BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

In the matter of the Annual Report of the Electric Service and Safety Standards, Pursuant to Rule 4901:1-10-26(B) of the Ohio Administrative Code) Case No: 23 - 996 -EL-ESS)
AEP Ohio Transm	REPORT OF hission Company, Inc. the year 2022 .
I certify that the following report accurately and comp to Rule 4901:1-10-26 of the Ohio Administrative Cod	pletely reflects the annual report requirements pursuant de.
Signature	Robert Bradish Printed Name
•	
Vice President Title	03/31/2023 Date
าเนษ	Date

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
OHTCo	1 215	8	

Notes:

2. 4901:1-10-26(B)(1)(b), (B)(1)(c) 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?
Buckeye Rural Electric Coop	1/17/2022	Outage	Removed Vegtation Fall in from outside of right of way	Yes	1/17/2022	
Washington Electric Cooperative	1/25/2022	Outage	Nothing found on patrol	Yes	1/26/2022	
Guernsey- Muskingum Elec. Coop.	2/3/2022	Outage	Broken insulator and storm debris on line on the Glencoe- Robyville 69kv ckt between Harrisville Sw and Robyville interrupted the radial feed to Antrim	Yes	2/3/2022	
Guernsey- Muskingum Elec. Coop.	2/3/2022	Outage	Vegetation fall-in from outside ROW on the East Cambridge- Vail Sw 69kv ckt between Old Washington and Antrim.	Yes	2/3/2022	
Guernsey- Muskingum Elec. Coop.	2/3/2022	Outage	Antrim on Radial from Glencoe; Section of the Glencoe- Robyville between Glencoe and St. Clairsville locked out due to vegetation fall-in from out of ROW.	Yes	2/4/2022	
South Central Power	2/3/2022	Outage	Broken insulator and debris on the line on the Glencoe- Robyville 69kv ckt section between Harrisburg and Robyville.	Yes	2/4/2022	

2. 4901:1-10-26(B)(1)(b), (B)(1)(c) 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?
Licking Rural Electrification, Inc.	2/18/2022	Outage	Vegetation fall-in from outside ROW @ STR 26 of the on the Shreve-West Millersberg 69KV CKT between Ripley Sw, West Nashville, and Loudenville	Yes	2/18/2022	
Holmes-Wayne Elec. Coop., Inc.	2/18/2022	Outage	Vegetation fall-in from outside ROW at Str 69 on the Shreve- West Millersberg 69KV CKT between Ripley Sw, West Nashville, and Loudenville	Yes	2/18/2022	
Holmes-Wayne Elec. Coop., Inc.	5/20/2022	Outage	Vegetation fall in from outside ROW near structure 61. Compton Sw - Madisonburg 69kV circuit	Yes	5/20/2022	
Holmes-Wayne Elec. Coop., Inc.	5/20/2022	Outage	Vegetation fall in from outside ROW near structure 61. Compton Sw - Madisonburg 69kV circuit	Yes	5/21/2022	
Buckeye Rural Electric Coop	6/11/2022	Outage	Broken Crossarm at Structure 9. Conductor fell into Coop underbuilt. Firebrick - Lick 69kV circuit	Yes	6/11/2022	
Holmes-Wayne Elec. Coop., Inc.	6/13/2022	Outage	Storm damage. Beartown - Moreland Sw 69kV circuit	Yes	6/15/2022	

2. 4901:1-10-26(B)(1)(b), (B)(1)(c) 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?
Licking Rural Electrification, Inc.	6/13/2022	Outage	Vegetation contact from outside ROW. Shreve - West Millersburg 69kV circuit	Yes	6/15/2022	
Holmes-Wayne Elec. Coop., Inc.	6/13/2022	Outage	Vegetation contact from outside ROW. Shreve - West Millersburg 69kV circuit	Yes	6/15/2022	
Carrol County	6/14/2022	Outage	Broken conductor at structure 86. Carrollton - East Dover 69kV circuit	Yes	6/15/2022	
Carrol County	6/14/2022	Outage	Broken conductor at structure 86. Carrollton - East Dover 69kV circuit	Yes	6/15/2022	
Paulding Putnam	6/26/2022	Outage	Suspected Trees in circuit. Nothing found during patrol. East Lima - Yellow Creek 138kV circuit.	Yes	6/26/2022	
Midwest Electric, Inc	6/27/2022	Outage	Suspected trees in circuit. Nothing found on patrol. East Lima - Yellow Creek 138kV circuit	Yes	6/27/2022	
South Central Power	7/28/2022	Outage	Failed insulator and burnt pole near structure 71. Glencoe - Robyville 69kV circuit	Yes	7/28/2022	

