legal obligations for AROs and their associated cost, including reclamation of sludge disposal ponds, closure of coal ash disposal sites, underground and above-ground storage tanks and wastewater treatment lagoons. In addition, FirstEnergy has recognized conditional retirement obligations, primarily for asbestos remediation.

As contemplated under the FES Bankruptcy settlement agreement, AE Supply entered into an agreement on December 31, 2018, to transfer the 1,300 MW Pleasants Power Station and related assets to FG, while retaining certain specified liabilities. Under the terms of the agreement, FG acquired the economic interests in Pleasants as of January 1, 2019, and AE Supply operated Pleasants until ownership was transferred on January 30, 2020. AE Supply will continue to provide access to the McElroy's Run CCR impoundment facility, which was not transferred, and FE will provide guarantees for certain retained environmental liabilities of AE Supply, including the McElroy's Run CCR impoundment facility. Please see Note 15, "Commitments, Guarantees and Contingencies," for further information.

The following table summarizes the changes to the ARO balances during 2020 and 2019:

ARO Reconciliation	***(In millions)***
Balance, January 1, 2019	$ 812
Liabilities settled	(2)
Accretion	46
Balance, December 31, 2019 [(1)]	$ 856
Liabilities settled [(2)]	(744)
Accretion	47
Balance, December 31, 2020	$ 159

[(1)] Includes $691 million related to TMI-2 classified as held for sale for the year ended December 31, 2019.

[(2)] Includes $726 million related to the closing of the asset purchase and sale agreement with TMI-2 Solutions, LLC, a subsidiary of Energy*Solutions*, LLC, concerning the transfer and dismantlement of TMI-2. See Note 15, "Commitments, Guarantees and Contingencies," for further information.

14. REGULATORY MATTERS

STATE REGULATION

Each of the Utilities' retail rates, conditions of service, issuance of securities and other matters are subject to regulation in the states in which it operates - in Maryland by the MDPSC, in New Jersey by the NJBPU, in Ohio by the PUCO, in Pennsylvania by the PPUC, in West Virginia by the WVPSC and in New York by the NYPSC. The transmission operations of PE in Virginia, ATSI in Ohio, and the Transmission Companies in Pennsylvania are subject to certain regulations of the VSCC, PUCO and PPUC, respectively. In addition, under Ohio law, municipalities may regulate rates of a public utility, subject to appeal to the PUCO if not acceptable to the utility. Further, if any of the FirstEnergy affiliates were to engage in the construction of significant new transmission facilities, depending on the state, they may be required to obtain state regulatory authorization to site, construct and operate the new transmission facility.

The following table summarizes the key terms of base distribution rate orders in effect for the Utilities as of December 31, 2020:

Company	Rates Effective	Allowed Debt/Equity	Allowed ROE
CEI	May 2009	51% / 49%	10.5%
ME[1]	January 2017	48.8% / 51.2%	Settled[2]
MP	February 2015	54% / 46%	Settled[2]
JCP&L[3]	January 2017	55% / 45%	9.6%
OE	January 2009	51% / 49%	10.5%
PE (West Virginia)	February 2015	54% / 46%	Settled[2]
PE (Maryland)	March 2019	47% / 53%	9.65%
PN[1]	January 2017	47.4% / 52.6%	Settled[2]
Penn[1]	January 2017	49.9% / 50.1%	Settled[2]
TE	January 2009	51% / 49%	10.5%
WP[1]	January 2017	49.7% / 50.3%	Settled[2]

[1] Reflects filed debt/equity as final settlement/orders do not specifically include capital structure.
[2] Commission-approved settlement agreements did not disclose ROE rates.
[3] On October 28, 2020, the NJBPU approved JCP&L's distribution rate case settlement with an allowed ROE of 9.6% and a 48.56% debt / 51.44% equity capital structure. Rates are effective for customers on November 1, 2021, but beginning January 1, 2021, JCP&L will offset the impact to customers' bills by amortizing an $86 million regulatory liability.

MARYLAND

PE operates under MDPSC approved base rates that were effective as of March 23, 2019. PE also provides SOS pursuant to a combination of settlement agreements, MDPSC orders and regulations, and statutory provisions. SOS supply is competitively procured in the form of rolling contracts of varying lengths through periodic auctions that are overseen by the MDPSC and a third-party monitor. Although settlements with respect to SOS supply for PE customers have expired, service continues in the same manner until changed by order of the MDPSC. PE recovers its costs plus a return for providing SOS.

The EmPOWER Maryland program requires each electric utility to file a plan to reduce electric consumption and demand 0.2% per year, up to the ultimate goal of 2% annual savings, for the duration of the 2018-2020 and 2021-2023 EmPOWER Maryland program cycles, to the extent the MDPSC determines that cost-effective programs and services are available. PE's approved 2018-2020 EmPOWER Maryland plan continues and expands upon prior years' programs, and adds new programs, for a projected total cost of $116 million over the three-year period. PE recovers program costs through an annually reconciled surcharge, with most costs subject to a five-year amortization. Maryland law only allows for the utility to recover lost distribution revenue attributable to energy efficiency or demand reduction programs through a base rate case proceeding, and to date, such recovery has not been sought or obtained by PE. On September 1, 2020, PE filed its proposed plan for the 2021-2023 EmPOWER Maryland program cycle. The new plan largely continues PE’s existing programs and is estimated to cost approximately $148 million over the three-year period. The MDPSC approved the plan on December 18, 2020.

On January 19, 2018, PE filed a joint petition along with other utility companies, work group stakeholders and the MDPSC electric vehicle work group leader to implement a statewide electric vehicle portfolio in connection with a 2016 MDPSC proceeding to consider an array of issues relating to electric distribution system design, including matters relating to electric vehicles, distributed energy resources, advanced metering infrastructure, energy storage, system planning, rate design, and impacts on low-income customers. PE proposed an electric vehicle charging infrastructure program at a projected total cost of $12 million, to be recovered over a five-year amortization. On January 14, 2019, the MDPSC approved the petition subject to certain reductions in the scope of the program. The MDPSC approved PE’s compliance filing, which implements the pilot program, with minor modifications, on July 3, 2019.

On August 24, 2018, PE filed a base rate case with the MDPSC, which it supplemented on October 22, 2018, to update the partially forecasted test year with a full twelve months of actual data. The rate case requested an annual increase in base distribution rates of $19.7 million, plus creation of an EDIS to fund four enhanced service reliability programs. In responding to discovery, PE revised its request for an annual increase in base rates to $17.6 million. The proposed rate increase reflected $7.3 million in annual savings for customers resulting from the recent federal tax law changes. On March 22, 2019, the MDPSC issued a final order that approved a rate increase of $6.2 million, approved three of the four EDIS programs for four years, directed PE to file a new depreciation study within 18 months, and ordered the filing of a new base rate case in four years to correspond to the ending of the approved EDIS programs. On September 22, 2020, PE filed its depreciation study reflecting a depreciation expense of $36.2 million, which represented a slight increase, and as a result, is seeking difference in depreciation be deferred for future recovery in PE’s next base rate case. The MDPSC has set the matter for hearing and delegated it to a public utility law judge. On November 6, 2020, an order was issued scheduling evidentiary hearings in April 2021. On January 29, 2021, the Maryland Office of People's Counsel filed testimony recommending a reduction in depreciation expense of $10.8 million, and the staff of the MDPSC filed testimony recommending a reduction of $9.6 million. PE's rebuttal testimony is due on March 2, 2021.

Maryland's Governor issued an order on March 16, 2020, forbidding utilities from terminating residential service or charging late fees for non-payment for the duration of the COVID-19 pandemic. On April 9, 2020, the MDPSC issued an order allowing utilities to track and create a regulatory asset for future recovery of all prudently incurred incremental costs arising from the COVID-19 pandemic, including incremental uncollectible expense, incurred from the date of the Governor's order (or earlier if the utility could show that the expenses related to suspension of service terminations). On July 8, 2020, the MDPSC issued a notice opening a public conference to collect information from utilities and other stakeholders about the impacts of the COVID-19 pandemic on the utilities and their customers. The MDPSC subsequently issued orders allowing Maryland electric and gas utilities to resume residential service terminations for non-payment on November 15, 2020, subject to various restrictions, and clarifying that utilities could resume charging late fees on October 1, 2020.

NEW JERSEY

JCP&L operates under NJBPU approved rates that were effective as of January 1, 2017. JCP&L provides BGS for retail customers who do not choose a third-party EGS and for customers of third-party EGSs that fail to provide the contracted service. All New Jersey EDCs participate in this competitive BGS procurement process and recover BGS costs directly from customers as a charge separate from base rates.

On April 18, 2019, pursuant to the May 2018 New Jersey enacted legislation establishing a ZEC program to provide ratepayer funded subsidies of New Jersey nuclear energy supply, the NJBPU approved the implementation of a non-bypassable, irrevocable ZEC charge for all New Jersey electric utility customers, including JCP&L's customers. Once collected from customers by JCP&L, these funds will be remitted to eligible nuclear energy generators.

In December 2017, the NJBPU issued proposed rules to modify its current CTA policy in base rate cases to: (i) calculate savings using a five-year look back from the beginning of the test year; (ii) allocate savings with 75% retained by the company and 25% allocated to ratepayers; and (iii) exclude transmission assets of electric distribution companies in the savings calculation, which were published in the NJ Register in the first quarter of 2018. JCP&L filed comments supporting the proposed rulemaking. On January 17, 2019, the NJBPU approved the proposed CTA rules with no changes. On May 17, 2019, the Rate Counsel filed an appeal with the Appellate Division of the Superior Court of New Jersey. Oral Argument is scheduled for March 10, 2021. JCP&L is contesting this appeal but is unable to predict the outcome of this matter.

Also, in December 2017, the NJBPU approved its IIP rulemaking. The IIP creates a financial incentive for utilities to accelerate the level of investment needed to promote the timely rehabilitation and replacement of certain non-revenue producing components that enhance reliability, resiliency, and/or safety. On May 8, 2019, the NJBPU approved a stipulation of settlement submitted by JCP&L, Rate Counsel, NJBPU staff and New Jersey Large Energy Users Coalition to implement JCP&L's infrastructure plan, JCP&L Reliability Plus. The plan provides that JCP&L will invest up to approximately $97 million in capital investments beginning on June 1, 2019 through December 31, 2020, to enhance the reliability and resiliency of JCP&L's distribution system and reduce the frequency and duration of power outages. JCP&L shall seek recovery of the capital investment through an accelerated cost recovery mechanism, provided for in the rules, that includes a revenue adjustment calculation and a process for two rate adjustments. The NJBPU approved adjusted rates that took effect on March 1, 2020. As further discussed below, JCP&L will recover the IIP capital investments, which totaled $97 million, as part of its distribution base rate case.

On February 18, 2020, JCP&L submitted a filing with the NJBPU requesting a distribution base rate increase of $186.9 million on an annual basis, which represents an overall average increase in JCP&L rates of 7.8%. The filing seeks to recover certain costs associated with providing safe and reliable electric service to JCP&L customers, along with recovery of previously incurred storm costs. JCP&L proposed a rate effective date of March 19, 2020. The NJBPU issued orders suspending JCP&L's proposed rates until November 19, 2020. JCP&L filed updates to the requested distribution base rate in both June and July 2020, resulting in JCP&L seeking a total annual distribution base rate increase of approximately $185 million. On October 16, 2020, the parties submitted a stipulation of settlement to the administrative law judge, providing for, among other things, a $94 million annual base distribution revenues increase for JCP&L based on an ROE of 9.6%, which will become effective for customers on November 1, 2021. Until the rates become effective, and starting on January 1, 2021, JCP&L is permitted to amortize an existing regulatory liability totaling approximately $86 million to offset the base rate increase that otherwise would have occurred in this period. The parties also agreed that the actual net gain from the sale of JCP&L's interest in the Yards Creek pumped-storage hydro generation facility in New Jersey (210 MWs), as further discussed below, shall be applied to reduce JCP&L's existing regulatory asset for previously deferred storm costs. Lastly, the parties agreed that $95.1 million of Reliability Plus capital investment for projects through December 31, 2020 is included in rate base effective December 31, 2020, with a final prudence review of only those capital investment projects from July 1, 2020 through December 31, 2020 to occur in January 2021. On October 22, 2020, the administrative law judge entered an initial decision adopting the settlement. On October 28, 2020, the NJBPU approved the settlement and directed an upcoming management audit for JCP&L. On January 4, 2021, JCP&L submitted its review of storm costs as required under the stipulation of settlement. On January 15, 2021, JCP&L filed a written report for its Reliability Plus projects placed in service from July 1, 2020 through December 31, 2020, also as required under the stipulation of settlement.

On April 6, 2020, JCP&L signed an asset purchase agreement with Yards Creek Energy, LLC, a subsidiary of LS Power to sell its 50% interest in the Yards Creek pumped-storage hydro generation facility. Subject to terms and conditions of the agreement, the base purchase price is $155 million. On July 31, 2020, FERC approved the transfer of JCP&L's interest in the hydroelectric operating license. On October 8, 2020, FERC issued an order authorizing the transfer of JCP&L's ownership interest in the

hydroelectric facilities. On October 28, 2020, the NJBPU approved the sale of Yards Creek. Completion of the transaction is subject to several closing conditions; there can be no assurance that all closing conditions will be satisfied or that the transaction will be consummated. JCP&L currently anticipates closing of the transaction to occur during the first quarter of 2021. Assets held for sale on FirstEnergy's Consolidated Balance Sheets associated with the transaction consist of property, plant and equipment of $45 million, which is included in the regulated distribution segment.

On August 27, 2020, JCP&L filed an AMI Program with the NJBPU, which proposes the deployment of approximately 1.2 million advanced meters over a three-year period beginning on January 1, 2023, at a total cost of approximately $418 million, including the pre-deployment phase. The 3-year deployment is part of the 20-year AMI Program that is expected to cost a total of approximately $732 million and proposes a cost recovery mechanism through a separate AMI tariff rider. On January 13, 2021, a procedural schedule was established, which includes evidentiary hearings the week of May 24, 2021.

On June 10, 2020, the NJBPU issued an order establishing a framework for the filing of utility-run energy efficiency and peak demand reduction programs in accordance with the New Jersey Clean Energy Act. Under the established framework, JCP&L will recover its program investments over a ten year amortization period and its operations and maintenance expenses on an annual basis, be eligible to receive lost revenues on energy savings that resulted from its programs and be eligible for incentives or subject to penalties based on its annual program performance, beginning in the fifth year of its program offerings. On September 25, 2020, JCP&L filed its energy efficiency and peak demand reduction program. JCP&L's program consists of 11 energy efficiency and peak demand reduction programs and subprograms to be run from July 1, 2021 through June 30, 2024. The program also seeks approval of cost recovery totaling approximately $230 million as well as lost revenues associated with the energy savings resulting from the programs. While a procedural order has been established in this matter, on January 20, 2021, JCP&L filed a letter requesting a suspension of the procedural schedule to allow for settlement discussions. The Clean Energy Act contemplates a final order from the NJBPU by May 2, 2021.

On July 2, 2020, the NJBPU issued an order allowing New Jersey utilities to track and create a regulatory asset for future recovery of all prudently incurred incremental costs arising from the COVID-19 pandemic beginning March 9, 2020 through September 30, 2021, or until the Governor issues an order stating that the COVID-19 pandemic is no longer in effect. New Jersey utilities can request recovery of such regulatory asset in a stand-alone COVID-19 regulatory asset filing or future base rate case. On August 21, 2020, the Governor of New Jersey issued a press release announcing that the New Jersey utilities agreed to extend their voluntary moratorium preventing shutoffs to both residential and commercial customers during the COVID-19 pandemic until October 15, 2020. On October 15, 2020, the Governor issued an Executive Order prohibiting utilities from terminating service to any residential gas, electric, public and private water customer, through March 15, 2021, requiring the reconnection of certain customers, and disallowing the charging of late payment charges or reconnection fees during the public health emergency. On October 28, 2020, the NJBPU issued an order expanding the scope of the proceeding to examine all pandemic issues, including recovery of the COVID-19 regulatory assets, by way of a generic proceeding. On November 30, 2020, JCP&L submitted comments.

The recent credit rating actions taken on October 28, 2020, by S&P and Fitch triggered a requirement from various NJBPU orders that JCP&L file a mitigation plan, which was filed on November 5, 2020, to demonstrate that JCP&L has sufficient liquidity to meet its BGS obligations. On December 11, 2020, the NJBPU held a public hearing on the mitigation plan. Written comments on JCP&L's mitigation plan were submitted on January 8, 2021.

OHIO

The Ohio Companies operate under base distribution rates approved by the PUCO effective in 2009. The Ohio Companies' residential and commercial base distribution revenues were decoupled, through a mechanism that took effect on February 1, 2020 and under which the Ohio Companies billed customers until February 9, 2021, to the base distribution revenue and lost distribution revenue associated with energy efficiency and peak demand reduction programs recovered as of the twelve-month period ending on December 31, 2018. The Ohio Companies currently operate under ESP IV effective June 1, 2016, and continuing through May 31, 2024, that continues the supply of power to non-shopping customers at a market-based price set through an auction process. ESP IV also continues the DCR rider, which supports continued investment related to the distribution system for the benefit of customers, with increased revenue caps of $20 million per year from June 1, 2019 through May 31, 2022; and $15 million per year from June 1, 2022 through May 31, 2024. In addition, ESP IV includes: (1) continuation of a base distribution rate freeze through May 31, 2024; (2) the collection of lost distribution revenue associated with energy efficiency and peak demand reduction programs, which is discussed further below; (3) a goal across FirstEnergy to reduce CO_2 emissions by 90% below 2005 levels by 2045; and (4) contributions, totaling $51 million to: (a) fund energy conservation programs, economic development and job retention in the Ohio Companies' service territories; (b) establish a fuel-fund in each of the Ohio Companies' service territories to assist low-income customers; and (c) establish a Customer Advisory Council to ensure preservation and growth of the competitive market in Ohio.

ESP IV further provided for the Ohio Companies to collect through the DMR $132.5 million annually for three years beginning in 2017, grossed up for federal income taxes, resulting in an approved amount of approximately $168 million annually in 2018 and 2019. On appeal, the SCOH, on June 19, 2019, reversed the PUCO's determination that the DMR is lawful, and remanded the matter to the PUCO with instructions to remove the DMR from ESP IV. The PUCO entered an order directing the Ohio Companies to cease further collection through the DMR, credit back to customers a refund of the DMR funds collected since July

2, 2019 and remove the DMR from ESP IV. On July 15, 2019, OCC filed a Notice of Appeal with the SCOH, challenging the PUCO's exclusion of the DMR revenues from the determination of the existence of significantly excessive earnings under ESP IV for calendar year 2017 for OE and claiming a $42 million refund is due to OE customers. On December 1, 2020, the SCOH reversed the PUCO's exclusion of the DMR revenues from the determination of the existence of significantly excessive earnings under ESP IV for OE for calendar year 2017, and remanded the case to the PUCO with instructions to conduct new proceedings which includes the DMR revenues in the analysis, determines the threshold against which the earned return is measured, and makes other necessary determinations. FirstEnergy is unable to predict the outcome of these proceedings but has not deemed a liability probable as of December 31, 2020.

On July 23, 2019, Ohio enacted HB 6, which established support for nuclear energy supply in Ohio. In addition to the provisions supporting nuclear energy, HB 6 included provisions implementing a decoupling mechanism for Ohio electric utilities and ending current energy efficiency program mandates on December 31, 2020, provided that statewide energy efficiency mandates are achieved as determined by the PUCO. On February 26, 2020, the PUCO ordered a wind-down of statutorily required energy efficiency programs to commence on September 30, 2020, that the programs terminate on December 31, 2020, with the Ohio Companies' existing portfolio plans extended through 2020 without changes.

On November 21, 2019, the Ohio Companies applied to the PUCO for approval of a decoupling mechanism, which would set residential and commercial base distribution related revenues at the levels collected in 2018. As such, those base distribution revenues would no longer be based on electric consumption, which allows continued support of energy efficiency initiatives while also providing revenue certainty to the Ohio Companies. On January 15, 2020, the PUCO approved the Ohio Companies' decoupling application, and the decoupling mechanism took effect on February 1, 2020. Legislation has been introduced in the first quarter of 2021 to, among other things, repeal parts of HB 6, the legislation that established support for nuclear energy supply in Ohio, provided for a decoupling mechanism for Ohio electric utilities, and provided for the ending of current energy efficiency program mandates. As further discussed below, in connection with a partial settlement with the OAG and other parties, the Ohio Companies filed an application with the PUCO on February 1, 2021, to set the respective decoupling riders (Rider CSR) to zero. While the partial settlement with the OAG focused specifically on decoupling, the Ohio Companies will of their own accord not seek to recover lost distribution revenue from residential and commercial customers. FirstEnergy is committed to pursuing an open dialogue with stakeholders in an appropriate manner with respect to the numerous regulatory proceedings currently underway as further discussed herein. As a result of the partial settlement, and the decision to not seek lost distribution revenue, FirstEnergy recognized a $108 million pre-tax charge ($84 million after-tax) in the fourth quarter of 2020, and $77 million (pre-tax) of which is associated with forgoing collection of lost distribution revenue. FirstEnergy does not believe a refund for previously collected amounts under decoupling, which was approximately $18 million, is probable. Furthermore, as FirstEnergy would not have financially benefited from the Clean Air Fund included in HB 6, which is the mechanism to provide support to nuclear energy in Ohio, there is no expected additional impact to FirstEnergy due to any repeal of that provision of HB 6.

On July 17, 2019, the PUCO approved, with no material modifications, a settlement agreement that provides for the implementation of the Ohio Companies' first phase of grid modernization plans, including the investment of $516 million over three years to modernize the Ohio Companies' electric distribution system, and for all tax savings associated with the Tax Act to flow back to customers. The settlement had broad support, including PUCO staff, the OCC, representatives of industrial and commercial customers, a low-income advocate, environmental advocates, hospitals, competitive generation suppliers and other parties.

In March 2020, the PUCO issued entries directing utilities to review their service disconnection and restoration policies and suspend, for the duration of the COVID-19 pandemic, otherwise applicable requirements that may impose a service continuity hardship or service restoration hardship on customers. The Ohio Companies are utilizing their existing approved cost recovery mechanisms where applicable to address the financial impacts of these directives. On July 31, 2020, the Ohio Companies filed with the PUCO their transition plan and requests for waivers to allow for the safe resumption of normal business operations, including service disconnections for non-payment. On September 23, 2020, the PUCO approved the Ohio Companies' transition plan, including approval of the resumption of service disconnections for non-payment, which the Ohio Companies began on October 5, 2020.

On July 29, 2020, the PUCO consolidated the Ohio Companies' Applications for determination of the existence of significantly excessive earnings, or SEET, under ESP IV for calendar years 2018 and 2019, which had been previously filed on July 15, 2019, and May 15, 2020, respectively, and set a procedural schedule with evidentiary hearings scheduled for October 29, 2020. The calculations included in the Ohio Companies' SEET filings for calendar years 2018 and 2019 demonstrate that the Ohio Companies did not have significantly excessive earnings, however, FirstEnergy and the Ohio Companies are unable to predict the PUCO's ultimate determination of the applications. On August 3, 2020, the OCC filed an interlocutory appeal asking the PUCO to stay the SEET proceeding until the SCOH determines whether DMR should be excluded from the SEET, as further discussed above. Furthermore, on January 21, 2021, Senate Bill 10 was introduced, which would repeal legislation passed in 2019 that permitted the Ohio Companies to file their SEET results on a consolidated basis instead of on an individual company basis. On September 4, 2020, the PUCO opened its quadrennial review of ESP IV, consolidated it with the Ohio Companies' 2018 and 2019 SEET Applications, and set a procedural schedule for the consolidated matters. On October 29, 2020, the PUCO issued an entry extending the deadline for the Ohio Companies to file quadrennial review of ESP IV testimony to March 1, 2021, with the evidentiary hearings to commence no sooner than May 3, 2021. On January 12, 2021, the PUCO consolidated these

matters with the determination of the existence of significantly excessive earnings under ESP IV for calendar year 2017, which the SCOH had remanded to the PUCO.

