## BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

ANNUAL REPORT OF Duke Energy Ohio submitted for the year 2019.

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

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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: 20 - 0999 - EL-ESS
Pursuant to Rule 4901:1-10-26(B) of the Ohio	)	
Administrative Code	)	

ANNUAL REPORT OF **Duke Energy Ohio** submitted for the year 2019.

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.

# 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 t	hree 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
AMOH1444	Transmission	Collinsville Transformer Bank 1 Replacement	North	Rural	\$14,592,166	4/26/2019	11/19/2024
M170107	Transmission	Wilder Transformer Bank 2 Replacement	South	Suburban	\$3,706,666	1/28/2019	9/11/2024
M170108	Transmission	Todhunter Transformer Bank 15 Replacement	North	Rural	\$7,288,662	3/28/2019	11/4/2024
M170109	Transmission	Willey Transformer Bank 1 Replacement	West	Suburban	\$3,452,553	3/19/2019	5/14/2024
M170110	Transmission	Miami Fort Transformer Bank 9 Replacement	West	Rural	\$9,006,020	3/15/2019	7/11/2024
M180401	Transmission	Port Union 138kV Bus 2 Redundant Replacement	North	Suburban	\$389,717	3/5/2019	5/5/2023
TOH1722	Transmission	Montgomery 138k√ Reconfigure	East	Suburban	\$17,063,457	2/11/2019	3/11/2026
TOH1902	Transmission	Buffington 345_138kV Reliability Upgrade	South	Rural	\$1,715,824	2/18/2019	6/28/2024
TOH1918	Transmission	Summerside 69kV Bus and Relay Replacement	East	Suburban	\$10,536,680	4/4/2019	10/8/2025
TOH1921	Transmission	Charles Circuit Breaker and CCVT Replacement Phase 1	West	Suburban	\$1,369,339	3/21/2019	10/9/2025
TOH1948	Transmission	Ebenezer 69kV Rel_CAP2_Swi Rpl - TO	West	Suburban	\$1,933,041	3/7/2019	11/22/2024

# 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 t	hree years				
Identification 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 Completior Date
TOH2023	Transmission	Charles Circuit Breaker and CCVT Replacement Phase 2	West	Suburban	\$2,561,434	3/21/2019	6/5/2024
TOH2148	Transmission	Pierce Relay Replacement	East	Rural	\$5,546,321	2/14/2019	8/5/2022
TOH2193	Transmission	Wilder 138kV Circuit Breaker and CCVT Replacement	South	Suburban	\$610,010	1/24/2019	4/10/2024
TOH2194	Transmission	Oakley 138kV Circuit Breaker and CCVT Replacement	North	Suburban	\$1,823,274	3/11/2019	11/9/2023
TOH2226	Transmission	Constance-Inst 138kV Circuit Breaker	South	Suburban	\$2,838,704	1/4/2019	6/11/2024
TOH2348	Transmission	Pierce Inst 345kV Circuit Breakers	East	Rural	\$8,464,288	2/14/2019	10/13/2022
DOH2514	Distribution	Ryan A 4kV Conv	South	Suburban	\$2,500,000	1/1/2019	8/23/2023

Notes:

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

Transmission or Distribution	Overhead Miles	Underground Miles	Notable Characteristics
Distribution	8,139	4,241	
Transmission	1;441	11	

Notes:

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

Transmission or Distribution	2019 Planned Costs	2019 Actual Costs	2020 Planned Costs	2021 Projected Costs	2022 Projected Costs	2023 Projected Costs
Distribution	\$241,744,102	\$256,699,104	\$205,570,865	\$142,369,000	\$183,724,000	\$186,226,000
Transmission	\$113,414,071	\$129,452,107	\$129,053,038	\$92,401,000	\$87,206,000	\$90,439,000

Notes:

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

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

Notes: There were no complaints in 2019

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

Standard number	Standard name	Date of violation	Risk factor	Severity factor	Penalty dollars	Violation description	Resolved (yes/no)	Date resolved	If not resolved, why?
CIP-010, R4	Cyber Security — Configuration Change Management and Vulnerability Assessments	10/30/2019	Pending	Pending		Confidential, non-public information			Self Report is still open
CIP-010, R1.2, R1.4	Cyber Security — Configuration Change Management and Vulnerability Assessments	5/2/2019	Pending	Pending		Confidential, non-public information			Self Report is still open

Notes:

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

Name of RTO violation	Violation description	Resolved (ves/no)	Date resolved	If not resolved, why?
	<u>·</u>	(503/110)		wily r

Notes: There were no RTO Violations in 2019

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 2019

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

Description of facility causing congestion

Notes: There were no congested facilities in 2019

Rank

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 2019

### 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	Identification of deviation from previous plan	Reason for deviation from previous plan
X04C7993	Transmission	12/31/2019	2/6/2020	Missed In Service Date	Challenges in acquiring construction resources.
X14C8959	Distribution	6/30/2019	6/1/2019		
TOH1455	Transmission	4/1/2020		Planned Completion date changed	Construction delayed due to increased contruction costs.
TOH1488	Transmission	12/15/2019	12/20/2019		
TOH1409	Transmission	6/30/2020			
DOH1598	Distribution	11/20/2020		Planned Completion date changed	Delayed from 2019 plan due to overspend on Transmission work related to this project.
TOH1504	Transmission	3/16/2020		Planned Completion date changed	Delayed due to a safety issue in late 2019.
TOH1848	Transmission	6/25/2020		Planned Completion date changed	Construction delayed due to increased contruction costs.
TOH1072	Transmission	12/31/2020			3.7.
TOH1605	Transmission	12/31/2020			
TOH1443	Transmission	12/31/2020			
DOH1651	Distribution	5/31/2024		Planned Completion date changed	Due to scheduling and resources, only one work order can be completed each year.
TOH1439	Transmission	12/31/2019	3/26/2019		
TOH1928	Transmission	6/30/2020			

### 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	Identification of deviation from previous plan	Reason for deviation from previous plan
TOH2041	Transmission	6/30/2020			
M170116	Transmission	2/28/2025		Planned Completion date changed	Evaluated annually and prioritized to align with budget:
TOH1937	Transmission	7/25/2024		Planned Completion date changed	Evaluated annually and prioritized to align with budget.
TOH1943	Transmission	11/29/2024		Planned Completion date changed	Evaluated annually and prioritized to align with budget.
TOH1968	Transmission	12/31/2021			
TOH2189	Transmission	6/1/2021			

Notes:

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

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	41	9	55	0	79	1	9	194
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 2019	\$129,452,107
Total Transmission investment as of year end	\$1,054,714,199
Transmission capital expenditures as % of total transmission investment	12.27%

Notes:

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

Total transmission maintenance expenditures in 2019	\$8,235,368
Total Transmission investment as of year end	\$1,054,714,199
Transmission maintenance expenditures as % of total transmission investment	0.78%

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	2019 Budget	2019 Actual	% Variance	Explanation of variance if over 10%	2020 Budget
Major Cap and R&I	\$45,357,900	\$52,702,176	16.19%	Increased spend in retail and system capacity in 2019. Decrease in 2020 due to investment in pole replacement program.	\$33,441,545
Region Reliability & Integrity	\$59,182,584	\$53,164,277	-10.17%		\$73,998,593
Vegetation Management	\$4,380,608	\$6,575,170	50.10%	Increased spend in non-nerc maintenance and reactive capital.	\$6,806,251

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	2019 Budget	2019 Actual	% Variance	Explanation of variance if over 10%	2020 Budget
Insp/Maint Prog	\$1,831,232	\$1,612,803	-11.93%	Preventive/Corrective maintenance cycles.	\$2,012,473
Project O&M	\$1,315,988	\$1,576,614	19.80%	Environmental clean up due to Port Union failure caused increased spend in 2019. Increased pole replacement capital driving increased transfer O&M.	\$4,336,604
Vegetation Management	\$5,132,619	\$3,969,697	-22.66%	NERC herbicide program.	\$4,691,949