2. 4901:1-10-26(B)(1)(b), (B)(1)(c) 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?
Frontier Power	11/21/2022	Outage	Vehicle struck pole. Broken insulator on structure 3 needed repaire Killbuck - South Coshocton 34	Yes	11/22/2022	

Notes:

5. 4901:1-10-26(B)(2), (B)(2)(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	Please reference AEP's website for our "AEP Transmission Planning Criteria for End-Of-Life and Other Asset Management Needs": https: //aep.com/requiredpostings/AEPTransmissionStudies	Please reference AEP's website for our "Transmission Planning Reliability Criteria - AEP PJM": https://aep. com/requiredpostings/AEPTransmissionStudies

Notes:

6. 4901:1-10-26(B)(2), (B)(2)(b) Safety and reliability complaints

Transmission	Availability				Quality			
or Distribution	of Service	Damage	Momentary Interruption	Out of Service	of Service	Repair Service	Public Safety	Total Complaints
Transmission	0	0	6	0	0	0	0	6

Notes:

7a. 4901:1-10-26(B)(2)(c), (B)(2)(c)(i) Transmission capital expenditures

Total transmission capital expenditures in 2022	\$287,211,765
Total Transmission investment as of year end	\$5,095,163,859
Transmission capital expenditures as % of total transmission investment	5.64%

Notes:

7b. 4901:1-10-26(B)(2)(c), (B)(2)(c)(i) Transmission maintenance expenditures

Total transmission maintenance expenditures in 2022	\$6,630,364
Total Transmission investment as of year end	\$5,095,163,859
Transmission maintenance expenditures as % of total transmission investment	0.13%

Notes:

7c. 4901:1-10-26(B)(2), (B)(2)(c)(ii), (B)(2)(c)(iii) Transmission capital expenditures - Reliability specific

Transmission capital budget category	2022 Budget	2022 Actual	% Variance	Explanation of variance if over 10%	2023 Budget
Construction Transmission - FERC Accounts 107	\$256,214,379	\$287,211,765	12.10%	Due to increased Proactive Asset Replacement	\$236,643,021

Notes:

7d. 4901:1-10-26(B)(2), (B)(2)(c)(ii), (B)(2)(c)(iii) Transmission maintenance expenditures - Reliability specific

Transmission maintenance budget category	2022 Budget	2022 Actual	% Variance	Explanation of variance if over 10%	2023 Budget
Electric Transmission Operations - FERC Accounts 560 through 567	\$32,525,888	\$32,880,468	1.09%		\$32,882,915
Electric Transmission Maintenance - FERC Accounts 568 through 573	\$6,671,349	\$6,630,364	-0.61%		\$8,058,891

Notes:

8a. 4901:1-10-26(B)(2)(d), (B)(2)(d)(i) Distribution capital expenditures

Total distribution capital expenditures in 2022	
Total distribution investment as of year end	
Distribution capital expenditures as % of total distribution investment	

Notes:

8b. 4901:1-10-26(B)(2)(d), (B)(2)(d)(i) Distribution maintenance expenditures

Total distribution maintenance expenditures in 2022	
Total distribution investment as of year end	
Distribution maintenance expenditures as % of total distribution investment	

Notes:

8c. 4901:1-10-26(B)(2), (B)(2)(d)(ii), (B)(2)(d)(iii) Distribution capital expenditures - Reliability specific

Distribution capital	2022	2022			2023
budget category	Budget	Actual	% Variance	Explanation of variance if over 10%	Budget

Notes:

8d. 4901:1-10-26(B)(2), (B)(2)(d)(ii), (B)(2)(d)(iii) Distribution maintenance expenditures - Reliability specific

Distribution maintenance	2022	2022			2023
budget category	Budget	Actual	% Variance	Explanation of variance if over 10%	Budget

Notes:

9. 4901:1-10-26(B)(2)(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	Structures & Improvements	352	52.00	3.00	49.00	94.23%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.
Transmission	Station Equipment	353	40.00	5.00	35.00	87.50%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.
Transmission	Towers & Fixtures	354	42.00	2.00	40.00	95.24%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.
Transmission	Poles & Fixtures	355	28.00	4.00	24.00	85.71%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.
Transmission	OH Cond. & Devices	356	44.00	5.00	39.00	88.64%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.