On September 8, 2020, the OCC filed motions in the Ohio Companies' corporate separation audit and DMR audit dockets, requesting the PUCO to open an investigation and management audit, hire an independent auditor, and require FirstEnergy to show it did not improperly use money collected from consumers or violate any utility regulatory laws, rules or orders in its activities regarding HB 6. The Ohio Companies' filed a response in opposition to the OCC's motions on September 23, 2020. On December 30, 2020, in response to the OCC's motion, the PUCO reopened the DMR audit docket, and directed PUCO staff to solicit a third-party auditor and conduct a full review of the DMR to ensure funds collected from ratepayers through the DMR were only used for the purposes established in ESP IV. Deadlines relating to the selection of the auditor and the issuance of the final audit report have not yet been set.

On September 15, 2020, the PUCO opened a new proceeding to review the political and charitable spending by the Ohio Companies in support of HB 6 and the subsequent referendum effort, directing the Ohio Companies to show cause, demonstrating that the costs of any political or charitable spending in support of HB 6, or the subsequent referendum effort, were not included, directly or indirectly, in any rates or charges paid by ratepayers. The Ohio Companies filed a response on September 30, 2020, stating that any political and charitable spending in support of HB 6 or the subsequent referendum were not included in rates or charges paid for by its customers. Several parties requested that the PUCO broaden the scope of the review of political and charitable spending.

In connection with an on-going audit of the Ohio Companies' policies and procedures relating to the code of conduct rules between affiliates, on November 4, 2020, the PUCO initiated an additional corporate separation audit as a result of the FirstEnergy leadership transition announcement made on October 29, 2020, as further discussed below. The additional audit is to ensure compliance by the Ohio Companies and their affiliates with corporate separation laws and the Ohio Companies' corporate separation plan. The additional audit is for the period from November 2016 through October 2020, with a final audit report to be filed in June 2021. On January 27, 2021, the PUCO selected an auditor.

On November 24, 2020, the Environmental Law and Policy Center filed motions to vacate the PUCO's orders in proceedings related to the Ohio Companies' settlement that provides for the implementation of the first phase of grid modernization plans and for all tax savings associated with the Tax Act to flow back to customers, the Ohio Companies' energy efficiency portfolio plans for the period from 2013 through 2016, and the Ohio Companies' application for a two-year extension of the DMR, on the grounds that the former Chairman of the PUCO should have recused himself in these matters. On December 30, 2020, the PUCO denied the motions, and reinstated the requirement under ESP IV that the Ohio Companies file a base distribution rate case by May 31, 2024, the end of ESP IV, which the Ohio Companies had indicated they would not oppose.

In the fourth quarter of 2020, motions were filed with the PUCO requesting that the PUCO amend the Ohio Companies' riders for collecting charges required by HB 6, which the Ohio Companies are further required to remit to other Ohio electric distribution utilities or to the State Treasurer, to provide for refunds in the event HB 6 is repealed. The Ohio Companies contested the motions, which are pending before the PUCO.

On December 7, 2020, the Citizens' Utility Board of Ohio filed a complaint with the PUCO against the Ohio Companies. The complaint alleges that the Ohio Companies' new charges resulting from HB 6, and any increased rates resulting from proceedings over which the former PUCO Chairman presided, are unjust and unreasonable, and that the Ohio Companies violated Ohio corporate separation laws by failing to operate separately from unregulated affiliates. The complaint requests, among other things, that any rates authorized by HB 6 or authorized by the PUCO in a proceeding over which the former Chairman presided be made refundable; that the Ohio Companies be required to file a new distribution rate case at the earliest possible date; and that the Ohio Companies' corporate separation plans be modified to introduce institutional controls. The Ohio Companies are contesting the complaint.

On December 9, 2020, the Ohio Manufacturers' Association Energy Group filed an appeal to the SCOH challenging the PUCO's generic order directing the form of rider all Ohio electric distribution utilities must charge to recover the costs of the HB 6 Clean Air Fund. The appeal contends that the PUCO erred in adopting the rate design for the riders, in establishing the riders during ongoing proceedings and investigations related to HB 6, and in not requiring electric distribution utilities to include refund language in the rider tariffs. On December 30, 2020, the PUCO vacated its generic order establishing the Clean Air Fund riders, as required by a preliminary injunction issued by the Court of Common Pleas of Franklin County, Ohio. On January 11, 2021, the SCOH granted a joint application of the Ohio Manufacturers' Association Energy Group and the PUCO and dismissed the appeal.

See Note 15, "Commitments, Guarantees and Contingencies" below for additional details on the government investigation and subsequent litigation surrounding the investigation of HB 6.

PENNSYLVANIA

The Pennsylvania Companies operate under rates approved by the PPUC, effective as of January 27, 2017. These rates were adjusted for the net impact of the Tax Act, effective March 15, 2018. The net impact of the Tax Act for the period January 1, 2018

through March 14, 2018 was separately tracked and its treatment will be addressed in a future rate proceeding. The Pennsylvania Companies operate under DSPs for the June 1, 2019 through May 31, 2023 delivery period, which provide for the competitive procurement of generation supply for customers who do not choose an alternative EGS or for customers of alternative EGSs that fail to provide the contracted service. Under the 2019-2023 DSPs, supply will be provided by wholesale suppliers through a mix of 3, 12 and 24-month energy contracts, as well as two RFPs for 2-year SREC contracts for ME, PN and Penn.

Pursuant to Pennsylvania Act 129 of 2008 and PPUC orders, Pennsylvania EDCs implement energy efficiency and peak demand reduction programs. The Pennsylvania Companies' Phase III EE&C plans for the June 2016 through May 2021 period, which were approved in March 2016, with expected costs up to $390 million, are designed to achieve the targets established in the PPUC's Phase III Final Implementation Order with full recovery through the reconcilable EE&C riders. On June 18, 2020, the PPUC entered a Final Implementation Order for a Phase IV EE&C Plan, operating from June 2021 through May 2026. The Final Implementation Order set demand reduction targets, relative to 2007 to 2008 peak demands, at 2.9% MW for ME, 3.3% MW for PN, 2.0% MW for Penn, and 2.5% MW for WP; and energy consumption reduction targets, as a percentage of the Pennsylvania Companies' historic 2009 to 2010 reference load at 3.1% MWH for ME, 3.0% MWH for PN, 2.7% MWH for Penn, and 2.4% MWH for WP. The Pennsylvania Companies' Phase IV plans were filed November 30, 2020. A settlement has been reached in this matter, and a joint petition seeking approval of that settlement by the parties was filed on February 16, 2021. A PPUC decision on the settlement is expected in March 2021.

Pennsylvania EDCs may file with the PPUC for approval of an LTIIP for infrastructure improvements and costs related to highway relocation projects, after which a DSIC may be approved to recover LTIIP costs. On August 30, 2019, the Pennsylvania Companies filed Petitions for approval of new LTIIPs for the five-year period beginning January 1, 2020 and ending December 31, 2024 for a total capital investment of approximately $572 million for certain infrastructure improvement initiatives. On January 16, 2020, the PPUC approved the LTIIPs without modification. The Pennsylvania Companies' approved DSIC riders for quarterly cost recovery went into effect July 1, 2016. On August 30, 2019, Penn filed a Petition seeking approval of a waiver of the statutory DSIC cap of 5% of distribution rate revenue and approval to increase the maximum allowable DSIC to 11.81% of distribution rate revenue for the five-year period of its proposed LTIIP. On March 12, 2020, an order was entered approving a settlement by all parties to that case which provides for a temporary increase in the recoverability cap from 5% to 7.5%, to expire on the earlier of the effective date of new base rates following Penn's next base rate case or the expiration of its LTIIP II program.

Following the Pennsylvania Companies' 2016 base rate proceedings, the PPUC ruled in a separate proceeding related to the DSIC mechanisms that the Pennsylvania Companies were not required to reflect federal and state income tax deductions related to DSIC-eligible property in DSIC rates, which decision was appealed by the Pennsylvania OCA to the Pennsylvania Commonwealth Court. The Commonwealth Court reversed the PPUC's decision and remanded the matter to require the Pennsylvania Companies to revise their tariffs and DSIC calculations to include ADIT and state income taxes. On April 7, 2020, the Pennsylvania Supreme Court issued an order granting Petitions for Allowance of Appeal by both the PPUC and the Pennsylvania Companies of the Commonwealth Court's Opinion and Order. Briefs and Reply Briefs of the parties were filed, and oral argument before the Supreme Court was held on October 21, 2020. An adverse ruling by the Pennsylvania Supreme Court is not expected to result in a material impact to FirstEnergy.

The PPUC issued an order on March 13, 2020, forbidding utilities from terminating service for non-payment for the duration of the COVID-19 pandemic. On May 13, 2020, the PPUC issued a Secretarial letter directing utilities to track all prudently incurred incremental costs arising from the COVID-19 pandemic, and to create a regulatory asset for future recovery of incremental uncollectibles incurred as a result of the COVID-19 pandemic and termination moratorium. On October 13, 2020, the PPUC entered an order lifting the service termination moratorium effective November 9, 2020, subject to certain additional notification, payment procedures and exceptions, and permits the Pennsylvania Companies to create a regulatory asset for all incremental expenses associated with their compliance with the order.

WEST VIRGINIA

MP and PE provide electric service to all customers through traditional cost-based, regulated utility ratemaking and operate under rates approved by the WVPSC effective February 2015. MP and PE recover net power supply costs, including fuel costs, purchased power costs and related expenses, net of related market sales revenue through the ENEC. MP's and PE's ENEC rate is updated annually.

On March 13, 2020, the WVPSC urged all utilities to suspend utility service terminations except where necessary as a matter of safety or where requested by the customer. On May 15, 2020, the WVPSC issued an order to authorize MP and PE to record a deferral of additional, extraordinary costs directly related to complying with the various COVID-19 government shut-down orders and operational precautions, including impacts on uncollectible expense and cash flow related to temporary discontinuance of service terminations for non-payment and any credits to minimum demand charges associated with business customers adversely impacted by shut-downs or temporary closures related to the pandemic. MP and PE resumed disconnection activity for commercial and industrial customers on September 15, 2020, and for residential customers on November 4, 2020.

On August 28, 2020, MP and PE filed with the WVPSC their annual ENEC case requesting a decrease in ENEC rates of $55 million beginning January 1, 2021, representing a 4% decrease in rates compared to those in effect on August 28, 2020. The

decrease in the ENEC rates is net of recovering approximately $10.5 million in previously deferred, incremental uncollectible and other related costs resulting from the COVID-19 pandemic. The WVPSC approved a unanimous settlement by the parties on December 16, 2020 with rates effective January 1, 2021.

Also, on August 28, 2020, MP and PE filed with the WVPSC for recovery of costs associated with modernization and improvement program for their coal-fired boilers. The proposed annual revenue increase for these environmental compliance projects is $5 million beginning January 1, 2021. The WVPSC approved a unanimous settlement by the parties on December 16, 2020 approving the recovery of those costs.

On December 30, 2020, MP and PE filed an integrated resource plan with the WVPSC. The plan projects a small capacity deficit but an energy surplus in MP's and PE's supply resources when compared with current WV load demand and projects the capacity deficit growing over the next 15 years. The plan does not recommend additional supply-side resources with a possible exception for small utility-scale solar resources and recommends that the capacity deficit be met through the PJM capacity market. MP currently expects to seek approval in 2021 to construct solar generation sources of up to 50 MWs.

On December 30, 2020, MP and PE filed with the WVPSC a determination of the rate impact of the Tax Act with respect to ADIT. The filing proposes an annual revenue reduction of $2.6 million annually, effective January 1, 2022, with reconciliation and any resulting adjustments incorporated into the annual ENEC proceedings.

FERC REGULATORY MATTERS

Under the FPA, FERC regulates rates for interstate wholesale sales, transmission of electric power, accounting and other matters, including construction and operation of hydroelectric projects. With respect to their wholesale services and rates, the Utilities, AE Supply and the Transmission Companies are subject to regulation by FERC. FERC regulations require JCP&L, MP, PE, WP and the Transmission Companies to provide open access transmission service at FERC-approved rates, terms and conditions. Transmission facilities of JCP&L, MP, PE, WP and the Transmission Companies are subject to functional control by PJM and transmission service using their transmission facilities is provided by PJM under the PJM Tariff.

The following table summarizes the key terms of rate orders in effect for transmission customer billings for FirstEnergy's transmission owner entities as of December 31, 2020:

Company	Rates Effective	Capital Structure	Allowed ROE
ATSI	January 1, 2015	Actual (13-month average)	10.38%
JCP&L	January 2020[1]	Actual (13-month average)[1]	10.80%[1]
MP	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
PE	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
WP	March 21, 2018[2][4]	Settled[2][3]	Settled[2][3]
MAIT	July 1, 2017	Lower of Actual (13-month average) or 60%	10.3%
TrAIL	July 1, 2008	Actual (year-end)	12.7% (TrAIL the Line & Black Oak SVC) 11.7% (All other projects)

[1] As filed in docket ER20-227, effective on January 1, 2020, which has been accepted by FERC, subject to refund, pending further hearing and settlement procedures. The settlement agreement that was filed on February 2, 2021, seeking approval by FERC sets JCP&L's Allowed ROE at 10.2%.
[2] Effective on January 1, 2021, MP, PE, and WP have implemented a forward-looking formula rate, which has been accepted by FERC, subject to refund, pending further hearing and settlement procedures.
[3] FERC-approved settlement agreements did not specify.
[4] See FERC Actions on Tax Act below.

FERC regulates the sale of power for resale in interstate commerce in part by granting authority to public utilities to sell wholesale power at market-based rates upon showing that the seller cannot exert market power in generation or transmission or erect barriers to entry into markets. The Utilities and AE Supply each have been authorized by FERC to sell wholesale power in interstate commerce at market-based rates and have a market-based rate tariff on file with FERC, although in the case of the Utilities major wholesale purchases remain subject to review and regulation by the relevant state commissions.

Federally enforceable mandatory reliability standards apply to the bulk electric system and impose certain operating, record-keeping and reporting requirements on the Utilities, AE Supply, and the Transmission Companies. NERC is the ERO designated by FERC to establish and enforce these reliability standards, although NERC has delegated day-to-day implementation and enforcement of these reliability standards to six regional entities, including RFC. All of the facilities that FirstEnergy operates are located within the RFC region. FirstEnergy actively participates in the NERC and RFC stakeholder processes, and otherwise monitors and manages its companies in response to the ongoing development, implementation and enforcement of the reliability standards implemented and enforced by RFC.

FirstEnergy believes that it is in material compliance with all currently effective and enforceable reliability standards. Nevertheless, in the course of operating its extensive electric utility systems and facilities, FirstEnergy occasionally learns of isolated facts or circumstances that could be interpreted as excursions from the reliability standards. If and when such occurrences are found, FirstEnergy develops information about the occurrence and develops a remedial response to the specific circumstances, including in appropriate cases "self-reporting" an occurrence to RFC. Moreover, it is clear that NERC, RFC and FERC will continue to refine existing reliability standards as well as to develop and adopt new reliability standards. Any inability on FirstEnergy's part to comply with the reliability standards for its bulk electric system could result in the imposition of financial penalties, or obligations to upgrade or build transmission facilities, that could have a material adverse effect on its financial condition, results of operations and cash flows.

ATSI Transmission Formula Rate

On May 1, 2020, ATSI filed amendments to its formula rate to recover regulatory assets for certain costs that ATSI incurred as a result of its 2011 move from MISO to PJM, certain costs allocated to ATSI by FERC for transmission projects that were constructed by other MISO transmission owners, certain income tax-related adjustments, including, but not limited to impacts from the Tax Act discussed further below, and certain costs for transmission-related vegetation management programs. The amount on FirstEnergy's Consolidated Balance Sheet for these regulatory assets was approximately $79 million and $73 million, as of December 31, 2020 and December 31, 2019, respectively. Per prior FERC orders, ATSI included a "cost-benefit study" to support recovery of ATSI's costs to move to PJM, and the MISO transmission project costs that were allocated to ATSI. Certain intervenors filed protests of the formula rate amendments on May 29, 2020, and ATSI filed a reply on June 15, 2020. On June 30, 2020, FERC issued an initial order accepting the tariff amendments subject to refund, suspending the effective date for five months to be effective December 1, 2020, and setting the matter for hearing and settlement proceedings. ATSI is engaged in settlement negotiations with the other parties to the formula rate amendments proceeding.

FERC Actions on Tax Act

On March 15, 2018, FERC initiated proceedings on the question of how to address possible changes to ADIT and bonus depreciation as a result of the Tax Act. Such possible changes could impact FERC-jurisdictional rates, including transmission rates. On November 21, 2019, FERC issued a final rule (Order No. 864). Order No. 864 requires utilities with transmission formula rates to update their formula rate templates to include mechanisms to (i) deduct any excess ADIT from or add any deficient ADIT to their rate base; (ii) raise or lower their income tax allowances by any amortized excess or deficient ADIT; and (iii) incorporate a new permanent worksheet into their rates that will annually track information related to excess or deficient ADIT. Per FERC directives, ATSI submitted its compliance filing on May 1, 2020. MAIT submitted its compliance filing on June 1, 2020. Certain intervenors filed protests of the compliance filings, to which ATSI and MAIT responded. On October 28, 2020, FERC staff requested additional information about ATSI's proposed rate base adjustment mechanism, and ATSI submitted the requested information on November 25, 2020. On May 15, 2020, TrAIL submitted its compliance filing and on June 1, 2020, PATH submitted its required compliance filing. These compliance filings each remain pending before FERC. MP, WP and PE (as holders of a "stated" transmission rate) are addressing these requirements in the transmission formula rates amendments that were filed on October 29, 2020. JCP&L is addressing these requirements as part of its pending transmission formula rate case.

Transmission ROE Methodology

FERC's methodology for calculating electric transmission utility ROE has been in transition as a result of an April 14, 2017 ruling by the D.C. Circuit that vacated FERC's then-effective methodology. On May 21, 2020, FERC issued Opinion No. 569-A that changed FERC's ROE methodology. Under this methodology FERC established an ROE that is based on three financial models – discounted cash flow, capital-asset pricing, and risk premium – to calculate a composite zone of reasonableness. FERC noted that utilities could, in utility-specific proceedings, ask to have the expected earnings methodology included in calculating the utility's authorized ROE. FERC also noted that, going forward, it will divide that zone into three equal parts, to be used for high risk, normal risk, and low risk utilities. A given utility will be assigned to one of these three parts of the zone of reasonableness, and its ROE will be set at the median or midpoint of the other utilities that are in the applicable third of the zone. FirstEnergy filed a request for rehearing, which FERC denied on July 22, 2020. On November 19, 2020, FERC issued Opinion No. 569-B, which affirmed the Opinion No. 569-A rulings. FirstEnergy initiated, but subsequently withdrew, appeals of these orders. Appeals of Opinion Nos. 569, 569-A and 569-B are pending before the D.C. Circuit. Any changes to FERC's transmission rate ROE and incentive policies would be applied on a prospective basis.

On March 20, 2020, FERC initiated a rulemaking proceeding on the transmission rate incentives provisions of Section 219 of the 2005 Energy Policy Act. Initial comments were submitted July 1, 2020, and reply comments were filed on July 16, 2020. FirstEnergy participated through EEI and through a consortium of PJM Transmission Owners. This proceeding is pending before FERC.

JCP&L Transmission Formula Rate

On October 30, 2019, JCP&L filed tariff amendments with FERC to convert JCP&L's existing stated transmission rate to a forward-looking formula transmission rate. JCP&L requested that the tariff amendments become effective January 1, 2020. On December 19, 2019, FERC issued its initial order in the case, allowing JCP&L to transition to a forward-looking formula rate as of

January 1, 2020 as requested, subject to refund, pending further hearing and settlement proceedings. JCP&L and the parties to the FERC proceeding subsequently were able to reach settlement, and on February 2, 2021, a settlement agreement was filed for approval by FERC.

Allegheny Power Zone Transmission Formula Rate Filings

On October 29, 2020, MP, PE and WP filed tariff amendments with FERC to convert their existing stated transmission rate to a forward-looking formula transmission rate, effective January 1, 2021. In addition, on October 30, 2020, KATCo filed a proposed new tariff to establish a forward-looking formula rate and requested that the new rate become effective January 1, 2021. In its filing, KATCo explained that while it currently owns no transmission assets, it may build new transmission facilities in the Allegheny zone, and that it may seek required state and federal authorizations to acquire transmission assets from PE and WP by January 1, 2022. These transmission rate filings were approved by FERC on December 31, 2020, subject to refund, pending further hearing and settlement proceedings. MP, PE and WP, and KATCo are engaged in settlement negotiations with the other parties to the formula rate proceedings. KATCo will be included in the Regulated Transmission reportable segment.

15. COMMITMENTS, GUARANTEES AND CONTINGENCIES

GUARANTEES AND OTHER ASSURANCES

FirstEnergy has various financial and performance guarantees and indemnifications which are issued in the normal course of business. These contracts include performance guarantees, stand-by letters of credit, debt guarantees, surety bonds and indemnifications. FirstEnergy enters into these arrangements to facilitate commercial transactions with third parties by enhancing the value of the transaction to the third party.

As of December 31, 2020, outstanding guarantees and other assurances aggregated approximately $1.7 billion, consisting of parental guarantees on behalf of its consolidated subsidiaries' guarantees ($1.1 billion), other guarantees ($108 million) and other assurances ($490 million).

COLLATERAL AND CONTINGENT-RELATED FEATURES

In the normal course of business, FE and its subsidiaries may enter into physical or financially settled contracts for the sale and purchase of electric capacity, energy, fuel and emission allowances. Certain agreements contain provisions that require FE or its subsidiaries to post collateral. This collateral may be posted in the form of cash or credit support with thresholds contingent upon FE's or its subsidiaries' credit rating from each of the major credit rating agencies. The collateral and credit support requirements vary by contract and by counterparty.

As of December 31, 2020 $20 million of collateral has been posted by FE or its subsidiaries, of which, $19 million was posted as a result of the credit rating downgrades in the fourth quarter of 2020.

These credit-risk-related contingent features stipulate that if the subsidiary were to be downgraded or lose its investment grade credit rating (based on its senior unsecured debt rating), it would be required to provide additional collateral. The following table discloses the potential additional credit rating contingent contractual collateral obligations as of December 31, 2020:

Potential Collateral Obligations	Utilities and FET	FE	Total
		(In millions)	
Contractual Obligations for Additional Collateral			
Upon Further Downgrade	$ 37	$ —	$ 37
Surety Bonds (Collateralized Amount)[1]	55	258	313
Total Exposure from Contractual Obligations	$ 92	$ 258	$ 350

[1] Surety Bonds are not tied to a credit rating. Surety Bonds' impact assumes maximum contractual obligations, which is ordinarily 100% of the face amount of the surety bond except with the respect to $39 million of surety obligations for which the collateral obligation is capped at 60% of the face amount, and typical obligations require 30 days to cure.