Notes:

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

Total distribution capital expenditures in 2019	\$256,699,104
Total distribution investment as of year end	\$2,898,316,398
Distribution capital expenditures as % of total distribution investment	8.86%

Notes:

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

Total distribution maintenance expenditures in 2019	\$52,803,455
Total distribution investment as of year end	\$2,898,316,398
Distribution maintenance expenditures as % of total distribution investment	1.82%

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	2019 Budget	2019 Actual	% Variance	Explanation of variance if over 10%	2020 Budget
Major Cap and R&I	\$28,734,517	\$44,303,175	54.18%	Increase in capital spend associated with Circuit Segmentation and Retail Capacity; decrease in budgeted spend in 2020 for system capacity and Reliabilty capital.	\$32,560,926
Region Reliability & Integrity	\$148,506,529	\$149,872,718	0.92%		\$108,716,666
Vegetation Management	\$7,553,199	\$9,906,212	31.15%	Increase in Hazard Tree spending in 2019 to address diseased Ash Bore Trees	\$7,952,890

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	2019 Budget	2019 Actual	% Variance	Explanation of variance if over 10%	2020 Budget
Insp/Maint Prog	\$6,001,832	\$6,591,210	9.82%		\$6,779,379
Project O&M	\$4,853,736	\$5,108,341	5.25%		\$4,783,828
Region Reliability & Integrity	\$3,959,824	\$3,335,737	-15.76%	Decrease in environmental maintenance.	\$3,105,650
Vegetation Management	\$21,491,286	\$23,118,945	7.57%		\$31,731,559

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	13.00	37.00	74.00%	Case No. 12-1683-EL-AIR
Distribution	Overhead Conductors and Devices	365	50.00	4.00	46.00	92.00%	Case No. 12-1683-EL-AIR
Distribution	Underground Conduit	366	65.00	11.00	54.00	83.08%	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	35.00	10.00	22.22%	Case No. 12-1683-EL-AIR
Distribution	Services - Underground	3691	65.00	17.00	48.00	73.85%	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	2.00	13.00	86.67%	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	22.00	6.00	21.43%	Case No. 12-1683-EL-AIR
Distribution	Street Lighting - Boulevard	3732	45.00	15.00	30.00	66.67%	Case No. 12-1683-EL-AIR
Distribution	Street Lighting - Customer Private Outdoor	3733	30.00	15.00	15.00	50.00%	Case No. 12-1683-EL-AIR
Transmission	Structures and Improvements	352	60.00	9.00	51.00	85.00%	Case No. 08-709-EL-AIR
Transmission	Structures and Improvements - CD/CCD	352	60.00	37:00	23.00	38:33%	Case No. 08-709-EL-AIR
Transmission	Structures and Improvements - CGE - Ky	352	60.00	30.00	30.00	50.00%	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	14.00	41.00	74.55%	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	65.00	15.00	18.75%	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	56.00	101.82%	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	1.00	54.00	98.18%	Case No. 08-709-EL-AIR
Transmission	Overhead Conductors and Devices	356	62.00	14.00	48.00	77.42%	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	14.00	31.00	68.89%	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.	
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.	