9. 4901:1-10-26(B)(2)(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	Underground Conduit	357	39.00	4.00	35.00	89.74%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.
Transmission	Underground Conductor	358	32.00	7.00	25.00	78.13%	Asset Total Depreciable Life (Yrs) determined based on Depreciable Plant Base minus Accumulated Provision for Depreciation divided by the Depreciable Plant Base multiplied by the depreciation rate. FERC Form 1 – Pages 207, 219 and 337, and Powerplant Reports.

Notes: Note (1): Transmission assets noted in this table do not include Accounts 350, 359, and 359.1. Accounts 350 - Land and Land Rights, 359 - Roads and Trails, and 359.1 - Asset Retirement Costs for Transmission Plant represent non-depreciable assets.

10. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i) Inspection, maintenance, repair, and replacement of distribution, transmission, and substation programs summary report

Asset type	Program Name	Program Goals	Goals achieved?
Transmission Station	T - Station Inspections	The goals are to (1) prevent unplanned outages or failures and/or safety hazards by identifying and correcting problems during scheduled inspections; and (2) reduce customer outages and associated call-outs for station problems by detecting problems and correcting them in a timely manner.	Yes
Transmission Station	T - Transformers	The goals of this program are to (1) prevent unplanned outages or failures by identifying and correcting problems during scheduled inspections; (2) reduce safety hazards, customer outages and associated call-outs for transformer problems by replacing limited lifetime components in a timely manner; and (3) utilize best practices and technology to achieve optimum loading of all transformers.	Yes
Transmission Station	T - Capacitor Banks	The goals are to (1) prevent unplanned outages or failures by identifying and correcting problems during scheduled inspections; and (2) reduce safety hazards, customer outages and associated call-outs for capacitor bank problems by replacing limited lifetime components in a timely manner.	Yes
Transmission	T - Line Maintenance	The intent of line maintenance is to avoid line outages and/or safety concerns whenever practical and to minimize the duration of outages when they occur.	Yes
Transmission (1)	T - Right-of-Way Vegetation Control	The intent of right of way maintenance is to minimize line outages and/or safety hazards caused by vegetation growing too near energized conductors. Trees, shrubs and vines that have the potential to grow or fall into transmission lines must be removed or their growth contained.	Yes

Notes: (1) Performed additional work on lines that were either high profile or deemed critical in nature.

10a. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i), (B)(2)(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
T - Station Inspections	Each transmission station is inspected monthly. Identified problems are noted on the inspection report and any serious condition is immediately reported to maintenance personnel.	2022 Goal = inspect 97 transmission stations on a monthly basis.	2022 Goal = inspect 97 T-stations on a monthly basis; 2022 Results = 108 inspected T-stations on a monthly basis. (111 % of goal achieved).
T - Circuit Breakers and Reclosers	Preventive maintenance on circuit breakers and reclosers is evolving from traditional time-based maintenance to Condition Based Maintenance (CBM), which includes time and operation intervals. Some of the principles of Reliability Centered Maintenance (RCM) are also being applied. RCM focuses on the reliability of components and is triggered by conditions that exist such as the total number of operations that have occurred since the last maintenance, which indicates the amount of duty (or use) the operating mechanism has incurred.	2022 Goal = 27 external inspections and maintenance; 2022 Goal = 7 internal inspections and maintenance.	External inspections & maintenance: 2022 Goal = 27; 2022 Results = 27 (100% of goal achieved); Internal inspections & maintenance: 2022 Goal = 7; 2022 Results = 8 (114% of goal achieved);
T - Transformers	Reliable operation of transformers requires that all components of these devices be in serviceable condition. These devices have a number of mechanical and electrical parts that require special attention. The maintenance program for transformers includes procedures that provide for monitoring, testing and planned maintenance to assure the integrity of these components and the overall performance of the transformers.	2022 Goal = 14 minor external inspections and maintenance; 2022 Goal = 0 major internal inspections and maintenance.	Minor external inspections & maintenance: 2022 Goal = 14; 2022 Results = 14 (100% of goal achieved); Major internal inspections & maintenance: 2022 Goal = 0; 2022 Results = 0 (100% of goal achieved); Data gathered as part of the monthly station inspections programs will be continually monitored and evaluated. Major transformer maintenance will be scheduled should equipment conditions warrant this action.

