## BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

ANNUAL REPORT OF Duke Energy Ohio submitted for the year 2020.

I certify that the following report accurately and completely reflects the annual report requirements pursuant to Rule 4901;1-10-26 of the Ohio Administrative Code.

Signature

Printed Name

Title

Date

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# BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the matter of the Annual Report of the	)	
Electric Service and Safety Standards,	)	Case No: 21 - 0999 - EL-ESS
Pursuant to Rule 4901:1-10-26(B) of the Ohio	)	
Administrative Code	)	

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# 1. 4901:1-10-26(B)(1), (B)(1)(b), (B)(1)(c) Future investment plan for facilities and equipment, covering period of no less than three years

		no less than	tnree years				
ldentification of project, program, or plan	Transmission or Distribution	Project description and goals	Portion of service territory affected	Characteristics of territory affected	Estimated cost	Initiation Date	Planned Completion Date
M170007	Transmission	Beckjord-Inst 138-69 kV Tr	East	Rural	\$13,266,131	6/18/2020	6/23/2023
M180390	Transmission	Montgomery Rpl Swgr	East	Suburban	\$2,827,550	1/30/2020	7/5/2023
M180409	Transmission	1762 Rbld Pt 2 Wyscrvr_Mar-Mer Dow	East	Suburban	\$10,689,575	1/16/2020	4/7/2027
M180584	Transmission	Charles Substation Rpl Jerome HPFF	South	Suburban	\$2,396,086	1/15/2020	12/12/2029
M180585	Transmission	Rochelle Sub Rpl Jerome HPFF Pumpin	South	Suburban	\$2,577,692	1/15/2020	12/12/2029
M190025	Transmission	Warren Rlbty Upg	North	Rural	\$3,432,453	11/5/2020	5/17/2023
M190247	Transmission	Stuart CCD Separation (with 138 kV	East	Rural	\$9,349,882	7/31/2020	6/8/2023
M190297	Transmission	F5967 Rbld Claryville to Pole 24K-1	South	Rural	\$8,523,453	11/6/2020	6/13/2024

Notes:

#### 1a. 4901:1-10-26(B)(1), (B)(1)(a) Relevant characteristics of the service territory

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or Distribution	Overhead Miles	Underground Miles	Notable Characteristics
Distribution	8,155	4,303	
Transmission	1,457	11	

Notes:

#### 1b. 4901:1-10-26(B)(1) Future investment plan for facilities and equipment

Transmission or Distribution	2020 Planned Costs	2020 Actual Costs	2021 Planned Costs	2022 Projected Costs	2023 Projected Costs	2024 Projected Costs
Distribution	\$202,133,535	\$201,306,843	\$209,295,409	\$187,779,000	\$189,623,000	\$217,468,000
Transmission	\$131,317,658	\$130,137,243	\$127,091,802	\$105,252,000	\$87,866,000	\$99,748,000

Notes:

#### 2. 4901:1-10-26(B)(1)(d), (B)(1)(f) Complaints from other entities

Entity making	Date complaint		Action taken to	Resolved	Date complaint	If not resolved,
complaint	received	Nature of complaint	address complaint	(yes/no)	resolved	why?

Notes: There were no complaints in 2020

3a. 4901:1-10-26(B)(1)(e), (B)(1)(f) Electric Reliability Organization standards violations

Standard	Standard	Date of	Risk	Severity	Penalty	Violation	Resolved	Date	If not resolved,
number	name	violation	factor	factor	dollars	description	(yes/no)	resolved	why?

Notes: There were no Electric Reliability Organization standards violations in 2020

## 3b. 4901:1-10-26(B)(1)(e), (B)(1)(f) Regional Transmission Organization (RTO) violations

Name of RTO	Violation	Resolved	Date	If not resolved,
violation	description	(yes/no)	resolved	why?

Notes: There were no RTO Violations in 2020

#### 3c. 4901:1-10-26(B)(1)(e) Transmission Load Relief (TLR) events

			Firm load	Amount of	
		Highest TLR	interrupted	load (MW)	
Event Start	Event End	during event	during event	interrupted	Description of event

Notes: There were no TLR Events in 2020

3d. 4901:1-10-26(B)(1)(e) Top ten congestion facilities by hours of congestion

Description of facility
Rank causing congestion

Notes: There were no congested facilities in 2020

3e. 4901:1-10-26(B)(1)(e) Annual System Improvement Plan and Regional Transmission Operator Expansion Plan

Relationship between annual system improvement plan and RTO transmission expansion plan