OTHER COMMITMENTS AND CONTINGENCIES

FE is a guarantor under a $120 million syndicated senior secured term loan facility due November 12, 2024, under which Global Holding's outstanding principal balance is $108 million as of December 31, 2020. Signal Peak, Global Rail, Global Mining Group, LLC and Global Coal Sales Group, LLC, each being a direct or indirect subsidiary of Global Holding, and FE continue to provide their joint and several guaranties of the obligations of Global Holding under the facility.

In connection with the facility, 69.99% of Global Holding's direct and indirect membership interests in Signal Peak, Global Rail and their affiliates along with FEV's and WMB Marketing Ventures, LLC's respective 33-1/3% membership interests in Global Holding, are pledged to the lenders under the current facility as collateral.

ENVIRONMENTAL MATTERS

Various federal, state and local authorities regulate FirstEnergy with regard to air and water quality, hazardous and solid waste disposal, and other environmental matters. While FirstEnergy's environmental policies and procedures are designed to achieve compliance with applicable environmental laws and regulations, such laws and regulations are subject to periodic review and potential revision by the implementing agencies. FirstEnergy cannot predict the timing or ultimate outcome of any of these reviews or how any future actions taken as a result thereof may materially impact its business, results of operations, cash flows and financial condition.

Clean Air Act

FirstEnergy complies with SO_2 and NOx emission reduction requirements under the CAA and SIP(s) by burning lower-sulfur fuel, utilizing combustion controls and post-combustion controls and/or using emission allowances.

CSAPR requires reductions of NOx and SO_2 emissions in two phases (2015 and 2017), ultimately capping SO_2 emissions in affected states to 2.4 million tons annually and NOx emissions to 1.2 million tons annually. CSAPR allows trading of NOx and SO_2 emission allowances between power plants located in the same state and interstate trading of NOx and SO_2 emission allowances with some restrictions. The D.C. Circuit ordered the EPA on July 28, 2015, to reconsider the CSAPR caps on NOx and SO_2 emissions from power plants in 13 states, including West Virginia. This follows the 2014 U.S. Supreme Court ruling generally upholding the EPA's regulatory approach under CSAPR but questioning whether the EPA required upwind states to reduce emissions by more than their contribution to air pollution in downwind states. The EPA issued a CSAPR update rule on September 7, 2016, reducing summertime NOx emissions from power plants in 22 states in the eastern U.S., including West Virginia, beginning in 2017. Various states and other stakeholders appealed the CSAPR update rule to the D.C. Circuit in November and December 2016. On September 13, 2019, the D.C. Circuit remanded the CSAPR update rule to the EPA citing that the rule did not eliminate upwind states' significant contributions to downwind states' air quality attainment requirements within applicable attainment deadlines. Depending on the outcome of the appeals, the EPA's reconsideration of the CSAPR update rule and how the EPA and the states ultimately implement CSAPR, the future cost of compliance may materially impact FirstEnergy's operations, cash flows and financial condition.

In February 2019, the EPA announced its final decision to retain without changes the NAAQS for SO_2, specifically retaining the 2010 primary (health-based) 1-hour standard of 75 PPB. As of December 31, 2020, FirstEnergy has no power plants operating in areas designated as non-attainment by the EPA.

In March 2018, the State of New York filed a CAA Section 126 petition with the EPA alleging that NOx emissions from nine states (including West Virginia) significantly contribute to New York's inability to attain the ozone NAAQS. The petition seeks suitable emission rate limits for large stationary sources that are affecting New York's air quality within the three years allowed by CAA Section 126. On September 20, 2019, the EPA denied New York's CAA Section 126 petition. On October 29, 2019, the State of New York appealed the denial of its petition to the D.C. Circuit. On July 14, 2020, the D.C. Circuit reversed and remanded the New York petition to the EPA for further consideration. FirstEnergy is unable to predict the outcome of these matters or estimate the loss or range of loss.

Climate Change

There are a number of initiatives to reduce GHG emissions at the state, federal and international level. Certain northeastern states are participating in the RGGI and western states led by California, have implemented programs, primarily cap and trade mechanisms, to control emissions of certain GHGs. Additional policies reducing GHG emissions, such as demand reduction programs, renewable portfolio standards and renewable subsidies have been implemented across the nation.

At the international level, the United Nations Framework Convention on Climate Change resulted in the Kyoto Protocol requiring participating countries, which does not include the U.S., to reduce GHGs commencing in 2008 and has been extended through 2020. The Obama Administration submitted in March 2015, a formal pledge for the U.S. to reduce its economy wide GHG emissions by 26 to 28 percent below 2005 levels by 2025. In 2015, FirstEnergy set a goal of reducing company-wide CO2 emissions by at least 90 percent below 2005 levels by 2045. As of December 31, 2018, FirstEnergy has reduced its CO2 emissions by approximately 62 percent. In September 2016, the U.S. joined in adopting the agreement reached on December 12, 2015, at the United Nations Framework Convention on Climate Change meetings in Paris. The Paris Agreement's non-binding obligations to limit global warming to below two degrees Celsius became effective on November 4, 2016. On June 1, 2017, the Trump Administration announced that the U.S. would cease all participation in the Paris Agreement. On January 20, 2021, President Biden signed an executive order re-adopting the agreement on behalf of the U.S. FirstEnergy cannot currently estimate the financial impact of climate change policies, although potential legislative or regulatory programs restricting CO2 emissions, or litigation alleging damages from GHG emissions, could require material capital and other expenditures or result in changes to its operations.

In December 2009, the EPA released its final “Endangerment and Cause or Contribute Findings for GHG under the Clean Air Act,” concluding that concentrations of several key GHGs constitutes an "endangerment" and may be regulated as "air pollutants" under the CAA and mandated measurement and reporting of GHG emissions from certain sources, including electric generating plants. The EPA released its final CPP regulations in August 2015 to reduce CO_2 emissions from existing fossil fuel fired EGUs and finalized separate regulations imposing CO_2 emission limits for new, modified, and reconstructed fossil fuel fired EGUs. Numerous states and private parties filed appeals and motions to stay the CPP with the D.C. Circuit in October 2015. On February 9, 2016, the U.S. Supreme Court stayed the rule during the pendency of the challenges to the D.C. Circuit and U.S. Supreme Court. On March 28, 2017, an executive order, entitled “Promoting Energy Independence and Economic Growth,” instructed the EPA to review the CPP and related rules addressing GHG emissions and suspend, revise or rescind the rules if appropriate. On October 16, 2017, the EPA issued a proposed rule to repeal the CPP. On June 19, 2019, the EPA repealed the CPP and replaced it with the ACE rule that establishes guidelines for states to develop standards of performance to address GHG emissions from existing coal-fired power plants. On January 19, 2021, the D.C. Circuit remanded the ACE rule declaring that the EPA was “arbitrary and capricious” in its rule making, as such, the ACE rule is no longer in effect and all actions thus far taken by States to implement the federally mandated rule are now null and void. The D.C. Circuit decision is subject to legal challenge. Depending on the outcomes of further appeals and how any final rules are ultimately implemented, the future cost of compliance may be material.

Clean Water Act

Various water quality regulations, the majority of which are the result of the federal CWA and its amendments, apply to FirstEnergy's facilities. In addition, the states in which FirstEnergy operates have water quality standards applicable to FirstEnergy's operations.

The EPA finalized CWA Section 316(b) regulations in May 2014, requiring cooling water intake structures with an intake velocity greater than 0.5 feet per second to reduce fish impingement when aquatic organisms are pinned against screens or other parts of a cooling water intake system to a 12% annual average and requiring cooling water intake structures exceeding 125 million gallons per day to conduct studies to determine site-specific controls, if any, to reduce entrainment, which occurs when aquatic life is drawn into a facility's cooling water system. Depending on any final action taken by the states with respect to impingement and entrainment, the future capital costs of compliance with these standards may be material.

On September 30, 2015, the EPA finalized new, more stringent effluent limits for the Steam Electric Power Generating category (40 CFR Part 423) for arsenic, mercury, selenium and nitrogen for wastewater from wet scrubber systems and zero discharge of pollutants in ash transport water. The treatment obligations were to phase-in as permits are renewed on a five-year cycle from 2018 to 2023. However, on April 13, 2017, the EPA granted a Petition for Reconsideration and on September 18, 2017, the EPA postponed certain compliance deadlines for two years. On August 31, 2020, the EPA issued a final rule revising the effluent limits for discharges from wet scrubber systems, retaining the zero-discharge standard for ash transport water, (with some limited discharge allowances), and extending the deadline for compliance to December 31, 2025 for both. In addition, the EPA allows for less stringent limits for sub-categories of generating units based on capacity utilization, flow volume from the scrubber system, and unit retirement date. Depending on the outcome of appeals, how final rules are ultimately implemented and the compliance options MP elects to take with the new rules, the compliance with these standards, which could include capital expenditures at the Ft. Martin and Harrison power stations, may be substantial and changes to MP’s operations at those power stations may also result.

On September 29, 2016, FirstEnergy received a request from the EPA for information pursuant to CWA Section 308(a) for information concerning boron exceedances of effluent limitations established in the NPDES Permit for the former Mitchell Power Station’s Mingo landfill, owned by WP. On November 1, 2016, WP provided an initial response that contained information related to a similar boron issue at the former Springdale Power Station’s landfill. The EPA requested additional information regarding the Springdale landfill and on November 15, 2016, WP provided a response and intends to fully comply with the Section 308(a) information request. On March 3, 2017, WP proposed to the PA DEP a re-route of its wastewater discharge to eliminate potential boron exceedances at the Springdale landfill. On January 29, 2018, WP submitted an NPDES permit renewal application to PA DEP proposing to re-route its wastewater discharge to eliminate potential boron exceedances at the Mingo landfill. On February 20, 2018, the DOJ issued a letter and tolling agreement on behalf of the EPA alleging violations of the CWA at the Springdale and Mingo landfills while seeking to enter settlement negotiations in lieu of filing a complaint. The EPA has proposed a penalty of $900,000 to settle alleged past boron exceedances at both facilities. Negotiations are continuing and WP is unable to predict the outcome of this matter.

Regulation of Waste Disposal

Federal and state hazardous waste regulations have been promulgated as a result of the RCRA, as amended, and the Toxic Substances Control Act. Certain CCRs, such as coal ash, were exempted from hazardous waste disposal requirements pending the EPA's evaluation of the need for future regulation.

In April 2015, the EPA finalized regulations for the disposal of CCRs (non-hazardous), establishing national standards for landfill design, structural integrity design and assessment criteria for surface impoundments, groundwater monitoring and protection procedures and other operational and reporting procedures to assure the safe disposal of CCRs from electric generating plants.

On September 13, 2017, the EPA announced that it would reconsider certain provisions of the final regulations. On July 17, 2018, the EPA Administrator signed a final rule extending the deadline for certain CCR facilities to cease disposal and commence closure activities, as well as, establishing less stringent groundwater monitoring and protection requirements. On August 21, 2018, the D.C. Circuit remanded sections of the CCR Rule to the EPA to provide additional safeguards for unlined CCR impoundments that are more protective of human health and the environment. On December 2, 2019, the EPA published a proposed rule accelerating the date that certain CCR impoundments must cease accepting waste and initiate closure to August 31, 2020. The proposed rule allows for an extension of the closure deadline based on meeting proscribed site-specific criteria. On July 29, 2020, the EPA published a final rule revising the date that certain CCR impoundments must cease accepting waste and initiate closure to April 11, 2021. The final rule allows for an extension of the closure deadline based on meeting proscribed site-specific criteria. On November 30, 2020, AE Supply submitted a closure deadline extension request to the EPA seeking to extend the closure date until 2024 of McElroy's Run CCR impoundment facility, for which AE Supply continues to provide access to FG.

FE or its subsidiaries have been named as potentially responsible parties at waste disposal sites, which may require cleanup under the CERCLA. Allegations of disposal of hazardous substances at historical sites and the liability involved are often unsubstantiated and subject to dispute; however, federal law provides that all potentially responsible parties for a particular site may be liable on a joint and several basis. Environmental liabilities that are considered probable have been recognized on the Consolidated Balance Sheets as of December 31, 2020, based on estimates of the total costs of cleanup, FirstEnergy's proportionate responsibility for such costs and the financial ability of other unaffiliated entities to pay. Total liabilities of approximately $107 million have been accrued through December 31, 2020. Included in the total are accrued liabilities of approximately $67 million for environmental remediation of former MGP and gas holder facilities in New Jersey, which are being recovered by JCP&L through a non-bypassable SBC. FE or its subsidiaries could be found potentially responsible for additional amounts or additional sites, but the loss or range of losses cannot be determined or reasonably estimated at this time.

OTHER LEGAL PROCEEDINGS

United States v. Larry Householder, et al.

On July 21, 2020, a complaint and supporting affidavit containing federal criminal allegations were unsealed against the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder. Also, on July 21, 2020, and in connection with the investigation, FirstEnergy received subpoenas for records from the U.S. Attorney's Office for the S.D. Ohio. FirstEnergy was not aware of the criminal allegations, affidavit or subpoenas before July 21, 2020. No contingency has been reflected in FirstEnergy's consolidated financial statements as a loss is neither probable, nor is a loss or range of a loss reasonably estimable.

Legal Proceedings Relating to United States v. Larry Householder, et al.

In addition to the subpoenas referenced above under "—United States v. Larry Householder, et. al.", certain FE stockholders and FirstEnergy customers filed several lawsuits against FirstEnergy and certain current and former directors, officers and other employees, and the complaints in each of these suits is related to allegations in the complaint and supporting affidavit relating to HB 6 and the now former Ohio House Speaker Larry Householder and other individuals and entities allegedly affiliated with Mr. Householder.

- *Owens v. FirstEnergy Corp. et al.* and *Frand v. FirstEnergy Corp. et al.* (Federal District Court, S.D. Ohio); on July 28, 2020 and August 21, 2020, purported stockholders of FE filed putative class action lawsuits against FE and certain FE officers, purportedly on behalf of all purchasers of FE common stock from February 21, 2017 through July 21, 2020, asserting claims under Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and Rule 10b-5 promulgated thereunder, alleging misrepresentations or omissions by FirstEnergy concerning its business and results of operations. These actions have been consolidated and a lead plaintiff has been appointed by the court.
- *Gendrich v. Anderson, et al. and Sloan v. Anderson, et al.* (Common Pleas Court, Summit County, OH); on July 26, 2020 and July 31, 2020, respectively, purported stockholders of FE filed shareholder derivative action lawsuits against certain FE directors and officers, alleging, among other things, breaches of fiduciary duty. These actions have been consolidated.
- *Miller v. Anderson, et al.* (Federal District Court, N.D. Ohio); *Bloom, et al. v. Anderson, et al.; Employees Retirement System of the City of St. Louis v. Jones, et al.; Electrical Workers Pension Fund, Local 103, I.B.E.W. v. Anderson et al.; Massachusetts Laborers Pension Fund v. Anderson et al.; The City of Philadelphia Board of Pensions and Retirement v. Anderson et al.; Atherton v. Dowling et al; Behar v. Anderson, et al.* (U.S. District Court, S.D. Ohio, all actions have been consolidated); beginning on August 7, 2020, purported stockholders of FE filed shareholder derivative actions alleging the board and officers breached their fiduciary duties and committed violations of Section 14(a) of the Securities Exchange Act of 1934. The cases in the Southern District of Ohio have been consolidated and co-lead plaintiffs have been appointed by the court.
- *Smith v. FirstEnergy Corp. et al., Buldas v. FirstEnergy Corp. et al., and Hudock and Cameo Countertops, Inc. v. FirstEnergy Corp. et al.* (Federal District Court, S.D. Ohio); on July 27, 2020, July 31, 2020, and August 5, 2020, respectively, purported customers of FirstEnergy filed putative class action lawsuits against FE and FESC, as well as

certain current and former FirstEnergy officers, alleging civil Racketeer Influenced and Corrupt Organizations Act violations and related state law claims. These actions have been consolidated.

- *State of Ohio ex rel. Dave Yost, Ohio Attorney General v. FirstEnergy Corp., et al. and City of Cincinnati and City of Columbus v. FirstEnergy Corp.* (Common Pleas Court, Franklin County, OH); on September 23, 2020 and October 27, 2020, the OAG and the cities of Cincinnati and Columbus, respectively, filed complaints against several parties including FE, each alleging civil violations of the Ohio Corrupt Activity Act in connection with the passage of HB 6. The OAG sought a preliminary injunction to prevent each of the defendants, including FE, through the end of 2020, from: (i) contributing to any groups whose purpose is to keep or modify HB 6; (ii) making any public statements for or against any repeal or modification legislation concerning HB 6; (iii) lobbying, consulting, or advising on these matters; or (iv) contributing to any Ohio legislative candidates. The court denied the OAG's request for preliminary injunctive relief on October 2, 2020. On January 13, 2021, the OAG filed a motion for a temporary restraining order and preliminary injunction against FirstEnergy seeking to enjoin FirstEnergy from collecting the Ohio Companies' decoupling rider. On January 31, 2021, FE reached a partial settlement with the OAG and the cities of Cincinnati and Columbus with respect to the temporary restraining order and preliminary injunction request and related issues. In connection with the partial settlement, the Ohio Companies filed an application on February 1, 2021, with the PUCO to set their respective decoupling riders (Rider CSR) to zero. On February 2, 2021, the PUCO approved the application of the Ohio Companies setting the rider to zero and no additional customer bills will include new decoupling rider charges after February 8, 2021. The cities of Dayton and Toledo have also been added as plaintiffs to the action. These actions have been consolidated.
- *Emmons v. FirstEnergy Corp. et al.* (Common Pleas Court, Cuyahoga County, OH); on August 4, 2020, a purported customer of FirstEnergy filed a putative class action lawsuit against FE, FESC, OE, TE and CEI, along with FES, alleging several causes of action, including negligence and/or gross negligence, breach of contract, unjust enrichment, and unfair or deceptive consumer acts or practices. On October 1, 2020, plaintiffs filed a First Amended Complaint, adding as a plaintiff a purported customer of FirstEnergy and alleging a civil violation of the Ohio Corrupt Activity Act and civil conspiracy against FE, FESC and FES.

The plaintiffs in each of the above cases, seek, among other things, to recover an unspecified amount of damages (unless otherwise noted). In addition, on August 10, 2020, the SEC, through its Division of Enforcement, issued an order directing an investigation of possible securities laws violations by FE, and on September 1, 2020, issued subpoenas to FE and certain FE officers. Further, on January 26, 2021, staff of FERC's Division of Investigations issued a letter directing FirstEnergy to preserve and maintain all documents and information related to an ongoing audit being conducted by FERC's Division of Audits and Accounting, including activities related to lobbying and governmental affairs activities concerning HB 6. The outcome of any of these lawsuits, investigations and audit are uncertain and could have a material adverse effect on FE's or its subsidiaries' financial condition, results of operations and cash flows. No contingency has been reflected in FirstEnergy's consolidated financial statements as a loss is neither probable, nor is a loss or range of a loss reasonably estimable.

Internal Investigation Relating to United States v. Larry Householder, et al.

As previously disclosed, a committee of independent members of the Board of Directors is directing an internal investigation related to ongoing government investigations. In connection with FirstEnergy's internal investigation, such committee determined on October 29, 2020, to terminate FirstEnergy's Chief Executive Officer, Charles E. Jones, together with two other executives: Dennis M. Chack, Senior Vice President of Product Development, Marketing, and Branding; and Michael J. Dowling, Senior Vice President of External Affairs. Each of these terminated executives violated certain FirstEnergy policies and its code of conduct. These executives were terminated as of October 29, 2020. Such former members of senior management did not maintain and promote a control environment with an appropriate tone of compliance in certain areas of FirstEnergy's business, nor sufficiently promote, monitor or enforce adherence to certain FirstEnergy policies and its code of conduct. Furthermore, certain former members of senior management did not reasonably ensure that relevant information was communicated within our organization and not withheld from our independent directors, our Audit Committee, and our independent auditor. Among the matters considered with respect to the determination by the committee of independent members of the Board of Directors that certain former members of senior management violated certain FirstEnergy policies and its code of conduct related to a payment of approximately $4 million made in early 2019 in connection with the termination of a purported consulting agreement, as amended, which had been in place since 2013. The counterparty to such agreement was an entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating the Ohio Companies, including with respect to distribution rates. FirstEnergy believes that payments under the consulting agreement may have been for purposes other than those represented within the consulting agreement. Immediately following these terminations, the independent members of its Board appointed Mr. Steven E. Strah to the position of Acting Chief Executive Officer and Mr. Christopher D. Pappas, a current member of the Board, to the temporary position of Executive Director, each effective as of October 29, 2020. Mr. Donald T. Misheff will continue to serve as Non-Executive Chairman of the Board. Additionally, on November 8, 2020, Robert P. Reffner, Senior Vice President and Chief Legal Officer, and Ebony L. Yeboah-Amankwah, Vice President, General Counsel, and Chief Ethics Officer, were separated from FirstEnergy due to inaction and conduct that the Board determined was influenced by the improper tone at the top. The matter is a subject of the ongoing internal investigation as it relates to the government investigations.

Nuclear Plant Matters

On October 15, 2019, JCP&L, ME, PN and GPUN executed an asset purchase and sale agreement with TMI-2 Solutions, LLC, a subsidiary of Energy*Solutions*, LLC, concerning the transfer and dismantlement of TMI-2. This transfer of TMI-2 to TMI-2 Solutions, LLC will include the transfer of: (i) the ownership and operating NRC licenses for TMI-2; (ii) the external trusts for the decommissioning and environmental remediation of TMI-2; and (iii) related liabilities. On August 10, 2020, JCP&L, ME, PN, GPUN, TMI-2 Solutions, LLC, and the PA DEP reached a settlement agreement regarding the decommissioning of TMI-2. On December 2, 2020, the NJBPU issued an order approving the transfer and sale under the conditions requested by Rate Counsel and agreed to by JCP&L. Also, on December 2, 2020, the NRC issued its order approving the license transfer as requested. With the receipt of all required regulatory approvals, the transaction was consummated on December 18, 2020. See Note 1, "Organization and Basis of Presentation," for additional discussion.

FES Bankruptcy

On March 31, 2018, FES, including its consolidated subsidiaries, FG, NG, FE Aircraft Leasing Corp., Norton Energy Storage L.L.C. and FGMUC, and FENOC filed voluntary petitions for bankruptcy protection under Chapter 11 of the United States Bankruptcy Code in the Bankruptcy Court and emerged on February 27, 2020. See Note 3, "Discontinued Operations," for additional discussion.

Other Legal Matters

There are various lawsuits, claims (including claims for asbestos exposure) and proceedings related to FirstEnergy's normal business operations pending against FE or its subsidiaries. The loss or range of loss in these matters is not expected to be material to FE or its subsidiaries. The other potentially material items not otherwise discussed above are described under Note 14, "Regulatory Matters."

FirstEnergy accrues legal liabilities only when it concludes that it is probable that it has an obligation for such costs and can reasonably estimate the amount of such costs. In cases where FirstEnergy determines that it is not probable, but reasonably possible that it has a material obligation, it discloses such obligations and the possible loss or range of loss if such estimate can be made. If it were ultimately determined that FE or its subsidiaries have legal liability or are otherwise made subject to liability based on any of the matters referenced above, it could have a material adverse effect on FE's or its subsidiaries' financial condition, results of operations and cash flows.

16. TRANSACTIONS WITH AFFILIATED COMPANIES

FE does not bill directly or allocate any of its costs to any subsidiary company. Costs are charged to FE's subsidiaries for services received from FESC. The majority of costs are directly billed or assigned at no more than cost. The remaining costs are for services that are provided on behalf of more than one company, or costs that cannot be precisely identified and are allocated using formulas developed by FESC. The current allocation or assignment formulas used and their bases include multiple factor formulas: each company’s proportionate amount of FirstEnergy’s aggregate direct payroll, number of employees, asset balances, revenues, number of customers, other factors and specific departmental charge ratios. Intercompany transactions are generally settled under commercial terms within thirty days.