10a. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i), (B)(2)(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
T - Voltage Regulators	Reliable operation of voltage regulators requires that all components of these devices be in serviceable condition. These devices have a number of mechanical and electrical parts that require special attention. The maintenance program for voltage regulators includes procedures that provide for testing and planned maintenance to assure the integrity of these components and the overall performance of the voltage regulators.	Based on experience and results of previous monthly station inspections, no transmission station feeder or bus regulator maintenance was planned in 2022 for OPCO voltage regulators. Data from monthly station inspection programs is continually monitored and evaluated. If necessary, regulator maintenance will be performed as equipment conditions warrant.	The maintenance performed on voltage regulators during 2022 was the result of monthly station inspections and periodic infrared inspections. Typical problems discovered are loose connections, control cabinet problems, or control problems associated with an excessive number of tap changer operations. These problems when found are either resolved at that time or subsequently scheduled for repair or replacement of the voltage regulator.
T - Capacitor Banks	Reliable operation of capacitor banks requires that all components of these devices and their associated switchgear is in serviceable condition. These devices have relatively few mechanical parts that require special attention. The maintenance program for capacitor banks includes procedures that provide for testing and planned maintenance to assure the integrity of these components and the overall performance of the capacitor bank.	Since capacitor banks are comprised of sealed units, with essentially no moving parts, minimal maintenance is required. Any maintenance that is required is normally scheduled to coincide with station breaker maintenance.	The maintenance performed on capacitor banks during 2022 was the result of monthly station inspections and periodic infrared inspections. Because capacitor banks have few moving parts most of the problems found were blown fuses and deformed or ruptured cans. As the problems were identified the items were replaced as soon as the equipment was available and the work could be performed.

10a. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i), (B)(2)(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
T - Line Inspections	OHTCO has a total of 995 miles of transmission lines ranging from 69 kV to 765 kV in voltage. Various types of construction have been used over the years ranging from typical wood pole structures to large lattice towers. Inspection methods vary and can be performed from the air, ground, or by climbing a structure. All structures or a few targeted structures in a line may be inspected at a given time utilizing one or more inspection methods.	Inspect 995 T-line miles, 100%.	2022 Goal = inspect 995 T-line miles; 2022 Results = 100% of transmission lines inspected. Please see below for additional information of the findings.
T - Line Maintenance	Data collected as part of the line inspection program is analyzed and categorized to establish a work plan. The most serious items detected that can lead to line outages and/or safety hazards, such as broken poles or cross-arms, are scheduled for prompt corrective action. Less serious problems, such as loose bolts or broken ground wires, which have little or no chance of causing outages or safety issues are catalogued as non-critical and scheduled for replacement or repair in a timely, but less critical manner. Typically, these problems are corrected as general line maintenance is performed but, in some cases, may become part of a capital line rebuild or rehabilitation program.	Scheduled and performed transmission line maintenance, as necessary, based on issues identified during inspections.	OHTCO remedied 35 identified T-line problems in 2022.

10a. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i), (B)(2)(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
T - Protection and Control	Protective relaying schemes continually monitor the power system and protect lines and station equipment from damage by isolating those facilities from system disturbances. These sophisticated protective systems are designed to minimize the number of customer outages, safety issues and pieces of equipment affected. The objectives of the maintenance program are to prevent misoperation or failures of station equipment; minimize customer outages; minimize maintenance call-outs and maximize the life of station equipment.	2022 Goal = 300 T - discrete relay calibrations; 2022 Goal = 2,523 T - functional trip tests on relay trip paths.	T-Calibrations on discrete relays: 2022 Goal = 300; 2022 Results = 408 (100% of goal achieved); T-Functional trip tests on relay trip paths: 2022 Goal = 2,523; 2022 Results = 5,379 (100% of goal achieved).
T - Right-of-Way Vegetation Control	Data from bi-annual aerial inspections and ongoing ground inspections are used to prioritize schedules and plan the most efficient maintenance techniques. These plans are then implemented by our foresters.	Maintain 153 miles of T-line rights-of-way	2022 Goal = maintain 152 miles of transmission line right-of-way. 2022 results = 153 miles (100% of plan)