Transmission Substation	Inspection of transmission substations	Inspect transmission substations monthly.	NO
Transmission	Transmission pole groundline inspection and treatment	Inspect all transmission poles every 10 years and treat as needed.	
Transmission	Inspection of poles, towers, and conductors	Inspect transmission lines each year.	
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 2019, all 2,190 capacitors were inspected (262 non- electronic, 1,928 electronic) - 100% of capacitors.	As a result of 2019 capacitor inspections, 148 follow up work orders were generated. 127 of those 148 work orders are complete as of 3/6/2020.
Line recloser inspection (Distribution)	Electronic relcosers monitored remotely, Line reclosers have (walking) inspections	In 2019, all 1,567 reclosers were inspected (463 line reclosers, 1,104 electronic reclosers) - 100% of reclosers.	As a result of 2019 recloser inspections, 37 follow up work orders were generated. 34 of those 37 work orders are complete as of 3/6/2020.
URD Cable Replacement (Distribution)	During 2019, URD cable replacements continued as needed	100% of needed projects were scheduled. 322,227 feet of new, replacement URD cable was installed in 2019.	none
Distribution Pole Groundline Inspection and Treatment	(walking) inspection of each pole	In 2019, 27,336 Duke owned wood poles were inspected. 10.79% of Duke Energy Ohio owned distribution wood poles received inspections.	As a result of 2019 wood pole inspections, 1,850 follow up work orders were generated. 1,229 of those 1,850 work orders are complete as of 3/10/2020.
Inspection of poles, towers, conductors, and pad mount transformers (Distribution)	(walking and driving) inspection along distribution circuits	During 2019, the distribution inspection program for Ohio completed inspection of 138 distribution circuits.	As a result of 2019 distributon circuit inspections, 2,018 follow up work orders were generated. 1,472 of those 2,018 work orders are complete as of 3/10/2020.
Distribution vegetation management	(walking and driving) vegetation clearing along distribution circuits	In 2019, total line clearing maintenance was completed on 1,717 distribution circuit miles. 21.1% of Duke Energy Ohio distribution circuit miles were cleared in 2019.	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 poles, towers, and conductors (Transmission)	inspection flights along transmission lines	During 2019, the transmission circuit inspection program for Ohio completed inspection of 138 transmission circuits - 100% of circuits with overhead mileage.	As a result of 2019 transmission circuit flight inspections, 63 follow up items were identified. 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 2019, 4,261 transmission designated wood poles were inspected.	As a result of 2019 wood pole inspections, 152 follow up work orders were generated. 0 of the 152 work orders have been completed.
Transmission vegetation management	(walking and driving) vegetation clearing along transmission circuits	In 2019, total line clearing maintenance was completed on 242 transmission circuit miles. 16.8% of Duke Energy Ohio transmission circuit miles were cleared in 2019.	none