The Utilities and Transmission Companies are parties to an intercompany income tax allocation agreement with FE and its other subsidiaries, that provides for the allocation of consolidated tax liabilities. Net tax benefits attributable to FE are generally reallocated to the subsidiaries of FirstEnergy that have taxable income. That allocation is accounted for as a capital contribution to the company receiving the tax benefit (see Note 7, "Taxes").

17. SEGMENT INFORMATION

FE and its subsidiaries are principally involved in the transmission, distribution and generation of electricity through its reportable segments, Regulated Distribution and Regulated Transmission.

The **Regulated Distribution** segment distributes electricity through FirstEnergy’s ten utility operating companies, serving approximately six million customers within 65,000 square miles of Ohio, Pennsylvania, West Virginia, Maryland, New Jersey and New York, and purchases power for its POLR, SOS, SSO and default service requirements in Ohio, Pennsylvania, New Jersey and Maryland. This segment also controls 3,790 MWs of regulated electric generation capacity located primarily in West Virginia, Virginia and New Jersey, of which, 210 MWs are related to the Yards Creek generating station that is being sold pursuant to an asset purchase agreement as further discussed below. The segment's results reflect the costs of securing and delivering electric generation from transmission facilities to customers, including the deferral and amortization of certain related costs. Included within the segment is $882 million of assets classified as held for sale as of December 31, 2019 associated with the asset purchase and sale agreements with TMI-2 Solutions to transfer TMI-2 to TMI-2 Solutions, LLC. With the receipt of all required regulatory approvals, the transaction was consummated on December 18, 2020. As a result, during the fourth quarter of 2020 FirstEnergy recognized an after tax-gain of approximately $33 million, primarily associated with the write-off of a tax related regulatory liability. See Note 15, "Commitments, Guarantees and Contingencies" for additional information. Also included within

the segment is $45 million of assets classified as held for sale as of December 31, 2020 associated with the asset purchase agreement with Yards Creek Energy, LLC to transfer JCP&L's 50% interest in the Yards Creek pumped-storage hydro generation station (210 MWs). See Note 14, "Regulatory Matters" for additional information.

The **Regulated Transmission** segment provides transmission infrastructure owned and operated by the Transmission Companies and certain of FirstEnergy's utilities (JCP&L, MP, PE and WP) to transmit electricity from generation sources to distribution facilities. The segment's revenues are primarily derived from forward-looking formula rates at the Transmission Companies as well as stated transmission rates at MP, PE and WP; although as explained in Note 14, "Regulatory Matters", effective January 1, 2021, subject to refund, MP's, PE's and WP's existing stated rates became forward-looking formula rates. JCP&L previously had stated transmission rates, however, effective January 1, 2020, JCP&L implemented forward-looking formula rates, subject to refund, pending further hearing and settlement proceedings. Both forward-looking formula and stated rates recover costs that FERC determines are permitted to be recovered and provide a return on transmission capital investment. Under forward-looking formula rates, the revenue requirement is updated annually based on a projected rate base and projected costs, which is subject to an annual true-up based on actual costs. Revenue requirements under stated rates are calculated annually by multiplying the highest one-hour peak load in each respective transmission zone by the approved, stated rate in that zone. The segment's results also reflect the net transmission expenses related to the delivery of electricity on FirstEnergy's transmission facilities.

Corporate/Other reflects corporate support costs not charged to FE's subsidiaries, including FE's retained Pension and OPEB assets and liabilities of the FES Debtors, interest expense on FE’s holding company debt and other businesses that do not constitute an operating segment. Reconciling adjustments for the elimination of inter-segment transactions and discontinued operations are shown separately in the following table of Segment Financial Information. As of December 31, 2020, 67 MWs of electric generating capacity, representing AE Supply's OVEC capacity entitlement, was included in continuing operations of Corporate/Other. As of December 31, 2020, Corporate/Other had approximately $8.2 billion of FE holding company debt.

Financial information for each of FirstEnergy's reportable segments is presented in the tables below:

Segment Financial Information

For the Years Ended	Regulated Distribution	Regulated Transmission	Corporate/ Other	Reconciling Adjustments	FirstEnergy Consolidated
			(In millions)		
December 31, 2020					
External revenues	$ 9,168	$ 1,613	$ 9	$ —	$ 10,790
Internal revenues	195	17	—	(212)	—
Total revenues	9,363	1,630	9	(212)	10,790
Provision for depreciation	896	313	4	61	1,274
Amortization (deferral) of regulatory assets, net	(64)	11	—	—	(53)
Miscellaneous income (expense), net	332	30	83	(13)	432
Interest expense	501	219	358	(13)	1,065
Income taxes (benefits)	113	138	(125)	—	126
Income (loss) from continuing operations	959	464	(420)	—	1,003
Property additions	$ 1,514	$ 1,067	$ 76	$ —	$ 2,657
December 31, 2019					
External revenues	$ 9,511	$ 1,510	$ 14	$ —	$ 11,035
Internal revenues	187	16	—	(203)	—
Total revenues	9,698	1,526	14	(203)	11,035
Provision for depreciation	863	284	5	68	1,220
Amortization (deferral) of regulatory assets, net	(89)	10	—	—	(79)
Miscellaneous income (expense), net	174	15	80	(26)	243
Interest expense	495	192	372	(26)	1,033
Income taxes (benefits)	271	113	(171)	—	213
Income (loss) from continuing operations	1,076	447	(619)	—	904
Property additions	$ 1,473	$ 1,090	$ 102	$ —	$ 2,665
December 31, 2018					
External revenues	$ 9,900	$ 1,335	$ 26	$ —	$ 11,261
Internal revenues	203	18	8	(229)	—
Total revenues	10,103	1,353	34	(229)	11,261
Provision for depreciation	812	252	3	69	1,136
Amortization (deferral) of regulatory assets, net	(163)	13	—	—	(150)
Miscellaneous income (expense), net	192	14	32	(33)	205
Interest expense	514	167	468	(33)	1,116
Income taxes	422	122	(54)	—	490
Income (loss) from continuing operations	1,242	397	(617)	—	1,022
Property additions	$ 1,411	$ 1,104	$ 133	$ 27	$ 2,675
As of December 31, 2020					
Total assets	$ 30,855	$ 12,592	$ 1,017	$ —	$ 44,464
Total goodwill	$ 5,004	$ 614	$ —	$ —	$ 5,618
As of December 31, 2019					
Total assets	$ 29,642	$ 11,611	$ 1,015	$ 33	$ 42,301
Total goodwill	$ 5,004	$ 614	$ —	$ —	$ 5,618

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures to provide reasonable assurance that information is accumulated and communicated to our management, including our acting chief executive officer and chief financial officer, as appropriate to allow timely decisions regarding required disclosure, and ensure that information required to be disclosed in the reports we file or submit under the Securities Exchange Act of 1934, as amended (Exchange Act) is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms.

Our management, with the participation of our acting chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of December 31, 2020. Based on that evaluation, the acting chief executive officer and chief financial officer concluded that our disclosure controls and procedures were not effective as of December 31, 2020, due to the material weakness in internal control over financial reporting described below.

Notwithstanding the material weakness described below, management has concluded that its consolidated financial statements included in the current and prior period filings were not materially misstated and presented fairly, in all material respects, our consolidated financial statements as of December 31, 2020, 2019 and 2018.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2020 based on the framework in "Internal Control-Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of FirstEnergy's annual or interim financial statements will not be prevented or detected on a timely basis.

We did not maintain an effective control environment as our senior management failed to set an appropriate tone at the top. Specifically, certain members of senior management failed to reinforce the need for compliance with the Company's policies and code of conduct, which resulted in inappropriate conduct that was inconsistent with the Company's policies and code of conduct.

This control deficiency did not result in a material misstatement of our annual or interim consolidated financial statements. However, this control deficiency could have resulted in material misstatements to the annual or interim consolidated financial statements that would not have been prevented or detected. Accordingly, our management has concluded that this control deficiency constitutes a material weakness.

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

Remediation Plans

Management and the Board of Directors take FirstEnergy's internal control over financial reporting and the integrity of its financial statements seriously. Management, the Board of Directors, along with the Audit Committee, and its newly formed subcommittee, are currently working to remediate the material weakness identified above. The remedial activities include the following:

- the appointment of a new Acting Chief Executive Officer and Executive Director to improve the tone at the top;
- the termination of certain members of senior management, including FirstEnergy's former Chief Executive Officer, for violations of certain Company policies and its code of conduct;
- the separation of two senior members of the legal department, due to inaction and conduct that the Board of Directors determined was influenced by the improper tone at the top;
- the establishment of the new subcommittee of FirstEnergy's Audit Committee, who, with the Board of Directors, will oversee the assessment and implementation of potential changes (as appropriate) in FirstEnergy's compliance program;
- the appointment of a new Chief Legal Officer;
- the appointment of a new Vice Chairperson of the Board and Executive Director to help lead efforts to enhance the company's reputation with external stakeholders;
- the plan to appoint a Chief Ethics & Compliance Officer to oversee the ethics and compliance program and enhance the existing compliance structure and role;
- the Board of Directors' reinforcement of and executive team's recommitment to the importance of setting appropriate tone at the top and the expectation to demonstrate the Company's core values and behaviors which support an ethical and compliant culture, as well as adherence to internal control over financial reporting; and
- increased communication and training of employees with respect to:
    - our commitment to ethical standards and integrity of our business procedures,
    - compliance requirements,
    - our Code of Conduct and other Company policies, and
    - availability of and the process for reporting suspected violations of law or Code of Conduct.

Management and the Board of Directors are committed to maintaining a strong internal control environment and believes the above efforts will effectively remediate the material weakness; however, the material weakness cannot be considered remediated until the applicable remedial actions are implemented and operating for a sufficient period of time to allow management to conclude, through testing, that a remediation plan is implemented and the controls are operating effectively. Management, under the oversight of the Board of Directors, are developing a comprehensive remediation plan which includes defined responsibilities and measurable milestones to evaluate the progress of the remediation activities. Management and the Board of Directors are monitoring the progress of these activities on an ongoing basis.

Changes in Internal Control over Financial Reporting

During the quarter ended December 31, 2020, there were no changes in internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that have materially affected, or are reasonably likely to materially affect, FirstEnergy's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

FirstEnergy received a letter dated February 16, 2021, from Icahn Capital LP informing FirstEnergy that Carl Icahn is making a filing with the Federal Trade Commission and the Department of Justice pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 and "has a present good faith intention to acquire voting securities of the Corporation in an amount exceeding $184 million but less than $919.9 million of the voting securities of the issuer, depending upon various factors including market conditions." FirstEnergy does not know whether Carl Icahn and his affiliates have acquired shares of FE common stock and/or derivatives and does not know Icahn's intentions with respect to FirstEnergy or any such acquisition.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by Item 10 is incorporated herein by reference to FirstEnergy's 2021 Proxy Statement to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated herein by reference to FirstEnergy's 2021 Proxy Statement to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The Item 403 of Regulation S-K information required by Item 12 is incorporated herein by reference to FirstEnergy's 2021 Proxy Statement to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934.

The following table contains information as of December 31, 2020, regarding compensation plans for which shares of FE common stock may be issued.

Plan category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in First Column)
Equity compensation plans approved by security holders	3,013,316 [1]	N/A	13,696,933 [2]
Equity compensation plans not approved by security holders[3]	—	N/A	—
Total	3,013,316	N/A	13,696,933

[1] Represents shares of common stock that could be issued upon exercise of outstanding options granted under the 2007 Incentive Plan (ICP 2007), 2015 Incentive Compensation Plan (ICP 2015) and the 2020 Incentive Compensation Plan (ICP 2020). This number also includes 1,333,260 shares subject to outstanding awards of stock based RSUs granted under the ICP 2015 if paid at target for the three outstanding cycles, as well as 1,333,260 additional shares assuming maximum performance metrics are achieved for the 2018-2020, 2019-2021, and 2020-2022 cycles of stock based RSUs, 2,453 outstanding FirstEnergy Corp. Amended and Restated Executive Deferred Compensation Plan (EDCP) related shares to be paid in stock and 344,344 shares related to the FirstEnergy Corp. Deferred Compensation Plan for Outside Directors (Director's Plan) that will be paid in stock. Not reflected in the table are the 22,278 shares related to the Allegheny Energy, Inc. Non-Employee Director Stock Plan (AYE Director's Plan) and Allegheny Energy, Inc. Amended and Restated Revised Plan for Deferral of Compensation of Directors (AYE DCD) that will be paid in stock per the election of the recipient.

[2] Represents shares available for issuance, assuming maximum performance metrics are achieved (or approximately 5,076,635 under ICP 2015 and 9,953,557 under ICP 2020, available assuming performance at target) for the 2018-2020, 2019-2021, and 2020-2022 cycles of stock-based RSUs (all of which were issued under the ICP 2015), with respect to future awards under the ICP 2020 and future accruals of dividends on awards outstanding under ICP 2015 or ICP 2020. Additional shares may become available under the ICP 2015 or ICP 2020 due to cancellations, forfeitures, cash settlements or other similar circumstances with respect to outstanding awards. In addition, nominal amounts of shares may be issued in the future under the AYE Director's Plan and AYE DCD to cover future dividends that may accrue on amounts previously deferred and payable in stock, but new awards are no longer being granted under the Allegheny plans or the ICP 2007.

[3] All equity compensation plans have been approved by security holders.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated herein by reference to FirstEnergy's 2021 Proxy Statement to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

A summary of the audit and all other fees for services rendered by PricewaterhouseCoopers LLP for the years ended December 31, 2020 and 2019, are as follows:

	Audit Fees[1]		All Other Fees[2]	
	2020	2019	2020	2019
	(In thousands)			
FirstEnergy	$ 7,882	$ 6,952	$ 225	$ 7

[1] Professional services rendered for the audits of FirstEnergy's annual financial statements and reviews of unaudited financial statements included in FirstEnergy's Quarterly Reports on Form 10-Q and for services in connection with statutory and regulatory filings or engagements, including comfort letters, agreed upon procedures and consents for financings and filings made with the SEC.

[2] All other fees primarily reflect system implementation quality assurance services, certain costs incurred as a result of the ongoing SEC investigation, software subscription fees, and accounting research license costs in 2020. Fees in 2019 represent software subscription fees to PwC.

Tax Fees and Audit-Related Fees

There were no tax-related or other audit-related fees paid to PricewaterhouseCoopers LLP in 2020 or 2019.

Additional information required by this item is incorporated herein by reference to FirstEnergy's 2021 Proxy Statement to be filed with the SEC pursuant to Regulation 14A under the Securities Exchange Act of 1934.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULE

(a) The following documents are filed as a part of this report on Form 10-K:

1. Financial Statements:

Management's Report on Internal Control Over Financial Reporting for FirstEnergy Corp. is listed under Item 9A, "Controls and Procedures" herein.

Report of Independent Registered Public Accounting Firm for FirstEnergy Corp. is listed under Item 8, "Financial Statements and Supplementary Data," herein.

The financial statements filed as a part of this report for FirstEnergy Corp. are listed under Item 8, "Financial Statements and Supplementary Data," herein.

2. Financial Statement Schedules:

N/A - Schedules not included are omitted because of the absence of conditions under which they are required or because the required information is provided in the consolidated financial statements, including the notes thereto.

3. Exhibits

Exhibit Number		
3-1		Amended and Restated Articles of Incorporation of FirstEnergy Corp. (incorporated by reference to FE's Form 10-Q filed July 23, 2019, Exhibit 3-1, File No. 333-21011).
(A) 3-2		Amended and Restated Code of Regulations of FirstEnergy Corp., as Amended.
4-1		Indenture, dated November 15, 2001, between FirstEnergy Corp. and The Bank of New York Mellon, as Trustee (incorporated by reference to FE's Form S-3 filed September 21, 2001, Exhibit 4(a), File No. 333-69856).
4-2		Officer's Certificate relating to FirstEnergy Corp.'s $650 million aggregate principal amount of its 2.75% Notes, Series A, due 2018 and $850 million aggregate principal amount of its 4.25% Notes, Series B, due 2023 (the "Series B Notes") (incorporated by reference to FE's Form 8-K filed March 5, 2013, Exhibit 4.1, File No. 333-21011).
4-2	(a)	Form of Series B Note (incorporated by reference to FE's Form 8-K filed March 5, 2013, Exhibit 4.3, File No. 333-21011).
4-3		Sixth Supplemental Indenture, dated as of December 19, 2016, to Open-End Mortgage, General Mortgage Indenture and Deed of Trust, dated as of June 1, 2009, by and between FirstEnergy Nuclear Generation, LLC and The Bank of New York Mellon Trust Company, N.A., as trustee (incorporated by reference to FE's Form 8-K filed December 21, 2016, Exhibit 4.1, File No. 333-21011).
4-3	(a)	Form of First Mortgage Bonds, Collateral Series L of 2016 due 2018 (incorporated by reference to FE's Form 8-K filed December 21, 2016, Exhibit 4.1(a), File No. 333-21011) (included in Exhibit 4-4).
4-4		Ninth Supplemental Indenture, dated as of December 19, 2016, to Open-End Mortgage, General Mortgage Indenture and Deed of Trust, dated as of June 19, 2008, by and between FirstEnergy Generation, LLC and The Bank of New York Mellon Trust Company, N.A. (formerly known as The Bank of New York Trust Company, N.A.), as trustee (incorporated by reference to FE's Form 8-K filed December 21, 2016, Exhibit 4.2, File No. 333-21011).
4-4	(a)	Form of First Mortgage Bonds, Collateral Series E of 2016 due 2018 (incorporated by reference to FE's Form 8-K filed December 21, 2016, Exhibit 4.2(a), File No. 333-21011) (included in Exhibit 4-5).
4-5		Officer's Certificate relating to FirstEnergy Corp.'s 2.85% Notes, Series A, due 2022, 3.90% Notes, Series B, due 2027 and 4.85% Notes, Series C, due 2047 (incorporated by reference to FE's Form 8-K filed June 21, 2017, Exhibit 4.1, File No. 333-21011).
4-6		Form of 2.85% Note, Series A, due 2022 (incorporated by reference to FE's Form 8-K filed June 21, 2017, Exhibit 4.1, File No. 333-21011).
4-7		Form of 3.90% Note, Series B, due 2027 (incorporated by reference to FE's Form 8-K filed June 21, 2017, Exhibit 4.1, File No. 333-21011).
4-8		Form of 4.85% Note, Series C, due 2047 (incorporated by reference to FE's Form 8-K filed June 21, 2017, Exhibit 4.1, File No. 333-21011).
4-9		Officer's Certificate relating to FirstEnergy Corp.'s 2.050% Notes, Series A, due 2025, 2.650% Notes, Series B, due 2030 and 3.400% Notes, Series C, due 2050 (incorporated by reference to FE's Form 8-K filed February 20, 2020, Exhibit 4.1, File No. 333-21011).
4-10		Form of 2.050% Note, Series A, due 2025 (incorporated by reference to FE's Form 8-K filed February 20, 2020, Exhibit 4.2, File No. 333-21011).
4-11		Form of 2.650% Note, Series B, due 2030 (incorporated by reference to FE's Form 8-K filed February 20, 2020, Exhibit 4.3, File No. 333-21011).
4-12		Form of 3.400% Note, Series C, due 2050 (incorporated by reference to FE's Form 8-K filed February 20, 2020, Exhibit 4.4, File No. 333-21011).
4-13		Officer's Certificate relating to FirstEnergy Corp.'s 1.600% Notes, Series A, due 2026, 2.250% Notes, Series B, due 2030 (incorporated by reference to FE's Form 8-K filed June 8, 2020, Exhibit 4.1, File No. 333-21011).
4-14		Form of 1.600% Note, Series A, due 2026 (incorporated by reference to FE's Form 8-K filed June 8, 2020, Exhibit 4.2, File No. 333-21011).
4-15		Form of 2.250% Note, Series B, due 2030 (incorporated by reference to FE's Form 8-K filed June 8, 2020, Exhibit 4.3, File No. 333-21011).

Exhibit Number	
4-16	Description of Securities Registered under Section 12(b) of the Securities Exchange Act of 1934 (incorporated by reference to FE's Form 10-K filed February 10, 2020, Exhibit 4-10, File No. 333-21011).
(B) 10-1	FirstEnergy Corp. 2007 Incentive Plan, effective May 15, 2007 (incorporated by reference to FE's Form 10-K filed February 25, 2009, Exhibit 10.1, File No. 333-21011).
(B) 10-2	Amendment to FirstEnergy Corp. 2007 Incentive Plan, effective January 1, 2011 (incorporated by reference to FE's Form 10-Q filed May 3, 2011, Exhibit 10.5, File No. 333-21011).
(B) 10-3	Amendment No. 2 to FirstEnergy Corp. 2007 Incentive Plan, effective January 1, 2014 (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-3, File No. 333-21011).
(B) 10-4	FirstEnergy Corp. Deferred Compensation Plan for Outside Directors, amended and restated January 1, 2005, further amended December 31, 2010 (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-6, File No. 333-21011).
(B) 10-5	Amendment No. 1 to Deferred Compensation Plan for Outside Directors, effective as of January 1, 2012 (incorporated by reference to FE's Form 10-Q filed May 3, 2011, Exhibit 10.7, File No. 333-21011).
(B) 10-6	Amendment No. 2 to FirstEnergy Corp. Deferred Compensation Plan for Outside Directors, effective January 21, 2014, (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-8, File No. 333-21011).
(B) 10-7	Amendment No. 3 to FirstEnergy Corp. Deferred Compensation Plan for Outside Directors, dated January 14, 2019 and effective as of April 1, 2018 (incorporated by reference to FE's Form 10-K filed February 19, 2019, Exhibit 10-7, File No.333-21011).
(B) 10-8	FirstEnergy Corp. Supplemental Executive Retirement Plan, amended and restated January 1, 2005, further amended December 31, 2010 (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-9, File No. 333-21011).
(B) 10-9	Amendment No. 1 to FirstEnergy Corp. Supplemental Executive Retirement Plan, effective January 1, 2012 (incorporated by reference to FE's Form 10-Q filed May 3, 2011, Exhibit 10.8, File No. 333-21011).
(B) 10-10	Amendment No. 2 to FirstEnergy Corp. Supplemental Executive Retirement Plan, dated January 14, 2019 and effective as of April 1, 2018 (incorporated by reference to FE's Form 10-K filed February 19, 2019, Exhibit 10-10, File No. 333-21011).
(B) 10-11	FirstEnergy Corp. Cash Balance Restoration Plan, effective January 1, 2014 (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-11, File No. 333-21011).
(B) 10-12	Retirement Plan for Outside Directors of GPU, Inc. as amended and restated as of August 8, 2000 (incorporated by reference to GPU, Inc. Form 10-K filed March 21, 2001, Exhibit 10-N, File No. 001-06047).
10-13	Consent Decree dated March 18, 2005 (incorporated by reference to FE's Form 8-K filed March 18, 2005, Exhibit 10-1, File No. 333-21011).
(B) 10-14	Allegheny Energy, Inc. Non-Employee Director Stock Plan (incorporated by reference to FE's Form 8-K filed February 25, 2011, Exhibit 10.4, File No. 21011).
(B) 10-15	Allegheny Energy, Inc. Amended and Restated Revised Plan for Deferral of Compensation of Directors (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-29, File No. 333-21011).
(B) 10-16	Amendment No. 1 to Allegheny Energy, Inc. Amended and Restated Revised Plan for Deferral of Compensation of Directors (incorporated by reference to FE's Form 10-K filed February 27, 2014, Exhibit 10-30, File No. 333-21011).
(B) 10-17	Form of Director and Officer Indemnification Agreement (incorporated by reference to FE's Form 8-K filed May 16, 2018, Exhibit 10.1, File No. 333-21011).
(B) 10-18	Guarantee, dated as of September 16, 2013 by FirstEnergy Corp. in favor of participants under the FirstEnergy Corp. Executive Deferred Compensation Plan (incorporated by reference to FE's Form 10-Q filed November 5, 2013, Exhibit 10.2, File No. 333-21011).
(B) 10-19	Form of Restricted Stock Agreement (incorporated by reference to FE's Form 10-K filed February 17, 2015, Exhibit 10-49, File No. 333-21011).
(B) 10-20	FirstEnergy Corp. Amended and Restated Executive Deferred Compensation Plan, dated July 20, 2015, and effective as of November 1, 2015 (incorporated by reference to FE's Form 8-K filed July 24, 2015, Exhibit 10.1, File No. 333-21011).