Notes:

10b. 4901:1-10-26(B)(2)(f), (B)(2)(f)(i), (B)(2)(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
T - Station Inspections	N/A	N/A	N/A	N/A
T - Circuit Breakers and Reclosers	N/A	N/A	N/A	N/A
T - Transformers	N/A	N/A	N/A	N/A
T - Voltage Regulators	N/A	N/A	N/A	N/A
T - Capacitor Banks	N/A	N/A	N/A	N/A
T - Protection and Control	N/A	N/A	N/A	N/A
T - Right-of-Way Vegetation Control	N/A	N/A	N/A	N/A
T - Line Inspections	N/A	N/A	N/A	N/A
T - Line Maintenance	N/A	N/A	N/A	N/A

Notes:

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Station Inspections	The replacement of burned out control panel and equipment lights are accomplished during the inspection. Also, station batteries are inspected for corroded terminals and any abnormal cells. Terminals are cleaned and any abnormalities are reported into the tablet computers. Battery ground lights are checked which could indicate a possible ground in the DC system, and the overall battery voltage and battery charger voltage and current are taken and recorded, with the battery charger output voltage adjusted as necessary during the inspection. Control house heaters, air conditioning units or heat pumps are checked to ensure these devices are operating properly. Station grounds are inspected with special attention to the fence and gates to ensure the station is secure. Any problems with the fence or gate are repaired. If permanent repairs cannot be completed at this time it is noted in the tablet computers and temporary repairs are made. During the inspection personnel inspect the yards, structures and equipment for broken insulators, bird nests and other yard debris.	Typically many of the minor items discovered as part of the Station Inspection Program can be and are remedied during the inspection. The level of resources required and the severity of the findings determine the scheduling and response if the situation cannot be dealt with during the time of the inspection.	12/31/2022	None required.	N/A

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Circuit Breakers and Reclosers	Of the maintenance performed on substation circuit breakers and reclosers during 2022, typical problems discovered are summarized as follows - bushings that exhibited elevated power factor test results, gas leaks, deteriorated oil based on test results, deteriorated or worn internal tank components (interrupters, elevated contact resistance, moisture intrusion), compressor system problems, and mechanism problems.	Typical remediation for bushings that exhibited elevated power factor readings would be an accelerated testing schedule or a scheduled replacement. Gas leaks are addressed based on the severity and the location of the gas leak. If the gas leak is severe, a complete overhaul of the circuit breaker may be required which would be scheduled as soon as practical. Deteriorated oil is typically cleaned and reclaimed by filtering at the time of the circuit breaker/recloser internal inspection, or replaced with new oil if the level of deterioration warrants. Deteriorated or worn internal components are typically replaced or repaired during the circuit breaker/recloser internal inspection, however, judgment is used on continued serviceability and the circuit breaker may be placed on an accelerated inspection schedule. Compressor system problems and mechanism problems are addressed when found as these conditions can affect the timing and operation of the circuit breaker or recloser. Any moisture intrusion is typically corrected at the time of the internal inspection.	12/31/2022	Problems that affect reliability or safety are addressed at the time maintenance is performed. Other conditions are noted for reference in the normal course of business. Dates are recorded in the Integrated Station Inspection System (ISIS) Database.	N/A

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Transformers	gauge problems, Load Tap Changer (LTC) contact wear, minor gas system leaks, and Load Tap Changer (LTC) filtration unit problems.	Typical remediation for bushings that exhibited elevated power factor readings would be an accelerated testing schedule or a scheduled replacement. Surge arresters found deteriorated based on test results are addressed by an accelerated testing schedule or a scheduled replacement. Typically, most minor oil leaks and minor gas system leaks are addressed in as much as practical on site during preventive maintenance; however, leaks that cannot be easily repaired would be scheduled for repair based on the severity of the condition and the level of resources required. Load Tap Changer contacts exhibiting excessive wear are generally replaced during the LTC inspection process and LTC filtration units are maintained as conditions warrant. Debris in transformer cooling systems (radiators) are typically removed when found, however, transformers with coolers instead of radiators require high-pressure washing which must be scheduled. Defective gauges found are either recalibrated or scheduled for replacement in the normal course of business.	12/31/2022	Problems that affect reliability or safety are addressed at the time maintenance is performed. Other conditions are noted for reference in the normal course of business. Dates are recorded in the Integrated Station Inspection System (ISIS) Database.	N/A
T - Voltage Regulators	connections, control cabinet problems, or control problems associated with an excessive number of tap changer operations. These problems when found are either resolved at that time or	the state of the s	12/31/2022	None required.	N/A