Notes: No such relationship in 2020

#### 4. 4901:1-10-26(B)(2) Report of implementation plans from previous reporting periods

Identification of project, program, or plan	Transmission or Distribution	Planned Completion Date	Actual Completion Date	ldentification of deviation from previous plan	Reason for deviation from previous plan
TOH1455	Transmission	3/22/2021		Planned Completion date changed	Delayed due to lack of Distribution capital funding and customer coordinated outages.
TOH1409	Transmission	6/30/2020	4/20/2020		
DOH1598	Distribution	6/30/2021		Planned Completion date changed	Delayed due to some outstanding customers that will be transferred later this Spring.
TOH1504	Transmission	3/16/2020	2/13/2020		
TOH1848	Transmission	6/25/2020	12/17/2020	Missed In Service Date	Delay due to resource issues as a result of storm restoration throughout the second half of the project.
TOH1072	Transmission	9/29/2021		Planned Completion date changed	Delayed outage to accommodate customer schedule.
TOH1605	Transmission	6/11/2021		Planned Completion date changed	Delayed outage to accommodate customer schedule.
TOH1443	Transmission	12/31/2020	5/8/2020		
DOH1651	Distribution	12/31/2027		Planned Completion date changed	Due to scheduling and resources, only one work order can be completed each year. Part 2 of 7 is in progress this year.
TOH1928	Transmission	6/30/2020	4/6/2020		
TOH2041	Transmission	6/30/2020	12/28/2020	Missed In Service Date	Delay due to loss of construction outage/clearance.

#### 4. 4901:1-10-26(B)(2) Report of implementation plans from previous reporting periods

Identification of project, program, or plan	Transmission or Distribution	Planned Completion Date	Actual Completion Date	ldentification of deviation from previous plan	Reason for deviation from previous plan
M170116	Transmission	11/14/2024		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
TOH1937	Transmission	7/25/2024			
TOH1943	Transmission	11/29/2024			
TOH1968	Transmission	12/31/2021			
TOH2189	Transmission	6/1/2021			
AMOH1444	Transmission	9/8/2023		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
M170107	Transmission	9/11/2024			
M170108	Transmission	11/4/2024			
M170109	Transmission	5/27/2022		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
M170110	Transmission	7/24/2023		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
M180401	Transmission	5/5/2023			
TOH1722	Transmission	4/12/2028		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Pushed back due to capital budget reprioritization.

#### 4. 4901:1-10-26(B)(2) Report of implementation plans from previous reporting periods

Identification of project, program, or plan	Transmission or Distribution	Planned Completion Date	Actual Completion Date	ldentification of deviation from previous plan	Reason for deviation from previous plan
TOH1902	Transmission	6/11/2026		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Pushed back due to capital budget reprioritization.
TOH1918	Transmission	12/15/2023		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
TOH1921	Transmission	10/9/2025			
TOH1948	Transmission	12/3/2026		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Pushed back due to capital budget reprioritization.
TOH2023	Transmission	6/5/2024			
TOH2148	Transmission	7/9/2021		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
TOH2193	Transmission	3/2/2023		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
TOH2194	Transmission	11/9/2023			
TOH2226	Transmission	6/11/2024			
TOH2348	Transmission	7/9/2021		Planned Completion date changed	Evaluated annually and prioritized to align with budget. Moved up due to capital budget reprioritization.
DOH2514	Distribution	8/23/2023			

Notes:

#### 5. 4901:1-10-26(B)(3), (B)(3)(a) Characterization of condition of company's system

Transmission or Distribution	Qualitative characterization of condition of system	Explanation of criteria used in making assessment for each characterization
Transmission	The condition of the Duke Energy Ohio electric system meets or exceeds industry standards and customer expectations for delivery of safe and reliable electric service. Duke Energy Ohio recognizes that the electric system infrastructure continues to age, and on-going preventive maintenance and corrective actions are necessary. Duke Energy Ohio continues to strive to provide safe and reliable electric service to our customers at a reasonable price. The quality of electric service and the condition of the electric system will parallel each other. Therefore, the quality of electric service can be used to measure the condition of the electric system.	Scheduled inspections
Distribution	The condition of the Duke Energy Ohio electric system meets or exceeds industry standards and customer expectations for delivery of safe and reliable electric service. Duke Energy Ohio recognizes that the electric system infrastructure continues to age, and on-going preventive maintenance and corrective actions are necessary. Duke Energy Ohio continues to strive to provide safe and reliable electric service to our customers at a reasonable price. The quality of electric service and the condition of the electric system will parallel each other. Therefore, the quality of electric service can be used to measure the condition of the electric system.	Scheduled inspections

Notes:

#### 6. 4901:1-10-26(B)(3), (B)(3)(b) Safety and reliability complaints

Transmission or Distribution	Availability of Service	Damage	Momentary Interruption	Out of Service	Quality of Service	Repair Service	Public Safety	Total Complaints
Distribution	65	4	61	0	142	0	18	290
Transmission	0	0	0	0	0	0	0	0

Notes:

#### 7a. 4901:1-10-26(B)(3)(c), (B)(3)(c)(i) Transmission capital expenditures

Total transmission capital expenditures in 2020	\$130,137,243
Total Transmission investment as of year end	\$1,174,534,297
Transmission capital expenditures as % of total transmission investment	11.08%

Notes:

### 7b. 4901:1-10-26(B)(3)(c), (B)(3)(c)(i) Transmission maintenance expenditures

Total transmission maintenance expenditures in 2020	\$8,309,304
Total Transmission investment as of year end	\$1,174,534,297
Transmission maintenance expenditures as % of total transmission investment	0.71%

Notes:

#### 7c. 4901:1-10-26(B)(3), (B)(3)(c)(ii), (B)(3)(c)(iii) Transmission capital expenditures - Reliability specific

Transmission capital budget category	2020 Budget	2020 Actual	% Variance	Explanation of variance if over 10%	2021 Budget
Major Cap and R&I	\$33,672,281	\$46,782,403	38.93%	Increased spend in retail and system capacity in 2020.  Decrease in 2020 due to continued investment in pole replacement program.	\$29,996,656
Region Reliability & Integrity	\$76,042,390	\$68,152,794	-10.38%	Planned pole replacements were shifted due to outage loss in 2020.	\$69,822,280
Vegetation Management	\$6,806,251	\$5,836,760	-14.24%	Underspend in reactive capital for 2020 shifted into 2021.	\$8,342,315

Notes:

#### 7d. 4901:1-10-26(B)(3), (B)(3)(c)(ii), (B)(3)(c)(iii) Transmission maintenance expenditures - Reliability specific

Transmission maintenance budget category	2020 Budget	2020 Actual	% Variance	Explanation of variance if over 10%	2021 Budget
Insp/Maint Prog	\$2,012,473	\$1,859,038	-7.62%		\$1,973,410
Project O&M	\$4,336,604	\$1,918,938	-55.75%	Favorability in 2020 related to underbuild transfer that will move into 2021.	\$3,657,883
Vegetation Management	\$4,691,949	\$3,734,321	-20.41%	2020 variance due to agility challenge. Not included for 2021 budget.	\$4,737,198

Notes:

#### 8a. 4901:1-10-26(B)(3)(d), (B)(3)(d)(i) Distribution capital expenditures

Total distribution capital expenditures in 2020	\$201,306,843
Total distribution investment as of year end	\$3,055,478,337
Distribution capital expenditures as % of total distribution investment	6.59%

Notes:

### 8b. 4901:1-10-26(B)(3)(d), (B)(3)(d)(i) Distribution maintenance expenditures

Total distribution maintenance expenditures in 2020	\$50,908,676
Total distribution investment as of year end	\$3,055,478,337
Distribution maintenance expenditures as % of total distribution investment	1.67%

Notes:

#### $8c. \ 4901:1-10-26 (B)(3), (B)(3)(d)(ii), (B)(3)(d)(iii) \ Distribution \ capital \ expenditures - Reliability \ specific$

Distribution capital budget category	2020 Budget	2020 Actual	% Variance	Explanation of variance if over 10%	2021 Budget
Major Cap and R&I	\$32,330,191	\$34,194,766	5.77%		\$29,557,197
Region Reliability & Integrity	\$106,185,062	\$98,403,430	-7.33%		\$101,349,865
Vegetation Management	\$7,952,890	\$4,535,843	-42.97%	Decrease in Hazard Tree & Maintenance spending in 2020; Increase back to normal spend in 2021 expected.	\$8,471,241

Notes:

#### 8d. 4901:1-10-26(B)(3), (B)(3)(d)(ii), (B)(3)(d)(iii) Distribution maintenance expenditures - Reliability specific

Distribution maintenance budget category	2020 Budget	2020 Actual	% Variance	Explanation of variance if over 10%	2021 Budget
Insp/Maint Prog	\$6,779,379	\$4,388,549	-35.27%	Decreases in line patrol follow up and underground cable repairs; increase in planned pole inspection maintance.	\$5,084,807
Project O&M	\$5,606,843	\$4,068,101	-27.44%	Reduced project O&M percentage.	\$5,567,706
Region Reliability & Integrity	\$2,282,636	\$1,965,516	-13.89%	Decrease in engineering costs and environmental maintenance.	\$528,501
Vegetation Management	\$31,731,559	\$26,776,350	-15.62%	Decrease related to vegetation deferral in actuals; expected increase in 2022.	\$34,365,782