Exhibit Number	
(B) 10-21	Amendment No. 1 to FirstEnergy Corp. Amended and Restated Executive Deferred Compensation Plan, dated January 14, 2019 and effective as of April 1, 2018 (incorporated by reference to FE's Form 10-K filed February 19, 2019, Exhibit 10-23, File No. 333-21011).
(B) 10-22	FirstEnergy Corp. 2017 Change in Control Severance Plan, dated as of September 15, 2015, and effective as of January 1, 2017 (incorporated by reference to FE's Form 8-K filed September 18, 2015, Exhibit 10.1, File No. 333-21011).
(B) 10-23	Waiver of Participation in the FirstEnergy Corp. Change in Control Severance Plan, entered into by Charles E. Jones dated as of September 15, 2015 (incorporated by reference to FE's Form 8-K filed September 18, 2015, Exhibit 10.2, File No. 333-21011).
(B) 10-24	Non-Competition and Non-Disparagement Agreement, entered into by Charles E. Jones, dated as of September 15, 2015 (incorporated by reference to FE's Form 8-K filed September 18, 2015, Exhibit 10.3, File No. 333-21011).
(B) 10-25	FirstEnergy Corp. 2015 Incentive Compensation Plan (incorporated by reference to FE's Definitive Proxy Statement filed April 1, 2015, Appendix A, File No. 333-21011).
(B) 10-26	Amendment No. 1 to the FirstEnergy Corp. 2015 Incentive Compensation Plan, effective February 21, 2017 (incorporated by reference to FE's Form 10-K filed February 21, 2017, Exhibit 10-51, File No. 333-21011).
(B) 10-27	Form of 2016 Restricted Stock Award Agreement (incorporated by reference to FE's Form 10-K filed February 16, 2016, Exhibit 10-59, File No. 333-21011).
(B) 10-28	Form of 2017-2019 Cash-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-K filed February 21, 2017, Exhibit 10-49, File No. 333-21011).
(B) 10-29	Form of 2017-2019 Stock-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-K filed February 21, 2017, Exhibit 10-50, File No. 333-21011).
(B) 10-30	Form of 2017 Restricted Stock Award Agreement (incorporated by reference to FE's Form 10-K filed February 21, 2017, Exhibit 10-52, File No. 333-21011).
(B) 10-31	Executive Severance Benefits Plan, as amended and restated as of December 20, 2016 (incorporated by reference to FE's Form 8-K filed December 21, 2016, Exhibit 10.1, File No. 333-21011).
10-32	Credit Agreement, dated as of December 6, 2016, among FirstEnergy, The Cleveland Electric Illuminating Company, Metropolitan Edison Company, Ohio Edison Company, Pennsylvania Power Company, The Toledo Edison Company, Jersey Central Power & Light Company, Monongahela Power Company, Pennsylvania Electric Company, The Potomac Edison Company and West Penn Power Company, as borrowers, Mizuho Bank, Ltd., as administrative agent, and the fronting banks and swing line lenders identified therein (incorporated by reference to FE's Form 8-K filed December 6, 2016, Exhibit 10.1, File No. 333-21011).
10-33	Amendment No. 1 to Credit Agreement, dated as of October 19, 2018, among FirstEnergy, The Cleveland Electric Illuminating Company, Metropolitan Edison Company, Ohio Edison Company, Pennsylvania Power Company, The Toledo Edison Company, Jersey Central Power & Light Company, Monongahela Power Company, Pennsylvania Electric Company, The Potomac Edison Company and West Penn Power Company, as borrowers, Mizuho Bank, Ltd., as administrative agent, and the fronting banks and swing line lenders identified therein (incorporated by reference to FE's Form 10-K filed February 19, 2019, Exhibit 10-38, File No. 333-21011).
10-34	Waiver and Amendment No. 2 to Credit Agreement, dated as of November 17, 2020, among FirstEnergy, The Cleveland Electric Illuminating Company, Metropolitan Edison Company, Ohio Edison Company, Pennsylvania Power Company, The Toledo Edison Company, Jersey Central Power & Light Company, Monongahela Power Company, Pennsylvania Electric Company, The Potomac Edison Company and West Penn Power Company, as borrowers, Mizuho Bank, Ltd., as administrative agent, and the lenders identified therein (incorporated by reference to FE's Form 10-K filed November 19, 2020, Exhibit 10.1, File No. 333-21011).
(A) 10-35	Amendment No. 3 to Credit Agreement, dated as of January 15, 2021, among FirstEnergy, The Cleveland Electric Illuminating Company, Metropolitan Edison Company, Ohio Edison Company, Pennsylvania Power Company, The Toledo Edison Company, Jersey Central Power & Light Company, Monongahela Power Company, Pennsylvania Electric Company, The Potomac Edison Company and West Penn Power Company, as borrowers, Mizuho Bank, Ltd., as administrative agent, and the lenders identified therein.
10-36	Credit Agreement, dated as of December 6, 2016, among FirstEnergy Transmission, LLC, American Transmission Systems, Incorporated, Mid-Atlantic Interstate Transmission, LLC and Trans-Allegheny Interstate Line Company, as borrowers, and PNC Bank, National Association, as administrative agent, the banks and the fronting banks identified therein (incorporated by reference to FE's Form 8-K filed December 6, 2016, Exhibit 10.2, File No. 333-21011).
10-37	Amendment No. 1 to Credit Agreement, dated as of October 19, 2018, among FirstEnergy Transmission, LLC, American Transmission Systems, Incorporated, Mid-Atlantic Interstate Transmission, LLC and Trans-Allegheny Interstate Line Company, as borrowers, and PNC Bank, National Association, as administrative agent, the banks and the fronting banks identified therein (incorporated by reference to FE's Form 10-K filed February 19, 2019, Exhibit 10-40, File No. 333-21011).

Exhibit Number	
10-38	Waiver and Amendment No. 2 to Credit Agreement, dated as of November 17, 2020, among FirstEnergy Transmission, LLC, American Transmission Systems, Incorporated, Mid-Atlantic Interstate Transmission, LLC and Trans-Allegheny Interstate Line Company, as borrowers, and PNC Bank, National Association, as administrative agent, and the lenders identified therein (incorporated by reference to FE's Form 10-Q filed November 19, 2020, Exhibit 10.2, File No. 333-21011).
(A) 10-39	Amendment No. 3 to Credit Agreement, dated as of January 15, 2021, to Credit Agreement, among FirstEnergy Transmission, LLC, American Transmission Systems, Incorporated, Mid-Atlantic Interstate Transmission, LLC and Trans-Allegheny Interstate Line Company, as borrowers, and PNC Bank, National Association, as administrative agent, and the lenders identified therein.
10-40	Amendment No. 2 to FirstEnergy Corp. Amended and Restated Executive Deferred Compensation Plan, dated September 18, 2019 and effective as of November 1, 2015 (incorporated by reference to FE's Form 10-Q filed November 4, 2019, Exhibit 10.3, File No.333-21011).
(B) 10-41	Guarantee, dated as of February 21, 2017, by FirstEnergy Corp. in favor of participants under the FirstEnergy Corp. Cash Balance Pension Restoration Plan (incorporated by reference to FE's Form 10-Q filed July 27, 2017, Exhibit 10.1, File No. 333-21011).
(B) 10-42	Form of 2018-2020 Cash-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-K filed February 20, 2018, Exhibit 10-56, File No. 333-21011).
(B) 10-43	Form of 2018-2020 Stock-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-K filed February 20, 2018, Exhibit 10-57, File No. 333-21011).
(B) 10-44	Form of 2018 Restricted Stock Award Agreement (incorporated by reference to FE's Form 10-K filed February 20, 2018, Exhibit 10-58, File No. 333-21011).
(B) 10-45	FirstEnergy Nuclear Operating Company 2016 Key Employee Retention Plan, effective December 1, 2016 (incorporated by reference to FE's Form 10-Q filed April 23, 2018, Exhibit 10.7, File No. 333-21011).
(B) 10-46	Amendment to FirstEnergy Nuclear Operating Company 2016 Key Employee Retention Plan, effective March 23, 2017 (incorporated by reference to FE's Form 10-Q filed April 23, 2018, Exhibit 10.8, File No. 333-21011).
(B) 10-47	Second Amendment to FirstEnergy Nuclear Operating Company 2016 Key Employee Retention Plan, effective December 1, 2017 (incorporated by reference to FE's Form 10-Q filed April 23, 2018, Exhibit 10.9, File No. 333-21011).
(B) 10-48	Form of FirstEnergy Nuclear Operating Company 2016 Key Employee Retention Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2018, Exhibit 10.10, File No. 333-21011).
(B) 10-49	Form of 2018-2019 Stock-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2018, Exhibit 10.12, File No. 333-21011).
(B) 10-50	Executive Voluntary Enhanced Retirement Program (incorporated by reference to FE's Form 8-K filed July 23, 2018, Exhibit 10.1, File No. 333-21011).
10-51	Settlement Agreement, dated as of August 26, 2018, by and among the Debtors, the FE Non-Debtor Parties, the Ad Hoc Noteholders Group, the Bruce Mansfield Certificateholders Group and the Committee (in each case, as defined therein) (incorporated by reference to FE's Form 8-K filed August 27, 2018, Exhibit 10.1, File No. 333-21011).
(B) 10-52	FirstEnergy Solutions Corp. Voluntary Enhanced Retirement Option, effective as of January 2, 2019 (incorporated by reference to FE's Form 8-K filed November 21, 2018, Exhibit 10.1, File No. 333-21011).
(B) 10-53	Form of 2019-2021 Cash-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2019, Exhibit 10.2, File No.333-21011).
(B) 10-54	Form of 2019-2021 Stock-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2019, Exhibit 10.3, File No.333-21011).
(B) 10-55	Form of 2019 Restricted Stock Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2019, Exhibit 10.4, File No.333-21011).
10-56	Consent and Waiver to the Settlement Agreement, dated April 18, 2019, by and among the Debtors and the FE Non-Debtor Parties (incorporated by reference to FE's Form 10-Q filed April 23, 2019, Exhibit 10.1, File No.333-21011).

Exhibit Number	
10-57	First Amendment to Settlement Agreement dated November 21, 2019, by and among the Debtors, FE Non-Debtor Parties, Ad Hoc Noteholders Group, Bruce Mansfield Certificateholders Group, and the Committee (incorporated by reference to FE's Form 8-K filed November 26, 2019, Exhibit 10.1, File No. 333-21011).
(B) 10-58	Form of 2020-2022 Cash-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2020, Exhibit 10.1, File No.333-21011).
(B) 10-59	Form of 2020-2022 Stock-Based Performance-Adjusted Restricted Stock Unit Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2020, Exhibit 10.2, File No.333-21011).
(B) 10-60	Form of 2020 Restricted Stock Award Agreement (incorporated by reference to FE's Form 10-Q filed April 23, 2020, Exhibit 10.3, File No.333-21011).
(B) 10-61	FirstEnergy Corp. 2020 Incentive Compensation Plan (incorporated by reference to FE's Form 8-K filed May 20, 2020, Exhibit 10.1, File No.333-21011).
(A) 21	List of Subsidiaries of the Registrant at December 31, 2020.
(A) 23	Consent of Independent Registered Public Accounting Firm.
(A) 31-1	Certification of acting chief executive officer, pursuant to Rule 13a-14(a).
(A) 31-2	Certification of chief financial officer, pursuant to Rule 13a-14(a).
(A) 32	Certification of acting chief executive officer and chief financial officer, pursuant to 18 U.S.C. §1350.
101	The following materials from the Annual Report on Form 10-K for FirstEnergy Corp. for the period ended December 31, 2020, formatted in iXBRL (Inline Extensible Business Reporting Language): (i) Consolidated Statements of Income and Consolidated Statements of Comprehensive Income, (ii) Consolidated Balance Sheets, (iii) Consolidated Statements of Common Stockholders' Equity, (iv) Consolidated Statements of Cash Flows, (v) related notes to these financial statements and (vi) document and entity information.
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the Inline XBRL document)
(A)	Provided herein in electronic format as an exhibit.
(B)	Management contract or compensatory plan contract or arrangement filed pursuant to Item 601 of Regulation S-K.

Pursuant to paragraph (b)(4)(iii)(A) of Item 601 of Regulation S-K, FirstEnergy has not filed as an exhibit to this Form 10-K any instrument with respect to long-term debt if the respective total amount of securities authorized thereunder does not exceed 10% of its respective total assets, but hereby agrees to furnish to the SEC on request any such documents.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

FIRSTENERGY CORP.

BY: /s/ Steven E. Strah
Steven E. Strah
President and Acting Chief Executive Officer

Date: February 18, 2021

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the date indicated:

/s/ Steven E. Strah
Steven E. Strah
President and Acting Chief Executive Officer
(Principal Executive Officer)

/s/ Donald T. Misheff
Donald T. Misheff
Director
(Non-Executive Chairman of Board)

/s/ K. Jon Taylor
K. Jon Taylor
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Jason J. Lisowski
Jason J. Lisowski
Vice President, Controller and Chief Accounting Officer
(Principal Accounting Officer)

/s/ Michael J. Anderson
Michael J. Anderson
Director

/s/ Christopher D. Pappas
Christopher D. Pappas
Director

/s/ Steven J. Demetriou
Steven J. Demetriou
Director

/s/ Sandra Pianalto
Sandra Pianalto
Director

/s/ Julia L. Johnson
Julia L. Johnson
Director

/s/ Luis A. Reyes
Luis A. Reyes
Director

/s/ Thomas N. Mitchell
Thomas N. Mitchell
Director

/s/ Leslie M. Turner
Leslie M. Turner
Director

/s/ James F. O'Neil III
James F. O'Neil III
Director

Date: February 18, 2021

Exhibit 3-2

AMENDMENT
TO THE FIRSTENERGY CORP.
AMENDED AND RESTATED CODE OF REGULATIONS

Effective May 19, 2020

Regulation 36 shall be amended as follows:

36. Amendments. Except as otherwise provided by law or by the Articles of Incorporation or this Code of Regulations, these Regulations or any of them may be amended
(i) in any respect or repealed at any time at any meeting of shareholders or otherwise by the affirmative vote of the holders of shares entitling them to exercise a majority of the voting power of the Corporation voting together as a single class, provided that any amendment or supplement proposed to be acted upon at any such meeting has been described or referred to in the notice of such meeting or (ii) to the extent permitted by Chapter 1701 of the Ohio Revised Code, by the Board of Directors. Notwithstanding the foregoing provisions of this Regulation 36, no amendment to Regulations 31, 32, or 33 will be effective to eliminate or diminish the rights of persons specified in those Regulations existing at the time immediately preceding such amendment.

Exhibit 10-35

EXECUTION VERSION

AMENDMENT NO. 3 TO CREDIT AGREEMENT

dated as of January 15, 2021

among

FirstEnergy Corp.,
The Cleveland Electric Illuminating Company,
Metropolitan Edison Company,
Ohio Edison Company,
Pennsylvania Power Company,
The Toledo Edison Company,
Jersey Central Power & Light Company,
Monongahela Power Company,
Pennsylvania Electric Company,
The Potomac Edison Company,
and
West Penn Power Company,
as Borrowers,

THE LENDERS NAMED HEREIN,
as Lenders,

MIZUHO BANK, LTD.,
as Administrative Agent,

THE FRONTING BANKS NAMED HEREIN,
as Fronting Banks

and

THE SWING LINE LENDERS NAMED HEREIN,
as Swing Line Lenders

AMENDMENT NO. 3 TO
CREDIT AGREEMENT

This AMENDMENT NO. 3, dated as of January 15, 2021 (this "***Amendment***"), to the Existing Credit Agreement referred to below, is entered into by and among FirstEnergy Corp. ("***FE***"), The Cleveland Electric Illuminating Company ("***CEI***"), Metropolitan Edison Company ("***Met-Ed***"), Ohio Edison Company ("***OE***"), Pennsylvania Power Company ("***Penn***"), The Toledo Edison Company ("***TE***"), Jersey Central Power & Light Company ("***JCP&L***"), Monongahela Power Company ("***MP***"), Pennsylvania Electric Company ("***Penelec***"), The Potomac Edison Company ("***PE***") and West Penn Power Company ("***West-Penn***", and together with FE, CEI, Met-Ed, OE, Penn, TE, JCP&L, MP, Penelec and PE, the "***Borrowers***"), each of the Lenders (as defined in the Existing Credit Agreement) party hereto, Mizuho Bank, Ltd. ("***Mizuho***"), as Administrative Agent (in such capacity, the "***Administrative Agent***") for the Lenders, each of the Fronting Banks (as defined in the Existing Credit Agreement) party hereto, and Mizuho, as a Swing Line Lender (as defined in the Existing Credit Agreement) (in such capacity, the "***Swing Line Lender***").

PRELIMINARY STATEMENTS

1. The Borrowers, the Lenders, the Administrative Agent, the Fronting Banks and the Swing Line Lender are parties to that certain Credit Agreement, dated as of December 6, 2016 (as amended by Amendment No. 1 thereto, dated as of October 19, 2018, and Waiver and Amendment No. 2 thereto, dated as of November 17, 2020, the "***Existing Credit Agreement***", as amended by this Amendment, the "***Amended Agreement***", and as the Amended Agreement may hereafter be amended, amended and restated, supplemented or otherwise modified from time to time, the "***Credit Agreement***"). Capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed to such terms in the Amended Agreement.

2. The Lenders party hereto and the Borrowers desire to amend the Existing Credit Agreement in order to (i) modify the Eurodollar Rate replacement provisions, (ii) modify the EEA bail-in provisions and (iii) add a limited liability company divisions provision, in each case, based on current market practice for syndicated credit facilities of the type represented by the Existing Credit Agreement, and the Majority Lenders, the Administrative Agent, the Fronting Banks and the Swing Line Lenders have agreed to such amendments on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

SECTION 1. ***Amendments to Existing Credit Agreement.*** The Existing Credit Agreement is, effective as of the date hereof and subject to the satisfaction or waiver of the conditions precedent set forth in Section 2 hereof, hereby amended as follows:

(a) The following defined terms contained in Section 1.01 of the Existing Credit Agreement are hereby amended and restated in their entirety to read as follows:

"***Bail-In Action***" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

"***Bail-In Legislation***" means (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"*Eurodollar Rate*" means, for the Interest Period for any Eurodollar Rate Advance made in connection with any Borrowing, the greater of (a) 0.00% and (b) the rate of interest *per annum* (rounded upward to the nearest 1/100 of 1%) as calculated by ICE Benchmark Administration Limited (or any other Person which takes over the administration of that rate) and obtained through a nationally recognized service such as the Dow Jones Market Service (Telerate), Reuters or other such service then being used by the Administrative Agent to ascertain such rates of interest (in each case, the "*Service*") as the London interbank offered rate for deposits in Dollars at approximately 11:00 a.m. (London time) two Business Days before the first day of such Interest Period for a period equal to such Interest Period; *provided*, *however*, that if a Benchmark Transition Event or an Early Opt-in Election and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark, then the rate described in clause (b) above shall mean the applicable Benchmark Replacement to the extent that such Benchmark Replacement has become effective pursuant to Section 2.23.

"*Write-Down and Conversion Powers*" means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the

Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

(b) The following new definitions are hereby added to Section 1.01 of the Existing Credit Agreement in the appropriate alphabetical order:

"*Affected Financial Institution*" shall mean (a) any EEA Financial Institution or (b) any UK Financial Institution.

"*Amendment No. 3*" means Amendment No. 3, dated as of January 15, 2021, by and among the Borrowers, the Lenders party thereto, the Administrative Agent, the Fronting Banks party thereto and the Swing Line Lenders, which Amendment No. 3 amended this Agreement pursuant to the terms thereof.

"*Amendment No. 3 Effective Date*" means the Amendment Effective Date (as defined in Amendment No. 3), which date is January 15, 2021.

"***Available Tenor***" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (x) if the then current Benchmark is a term rate or is based on a term rate, any tenor for such Benchmark that is or may be used for determining the length of an Interest Period pursuant to this Agreement as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of "Interest Period" pursuant to Section 2.23(d), or (y) if the then current Benchmark is not a term rate nor based on a term rate, any payment period for interest calculated with reference to such Benchmark pursuant to this Agreement as of such date.

"***Benchmark***" means, initially, USD LIBOR; *provided*, that if a Benchmark Transition Event, a Term SOFR Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 2.23(a) or Section 2.23(f).

"***Benchmark Replacement***" means, for any Available Tenor, the first alternative set forth in the order below that can be determined by the Administrative Agent for the applicable Benchmark Replacement Date:

(1) the sum of: (a) Term SOFR and (b) the related Benchmark Replacement Adjustment;

(2) the sum of: (a) Daily Simple SOFR and (b) the related Benchmark Replacement Adjustment; or

(3) the sum of: (a) the alternate benchmark rate that has been selected by the Administrative Agent and the Borrowers as the replacement for the then-current Benchmark for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement for the then-current Benchmark for U.S. dollar-denominated syndicated credit facilities at such time and (b) the related Benchmark Replacement Adjustment;

provided, that, in the case of clause (1) above, such Unadjusted Benchmark Replacement is displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion; *provided*, *further*, that, with respect to a Term SOFR Transition Event, on the applicable Benchmark Replacement Date, the "Benchmark Replacement" shall revert to and shall be determined as set forth in clause (1) above. If the Benchmark Replacement as determined pursuant to clause (1), (2) or (3) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents.

"***Benchmark Replacement Adjustment***" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Available Tenor for any setting of such Unadjusted Benchmark Replacement:

(1) for purposes of clauses (1) and (2) of the definition of "Benchmark Replacement," the first alternative set forth in the order below that can be determined by the Administrative Agent:

(a) the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) as of the Reference Time such Benchmark Replacement is first set for such Available Tenor that has been selected or recommended by the Relevant Governmental Body for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for the applicable Corresponding Tenor; or

(b) the spread adjustment (which may be a positive or negative value or zero) as of the Reference Time such Benchmark Replacement is first set for such Available Tenor that would apply to the fallback rate for

a derivative transaction referencing the ISDA Definitions to be effective upon an index cessation event with respect to such Benchmark for the applicable Corresponding Tenor; and

(2) for purposes of clause (3) of the definition of "Benchmark Replacement," the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Borrowers for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body on the applicable Benchmark Replacement Date or (ii) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated syndicated credit facilities;

provided, that, (x) in the case of clause (1) above, such adjustment is displayed on a screen or other information service that publishes such Benchmark Replacement Adjustment from time to time as selected by the Administrative Agent in its reasonable discretion and (y) if the then-current Benchmark is a term rate, more than one tenor of such Benchmark is available as of the applicable Benchmark Replacement Date and the applicable Unadjusted Benchmark Replacement will not be a term rate, the Available Tenor of such Benchmark for purposes of this definition of "Benchmark Replacement Adjustment" shall be deemed to be the Available Tenor that has approximately the same length (disregarding business day adjustments) as the payment period for interest calculated with reference to such Unadjusted Benchmark Replacement.