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Capacitor Banks	and/or summer) station capacitor banks are checked, typically during a monthly station inspection, to make sure that the unit is operating properly and will be available when called upon to support system voltages. Should a	to support system voltages. Should a component failure, such as a capacitor can, fuse or vacuum bottle, be identified as part of the monthly station inspections, the failed unit is simply replaced with a new unit. Typically	12/31/2022	None required.	N/A
T - Line Inspections	A major portion of the conditions found involved structural components such as poles, cross arms, guying and hardware. Insulator problems (chipped, burned, broken) and conductor/shieldwire problems were the next largest group of conditions found. Relatively fewer conditions involved transmission corridor problems such as easement encroachments, landslides or washouts. Various miscellaneous conditions were also noted including, among other things, missing structure numbering signs, damaged crossing markings and foreign attachments.	the most severe structural conditions while the more moderate structural	12/31/2022	None required.	N/A

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Line Maintenance	Data collected as part of the line inspection program is analyzed and categorized to establish a work plan. The most serious items detected that can lead to line outages and/or safety hazards, such as broken poles or cross-arms, are scheduled for prompt corrective action. Less serious problems, such as loose bolts or broken ground wires, which have little or no chance of causing outages or safety issues are catalogued as non-critical and scheduled for replacement or repair in a timely, but less critical manner.	Typically, these problems are corrected as general line maintenance is performed but, in some cases, may become part of a capital line rebuild or rehabilitation program.	12/31/2022	None required.	N/A
T - Protection and Control	Most of the relay systems were found to be in good operating condition and did not require any corrective maintenance. In some instances, the Protection and Control maintenance program identified relays and relay schemes that were inoperative or partially inoperative due to dirty contacts, coils, associated wiring, or other components. Relays that were found to be inaccurate or inoperative were recalibrated or in some cases replaced if the physical condition warranted. Relay schemes that failed to operate as designed due to component failure were restored to full functionality through a number of means including the cleaning of contacts, the adjustment of components, and the replacement of failed parts.	Any deficiencies identified were either rectified at the time of discovery or as soon as replacement parts were available. The problems that were identified and corrected helped to ensure the safety of our system, reduce outages to customers, and prevent possible damage to other power system equipment.	12/31/2022	Problems that affect reliability or safety are addressed at the time maintenance is performed. Other conditions are noted for reference in the normal course of business. Dates are recorded in the Intelligent Process Solutions (IPS) Database.	N/A

10c. 4901:1-10-26(B)(2)(f), (B)(2)(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
T - Right-of-Way Vegetation Control	N/A	N/A	N/A	N/A	N/A

Notes:

10d. 4901:1-10-26(B)(2)(f): Current Year Goals

Asset Type	Program Name	Program Goals
Transmission Station	T - Station Inspections	2023 Goal: Inspect 108 T-station on a monthly basis.
Transmission Station	T - Circuit Breakers and Reclosers	2023 Goal = 35 external inspections and maintenance; 2023 Goal = 5 internal inspections and maintenance.
Transmission Station	T - Transformers	2023 Goal = 2 minor external inspections and maintenance; 2023 Goal = 0 major internal inspections and maintenance.
Transmission Station	T - Voltage Regulators	Based on experience and results of previous monthly station inspections, no transmission station feeder or bus regulator maintenance was planned in 2023 for OTC voltage regulators. Data from monthly station inspection programs is continually monitored and evaluated. If necessary, regulator maintenance will be performed as equipment conditions warrant.
Transmission Station	T - Capacitor Banks	Since capacitor banks are comprised of sealed units, with essentially no moving parts, minimal maintenance is required. Any maintenance that is required is normally scheduled to coincide with station breaker maintenance.
Transmission	T - Line Inspections	2023 Goal = Inspect 100% of OHTCO tranmission lines.
Transmission	T - Line Maintenance	The 2023 goal is to schedule and perform transmission line maintenance, as necessary, based on issues identified during inspections.
Transmission Station	T - Protection and Control	2023 Goal = 162 T - discrete relay calibrations; 2023 Goal = 3,427 T - functional trip tests on relay trip paths.
Transmission	T - Right-of-Way Vegetation Control	2023 Goal = maintain 228 miles of transmission right-of-way