Notes:

#### 9. 4901:1-10-26(B)(3)(e) Average remaining depreciation life of distribution and transmission facilities

Transmission or Distribution	Asset type	FERC account/ subaccount	Total depreciable life of asset	Total depreciated life of asset	Total remaining life of asset	Percent of remaining life of asset	How age was determined
Distribution	Structures and Improvements	361	65.00	14.00	51.00	78.46%	Case No. 12-1683-EL-AIR
Distribution	Station Equipment	362	60.00	14.00	46.00	76.67%	Case No. 12-1683-EL-AIR
Distribution	Major Equipment	3622	60.00	17.00	43.00	71.67%	Case No. 12-1683-EL-AIR
Distribution	Distribution Station Equipment	3635	20.00	0.00	20.00	100.00%	Case No. 12-1683-EL-AIR
Distribution	Poles, Towers and Fixtures	364	50.00	12.00	38.00	76.00%	Case No. 12-1683-EL-AIR
Distribution	Overhead Conductors and Devices	365	50.00	3.00	47.00	94.00%	Case No. 12-1683-EL-AIR
Distribution	Underground Conduit	366	65.00	10.00	55.00	84.62%	Case No. 12-1683-EL-AIR
Distribution	Underground Conduit and Devices	367	58.00	9.00	49.00	84.48%	Case No. 12-1683-EL-AIR
Distribution	Line Transformers	368/3681	42.00	14.00	28.00	66.67%	Case No. 12-1683-EL-AIR
Distribution	Customer Transformer Install	3682	45.00	36.00	9.00	20.00%	Case No. 12-1683-EL-AIR
Distribution	Services - Underground	3691	65.00	21.00	44.00	67.69%	Case No. 12-1683-EL-AIR
Distribution	Services - Overhead	3692	43.00	12.00	31.00	72.09%	Case No. 12-1683-EL-AIR
Distribution	Services - Multi Occupancy	3693	0.00	0.00	0.00	0.00%	Case No. 12-1683-EL-AIR
Distribution	Meters / Leased Meters	370/3701	19.00	19.00	0.00	0.00%	Case No. 12-1683-EL-AIR
Distribution	Meters - Utility of Future (Smart)	3702	15.00	3.00	12.00	80.00%	Case No. 12-1683-EL-AIR
Distribution	Company Owned Outdoor Lighting	3710/3712	15.00	15.00	0.00	0.00%	Case No. 12-1683-EL-AIR
Distribution	Leased Property on Customer Premises	372	25.00	25.00	0.00	0.00%	Case No. 12-1683-EL-AIR

#### 9. 4901:1-10-26(B)(3)(e) Average remaining depreciation life of distribution and transmission facilities

Transmission or Distribution	Asset type	FERC account/ subaccount	Total depreciable life of asset	Total depreciated life of asset	Total remaining life of asset	Percent of remaining life of asset	How age was determined
Distribution	Street Lighting - Overhead	3731	28.00	24.00	4.00	14.29%	Case No. 12-1683-EL-AIR
Distribution	Street Lighting - Boulevard	3732	45.00	16.00	29.00	64.44%	Case No. 12-1683-EL-AIR
Distribution	Street Lighting - Customer Private Outdoor	3733	30.00	16.00	14.00	46.67%	Case No. 12-1683-EL-AIR
Transmission	Structures and Improvements	352	60.00	8.00	52.00	86.67%	Case No. 08-709-EL-AIR
Transmission	Structures and Improvements - CD/CCD	352	60.00	39.00	21.00	35.00%	Case No. 08-709-EL-AIR
Transmission	Structures and Improvements - CGE - Ky	352	60.00	31.00	29.00	48.33%	Case No. 08-709-EL-AIR
Transmission	Station Equipment	3530	53.00	7.00	46.00	86.79%	Case No. 08-709-EL-AIR
Transmission	Station Equipment - Major Equipment	3532	55.00	16.00	39.00	70.91%	Case No. 08-709-EL-AIR
Transmission	Station Equipment - RTU	3535	20.00	0.00	20.00	100.00%	Case No. 08-709-EL-AIR
Transmission	Towers & Fixtures	354	80.00	66.00	14.00	17.50%	Case No. 08-709-EL-AIR
Transmission	Towers & Fixtures - CD/CCD	354	80.00	0.00	80.00	100.00%	Case No. 08-709-EL-AIR
Transmission	Towers & Fixtures - CGE - Ky	354	80.00	0.00	80.00	100.00%	Case No. 08-709-EL-AIR
Transmission	Poles and Fixtures	355	55.00	1.00	54.00	98.18%	Case No. 08-709-EL-AIR
Transmission	Poles and Fixtures - CD/CCD	355	55.00	0.00	55.00	100.00%	Case No. 08-709-EL-AIR
Transmission	Poles and Fixtures - CGE - Ky	355	55.00	2.00	53.00	96.36%	Case No. 08-709-EL-AIR
Transmission	Overhead Conductors and Devices	356	62.00	13.00	49.00	79.03%	Case No. 08-709-EL-AIR