Notes:

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"

Program Name	Cause(s) for not achieving goals	Description of level of completion	Quantitative description of level of completion	Summary of Findings
Inspection of Distribution Substations	Unable to complete 22 missed inspections in allotted time due to combined factors.	2,604 inspections were completed for all 217 distribution substations in 2019. 8 inspections were completed for a new substation starting in April. 22 of these inspections missed the 40 day inspection requirement, ranging from 1 to 12 days over the 40 day requirement.	100% of inspections were completed, but 99.16% completed within 40 day requirement.	As a result of 2019 distribution substation inspections, 2,306 follow up work orders were generated. 2,152 of those 2,306 work orders are complete as of 2/26/20.
Inspection of Transmission substations	Unable to complete 1 missed inspection in allotted time due to combined factors.	228 monthly inspections were completed for all 19 transmission substations in 2019. 5 additional transmission substations were put into service at various times thoughout the year and had 32 inspections performed. 1 of these inspections missed the 40 day inspection requirement by 15 days.	100% of inspections were completed, but 99.62% completed within 40 day requirement.	As a result of 2019 transmission substation inspections, 304 follow up work orders were generated. 276 of those 304 work orders are complete as of 2/26/2020.

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 2019 capacitor inspections, 148 follow up work orders were generated	127 of those 148 work orders are complete as of 3/6/2020		21 work orders remain to be completed from the 2019 inspections. 7 work orders remain open from inspections prior to 2019.	12/31/2020
Line recloser inspection (Distribution)	As a result of 2019 recloser inspections, 37 follow up work orders were generated	34 of those 37 work orders are complete as of 3/6/2020		3 work orders remain to be completed from the 2019 inpsections.	12/31/2020
URD Cable Replacement	none	none		none	none
Distribution Pole Groundline Inspection and Treatment	As a result of 2019 wood pole inspections, 1,850 follow up work orders were generated	1,229 of those 1,850 work orders are complete as of 3/10/2020		621 work orders remain to be completed from the 2019 inspections. 4 work order remain open from 2018 inspections.	12/31/2020
Distribution Inspection of poles, towers, conductors, and pad mount transformers	As a result of 2019 distribution circuit inspections, 2,018 follow up work orders were generated	1,472 of those 2,018 work orders are complete as of 3/10/2020		546 work orders remain to be completed from the 2019 inspections.	12/31/2020
Distribution vegetation management	none	none		none	none
Inspection of Distribution Substations	As a result of 2019 distribution substation inspections, 2,306 follow up work orders were generated	2,152 of those 2,306 work orders are complete as of 2/26/2020.		154 work orders remain to be completed from the 2019 inspections. 19 work orders remain open from 2018 inspections. 16 work orders remain open from inspections prior to 2018.	12/31/2020
Inspection of Transmission substations	As a result of 2019 transmission substation inspections, 304 follow up work orders were generated	276 of those 304 work orders are complete as of 2/26/2020.		28 work orders remain to be completed from the 2019 inspections. 0 work orders remain open from 2018 inspections. 3 work orders remain open from inspections prior to 2018.	12/31/2020

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 2019 wood pole inspections, 152 follow up work orders were generated	0 of the 152 work orders are complete as of 1/25/20.		152 work orders remain to be completed from the 2019 inspections. 68 work orders remain open from 2018 inspections. 245 work orders remain open from inspections prior to 2018.	12/31/2021
Transmission inspection of poles, towers and, conductors	As a result of 2019 inspection flights, 63 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 2020.		
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 2020.		
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. 24;286 poles planned for Distribution Pole Groundline Inspection and Treatment in 2020.		
Distribution	Inspection of poles, towers, conductors, and pad mount transformers	Inspect distribution lines every 5 years. 194 circuits planned for inspection of poles, towers, conductors and pad mount transformers in 2020.		
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.		
Transmission	Inspection of poles, towers, conductors, and pad mount transformers	Inspect transmission lines each year		
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.		

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

Asset Type	Program Name	Program Goals
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Notes:

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

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or Distribution	Program Name	Program Goals	
Distribution	DOH2182	Hensley 42 Insti Fdr DOH2182	
Distribution	DOH2414	Bethany 42 Reco DOH2414	
Distribution	DOH2498	Liberty 46 Ext DOH2498	
Distribution	DOH2630	Monroe 41 Ext DOH2630	
Distribution	DOH2676	Eastwood 51 Herold Ext DOH2676	
Distribution	DOH2197	Allen BK 2 Inst DOH2197	
Distribution	DOH2182	Hensley 42 Insti Fdr DOH2182 contains D-Line Work	
Distribution	DOH2628	Monroe 43 Reco DOH2628	
Distribution	DOH2642	Beckett 43 Inst DOH2642	
Distribution	M170112	Decker Sub Prop Purc	
Distribution	DOH2547	Maineville 44 Inst DOH2547	
Distribution	AMOH1107	E Provident Dr. New Sub	
Distribution	DOH2632	Port Union 57 Ext DOH2632	
Distribution	M190122	Shaker Run Otterbein Prop Swap	
Distribution	DOH2564	Warren 42 Phase Ext PUCO11 DOH2564	
Distribution	DOH2598	Aicholtz 42 Stonelick Reco DOH2598	
Distribution	DOH2166	Half-Acre Rd Prop Purch - DOH2166	
Distribution	DOH2124	Utica Sub Purc Prop - DOH2124	
Distribution	DOH2591	Springboro 41 Ext DOH2591	