Notes:

11. 4901:1-10-26(B)(2)(f), (B)(2)(iv): Prevention of overloading or excessive loading of facilities and equipment

Transmission or Distribution	Program Name	Program Goals
Transmission	Transmission Planning Process	The planning process, as carried out in the eastern AEP area, provides the focus for establishing an appropriate level of system reliability. The planning process includes seasonal assessments of system performance; near term facility addition studies; and long term strategic planning. The planning process typically begins with a deterministic appraisal of transmission system performance. When such appraisals identify potential problems, detailed studies are conducted to evaluate the severity of the problem and to develop an optimal plan to remove or mitigate the deficiency. The projects listed in Tables 1 and 4 are the network reinforcements for the transmission systems of the Company for the next few years.

Notes:

12. 4901:1-10-26(B)(2)(f), (B)(2)(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 of to remedy overloading	Actual completion date
Transmission	Beatty-Galloway 69kV & Blair-Galloway 69kV	8/15/2017	Rebuild limiting sections of 69kV line. Upgrade Beatty 138/69kV XF, and install Cole 138/69kV XF and improve protection to eliminate conditions that overload the line.	10/31/2022	N/A	11/14/2022
Transmission	Bethel-Brookside 138kV & Brookside-Sawmill 138kV	1/2/2018	Rebuild and upgrade 138kV line from Bethel to Brookside to Sawmill.	5/17/2022	N/A	6/14/2021
Transmission	New Liberty - N. Findlay, Findlay - Morrical - New Liberty	10/26/2018	Rebuild New Liberty - Findlay and New Liberty - North Baltimore 34.5 kV Lines. Install one line 138kV circuit breaker, low side T1 34.5 kV circuit breaker, and high side T1 138kV circuit switcher at N. Findlay Station. Install second 138/69/34.5kV transformer and two low side circuit breakers for T1 and T2 at Ebersole Station.	11/1/2024	N/A	N/A
Transmission	N. Findlay - Plaza St 34.5kV, Plaza St - Findlay Center 34.5kV, Findlay - Findlay Center 34.5kV	5/31/2017	Rebuild Midland Sw - Plaza St, Plaza St - E. Findlay, and Findlay - Findlay Center 34.5kV lines.	1/3/2025	N/A	N/A
Transmission	TLN160:01099 - Glencoe- Speidel TLN160:01095 - Robyville- South Cadiz	6/1/2016	Construct West Bellaire-Glencoe 138kV T- Line and expand Glencoe 138-69kV substation	4/30/2025	Carefully monitor area power flows and re- route power during emergencies (switching solutions).	N/A
Transmission	Elliott - Ohio University 69 kV circuit and Strouds Run - Clark Street 69 kV circuit.	9/16/2019	Rebuil the Elliott - Ohio University 69 kV section that is getting overloaded. Rebuild the Clark Street - Strouds Run 69 kV circuit. Replace the Elliott 138/69/12 kV transformer.	11/21/2023	N/A	N/A