#### 9. 4901:1-10-26(B)(3)(e) Average remaining depreciation life of distribution and transmission facilities

Transmission or Distribution	Asset type	FERC account/ subaccount	Total depreciable life of asset	Total depreciated life of asset	Total remaining life of asset	Percent of remaining life of asset	How age was determined
Transmission	Overhead Conductors and Devices - CD/CCD	356	62.00	0.00	62.00	100.00%	Case No. 08-709-EL-AIR
Transmission	Overhead Conductors and Devices - CGE - Ky	356	62.00	5.00	57.00	91.94%	Case No. 08-709-EL-AIR
Transmission	Underground Conduit	357	65.00	32.00	33.00	50.77%	Case No. 08-709-EL-AIR
Transmission	Underground Conduit and Devices	358	45.00	15.00	30.00	66.67%	Case No. 08-709-EL-AIR

Notes:

# 10. 4901:1-10-26(B)(3)(f), (B)(3)(f)(i) Inspection, maintenance, repair, and replacement of distribution, transmission, and substation programs summary report

Asset type	Program Name	Program Goals	Goals achieved?
Distribution	Capacitor Maintenance	Non-automated/non-communicating capacitors shall be visually inspected each year.  Automated/communicating capacitors shall be monitored remotely using communications/alarms.	YES
Distribution	Line recloser inspection	Non-electronic reclosers shall be visually inspected each year. Electronic reclosers shall be monitored remotely using communications/alarms.	YES
Distribution	URD Cable Replacement	Complete budgeted cable replacements.	YES
Distribution	Distribution Pole Groundline Inspection and Treatment	Inspect all distribution poles every 10 years and treat as needed. All Ohio distribution poles will be inspected within ten years.	YES
Distribution	Inspection of poles, towers, conductors, and pad mount transformers	Inspect distribution lines every 5 years.	YES
Distribution	Distribution vegetation management	Achieve 5-year cycle for vegetation line clearing on distribution circuits. Complete an average of 20% of target circuit miles per year.	YES
Distribution Substation	Inspection of Distribution Substations	Inspect distribution substations monthly.	YES
Transmission Substation	Inspection of Transmission substations	Inspect transmission substations monthly.	YES
Transmission	Transmission pole groundline inspection and treatment	Inspect all transmission poles every 10 years and treat as needed. All Ohio transmission poles will be inspected within ten years.	YES
Transmission	Inspection of poles, towers, and conductors	Inspect transmission lines each year.	YES
Transmission	Transmission vegetation management	Achieve 6-year cycle for vegetation line clearing on transmission circuits. Complete an average of 16% of target circuit miles per year.	YES

Notes:

10a. 4901:1-10-26(B)(3)(f), (B)(3)(f)(i), (B)(3)(f)(ii) If response in Column "Goals achieved?" of Report 10 is "Yes"

Program Name	Explanation of how goals were achieved	Quantitative description of goal achieved	Summary of Findings
Capacitor Maintenance	Automated capacitors have health check, non- electronic capacitors have "walking" inspection	In 2020, all 2,189 capacitors were inspected, monitored or replaced (261 non-electronic, 1,928 electronic) - 100% of capacitors.	As a result of the 2020 capacitor inspections, 294 follow up work orders were generated. 283 of those 294 work orders are complete as of 3/9/2021.
Line recloser inspection (Distribution)	Electronic relcosers monitored remotely, Line reclosers have (walking) inspections	In 2020, all 1,624 reclosers were inspected, monitored or replaced (415 line reclosers, 1,209 electronic reclosers) - 100% of reclosers.	As a result of the 2020 recloser inspections, 111 follow up work orders were generated. 107 of those 111 work orders are complete as of 3/9/2021.
URD Cable Replacement (Distribution)	During 2020, URD cable replacements continued as needed	100% of needed projects were scheduled. 179,908 feet of new, replacement URD cable was installed in 2020.	none
Distribution Pole Groundline Inspection and Treatment	(walking) inspection of each pole	In 2020, 24,187 Duke owned wood poles were inspected.	As a result of the 2020 wood pole inspections, 1,516 follow up work orders were generated. 1,251 of those 1,516 work orders are complete as of 2/18/2021.
Inspection of poles, towers, conductors, and pad mount transformers (Distribution)	(walking and driving) inspection along distribution circuits	During 2020, the distribution inspection program for Ohio completed inspection of 194 distribution circuits.	As a result of the 2020 distributon circuit inspections, 388 follow up work orders were generated. 248 of those 388 work orders are complete as of 2/12/2021.
Distribution vegetation management	(walking and driving) vegetation clearing along distribution circuits	In 2020, total line clearing maintenance was completed on 1,641 distribution circuit miles. 20.1% of Duke Energy Ohio distribution circuit miles were cleared in 2020.	none