"***Benchmark Replacement Conforming Changes***" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including, without limitation, changes to the definition of "Alternate Base Rate," the definition of "Business Day," the definition of "Interest Period," timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides may be appropriate to reflect the adoption and implementation of such Benchmark Replacement and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of such Benchmark Replacement exists, in such other manner of administration as the Administrative

Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

"***Benchmark Replacement Date***" means the earliest to occur of the following events with respect to the then-current Benchmark:

(1) in the case of clause (1) or (2) of the definition of "Benchmark Transition Event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof) permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof);

(2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date determined by the Administrative Agent, which date shall promptly follow the date of the public statement or publication of information referenced therein;

(3) in the case of a Term SOFR Transition Event, the date that is set forth in the Term SOFR Notice provided to the Lenders and the Borrowers pursuant to Section 2.23, which date shall be at least 30 days from the date of the Term SOFR Notice; or

(4) in the case of an Early Opt-in Election, the sixth (6th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, so long as the Administrative Agent has not received, by 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, written notice of objection to such Early Opt-in Election from Lenders comprising the Majority Lenders.

For the avoidance of doubt, (i) if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination and (ii) the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (1) or (2) above with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"***Benchmark Transition Event***" means the occurrence of one or more of the following events with respect to the then-current Benchmark:

(1) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the

calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, *provided*, that at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(2) a public statement or publication of information by a Governmental Authority having jurisdiction over the Administrative Agent, the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Board of Governors of the Federal Reserve System, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, *provided*, that at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or

(3) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) or a Governmental Authority having jurisdiction over the Administrative Agent announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer representative.

For the avoidance of doubt, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"***Benchmark Unavailability Period***" means the period (if any) (x) beginning at the time that a Benchmark Replacement Date pursuant to clause (1) or (2) of that definition has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.23 and (y) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.23.

"***Corresponding Tenor***" with respect to any Available Tenor means, as applicable, either a tenor (including overnight) or an interest payment period

having approximately the same length (disregarding business day adjustment) as such Available Tenor.

"***Daily Simple SOFR***" means, for any day, SOFR, with the conventions for this rate (which will include a lookback) being established by the Administrative Agent in accordance with the conventions for this rate selected or recommended by the Relevant Governmental Body for determining "Daily Simple SOFR" for syndicated business loans; *provided*, that if the Administrative Agent decides that any such convention is not administratively feasible for the Administrative Agent, then the Administrative Agent may establish another convention in its reasonable discretion.

"***Early Opt-in Election***" means, if the then-current Benchmark is USD LIBOR, the occurrence of:

(1) a notification by the Administrative Agent to (or the request by the Borrowers to the Administrative Agent to notify) each of the other parties hereto that at least five (5) currently outstanding U.S. dollar-denominated syndicated credit facilities at such time contain (as a result of amendment or as originally executed) a SOFR-based rate (including SOFR, a term SOFR or any other rate based upon SOFR) as a benchmark rate (and such syndicated credit facilities are identified in such notice and are publicly available for review); and

(2) the joint election by the Administrative Agent and the Borrowers to trigger a fallback from USD LIBOR and the provision by the Administrative Agent of written notice of such election to the Lenders.

"***Floor***" means the benchmark rate floor, if any, provided in this Agreement initially (as of the execution of this Agreement, the Amendment No. 3 Effective Date, the modification, amendment or renewal of this Agreement or otherwise) with respect to USD LIBOR or, if no floor is specified, zero.

"***ISDA Definitions***" means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time by the International Swaps and Derivatives Association, Inc. or such successor thereto.

"***Reference Time***" with respect to any setting of the then-current Benchmark means (1) if such Benchmark is USD LIBOR, 11:00 a.m. (London time) on the day that is two London banking days preceding the date of such setting, and (2) if such Benchmark is not USD LIBOR, the time determined by the Administrative Agent in its reasonable discretion.

"***Relevant Governmental Body***" means the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or any successor thereto.

"***Resolution Authority***" shall mean an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"***SOFR***" means, with respect to any Business Day, a rate *per annum* equal to the secured overnight financing rate for such Business Day published by the SOFR Administrator on the SOFR Administrator's Website on the immediately succeeding Business Day.

"***SOFR Administrator***" means the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"***SOFR Administrator's Website***" means the website of the Federal Reserve Bank of New York, currently at http://www.newyorkfed.org, or any successor source for the secured overnight financing rate identified as such by the SOFR Administrator from time to time.

"***Term SOFR***" means, for the applicable Corresponding Tenor as of the applicable Reference Time, the forward-looking term rate based on SOFR that has been selected or recommended by the Relevant Governmental Body.

"***Term SOFR Notice***" means a notification by the Administrative Agent to the Lenders and the Borrowers of the occurrence of a Term SOFR Transition Event.

"***Term SOFR Transition Event***" means the determination by the Administrative Agent that (a) Term SOFR has been recommended for use by the Relevant Governmental Body, and is determinable for each Available Tenor, (b) the administration of Term SOFR is administratively feasible for the Administrative Agent and (c) a Benchmark Transition Event or Early Opt-in Election has previously occurred resulting in a Benchmark Replacement in accordance with Section 2.23 that is not Term SOFR.

"***UK Financial Institution***" shall mean any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any Person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"***UK Resolution Authority***" shall mean the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

"***Unadjusted Benchmark Replacement***" means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

"***USD LIBOR***" means the London interbank offered rate for Dollars.

(c) Article I of the Existing Credit Agreement is hereby amended by adding the following new Sections 1.05 and 1.06 at the end thereof:

"***SECTION 1.05. Divisions.***

Any reference herein to a merger, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term (and including any reference to the creation of any subsidiary), shall be deemed to apply to a division of or by a limited liability company, or an allocation of assets to a series of a limited liability company (or the unwinding of such a division or allocation), as if it were a merger, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term (including the creation of a subsidiary), as applicable, to, of or with a separate Person. Any division of a limited liability company shall constitute a separate Person hereunder (and each division of any limited liability company that is a subsidiary, joint venture or any other like term shall also constitute such a Person).

SECTION 1.06. LIBOR Notification.

Section 2.23 of this Agreement provides a mechanism for determining an alternate rate of interest in the event that the London interbank offered rate is no longer available or in certain other circumstances. The Administrative Agent does not warrant or accept any responsibility for, and shall not have any liability with respect to, (i) the administration of, submission of or any other matter related to the London interbank offered rate or other rates in the definition of "Eurodollar Rate" or with respect to any alternative or successor rate thereto, or replacement rate thereof (including, without limitation, any Benchmark Replacement implemented hereunder), (ii) the composition or characteristics of any such Benchmark Replacement, including whether it is similar to, or produces the same value or economic equivalence of, USD LIBOR (or any other Benchmark) or has or will have the same volume or liquidity as did USD LIBOR (or any other Benchmark), (iii) any actions or use of its discretion or other decisions or determinations made with respect to any matters covered by Section 2.23, including, without limitation, whether or not a Benchmark Transition Event has occurred, the removal or lack thereof of unavailable or non-representative tenors, the implementation or lack thereof of any Benchmark Replacement Conforming Changes, the delivery or non-delivery of any notices required by Section 2.23(c)

or otherwise in accordance herewith, and (iv) the effect of any of the provisions of Section 2.23."

(d) Article II of the Existing Credit Agreement is hereby amended by adding the following new Section 2.23 at the end thereof:

"***SECTION 2.23. Benchmark Replacement Setting***.

(a) ***Benchmark Replacement***. Notwithstanding anything to the contrary herein or in any other Loan Document, if a Benchmark Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any setting of the then-current Benchmark, then (x) if a Benchmark Replacement is determined in accordance with clause (1) or (2) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of such Benchmark setting and subsequent Benchmark settings without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document and (y) if a Benchmark Replacement is determined in accordance with clause (3) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Majority Lenders.

(b) ***Benchmark Replacement Conforming Changes***. In connection with the implementation of a Benchmark Replacement, the Administrative Agent will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Benchmark Replacement Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(c) ***Notices; Standards for Decisions and Determinations***. The Administrative Agent will promptly notify the Borrowers and the Lenders of (i) any occurrence of a Benchmark Transition Event, a Term SOFR Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date, (ii) the implementation of any Benchmark Replacement, (iii) the effectiveness of any Benchmark Replacement Conforming Changes, (iv) the removal or reinstatement of any tenor of a Benchmark pursuant to paragraph (d)

below and (v) the commencement or conclusion of any Benchmark Unavailability Period. Any determination, decision or election that may be made by the Administrative Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section 2.23, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document, except, in each case, as expressly required pursuant to this Section 2.23.

(d) ***Unavailability of Tenor of Benchmark***. Notwithstanding anything to the contrary herein or in any other Loan Document, at any time (including in connection with the implementation of a Benchmark Replacement), (i) if the then-current Benchmark is a term rate (including Term SOFR or USD LIBOR) and either (A) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion or (B) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is or will be no longer representative, then the Administrative Agent may modify the definition of "Interest Period" for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor and (ii) if a tenor that was removed pursuant to clause (i) above either (A) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (B) is not, or is no longer, subject to an announcement that it is or will no longer be representative for a Benchmark (including a Benchmark Replacement), then the Administrative Agent may modify the definition of "Interest Period" for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(e) ***Benchmark Unavailability Period***. Upon the Borrowers' receipt of notice of the commencement of a Benchmark Unavailability Period, each Borrower may revoke any request for an Advance bearing interest based on USD LIBOR, conversion to or continuation of Advances bearing interest based on USD LIBOR to be made, converted or continued during any Benchmark Unavailability Period and, failing that, each Borrower will be deemed to have converted any such request into a request for a Borrowing of or conversion to Alternate Base Rate Advances. During any Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of Alternate Base Rate based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of Alternate Base Rate.

(f) ***Secondary Term SOFR Conversion***. Notwithstanding anything to the contrary herein or in any other Loan Document and subject to the proviso below in this paragraph, if a Term SOFR Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any setting of the then-current Benchmark, then (i) the applicable Benchmark Replacement will replace the then-current Benchmark for all purposes hereunder or under any other Loan Document in respect of such Benchmark setting (the "***Secondary Term SOFR Conversion Date***") and subsequent Benchmark settings, without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document; and (ii) Advances outstanding on the Secondary Term SOFR Conversion Date bearing interest based on the then-current Benchmark shall be deemed to have been converted to Advances bearing interest at the Benchmark Replacement with a tenor approximately the same length as the interest payment period of the then-current Benchmark; *provided*, that this paragraph (f) shall not be effective unless the Administrative Agent has delivered to the Lenders and the Borrowers a Term SOFR Notice."

(e) Section 4.01(n) of the Existing Credit Agreement is hereby amended and restated in its entirety to read as follows:

"(n) ***Affected Financial Institutions***. No Borrower is an Affected Financial Institution."

(f) Section 8.16 of the Existing Credit Agreement is hereby amended and restated in its entirety to read as follows:

"***SECTION 8.16. Acknowledgment and Consent to Bail-In of Affected Financial Institutions.***

Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any of the parties hereto, each party hereto acknowledges that any liability of any Lender or Fronting Bank that is an Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the WriteDown and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender or Fronting Bank that is an Affected Financial Institution; and

(b) the effects of any Bail-in Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of the applicable Resolution Authority."

SECTION 2. ***Conditions to Effectiveness*****.**

This Amendment shall become effective as of the date first above written (the "***Amendment Effective Date***") when, and only when, the following conditions have been satisfied (or waived by the Administrative Agent and the Lenders party hereto in their sole discretion):

(a) The Administrative Agent shall have received, in immediately available funds, to the extent invoiced prior to the Amendment Effective Date, reimbursement or payment of all reasonable out-of-pocket costs and expenses of the Administrative Agent (including, but not limited to, the reasonable fees and expenses of counsel (including, but not limited to, one local counsel and any specialist counsel in each relevant jurisdiction) to the Administrative Agent) required to be reimbursed or paid by the Borrowers hereunder or under any other Loan Document.

(b) The Administrative Agent shall have received the following documents, each document being dated the date of receipt thereof by the Administrative Agent (which date shall be the same for all such documents, except as otherwise specified below), in form and substance satisfactory to the Administrative Agent:

(i) either (A) counterparts of this Amendment duly executed by each of the Borrowers, the Majority Lenders, the Administrative Agent, the Fronting Banks and the Swing Line Lender or (B) written evidence satisfactory to the Administrative Agent (which may include telecopy or other electronic transmission of a signed signature page of this Amendment) that such parties have signed counterparts of this Amendment;

(ii) certified copies of (A) the resolutions of the Board of Directors of each Borrower approving this Amendment and the Amended Agreement and (B) all documents evidencing any other necessary corporate action with respect to this Amendment and the Amended Agreement;

(iii) a certificate of the Secretary or an Assistant Secretary of each Borrower certifying (A) the names and true signatures of the officers of such Borrower authorized to sign this Amendment and the other documents to be delivered hereunder, (B) that attached thereto are true and correct copies of the Organizational Documents of such Borrower, in each case as in effect on such date, and (C) that true and correct copies of all governmental and regulatory authorizations and approvals (including such Borrower's Approval) required for the due execution, delivery and performance by such Borrower of this Amendment and the Amended Agreement have previously been delivered to the Administrative Agent and remain in full force and effect on such date; and

(iv) a certificate of an Authorized Officer of each Borrower (the statements in which shall be true) certifying that, both before and after giving effect to this Amendment, (A) no event has occurred and is continuing that constitutes an Event of Default or an Unmatured Default with respect to such Borrower and (B) all representations and warranties of such Borrower contained in the Amended Agreement and each other Loan Document to which such Borrower is a party are true and correct in all material respects (or, in the case of any such representation or warranty already qualified by "Material Adverse Effect" or any other materiality qualification, true and correct in all respects) on and as of the Amendment Effective Date, as though made on and as of such date (other than any such representation or warranty that by its terms refers to a specific date, in which case such representation and warranty shall be true and correct as of such specific date).

(c) The Administrative Agent shall have received all documentation and information required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the Patriot Act and the Beneficial Ownership Regulation, to the extent such documentation or information is requested by the Administrative Agent on behalf of any Lender prior to the Amendment Effective Date.

SECTION 3. ***Representations and Warranties*****.**

Each Borrower represents and warrants as follows:

(a) ***Due Authorization***. The execution, delivery and performance by it of this Amendment and each other Loan Document being executed and delivered in connection with this Amendment to which such Borrower is a party, and the performance by such Borrower of the Amended Agreement, have been duly authorized by all necessary corporate action on its part and do not, and will not, require the consent or approval of its shareholders or members, as the case may be, other than such consents and approvals as have been duly obtained, given or accomplished.

(b) ***No Violation, Etc.*** Neither the execution, delivery or performance by it of this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is a party, nor the consummation by it of the transactions contemplated hereby or thereby, nor compliance by it with the provisions hereof or thereof, nor the performance by it of the Amended Agreement, contravenes or will contravene, or results or will

result in a breach of, any of the provisions of its Organizational Documents, any Applicable Law, or any indenture, mortgage, deed of trust, lease, license or any other agreement or instrument to which it or any of its Subsidiaries is party or by which its property or the property of any of its Subsidiaries is bound, or results or will result in the creation or imposition of any Lien upon any of its property or the property of any of its Subsidiaries, except to the extent such contravention or breach, or the creation or imposition of any such Lien, individually or in the aggregate, has not had and would not reasonably be expected to have a Material Adverse Effect with respect to such Borrower.

(c) ***Governmental Actions***. No Governmental Action is or will be required in connection with (i) the execution, delivery or performance by it of, or the consummation by it of the transactions contemplated by, this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is, or is to become, a party, or (ii) the performance by it of the Amended Agreement, in each case, other than such Borrower's Approval, as applicable, which has been duly issued and is in full force and effect.

(d) ***Execution and Delivery***. This Amendment and the other Loan Documents being executed and delivered in connection with this Amendment to which it is, or is to become, a party have been or will be (as the case may be) duly executed and delivered by it, and each of this Amendment and the Amended Agreement is, and upon execution and delivery thereof each such other Loan Document will be, the legal, valid and binding obligation of it enforceable against it in accordance with its terms, *subject, however*, to the application by a court of general principles of equity and to the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally.

(e) ***No Material Misstatements.*** The reports, financial statements and other written information furnished by or on behalf of such Borrower to the Administrative Agent, any Fronting Bank or any Lender pursuant to or in connection with this Amendment and the transactions contemplated hereby, when taken together with the Disclosure Documents, do not contain, when taken as a whole, any untrue statement of a material fact and do not omit, when taken as a whole, to state any fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading in any material respect.

(f) ***Litigation.*** There are no actions, suits or proceedings by or before any arbitrator or Governmental Authority pending against or, to the knowledge of such Borrower, threatened against such Borrower or any of its Subsidiaries that involve this Amendment, the Amended Agreement or any other Loan Document.

(g) ***No Default***. No Unmatured Default or Event of Default has occurred and is continuing or would occur as a result of (i) the execution, delivery or performance by such Borrower of this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is, or is to become, a party or (ii) the performance by such Borrower of the Amended Agreement.

SECTION 4. ***Reference to and Effect on the Credit Agreement and the Other Loan Documents*****.**

(a) Except as expressly amended hereby, all of the representations, warranties, terms, covenants and conditions of the Credit Agreement and the other Loan Documents shall remain in full force and effect in accordance with their respective terms and are hereby in all respects ratified and confirmed. The amendments set forth herein shall be limited precisely as provided for herein and shall not be deemed to be a waiver of, amendment of, consent to departure from or modification of any term or provision of the Loan Documents or any other document or instrument referred to therein or of any transaction or further or future action on the part of any Borrower requiring the consent of the Administrative Agent, the Fronting Banks, the Swing Line Lenders or the Lenders except to the extent specifically provided for herein. Except as expressly set forth herein, the Administrative Agent and the Lenders have not and shall not be deemed to have waived any of their respective rights and remedies against the Borrowers for any existing or future Unmatured Default or Event of Default. The Administrative Agent, the Fronting Banks, the Swing Line Lenders and the Lenders reserve the right to insist on strict compliance with the terms of the Credit Agreement and the other Loan Documents, and the Borrowers expressly acknowledge such reservation of rights. Any future or additional amendment of any provision of the Credit Agreement or any other Loan Document shall be effective only if set forth in a writing separate and distinct from this Amendment and executed by the appropriate parties in accordance with the terms thereof.

(b) Upon the effectiveness of this Amendment: (i) each reference in the Existing Credit Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Existing Credit Agreement shall mean and be a reference to the Amended Agreement; and (ii) each reference in any other Loan Document to "the Credit Agreement", "thereunder", "thereof" or words of like import referring to the Existing Credit Agreement shall mean and be a reference to the Amended Agreement. This Amendment shall constitute a "Loan Document" for all purposes under the Credit Agreement and the other Loan Documents.

(c) The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of the Lenders, the Administrative Agent, the Fronting Banks or the Swing Line Lenders under the Existing Credit Agreement or any other Loan Document, nor constitute a waiver of any provision of the Existing Credit Agreement or any other Loan Document.

SECTION 5. ***Costs and Expenses*****.**

Each Borrower agrees to pay on demand all reasonable out-of-pocket costs and expenses incurred by the Administrative Agent, each Fronting Bank and each Swing Line Lender in connection with the preparation, execution, delivery, syndication and administration of this Amendment and the other documents to be delivered hereunder, including, without limitation, the reasonable fees and out-of-pocket expenses of counsel (including, but not limited to, one local counsel and any specialist counsel in each relevant jurisdiction) for the Administrative Agent, the Fronting Banks and the Swing Line Lenders with respect thereto and with respect to advising the Administrative Agent, the Fronting Banks and each Swing Line Lender as to their

rights and responsibilities under this Amendment. Each Borrower further agrees to pay on demand all reasonable out-of-pocket costs and expenses, if any (including, without limitation, reasonable fees and expenses of counsel), incurred by the Administrative Agent, the Fronting Banks, the Swing Line Lenders and the Lenders in connection with the enforcement (whether through negotiations, legal proceedings or otherwise) of this Amendment, the Amended Agreement and the other documents to be delivered hereunder, including, without limitation, counsel fees and expenses in connection with the enforcement of rights under this Section.

SECTION 6. ***Counterparts*****.**

This Amendment may be executed in any number of counterparts (and by different parties hereto in separate counterparts), each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute but one and the same instrument. Delivery of an executed signature page to this Amendment by facsimile or other electronic transmission (including, without limitation, by Adobe portable document format file (also known as a "PDF" file)) shall be as effective as delivery of a manually signed counterpart of this Amendment. The words "execution," "executed," "signed," "signature," "delivery," and words of like import in or relating to this Amendment or any document to be signed in connection with this Amendment and the transactions contemplated hereby shall be deemed to include electronic signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; *provided*, that nothing herein shall require the Administrative Agent to accept electronic signatures in any form or format without its prior written consent; *provided*, *further*, that, without limiting the foregoing, upon the request of the Administrative Agent, any electronic signature shall be promptly followed by such manually executed counterpart.

SECTION 7. ***Governing Law*****.**

This Amendment shall be governed by, and construed in accordance with, the laws of the State of New York.

SECTION 8. ***Miscellaneous*****.**

This Amendment shall be subject to the provisions of Sections 8.05, 8.10, 8.11 and 8.12 of the Credit Agreement, each of which is incorporated by reference herein, *mutatis mutandis*.