### 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	DOH2588	Park 41 Reco DOH2588
Distribution	DOH1909	Amanda Inst 12 kV Feeders - DOH1909
Distribution	DOH2635	EMG Aicholtz 42 Bach Bux Ext DOH2635
Distribution	DOH2478	Port Union 41 Ext DOH2478
Distribution	DOH2263	UC Patheon Reading OH Prop Purc
Distribution	DOH2623	Landen Sub Inst DOH2623
Distribution	M180052	Hanskins Sub Prop Purc
Distribution	DOH2600	Remington Exit Rbld DOH2600
Distribution	DOH2580	Red Lion 43 Ext DOH2580
Distribution	DOH2529	Wal Hills 45 Rbld Cinti Art Mus DOH2529
Distribution	DOH2007	Manchester 41 Reco DOH2007
Distribution	DOH2490	Maineville 42 43 Reco DOH2490
Distribution	DOH2574	EMG Burns A Reg Inst DOH2574
Distribution	DOH2557	Koch Reco Dist - DOH2557
Distribution	DOH2638	Millikin 44 Phase Balance DOH2638
Distribution	M180082	Maineville BK 2 Inst
Distribution	DOH1284	Oakley P_Reco Ckt 40 - DOH1284
Distribution	DOH2007	Manchester 41 Reco
Distribution	DOH1596	Goodwin 10.5MVA Xtr Ckt 41-42

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

DOH2589

DOH2262

DOH2309

Distribution **Program Name Program Goals** Distribution DOH1910 Amanda Sub 12kV Conv DOH1910 Distribution DOH2488 Franklin 41 Reco DOH2488 Distribution M180554 Landen Sub Inst Distribution DOH2629 LeSourdsville 41 Reco DOH2629 Distribution DOH2120 Olive Branch 22.4 MVA XTR - DOH2120 Distribution DOH1108 E Provident Dr New Ckts - DOH1108 Distribution DOH2181 Allen 43\_Instl 12kV Fdr DOH2181 Distribution DOH2109 Mitchell 41 Reco Cliftn Woolper DOH2109 Distribution DOH2174 Trenton BK 4 Distribution DOH2612 Summerside 55 Auto Temp Ext DOH2612 Distribution 103H9056 Columbia 138 kV 22.4 MVA Sub - 103H9056 Distribution M180366 Innovation Sub Prop Purc Distribution DOH2196 Union 42 Reco and Ext DOH2196 Distribution DOH1306 Brewer Rd Buy New Sub Prop Distribution DOH2601 EMG Obannony 51 Rt 28 Ext DOH2601 Distribution DOH1911 Amanda A Trenton B 4kv Conv Distribution

Report date: 3/13/2020

Distribution

Distribution

**Transmission** 

Twenty Mile 42 Ext Reco DOH2589

Prop Purc Kenwood Rd N Blue Ash DOH

Greentree Sub Purc

### 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	DOH1596	Goodwin 10 5 MVA XTR Ckt 41-42 DOH1596			
Distribution	DOH1636	Madeira New Ckt 43 Rbld 41 42 - DOH1636			
Distribution	DOH2181	Allen 43 Insti 12kV Fdr - DOH2181			
Distribution	DOH1911	Amanda A Trenton B 4kV Conv DOH1911			
Distribution	DOH2035	Canal 41 42 Reco DOH2035			
Distribution	DOH2120	Olive Branch 22.4 MVA XTR - DOH2120			
Distribution	103H9056	COLUMBIA 138KV 22 4 MVA SUB			
Distribution	M180018	Trade Port BK 2 Inst			
Distribution	DOH1910	Amanda Sub 12kV Conv			

Notes:

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

Transmission or Distribution	Sub/Circuit name	Date overloading identified	Plan to remedy overloading	Estimated completion date	Actions taken to remedy overloading	Actual completion date
Distribution	H4621660042 H4621660043	1/20/2019			Hall Substation Expansion/Feeder Exit Cable Replacement	12/16/2019

Notes:

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 2019.

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 2019.

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 2019.

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 2019.

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Case No(s). 20-0999-EL-ESS

Summary: Annual Report Annual Report of Duke Energy Ohio, Inc. 4901:1-10-26(B) electronically filed by Mrs. Tammy M Meyer on behalf of Duke Energy Ohio Inc. and D'Ascenzo, Rocco and Kinergy, Jean and Vaysman, Larisa