10a. 4901:1-10-26(B)(3)(f), (B)(3)(f)(i), (B)(3)(f)(ii) If response in Column "Goals achieved?" of Report 10 is "Yes"

Program Name	Explanation of how goals were achieved	Quantitative description of goal achieved	Summary of Findings
Inspection of Distribution Substations	(walking) inspection of each substation	2,592 inspections were performed on Duke Energy Ohio's 216 distribution substations in 2020. 10 additional inspections were performed on 2 distribution substations that were removed from service in 2020.	As a result of the 2,602 distribution substation inspections for 2020, 2,526 follow up work orders were generated. 2,429 of those 2,526 work orders are complete as of 2/18/2021.
Inspection of Transmission substations	(walking) inspection of each substation	288 inspections were performed on Duke Energy Ohio's 24 transmission substations in 2020. 1 additional transmission substation was put into service in 2020 and had 9 inspections performed.	As a result of the 297 transmission substation inspections for 2020, 286 follow up work orders were generated. 272 of those 286 work orders are complete as of 2/18/2021.
Inspection of poles, towers, and conductors (Transmission)	inspection flights along transmission lines	During 2020, the transmission circuit inspection program for Ohio completed inspection of 138 transmission circuits - 100% of circuits with overhead mileage.	All dangers/priorities were resolved at the time of inspection or shortly after.
Transmission pole groundline inspection and treatment	(walking) inspection of each pole	In 2020, 4,706 transmission designated wood poles were inspected.	As a result of the 2020 wood pole inspections, 69 follow up work orders were generated. 0 of the 69 work orders have been completed as of 2/3/21.
Transmission vegetation management	(walking and driving) vegetation clearing along transmission circuits	In 2020, total line clearing maintenance was completed on 286 transmission circuit miles. 19.6% of Duke Energy Ohio transmission circuit miles were cleared in 2020.	none
Report date: 3/16/2021		27	

10b. 4901:1-10-26(B)(3)(f), (B)(3)(f)(i), (B)(3)(f)(ii) If response in Column "Goals achieved?" of Report 10 is "No"

	Cause(s) for not	Description of level	Quantitative description	
Program Name	achieving goals	of completion	of level of completion	Summary of Findings

Notes:

#### 10c. 4901:1-10-26(B)(3)(f), (B)(3)(f)(iii) Remedial activity

Program Name	Program finding(s) resulting in remedial action	Remedial activity performed	Completion date	Remedial activity yet to be performed	Estimated completion date
Capacitor Maintenance	As a result of 2020 capacitor inspections, 294 follow up work orders were generated	283 of those 294 work orders are complete as of 3/9/2021		11 work orders remain to be completed from the 2020 inspections. 1 work order remains open from inspections prior to 2020.	12/31/2021
Line recloser inspection (Distribution)	As a result of 2020 recloser inspections, 111 follow up work orders were generated	107 of those 111 work orders are complete as of 3/9/2021		4 work orders remain to be completed from the 2020 inspections. 0 work orders remain open from inspections prior to 2020.	12/31/2021
URD Cable Replacement	none	none		none	none
Distribution Pole Groundline Inspection and Treatment	As a result of 2020 wood pole inspections, 1,516 follow up work orders were generated	1,251 of those 1,516 work orders are complete as of 2/18/2021		265 work orders remain to be completed from 2020 inspections. 3 work orders remain open from 2019 inspections. 0 work orders remain open from inspections prior to 2019.	12/31/2021
Distribution Inspection of poles, towers, conductors, and pad mount transformers	As a result of 2020 distribution circuit inspections, 388 follow up work orders were generated	248 of those 388 work orders are complete as of 2/12/2021		140 work orders remain to be completed from the 2020 inspections. 0 work orders remain open from inspections prior to 2020.	12/31/2021
Distribution vegetation management	none	none		none	none
Inspection of Distribution Substations	As a result of 2020 distribution substation inspections, 2,526 follow up work orders were generated	2,429 of those 2,526 work orders are complete as of 2/18/2021		97 work orders remain to be completed from 2020 inspections. 47 work orders remain open from 2019 inspections. 12 work orders remain open from 2018 inspections. 11 work orders remain open from inspections prior to 2018.	12/31/2021
Inspection of Transmission substations	As a result of 2020 transmission substation inspections, 286 follow up work orders were generated	272 of those 286 work orders are complete as of 2/18/2021		14 work orders remain to be completed from 2020 inspections. 3 work orders remain open from inspections prior to 2020.	12/31/2021