SECTION 9. ***Release*****.**

In consideration of, among other things, the Administrative Agent's, the Fronting Banks', the Swing Line Lenders' and the Lenders' execution and delivery of this Amendment, each Borrower, on behalf of itself and its agents, representatives, officers, directors, advisors, employees, subsidiaries, affiliates, successors and assigns (collectively, "***Releasors***"), hereby

forever agrees and covenants not to sue or prosecute against any Releasee (as hereinafter defined) and hereby forever waives, releases and discharges, to the fullest extent permitted by law, each Releasee from any and all claims (including, without limitation, crossclaims, counterclaims, rights of set-off and recoupment), actions, causes of action, suits, debts, liens, warranties, damages and consequential damages, judgments, costs or expenses whatsoever, that such Releasor now has or hereafter may have, of whatsoever nature and kind, whether now existing or hereafter arising, whether arising at law or in equity (collectively, the "***Claims***"), against any or all of the Credit Parties in any capacity and their respective affiliates, subsidiaries, shareholders and "controlling persons" (within the meaning of the federal securities laws), and their respective successors and assigns and each and all of the officers, directors, employees, agents, attorneys, advisors and other representatives of each of the foregoing (collectively, the "***Releasees***"), based in whole or in part on facts existing on or before the Amendment Effective Date, that relate to, arise out of or otherwise are in connection with: (i) any or all of the Loan Documents or transactions contemplated thereby or any actions or omissions in connection therewith; or (ii) any aspect of the dealings or relationships between or among the Borrowers, on the one hand, and any or all of the Credit Parties, on the other hand, relating to any or all of the documents, transactions, actions or omissions referenced in clause (i) hereof. The receipt by any Borrower of any Advances or other financial accommodations made by any Credit Party after the date hereof shall constitute a ratification, adoption, and confirmation by such party of the foregoing general release of all Claims against the Releasees that are based in whole or in part on facts existing on or prior to the date of receipt of any such Advances or other financial accommodations. In entering into this Agreement, each Borrower consulted with, and has been represented by, legal counsel and expressly disclaims any reliance on any representations, acts or omissions by any of the Releasees and hereby agrees and acknowledges that the validity and effectiveness of the releases set forth above do not depend in any way on any such representations, acts and/or omissions or the accuracy, completeness or validity thereof. The provisions of this Section 9 shall survive the termination of this Amendment, the Credit Agreement, the other Loan Documents and payment in full of the Advances.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

FIRSTENERGY CORP.
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
METROPOLITAN EDISON COMPANY
OHIO EDISON COMPANY
PENNSYLVANIA POWER COMPANY
THE TOLEDO EDISON COMPANY
MONONGAHELA POWER COMPANY
PENNSYLVANIA ELECTRIC COMPANY
THE POTOMAC EDISON COMPANY
WEST PENN POWER COMPANY

By /s/ Steven R. Staub
Name: Steven R. Staub
Title: Vice President and Treasurer

JERSEY CENTRAL POWER & LIGHT COMPANY

By /s/ Weizhong Wang
Name: Weizhong Wang
Title: Treasurer

MIZUHO BANK, LTD., as Administrative Agent, as a Lender and as a Swing Line Lender

By /s/ Edward Sacks
Name: Edward Sacks
Title: Authorized Signatory

JPMORGAN CHASE BANK, N.A., as a Lender and as a Fronting Bank

By /s/ Nancy R. Barwig
Name: Nancy R. Barwig
Title: Executive Director

BANK OF AMERICA, N.A., as a Lender

By /s/ Jennifer Cochrane
Name: Jennifer Cochrane
Title: Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

PNC BANK, NATIONAL ASSOCIATION, as a Lender

By /s/ John Ataman
Name: John Ataman
Title: SVP

MUFG BANK, LTD., as a Lender and as a Fronting Bank

By /s/ Jeff Fesenmaier
Name: Jeff Fesenmaier
Title: Managing Director

THE BANK OF NOVA SCOTIA, as a Lender and as a Fronting Bank

By /s/ David Dewar
Name: David Dewar
Title: Director

CITIBANK, N.A., as a Lender and as a Fronting Bank

By /s/ Ashwani Khubani
Name: Ashwani Khubani
Title: Managing Director / Vice President

BARCLAYS BANK PLC, as a Lender and as a Fronting Bank

By /s/ Jake Lam
Name: Jake Lam
Title: Assistant Vice President

COBANK, ACB, as a Lender

By /s/ Josh Batchelder
Name: Josh Batchelder
Title: Managing Director

CANADIAN IMPERIAL BANK OF COMMERCE, NEW YORK BRANCH, as a Lender

By /s/ Anju Abraham
Name: Anju Abraham
Title: Authorized Signatory

ROYAL BANK OF CANADA, as a Lender

By /s/ Frank Lambrinos
Name: Frank Lambrinos
Title: Authorized Signatory

MORGAN STANLEY BANK, N.A., as a Lender

By /s/ Julie Hong
Name: Julie Hong
Title: Authorized Signatory

MORGAN STANLEY SENIOR FUNDING, INC., as a Lender

By /s/ Julie Hong
Name: Julie Hong
Title: Vice President

SUMITOMO MITSUI BANKING CORPORATION, as a Lender

By /s/ Katie Lee
Name: Katie Lee
Title: Director

TD BANK, N.A., as a Lender

By /s/ Shannon Batchman
Name: Shannon Batchman
Title: Sr. Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

U.S. BANK NATIONAL ASSOCIATION, as a Lender

By /s/ Joe Horrigan
Name: Joe Horrigan
Title: Managing Director

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

KEYBANK NATIONAL ASSOCIATION, as a Lender

By /s/ Renee M. Bonnell
Name: Renee M. Bonnell
Title: Senior Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

SANTANDER BANK, N.A., as a Lender

By __/s/ Andres Barbosa_____
Name: Andres Barbosa
Title: Managing Director

By __/s/ Daniela Hofer_____
Name: Daniela Hofer
Title: Executive Director

FIFTH THIRD BANK NATIONAL ASSOCIATION, as a Lender

By /s/ Larry Hayes
Name: Larry Hayes
Title: Executive Director

THE BANK OF NEW YORK MELLON, as a Lender

By /s/ Richard. K. Fronaplel, Jr.
Name: Richard K. Fronaplel, Jr.
Title: Director

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

CITIZENS BANK, N.A., as a Lender

By Stephen A. Maenholt
Name: Stephen A. Maenholt
Title: Senior Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

THE HUNTINGTON NATIONAL BANK, as a Lender

By: /s/ Martin H. McGinty
Name: Martin H. McGinty
Title: Director

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

FIRST NATIONAL BANK OF PENNSYLVANIA,
as a Lender

By: __/s/ Robert E. Heuler_____
Name: Robert E. Heuler
Title: Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Revolving Credit Agreement]

Exhibit 10-39

EXECUTION VERSION

AMENDMENT NO. 3 TO CREDIT AGREEMENT

dated as of January 15, 2021

among

FIRSTENERGY TRANSMISSION, LLC,
AMERICAN TRANSMISSION SYSTEMS, INCORPORATED,
MID-ATLANTIC INTERSTATE TRANSMISSION, LLC,
and
TRANS-ALLEGHENY INTERSTATE LINE COMPANY,
as Borrowers,

THE LENDERS NAMED HEREIN,
as Lenders,

PNC BANK, NATIONAL ASSOCIATION,
as Administrative Agent,

and

THE FRONTING BANKS NAMED HEREIN,
as Fronting Banks

AMENDMENT NO. 3 TO
CREDIT AGREEMENT

This AMENDMENT NO. 3, dated as of January 15, 2021 (this "***Amendment***"), to the Existing Credit Agreement referred to below, is entered into by and among FirstEnergy Transmission, LLC ("***FET***"), American Transmission Systems, Incorporated ("***ATSI***"), Mid-Atlantic Interstate Transmission, LLC ("***MAIT***") and Trans-Allegheny Interstate Line Company ("***TrAILCo***", and together with FET, ATSI and MAIT, the "***Borrowers***"), each of the Lenders (as defined in the Existing Credit Agreement) party hereto, PNC Bank, National Association ("***PNC***"), as Administrative Agent (in such capacity, the "***Administrative Agent***") for the Lenders, and each of the Fronting Banks (as defined in the Existing Credit Agreement) party hereto.

PRELIMINARY STATEMENTS

1. The Borrowers, the Lenders, the Administrative Agent and the Fronting Banks are parties to that certain Credit Agreement, dated as of December 6, 2016 (as amended by Amendment No. 1 thereto, dated as of October 19, 2018, and Waiver and Amendment No. 2 thereto, dated as of November 17, 2020, the "***Existing Credit Agreement***", as amended by this Amendment, the "***Amended Agreement***", and as the Amended Agreement may hereafter be amended, amended and restated, supplemented or otherwise modified from time to time, the "***Credit Agreement***"). Capitalized terms used herein and not otherwise defined herein shall have the meanings ascribed to such terms in the Amended Agreement.

2. The Lenders party hereto and the Borrowers desire to amend the Existing Credit Agreement in order to (i) modify the Eurodollar Rate replacement provisions, (ii) modify the EEA bail-in provisions and (iii) add a limited liability company divisions provision, in each case, based on current market practice for syndicated credit facilities of the type represented by the Existing Credit Agreement, and the Majority Lenders, the Administrative Agent and the Fronting Banks have agreed to such amendments on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

SECTION 1. Amendments to Existing Credit Agreement. The Existing Credit Agreement is, effective as of the date hereof and subject to the satisfaction or waiver of the conditions precedent set forth in Section 2 hereof, hereby amended as follows:

(a) The following defined terms contained in Section 1.01 of the Existing Credit Agreement are hereby amended and restated in their entirety to read as follows:

"***Bail-In Action***" means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

"***Bail-In Legislation***" means (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, regulation rule or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

"*Eurodollar Rate*" means, for the Interest Period for any Eurodollar Rate Advance made in connection with any Borrowing, the greater of (a) 0.00% and (b) the rate of interest *per annum* (rounded upward to the nearest 1/100 of 1%) as calculated by ICE Benchmark Administration Limited (or any other Person which takes over the administration of that rate) and obtained through a nationally recognized service such as the Dow Jones Market Service (Telerate), Reuters or other such service then being used by the Administrative Agent to ascertain such rates of interest (in each case, the "*Service*") as the London interbank offered rate for deposits in Dollars at approximately 11:00 a.m. (London time) two Business Days before the first day of such Interest Period for a period equal to such Interest Period; *provided*, *however*, that if a Benchmark Transition Event or an Early Opt-in Election and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark, then the rate described in clause (b) above shall mean the applicable Benchmark Replacement to the extent that such Benchmark Replacement has become effective pursuant to Section 2.22.

"*Write-Down and Conversion Powers*" means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

(b) The following new definitions are hereby added to Section 1.01 of the Existing Credit Agreement in the appropriate alphabetical order:

"***Affected Financial Institution***" shall mean (a) any EEA Financial Institution or (b) any UK Financial Institution.

"***Amendment No. 3***" means Amendment No. 3, dated as of January 15, 2021, by and among the Borrowers, the Lenders party thereto, the Administrative Agent and the Fronting Banks party thereto, which Amendment No. 3 amended this Agreement pursuant to the terms thereof.

"***Amendment No. 3 Effective Date***" means the Amendment Effective Date (as defined in Amendment No. 3), which date is January 15, 2021.

"***Available Tenor***" means, as of any date of determination and with respect to the then-current Benchmark, as applicable, (x) if the then current Benchmark is a term rate or is based on a term rate, any tenor for such Benchmark that is or may be used for determining the length of an Interest Period pursuant to this Agreement as of such date and not including, for the avoidance of doubt, any tenor for such Benchmark that is then-removed from the definition of "Interest Period" pursuant to Section 2.22(d), or (y) if the then current Benchmark is not a term rate nor based on a term rate, any payment period for interest calculated with reference to such Benchmark pursuant to this Agreement as of such date.

"***Benchmark***" means, initially, USD LIBOR; *provided*, that if a Benchmark Transition Event, a Term SOFR Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement to the extent that such Benchmark Replacement has replaced such prior benchmark rate pursuant to Section 2.22(a) or Section 2.22(f).

"***Benchmark Replacement***" means, for any Available Tenor, the first alternative set forth in the order below that can be determined by the Administrative Agent for the applicable Benchmark Replacement Date:

(1) the sum of: (a) Term SOFR and (b) the related Benchmark Replacement Adjustment;

(2) the sum of: (a) Daily Simple SOFR and (b) the related Benchmark Replacement Adjustment; or

(3) the sum of: (a) the alternate benchmark rate that has been selected by the Administrative Agent and the Borrowers as the replacement for the then-current Benchmark for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a replacement benchmark rate or the mechanism for determining such a rate by the Relevant Governmental Body or (ii) any evolving or then-prevailing market convention for determining a benchmark rate as a replacement for the then-current Benchmark for U.S. dollar-

denominated syndicated credit facilities at such time and (b) the related Benchmark Replacement Adjustment;

provided, that, in the case of clause (1) above, such Unadjusted Benchmark Replacement is displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion; *provided*, *further*, that, with respect to a Term SOFR Transition Event, on the applicable Benchmark Replacement Date, the "Benchmark Replacement" shall revert to and shall be determined as set forth in clause (1) above. If the Benchmark Replacement as determined pursuant to clause (1), (2) or (3) above would be less than the Floor, the Benchmark Replacement will be deemed to be the Floor for the purposes of this Agreement and the other Loan Documents.

"***Benchmark Replacement Adjustment***" means, with respect to any replacement of the then-current Benchmark with an Unadjusted Benchmark Replacement for any applicable Available Tenor for any setting of such Unadjusted Benchmark Replacement:

(1) for purposes of clauses (1) and (2) of the definition of "Benchmark Replacement," the first alternative set forth in the order below that can be determined by the Administrative Agent:

(a) the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) as of the Reference Time such Benchmark Replacement is first set for such Available Tenor that has been selected or recommended by the Relevant Governmental Body for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for the applicable Corresponding Tenor; or

(b) the spread adjustment (which may be a positive or negative value or zero) as of the Reference Time such Benchmark Replacement is first set for such Available Tenor that would apply to the fallback rate for a derivative transaction referencing the ISDA Definitions to be effective upon an index cessation event with respect to such Benchmark for the applicable Corresponding Tenor; and

(2) for purposes of clause (3) of the definition of "Benchmark Replacement," the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected by the Administrative Agent and the Borrowers for the applicable Corresponding Tenor giving due consideration to (i) any selection or recommendation of a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the

applicable Unadjusted Benchmark Replacement by the Relevant Governmental Body on the applicable Benchmark Replacement Date or (ii) any evolving or then-prevailing market convention for determining a spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of such Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated syndicated credit facilities;

provided, that, (x) in the case of clause (1) above, such adjustment is displayed on a screen or other information service that publishes such Benchmark Replacement Adjustment from time to time as selected by the Administrative Agent in its reasonable discretion and (y) if the then-current Benchmark is a term rate, more than one tenor of such Benchmark is available as of the applicable Benchmark Replacement Date and the applicable Unadjusted Benchmark Replacement will not be a term rate, the Available Tenor of such Benchmark for purposes of this definition of "Benchmark Replacement Adjustment" shall be deemed to be the Available Tenor that has approximately the same length (disregarding business day adjustments) as the payment period for interest calculated with reference to such Unadjusted Benchmark Replacement.

"***Benchmark Replacement Conforming Changes***" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including, without limitation, changes to the definition of "Alternate Base Rate," the definition of "Business Day," the definition of "Interest Period," timing and frequency of determining rates and making payments of interest, timing of borrowing requests or prepayment, conversion or continuation notices, length of lookback periods, the applicability of breakage provisions, and other technical, administrative or operational matters) that the Administrative Agent decides may be appropriate to reflect the adoption and implementation of such Benchmark Replacement and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative Agent decides that adoption of any portion of such market practice is not administratively feasible or if the Administrative Agent determines that no market practice for the administration of such Benchmark Replacement exists, in such other manner of administration as the Administrative Agent decides is reasonably necessary in connection with the administration of this Agreement and the other Loan Documents).

"***Benchmark Replacement Date***" means the earliest to occur of the following events with respect to the then-current Benchmark:

(1) in the case of clause (1) or (2) of the definition of "Benchmark Transition Event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of such Benchmark (or the published component used in the calculation thereof)

permanently or indefinitely ceases to provide all Available Tenors of such Benchmark (or such component thereof);

(2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date determined by the Administrative Agent, which date shall promptly follow the date of the public statement or publication of information referenced therein;

(3) in the case of a Term SOFR Transition Event, the date that is set forth in the Term SOFR Notice provided to the Lenders and the Borrowers pursuant to Section 2.22, which date shall be at least 30 days from the date of the Term SOFR Notice; or

(4) in the case of an Early Opt-in Election, the sixth (6th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, so long as the Administrative Agent has not received, by 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Early Opt-in Election is provided to the Lenders, written notice of objection to such Early Opt-in Election from Lenders comprising the Majority Lenders.

For the avoidance of doubt, (i) if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination and (ii) the "Benchmark Replacement Date" will be deemed to have occurred in the case of clause (1) or (2) above with respect to any Benchmark upon the occurrence of the applicable event or events set forth therein with respect to all then-current Available Tenors of such Benchmark (or the published component used in the calculation thereof).

"***Benchmark Transition Event***" means the occurrence of one or more of the following events with respect to the then-current Benchmark:

(1) a public statement or publication of information by or on behalf of the administrator of such Benchmark (or the published component used in the calculation thereof) announcing that such administrator has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof), permanently or indefinitely, *provided*, that at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof);

(2) a public statement or publication of information by a Governmental Authority having jurisdiction over the Administrative Agent, the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof), the Board of Governors of the Federal

Reserve System, the Federal Reserve Bank of New York, an insolvency official with jurisdiction over the administrator for such Benchmark (or such component), a resolution authority with jurisdiction over the administrator for such Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for such Benchmark (or such component), which states that the administrator of such Benchmark (or such component) has ceased or will cease to provide all Available Tenors of such Benchmark (or such component thereof) permanently or indefinitely, *provided*, that at the time of such statement or publication, there is no successor administrator that will continue to provide any Available Tenor of such Benchmark (or such component thereof); or

(3) a public statement or publication of information by the regulatory supervisor for the administrator of such Benchmark (or the published component used in the calculation thereof) or a Governmental Authority having jurisdiction over the Administrative Agent announcing that all Available Tenors of such Benchmark (or such component thereof) are no longer representative.

For the avoidance of doubt, a "Benchmark Transition Event" will be deemed to have occurred with respect to any Benchmark if a public statement or publication of information set forth above has occurred with respect to each then-current Available Tenor of such Benchmark (or the published component used in the calculation thereof).

"***Benchmark Unavailability Period***" means the period (if any) (x) beginning at the time that a Benchmark Replacement Date pursuant to clause (1) or (2) of that definition has occurred if, at such time, no Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.22 and (y) ending at the time that a Benchmark Replacement has replaced the then-current Benchmark for all purposes hereunder and under any Loan Document in accordance with Section 2.22.

"***Corresponding Tenor***" with respect to any Available Tenor means, as applicable, either a tenor (including overnight) or an interest payment period having approximately the same length (disregarding business day adjustment) as such Available Tenor.

"***Daily Simple SOFR***" means, for any day, SOFR, with the conventions for this rate (which will include a lookback) being established by the Administrative Agent in accordance with the conventions for this rate selected or recommended by the Relevant Governmental Body for determining "Daily Simple SOFR" for syndicated business loans; *provided*, that if the Administrative Agent decides that any such convention is not administratively feasible for the Administrative Agent, then the Administrative Agent may establish another convention in its reasonable discretion.

"***Early Opt-in Election***" means, if the then-current Benchmark is USD LIBOR, the occurrence of:

(1) a notification by the Administrative Agent to (or the request by the Borrowers to the Administrative Agent to notify) each of the other parties hereto that at least five (5) currently outstanding U.S. dollar-denominated syndicated credit facilities at such time contain (as a result of amendment or as originally executed) a SOFR-based rate (including SOFR, a term SOFR or any other rate based upon SOFR) as a benchmark rate (and such syndicated credit facilities are identified in such notice and are publicly available for review); and

(2) the joint election by the Administrative Agent and the Borrowers to trigger a fallback from USD LIBOR and the provision by the Administrative Agent of written notice of such election to the Lenders.

"***Floor***" means the benchmark rate floor, if any, provided in this Agreement initially (as of the execution of this Agreement, the Amendment No. 3 Effective Date, the modification, amendment or renewal of this Agreement or otherwise) with respect to USD LIBOR or, if no floor is specified, zero.

"***ISDA Definitions***" means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time by the International Swaps and Derivatives Association, Inc. or such successor thereto.

"***Reference Time***" with respect to any setting of the then-current Benchmark means (1) if such Benchmark is USD LIBOR, 11:00 a.m. (London time) on the day that is two London banking days preceding the date of such setting, and (2) if such Benchmark is not USD LIBOR, the time determined by the Administrative Agent in its reasonable discretion.

"***Relevant Governmental Body***" means the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Board of Governors of the Federal Reserve System or the Federal Reserve Bank of New York, or any successor thereto.

"***Resolution Authority***" shall mean an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

"***SOFR***" means, with respect to any Business Day, a rate *per annum* equal to the secured overnight financing rate for such Business Day published by the

SOFR Administrator on the SOFR Administrator's Website on the immediately succeeding Business Day.

"***SOFR Administrator***" means the Federal Reserve Bank of New York (or a successor administrator of the secured overnight financing rate).

"***SOFR Administrator's Website***" means the website of the Federal Reserve Bank of New York, currently at http://www.newyorkfed.org, or any successor source for the secured overnight financing rate identified as such by the SOFR Administrator from time to time.

"***Term SOFR***" means, for the applicable Corresponding Tenor as of the applicable Reference Time, the forward-looking term rate based on SOFR that has been selected or recommended by the Relevant Governmental Body.

"***Term SOFR Notice***" means a notification by the Administrative Agent to the Lenders and the Borrowers of the occurrence of a Term SOFR Transition Event.

"***Term SOFR Transition Event***" means the determination by the Administrative Agent that (a) Term SOFR has been recommended for use by the Relevant Governmental Body, and is determinable for each Available Tenor, (b) the administration of Term SOFR is administratively feasible for the Administrative Agent and (c) a Benchmark Transition Event or Early Opt-in Election has previously occurred resulting in a Benchmark Replacement in accordance with Section 2.22 that is not Term SOFR.

"***UK Financial Institution***" shall mean any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any Person falling within IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

"***UK Resolution Authority***" shall mean the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

"***Unadjusted Benchmark Replacement***" means the applicable Benchmark Replacement excluding the related Benchmark Replacement Adjustment.

"***USD LIBOR***" means the London interbank offered rate for Dollars.

(c) Article I of the Existing Credit Agreement is hereby amended by adding the following new Sections 1.05 and 1.06 at the end thereof:

"***SECTION 1.05. Divisions.***

Any reference herein to a merger, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term (and including any reference to the creation of any subsidiary), shall be deemed to apply to a division of or by a limited liability company, or an allocation of assets to a series of a limited liability company (or the unwinding of such a division or allocation), as if it were a merger, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term (including the creation of a subsidiary), as applicable, to, of or with a separate Person. Any division of a limited liability company shall constitute a separate Person hereunder (and each division of any limited liability company that is a subsidiary, joint venture or any other like term shall also constitute such a Person).

SECTION 1.06. LIBOR Notification.

Section 2.22 of this Agreement provides a mechanism for determining an alternate rate of interest in the event that the London interbank offered rate is no longer available or in certain other circumstances. The Administrative Agent does not warrant or accept any responsibility for, and shall not have any liability with respect to, (i) the administration of, submission of or any other matter related to the London interbank offered rate or other rates in the definition of "Eurodollar Rate" or with respect to any alternative or successor rate thereto, or replacement rate thereof (including, without limitation, any Benchmark Replacement implemented hereunder), (ii) the composition or characteristics of any such Benchmark Replacement, including whether it is similar to, or produces the same value or economic equivalence of, USD LIBOR (or any other Benchmark) or has or will have the same volume or liquidity as did USD LIBOR (or any other Benchmark), (iii) any actions or use of its discretion or other decisions or determinations made with respect to any matters covered by Section 2.22, including, without limitation, whether or not a Benchmark Transition Event has occurred, the removal or lack thereof of unavailable or non-representative tenors, the implementation or lack thereof of any Benchmark Replacement Conforming Changes, the delivery or non-delivery of any notices required by Section 2.22(c) or otherwise in accordance herewith, and (iv) the effect of any of the provisions of Section 2.22."

(d) Article II of the Existing Credit Agreement is hereby amended by adding the following new Section 2.22 at the end thereof:

"***SECTION 2.22. Benchmark Replacement Setting***.

(a) ***Benchmark Replacement***. Notwithstanding anything to the contrary herein or in any other Loan Document, if a Benchmark Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any setting of the

then-current Benchmark, then (x) if a Benchmark Replacement is determined in accordance with clause (1) or (2) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of such Benchmark setting and subsequent Benchmark settings without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document and (y) if a Benchmark Replacement is determined in accordance with clause (3) of the definition of "Benchmark Replacement" for such Benchmark Replacement Date, such Benchmark Replacement will replace such Benchmark for all purposes hereunder and under any Loan Document in respect of any Benchmark setting at or after 5:00 p.m. (New York City time) on the fifth (5th) Business Day after the date notice of such Benchmark Replacement is provided to the Lenders without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document so long as the Administrative Agent has not received, by such time, written notice of objection to such Benchmark Replacement from Lenders comprising the Majority Lenders.