12. 4901:1-10-26(B)(2)(f), (B)(2)(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
Transmission	Dublin - Sawmill 138 kV	3/25/2019	Build a new greenfield 138 kV line from Amlin - Dublin	1/31/2025	NA	N/A
Transmission	Peoria - Darby, Peoria - Union REA, Union REA - Honda MT 69 kV (In Dayton)	6/1/2015	Add 345 kV breakers at Marysville to accommodate line to DP&L's Peroria station	6/1/2021	NA	9/31/2021
Transmission	Fremont Center - Maple Grove - Riverview 69 kV	10/6/2020	Install 138 kV breaker at Fremont Station along with 69 kV capacitor at Bloom Rd.	8/8/2024	NA	NA
Tranmission	W. New Philadelphia XF	10/6/2020	Install 138 kV breaker on transformer #2 and on line towards the Newcomertown at West New Philadelphia	2/9/2026	NA	NA
Tranmission	Southside - Sterling 34.5 kV	10/6/2020	Install highside circuit switchers on transformers #1 &2 at Rockhill to solve the problematic contingency	5/13/2026	NA	NA
Tranmission	Overloading 34.5 kV and 69 kV facilities in Leipsic, Lima area	11/4/2020	Rebuild and convert the existing East Leipsic - New Liberty 34.5 kV line to 138 kV	7/14/2026	NA	NA
Tranmission	Easton - North Canton 69 kV	10/16/2020	Install sectionalizing at Wagenhals to address problematic contingency	3/23/2026	NA	NA
Tranmission	Newcomerstown - Salt Fork 69 kV line	11/4/2020	Rebuild 8.9 miles of copper conductor between Newcomerstown and Salt Fork Sw that is overloading	8/5/2025	NA	NA
Tranmission	East Lancaster - Lancaster, Lancaster - South Lancaster, Ralston - Lancaster Jct 69 kV	11/4/2020	Rebuild 6.5 miles of copper conductor in the Lancaster Area that is overloading	10/27/2027	NA	NA

12. 4901:1-10-26(B)(2)(f), (B)(2)(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
Tranmission	West Mt Vernon XF, West Mt Vernon - Mt Vernon 69 KV	12/1/2020	Replace W. Mt Vernon 138/69 kV XF and rebuild 4 miles of 69 kV line between W. Mt Vernon and Mt. Vernon stations that are overloading	4/1/2025	NA	NA
Transmission	Salt Fork - Leather Wood SW 69kV	8/30/2021	Rebuild ~4.2 miles of overloaded sections of the 69 kV line between Salf Fork Sw. and Leatherwood Sw.	8/5/2025	NA	NA
Transmission	North Delphos - East Delphos, North Delphos - South Delphos & North Delphos - Elida Rd 69kV	8/30/2021	Rebuild of approximately 3.5 miles of the overloaded sections on the 69 kV lines around the Delphos area	10/2/2025	NA	NA
Transmission	North Van Wert Sw Van Wert 69 kV	10/15/2021	Rebuild from North Van Wert Switch to structure 25 (~2.3 miles) as single circuit 69kV	5/1/2025	NA	NA
Transmission	Meigs - Hemlock 69kV	12/18/2020	Replace the Meigs 69 kV 4/0 Cu station riser towards Gavin and rebuild the section of the Meigs – Hemlock 69 kV circuit from Meigs to approximately structure #40 (~4 miles) replacing the line conductor 4/0 ACSR with the line conductor size 556.5 ACSR.	6/18/2024	NA	NA
Transmssion	Swamill - Lazelle & Westerville - Genoa 69kV	12/18/2020	Rebuild 4.23 miles of 69 kV line between Sawmill and Lazelle station, Rebuild 1.94 miles of 69kV Line between Westerville and Genoa stations, Replace risers and switchers at Lazelle, Westerville, and Genoa stations.	12/16/2025	N/A	N/A
Transmission	Otway & Pipestone	9/23/2022	7.7 MVAR, 69kV cap bank at Otway	10/22/2026	N/A	N/A

12. 4901:1-10-26(B)(2)(f), (B)(2)(iv): Actions to remedy overloading or excessive loading of facilities and equipment

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

Notes:

13. 4901:1-10-26(B)(2)(f), (B)(2)(f)(vi): Programs deleted

Facility Type	Deleted Program Name
D	None
Т	None
TS	None
TD	None

Notes:

14. 4901:1-10-26(B)(2)(f), (B)(2)(f)(vi): Programs modified

Facility Type	Deleted Program Name
D	None
Т	None
TS	None
TD	None

Notes:

15. 4901:1-10-26(B)(2)(f), (B)(2)(f)(vi): Programs added

Facility Type	Deleted Program Name
D	None
Т	None
TS	None
TD	None

Notes:

16. 4901:1-10-26(B)(3): 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: None to report

This foregoing document was electronically filed with the Public Utilities Commission of Ohio Docketing Information System on

3/31/2023 1:54:34 PM

in

Case No(s). 23-0996-EL-ESS

Summary: Report Electric Safety Standards Annual Report of AEP Ohio Transmission Company, Inc. submitted for the year 2022. electronically filed by Michael J. Schuler on behalf of AEP Ohio Transmission Company, Inc. .