#### 10c. 4901:1-10-26(B)(3)(f), (B)(3)(f)(iii) Remedial activity

Program Name	Program finding(s) resulting in remedial action	Remedial activity performed	Completion date	Remedial activity yet to be performed	Estimated completion date
Transmission pole groundline inspection and treatment	As a result of 2020 wood pole inspections, 69 follow up work orders were generated	0 of the 69 work orders are complete as of 2/3/21		69 work orders remain to be completed from 2020 inspections. 83 work orders remain open from 2019 inspections. 38 work orders remain open from 2018 inspections. 188 work orders remain open from inspections prior to 2018.	12/31/2021
Transmission Inspection of poles, towers and, conductors	As a result of 2020 inspection flights, follow up items were identified.	All dangers/priorities were resolved at the time of inspection or shortly after. All other work is being prioritized against other Capital projects and will be completed accordingly.		All work from previous years that has not been completed is being prioritized against other Capital projects and will be completed accordingly.	12/31/2025
Transmission vegetation management	none	none		none	none

Notes:

10d. 4901:1-10-26(B)(3)(f): Current Year Goals

Asset Type	Program Name	Program Goals
Distribution	Capacitor Maintenance	Non-automated/non-communicating capacitors shall be visually inspected each year.  Automated/communicating capacitors shall be monitored remotely. 100% of capacitors planned to be inspected/monitored in 2021.
Distribution	Line recloser inspection	Non-electronic reclosers shall be visually inspected each year. Electronic reclosers shall be monitored remotely. 100% of reclosers planned to be inspected/monitored in 2021.
Distribution	URD Cable Replacement	Complete budgeted cable replacements.
Distribution	Distribution Pole Groundline Inspection and Treatment	Inspect all distribution poles every 10 years and treat as needed. All Ohio distribution poles will be inspected within ten years. 23,983 poles planned for Distribution Pole Groundline Inspection and Treatment in 2021.
Distribution	Inspection of poles, towers, conductors, and pad mount transformers	Inspect distribution lines every 5 years. 139 circuits planned for inspection of poles, towers, conductors and pad mount transformers in 2021.
Distribution	Distribution vegetation management	Achieve 5-year cycle for vegetation line clearing on distribution circuits. Complete an average of 20% of target circuit miles per year.
Distribution Substation	Inspection of Distribution Substations	Inspect distribution substations monthly
Transmission Substation	Inspection of transmission substations	Inspect transmission substations monthly
Transmission	Transmission Pole Groundline Inspection and Treatment	Inspect all transmission poles every 10 years and treat as needed. All Ohio transmission poles will be inspected within ten years. 3,500 poles planned for Transmission Pole Groundline Inspection and Treatment in 2021.
Transmission	Inspection of poles, towers, conductors, and pad mount transformers	Inspect transmission lines each year.

10d. 4901:1-10-26(B)(3)(f): Current Year Goals

Asset Type	Program Name	Program Goals
Transmission	Transmission vegetation management	Achieve 6-year cycle for vegetation line clearing on transmission circuits. Complete an average of 16% of target circuit miles per year.

Notes:

## 11. 4901:1-10-26(B)(3)(f), (B)(3)(iv): Prevention of overloading or excessive loading of facilities and equipment

#### **Transmission**

or Distribution	Program Name	Program Goals
Distribution	DOH2649	Rochelle 41 Inst
Distribution	M190116	Enyart 42 Ckt 42 Bkr Inst
Distribution	M170112	Decker Sub Prop Purc
Distribution	DOH1284	Oakley 40 Reco DL
Distribution	M190171	Nickel 43 Reco F5667 Rbld
Distribution	DOH1972	Ferguson Sub Buy Land
Distribution	M190236	Kennel Sub Prop Purc
Distribution	M200030	Amanda 43 Inst
Distribution	DOH2598	Aicholtz 42 Stonelick Reco
Distribution	DOH2263	UC Patheon Reading OH Prop Purc
Distribution	DOH2689	Amanda 43 Inst - DOH2689
Distribution	DOH1911	Amanda A Trenton B 4kv Conv
Distribution	M180052	Hanskins Sub Prop Purc
Distribution	DOH2498	Liberty 46 Ext - DOH2498
Distribution	DOH2699	Millikin 43 Reco - DOH2699
Distribution	DOH2630	Monroe 41 Ext
Distribution	M190122	Shaker Run Otterbein Prop Swap
Distribution	DOH2624	Union Village Conduit Eng - DOH2624
Distribution	DOH2547	Maineville 44 Inst