(b) ***Benchmark Replacement Conforming Changes***. In connection with the implementation of a Benchmark Replacement, the Administrative Agent will have the right to make Benchmark Replacement Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Benchmark Replacement Conforming Changes will become effective without any further action or consent of any other party to this Agreement or any other Loan Document.

(c) ***Notices; Standards for Decisions and Determinations***. The Administrative Agent will promptly notify the Borrowers and the Lenders of (i) any occurrence of a Benchmark Transition Event, a Term SOFR Transition Event or an Early Opt-in Election, as applicable, and its related Benchmark Replacement Date, (ii) the implementation of any Benchmark Replacement, (iii) the effectiveness of any Benchmark Replacement Conforming Changes, (iv) the removal or reinstatement of any tenor of a Benchmark pursuant to paragraph (d) below and (v) the commencement or conclusion of any Benchmark Unavailability Period. Any determination, decision or election that may be made by the Administrative Agent or, if applicable, any Lender (or group of Lenders) pursuant to this Section 2.22, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection, will be conclusive and binding absent manifest error and may be made in its or their sole discretion and without consent from any other party to this Agreement or any other Loan Document, except, in each case, as expressly required pursuant to this Section 2.22.

(d) ***Unavailability of Tenor of Benchmark***. Notwithstanding anything to the contrary herein or in any other Loan Document, at any time (including in connection with the implementation of a Benchmark Replacement), (i) if the then-current Benchmark is a term rate (including Term SOFR or USD LIBOR) and either (A) any tenor for such Benchmark is not displayed on a screen or other information service that publishes such rate from time to time as selected by the Administrative Agent in its reasonable discretion or (B) the regulatory supervisor for the administrator of such Benchmark has provided a public statement or publication of information announcing that any tenor for such Benchmark is or will be no longer representative, then the Administrative Agent may modify the definition of "Interest Period" for any Benchmark settings at or after such time to remove such unavailable or non-representative tenor and (ii) if a tenor that was removed pursuant to clause (i) above either (A) is subsequently displayed on a screen or information service for a Benchmark (including a Benchmark Replacement) or (B) is not, or is no longer, subject to an announcement that it is or will no longer be representative for a Benchmark (including a Benchmark Replacement), then the Administrative Agent may modify the definition of "Interest Period" for all Benchmark settings at or after such time to reinstate such previously removed tenor.

(e) ***Benchmark Unavailability Period***. Upon the Borrowers' receipt of notice of the commencement of a Benchmark Unavailability Period, each Borrower may revoke any request for an Advance bearing interest based on USD LIBOR, conversion to or continuation of Advances bearing interest based on USD LIBOR to be made, converted or continued during any Benchmark Unavailability Period and, failing that, each Borrower will be deemed to have converted any such request into a request for a Borrowing of or conversion to Alternate Base Rate Advances. During any Benchmark Unavailability Period or at any time that a tenor for the then-current Benchmark is not an Available Tenor, the component of Alternate Base Rate based upon the then-current Benchmark or such tenor for such Benchmark, as applicable, will not be used in any determination of Alternate Base Rate.

(f) ***Secondary Term SOFR Conversion***. Notwithstanding anything to the contrary herein or in any other Loan Document and subject to the proviso below in this paragraph, if a Term SOFR Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any setting of the then-current Benchmark, then (i) the applicable Benchmark Replacement will replace the then-current Benchmark for all purposes hereunder or under any other Loan Document in respect of such Benchmark setting (the "***Secondary Term SOFR Conversion Date***") and subsequent Benchmark settings, without any amendment to, or further action or consent of any other party to, this Agreement or any other Loan Document; and (ii) Advances outstanding on the Secondary Term SOFR Conversion Date bearing interest based on the then-current Benchmark shall be deemed to have been

converted to Advances bearing interest at the Benchmark Replacement with a tenor approximately the same length as the interest payment period of the then-current Benchmark; *provided*, that this paragraph (f) shall not be effective unless the Administrative Agent has delivered to the Lenders and the Borrowers a Term SOFR Notice."

(e) Section 4.01(n) of the Existing Credit Agreement is hereby amended and restated in its entirety to read as follows:

"(n) ***Affected Financial Institutions***. No Borrower is an Affected Financial Institution."

(f) Section 8.16 of the Existing Credit Agreement is hereby amended and restated in its entirety to read as follows:

"***SECTION 8.16. Acknowledgment and Consent to Bail-In of Affected Financial Institutions.***

Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any of the parties hereto, each party hereto acknowledges that any liability of any Lender or Fronting Bank that is an Affected Financial Institution arising under any Loan Document, to the extent such liability is unsecured, may be subject to the Write-Down and Conversion Powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

(a) the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Lender or Fronting Bank that is an Affected Financial Institution; and

(b) the effects of any Bail-in Action on any such liability, including, if applicable:

(i) a reduction in full or in part or cancellation of any such liability;

(ii) a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or

(iii) the variation of the terms of such liability in connection with the exercise of the Write-Down and Conversion Powers of the applicable Resolution Authority."

SECTION 2. Conditions to Effectiveness.

This Amendment shall become effective as of the date first above written (the "***Amendment Effective Date***") when, and only when, the following conditions have been satisfied (or waived by the Administrative Agent and the Lenders party hereto in their sole discretion):

(a) The Administrative Agent shall have received, in immediately available funds, to the extent invoiced prior to the Amendment Effective Date, reimbursement or payment of all reasonable out-of-pocket costs and expenses of the Administrative Agent (including, but not limited to, the reasonable fees and expenses of counsel (including, but not limited to, one local counsel and any specialist counsel in each relevant jurisdiction) to the Administrative Agent) required to be reimbursed or paid by the Borrowers hereunder or under any other Loan Document.

(b) The Administrative Agent shall have received the following documents, each document being dated the date of receipt thereof by the Administrative Agent (which date shall be the same for all such documents, except as otherwise specified below), in form and substance satisfactory to the Administrative Agent:

(i) either (A) counterparts of this Amendment duly executed by each of the Borrowers, the Majority Lenders, the Administrative Agent and the Fronting Banks or (B) written evidence satisfactory to the Administrative Agent (which may include telecopy or other electronic transmission of a signed signature page of this Amendment) that such parties have signed counterparts of this Amendment;

(ii) certified copies of (A) the resolutions of the Board of Directors of each Borrower approving this Amendment and the Amended Agreement and (B) all documents evidencing any other necessary corporate action with respect to this Amendment and the Amended Agreement;

(iii) a certificate of the Secretary or an Assistant Secretary of each Borrower certifying (A) the names and true signatures of the officers of such Borrower authorized to sign this Amendment and the other documents to be delivered hereunder, (B) that attached thereto are true and correct copies of the Organizational Documents of such Borrower, in each case as in effect on such date, and (C) that true and correct copies of all governmental and regulatory authorizations and approvals (including such Borrower's Approval) required for the due execution, delivery and performance by such Borrower of this Amendment and the Amended Agreement have previously been delivered to the Administrative Agent and remain in full force and effect on such date; and

(iv) a certificate of an Authorized Officer of each Borrower (the statements in which shall be true) certifying that, both before and after giving effect to this Amendment, (A) no event has occurred and is continuing that constitutes an Event of Default or an Unmatured Default with respect to such Borrower and (B) all representations and warranties of such Borrower contained in the Amended Agreement and each other Loan Document to which such Borrower is a party are true and correct in all material respects (or, in the case of any such representation or warranty already qualified by "Material Adverse Effect" or any other materiality qualification, true and correct in all respects) on and as of the Amendment Effective Date, as though made on and as of such date (other than any such representation or warranty that by its terms refers to a specific date, in which case such representation and warranty shall be true and correct as of such specific date).

(c) The Administrative Agent shall have received all documentation and information required by regulatory authorities under applicable "know your customer" and anti-money laundering rules and regulations, including, without limitation, the Patriot Act and the Beneficial Ownership Regulation, to the extent such documentation or information is requested by the Administrative Agent on behalf of any Lender prior to the Amendment Effective Date.

SECTION 3. Representations and Warranties.

Each Borrower represents and warrants as follows:

(a) ***Due Authorization*** . The execution, delivery and performance by it of this Amendment and each other Loan Document being executed and delivered in connection with this Amendment to which such Borrower is a party, and the performance by such Borrower of the Amended Agreement, have been duly authorized by all necessary corporate action on its part and do not, and will not, require the consent or approval of its shareholders or members, as the case may be, other than such consents and approvals as have been duly obtained, given or accomplished.

(b) ***No Violation, Etc.*** Neither the execution, delivery or performance by it of this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is a party, nor the consummation by it of the transactions contemplated hereby or thereby, nor compliance by it with the provisions hereof or thereof, nor the performance by it of the Amended Agreement, contravenes or will contravene, or results or will result in a breach of, any of the provisions of its Organizational Documents, any Applicable Law, or any indenture, mortgage, deed of trust, lease, license or any other agreement or instrument to which it or any of its Subsidiaries is party or by which its property or the property of any of its Subsidiaries is bound, or results or will result in the creation or imposition of any Lien upon any of its property or the property of any of its Subsidiaries, except to the extent such contravention or breach, or the creation or imposition of any such Lien, individually or in the aggregate, has not had and would not reasonably be expected to have a Material Adverse Effect with respect to such Borrower.

(c) ***Governmental Actions***. No Governmental Action is or will be required in connection with (i) the execution, delivery or performance by it of, or the consummation by it of the transactions contemplated by, this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is, or is to become, a party, or (ii) the performance by it of the Amended Agreement, in each case, other than such Borrower's Approval, as applicable, which has been duly issued and is in full force and effect.

(d) ***Execution and Delivery***. This Amendment and the other Loan Documents being executed and delivered in connection with this Amendment to which it is, or is to become, a party have been or will be (as the case may be) duly executed and delivered by it, and each of this Amendment and the Amended Agreement is, and upon execution and delivery thereof each such other Loan Document will be, the legal, valid and binding obligation of it enforceable against it in accordance with its terms, *subject, however*, to the application by a court of general principles of equity and to the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally.

(e) ***No Material Misstatements.*** The reports, financial statements and other written information furnished by or on behalf of such Borrower to the Administrative Agent, any Fronting Bank or any Lender pursuant to or in connection with this Amendment and the transactions contemplated hereby, when taken together with the Disclosure Documents, do not contain, when taken as a whole, any untrue statement of a material fact and do not omit, when taken as a whole, to state any fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading in any material respect.

(f) ***Litigation.*** There are no actions, suits or proceedings by or before any arbitrator or Governmental Authority pending against or, to the knowledge of such Borrower, threatened against such Borrower or any of its Subsidiaries that involve this Amendment, the Amended Agreement or any other Loan Document.

(g) ***No Default***. No Unmatured Default or Event of Default has occurred and is continuing or would occur as a result of (i) the execution, delivery or performance by such Borrower of this Amendment or any other Loan Document being executed and delivered in connection with this Amendment to which it is, or is to become, a party or (ii) the performance by such Borrower of the Amended Agreement.

SECTION 4. Reference to and Effect on the Credit Agreement and the Other Loan Documents.

(a) Except as expressly amended hereby, all of the representations, warranties, terms, covenants and conditions of the Credit Agreement and the other Loan Documents shall remain in full force and effect in accordance with their respective terms and are hereby in all respects ratified and confirmed. The amendments set forth herein shall be limited precisely as provided for herein and shall not be deemed to be a waiver of, amendment of, consent to departure from or modification of any term or provision of the Loan Documents or any other document or instrument referred to therein or of any transaction or further or future action on the part of any Borrower requiring the consent of the Administrative Agent, the Fronting Banks or

the Lenders except to the extent specifically provided for herein. Except as expressly set forth herein, the Administrative Agent and the Lenders have not and shall not be deemed to have waived any of their respective rights and remedies against the Borrowers for any existing or future Unmatured Default or Event of Default. The Administrative Agent, the Fronting Banks and the Lenders reserve the right to insist on strict compliance with the terms of the Credit Agreement and the other Loan Documents, and the Borrowers expressly acknowledge such reservation of rights. Any future or additional amendment of any provision of the Credit Agreement or any other Loan Document shall be effective only if set forth in a writing separate and distinct from this Amendment and executed by the appropriate parties in accordance with the terms thereof.

(b) Upon the effectiveness of this Amendment: (i) each reference in the Existing Credit Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Existing Credit Agreement shall mean and be a reference to the Amended Agreement; and (ii) each reference in any other Loan Document to "the Credit Agreement", "thereunder", "thereof" or words of like import referring to the Existing Credit Agreement shall mean and be a reference to the Amended Agreement. This Amendment shall constitute a "Loan Document" for all purposes under the Credit Agreement and the other Loan Documents.

(c) The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of the Lenders, the Administrative Agent or the Fronting Banks under the Existing Credit Agreement or any other Loan Document, nor constitute a waiver of any provision of the Existing Credit Agreement or any other Loan Document.

SECTION 5. Costs and Expenses.

Each Borrower agrees to pay on demand all reasonable out-of-pocket costs and expenses incurred by the Administrative Agent and each Fronting Bank in connection with the preparation, execution, delivery, syndication and administration of this Amendment and the other documents to be delivered hereunder, including, without limitation, the reasonable fees and out-of-pocket expenses of counsel (including, but not limited to, one local counsel and any specialist counsel in each relevant jurisdiction) for the Administrative Agent and the Fronting Banks with respect thereto and with respect to advising the Administrative Agent and the Fronting Banks as to their rights and responsibilities under this Amendment. Each Borrower further agrees to pay on demand all reasonable out-of-pocket costs and expenses, if any (including, without limitation, reasonable fees and expenses of counsel), incurred by the Administrative Agent, the Fronting Banks and the Lenders in connection with the enforcement (whether through negotiations, legal proceedings or otherwise) of this Amendment, the Amended Agreement and the other documents to be delivered hereunder, including, without limitation, counsel fees and expenses in connection with the enforcement of rights under this Section.

SECTION 6. Counterparts.

This Amendment may be executed in any number of counterparts (and by different parties hereto in separate counterparts), each of which when so executed and delivered shall be

deemed to be an original and all of which taken together shall constitute but one and the same instrument. Delivery of an executed signature page to this Amendment by facsimile or other electronic transmission (including, without limitation, by Adobe portable document format file (also known as a "PDF" file)) shall be as effective as delivery of a manually signed counterpart of this Amendment. The words "execution," "executed," "signed," "signature," "delivery," and words of like import in or relating to this Amendment or any document to be signed in connection with this Amendment and the transactions contemplated hereby shall be deemed to include electronic signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; *provided*, that nothing herein shall require the Administrative Agent to accept electronic signatures in any form or format without its prior written consent; *provided*, *further*, that, without limiting the foregoing, upon the request of the Administrative Agent, any electronic signature shall be promptly followed by such manually executed counterpart.

SECTION 7. Governing Law.

This Amendment shall be governed by, and construed in accordance with, the laws of the State of New York.

SECTION 8. Miscellaneous.

This Amendment shall be subject to the provisions of Sections 8.05, 8.10, 8.11 and 8.12 of the Credit Agreement, each of which is incorporated by reference herein, *mutatis mutandis*.

SECTION 9. Release.

In consideration of, among other things, the Administrative Agent's, the Fronting Banks' and the Lenders' execution and delivery of this Amendment, each Borrower, on behalf of itself and its agents, representatives, officers, directors, advisors, employees, subsidiaries, affiliates, successors and assigns (collectively, "***Releasors***"), hereby forever agrees and covenants not to sue or prosecute against any Releasee (as hereinafter defined) and hereby forever waives, releases and discharges, to the fullest extent permitted by law, each Releasee from any and all claims (including, without limitation, crossclaims, counterclaims, rights of set-off and recoupment), actions, causes of action, suits, debts, liens, warranties, damages and consequential damages, judgments, costs or expenses whatsoever, that such Releasor now has or hereafter may have, of whatsoever nature and kind, whether now existing or hereafter arising, whether arising at law or in equity (collectively, the "***Claims***"), against any or all of the Credit Parties in any capacity and their respective affiliates, subsidiaries, shareholders and "controlling persons" (within the meaning of the federal securities laws), and their respective successors and assigns and each and all of the officers, directors, employees, agents, attorneys, advisors and other representatives of each of the foregoing (collectively, the "***Releasees***"), based in whole or in part on facts existing on or before the Amendment Effective Date, that relate to, arise out of or

otherwise are in connection with: (i) any or all of the Loan Documents or transactions contemplated thereby or any actions or omissions in connection therewith; or (ii) any aspect of the dealings or relationships between or among the Borrowers, on the one hand, and any or all of the Credit Parties, on the other hand, relating to any or all of the documents, transactions, actions or omissions referenced in clause (i) hereof. The receipt by any Borrower of any Advances or other financial accommodations made by any Credit Party after the date hereof shall constitute a ratification, adoption, and confirmation by such party of the foregoing general release of all Claims against the Releasees that are based in whole or in part on facts existing on or prior to the date of receipt of any such Advances or other financial accommodations. In entering into this Agreement, each Borrower consulted with, and has been represented by, legal counsel and expressly disclaims any reliance on any representations, acts or omissions by any of the Releasees and hereby agrees and acknowledges that the validity and effectiveness of the releases set forth above do not depend in any way on any such representations, acts and/or omissions or the accuracy, completeness or validity thereof. The provisions of this Section 9 shall survive the termination of this Amendment, the Credit Agreement, the other Loan Documents and payment in full of the Advances.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereunto duly authorized, as of the date first above written.

FIRSTENERGY TRANSMISSION, LLC
AMERICAN TRANSMISSION SYSTEMS, INCORPORATED
MID-ATLANTIC INTERSTATE TRANSMISSION, LLC
TRANS-ALLEGHENY INTERSTATE LINE COMPANY

By / Steven R. Staub
Name: Steven R. Staub
Title: Vice President and Treasurer

PNC BANK, NATIONAL ASSOCIATION, as Administrative Agent, as a Lender and as a Fronting Bank

By /s/ John Ataman
Name: John Ataman
Title: SVP

BANK OF AMERICA, N.A., as a Lender and as a Fronting Bank

By /s/ Jennifer Cochrane
Name: Jennifer Cochrane
Title: Vice President

MIZUHO BANK, LTD., as a Lender

By /s/ Edward Sacks
Name: Edward Sacks
Title: Authorized Signatory

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

JPMORGAN CHASE BANK, N.A., as a Lender

By /s/ Nancy R. Barwig
Name: Nancy R. Barwig
Title: Executive Director

MUFG BANK, LTD., as a Lender

By __/s/ Jeff Fesenmaier_____
Name: Jeff Fesenmaier
Title: Managing Director

THE BANK OF NOVA SCOTIA, as a Lender

By /s/ David Dewar
Name: David Dewar
Title: Director

CITIBANK, N.A., as a Lender

By /s/ Ashwani Khubani
Name: Ashwani Khubani
Title: Managing Director / Vice President

BARCLAYS BANK PLC, as a Lender

By __/s/ Jake Lam_____
Name: Jake Lam
Title: Assistant Vice President

COBANK, ACB, as a Lender

By /s/ Josh Batchelder
Name: Josh Batchelder
Title: Managing Director

CANADIAN IMPERIAL BANK OF COMMERCE, NEW YORK BRANCH, as a Lender

By /s/ Anju Abraham
Name: Anju Abraham
Title: Authorized Signatory

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

ROYAL BANK OF CANADA, as a Lender

By /s/ Frank Lambrinos
Name: Frank Lambrinos
Title: Authorized Signatory

MORGAN STANLEY BANK, N.A., as a Lender

By __/s/ Julie Hong_____
Name: Julie Hong
Title: Authorized Signatory

MORGAN STANLEY SENIOR FUNDING, INC., as a Lender

By /s/ Julie Hong
Name: Julie Hong
Title: Vice President

SUMITOMO MITSUI BANKING CORPORATION, as a Lender

By /s/ Katie Lee
Name: Katie Lee
Title: Director

TD BANK, N.A., as a Lender

By /s/ Shannon Batchman
Name: Shannon Batchman
Title: Sr. Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

U.S. BANK NATIONAL ASSOCIATION, as a Lender

By /s/ Joe Horrigan
Name: Joe Horrigan
Title: Managing Director

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

KEYBANK NATIONAL ASSOCIATION, as a Lender

By /s/ Renee M. Bonnell
Name: Renee M. Bonnell
Title: Senior Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

SANTANDER BANK, N.A., as a Lender

By __/s/ Andres Barbosa_____
Name: Andres Barbosa
Title: Managing Director

By __/s/ Zara Kamal_____
Name: Zara Kamal
Title: Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

FIFTH THIRD BANK NATIONAL ASSOCIATION, as a Lender

By /s/ Larry Hayes
Name: Larry Hayes
Title: Executive Director

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

THE BANK OF NEW YORK MELLON, as a Lender

By /s/ Richard. K. Fronaplel, Jr.
Name: Richard K. Fronaplel, Jr.
Title: Director

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

CITIZENS BANK, N.A., as a Lender

By Stephen A. Maenholt
Name: Stephen A. Maenholt
Title: Senior Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

THE HUNTINGTON NATIONAL BANK, as a Lender

By: /s/ Martin H. McGinty
Name: Martin H. McGinty
Title: Director

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

FIRST NATIONAL BANK OF PENNSYLVANIA,
as a Lender

By: __/s/ Robert E. Heuler_____
Name: Robert E. Heuler
Title: Vice President

[Signature Page to Amendment No. 3 to FirstEnergy Transmission, LLC Revolving Credit Agreement]

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FIRSTENERGY CORP.
LIST OF SUBSIDIARIES OF THE REGISTRANT
AT DECEMBER 31, 2020

FirstEnergy Service Company - Incorporated in Ohio

FirstEnergy Transmission, LLC - Organized in Delaware

FirstEnergy Ventures Corp. - Incorporated in Ohio

Jersey Central Power & Light Company - Incorporated in New Jersey

Metropolitan Edison Company - Incorporated in Pennsylvania

Monongahela Power Company - Incorporated in Ohio

Ohio Edison Company - Incorporated in Ohio

Pennsylvania Electric Company - Incorporated in Pennsylvania

The Cleveland Electric Illuminating Company - Incorporated in Ohio

The Potomac Edison Company - Incorporated in Maryland

The Toledo Edison Company - Incorporated in Ohio

West Penn Power Company - Incorporated in Pennsylvania

EXHIBIT 23

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-238539, 333-226788, 333-222225, 333-204436, 333-202184, 333-172464, 333-165640, 333-146170, 333-101472, 333-89356, 333-72768, 333-56094, and 333-81183) of FirstEnergy Corp. of our report dated February 18, 2021 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Cleveland, Ohio
February 18, 2021

EXHIBIT 31.1

Certification

I, Steven E. Strah, certify that:

1. I have reviewed this report on Form 10-K of FirstEnergy Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 18, 2021

/s/ Steven E. Strah

Steven E. Strah
President and
Acting Chief Executive Officer

EXHIBIT 31.2

Certification

I, K. Jon Taylor, certify that:

1. I have reviewed this report on Form 10-K of FirstEnergy Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 18, 2021

/s/ K. Jon Taylor

K. Jon Taylor

Senior Vice President and Chief Financial Officer

EXHIBIT 32

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350

In connection with the Report of FirstEnergy Corp. ("Company") on Form 10-K for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each undersigned officer of the Company does hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Steven E. Strah

Steven E. Strah
President and
Acting Chief Executive Officer

/s/ K. Jon Taylor

K. Jon Taylor
Senior Vice President and Chief Financial Officer

Date: February 18, 2021