## 11. 4901:1-10-26(B)(3)(f), (B)(3)(iv): Prevention of overloading or excessive loading of facilities and equipment

#### **Transmission**

or		
or Distribution	Program Name	Program Goals
Distribution	DOH2761	Cornell 51-52 Creek Rd Reco - DOH27
Distribution	DOH1596	Goodwin 10.5MVA Xtr Ckt 41-42
Distribution	DOH2564	Warren 42 Phase Ext - DOH2564
Distribution	DOH2588	Park 41 Reco
Distribution	DOH2035	Canal 41 42 Recond
Distribution	DOH2007	Manchester 41 Reco
Distribution	DOH2676	Eastwood 51 Herold Ext - DOH2676
Distribution	DOH2591	Springboro 41 Ext
Distribution	DOH2197	Allen Bk 2 Inst
Distribution	DOH2478	Port Union 41 Ext
Distribution	DOH2414	Bethany 42 Reco - DOH2414
Distribution	DOH2609	Charles 42_43 Ronfgr Conv Ckt N
Distribution	DOH2642	Beckett 43 Inst - DOH2642
Distribution	DOH2124	Utica Sub Purc Prop - DOH2124
Distribution	M180018	Trade Port BK 2 Inst
Distribution	DOH1949	North Bend Sta Buy Land
Distribution	DOH2632	Port Union 57 Ext - DOH2632
Distribution	DOH2488	Franklin 41 Reco - DOH2488
Distribution	DOH2580	Red Lion 43 Ext

#### 11. 4901:1-10-26(B)(3)(f), (B)(3)(iv): Prevention of overloading or excessive loading of facilities and equipment

#### **Transmission**

or		
Distribution	Program Name	Program Goals
Distribution	M180082	Maineville BK 2 Inst
Distribution	DOH2196	Union 42 Reco and Ext - DOH2196
Distribution	DOH2627	Summit Park Cornell 51 Ext Reco
Distribution	DOH2628	Monroe 43 Reco - DOH2628
Distribution	DOH2490	Maineville 42 43 Reco - DOH2490
Distribution	DOH1910	Amanda Sub 12kV Conv
Distribution	DOH2629	LeSourdsville 41 Reco
Distribution	DOH2623	Landen Sub Inst - DOH2623
Distribution	DOH1909	Amanda Inst 12kV feeders
Distribution	DOH2174	Trenton BK 4
Distribution	M180554	Landen Sub Inst

Notes:

#### 12. 4901:1-10-26(B)(3)(f), (B)(3)(iv): Actions to remedy overloading or excessive loading of facilities and equipment

Transmission	on Date			Estimated		
or	Sub/Circuit	overloading		completion	Actions taken	completion
Distribution	name	identified	Plan to remedy overloading	date	to remedy overloading	date

Notes: Duke Energy had no overloading events in 2020.

13. 4901:1-10-26(B)(3)(f), (B)(3)(f)(vi): Programs deleted

Facility Type Deleted Program Name

Notes: Duke Energy did not delete any inspection, maintenance, repair, or replacement programs during 2020

14. 4901:1-10-26(B)(3)(f), (B)(3)(f)(vi): Programs modified

Facility Type Deleted Program Name

Notes: Duke Energy did not modify any inspection, maintenance, repair, or replacement programs during 2020

15. 4901:1-10-26(B)(3)(f), (B)(3)(f)(vi): Programs added

Facility Type Deleted Program Name

Notes: Duke Energy did not add any inspection, maintenance, repair, or replacement programs during 2020

#### 16. 4901:1-10-26(B)(4): Service interruptions due to other entity

Date	Time	Type of entity	Name of entity	Impact on		
of	of	causing	causing	Transmission	Sub/Circuit	
Interruption	Interruption	interruption	interruption	or Distribution	Interrupted	Cause of interruption

**Notes:** Duke Energy Ohio had no customer service interruptions that were due solely to the actions or inactions of another electric utility, regional transmission entity, and/or a competitive retail electric supplier in 2020.

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Summary: Annual Report of Duke Energy Ohio, Inc. for year 2020 electronically filed by Carys Cochern on behalf of Duke Energy Ohio, Inc.