Construction Notice Sporn-Kyger Creek 345 kV Pole Installation Project

PUCO Case No. 20-1608-EL-BNR

Submitted to:
The Ohio Power Siting Board
Pursuant to Ohio Administrative Code Section 4906-6-05

Submitted by:
Ohio Power Company

November 9, 2020

Construction Notice

Ohio Power Company
Sporn-Kyger Creek 345 kV Pole Installation Project

4906-6-05

Ohio Power Company (the "Company"), provides the following information in accordance with the requirements of Ohio Administrative Code Section 4906-6-05.

4906-6-5(B) General Information

B(1) Project Description

The name of the project and applicant's reference number, names and reference number(s) of resulting circuits, a brief description of the project, and why the project meets the requirements for a Construction Notice (CN).

The Company is proposing the Sporn-Kyger Creek 345 kV Pole Installation Project ("Project"), located in Gallia County, Ohio. The Project involves installing one structure along the Sporn-Kyger Creek 345 kV transmission line. The existing structure outside of the Kyger Creek Station is unable to support the new 6-wire configuration, which would tie Kyger Creek-Sporn No. 1 and No. 2 circuits together. Therefore, the Company identified the need to install an additional structure outside of the Kyger Creek Station to support the proposed tension of the new configuration. **Map 1** shows the location of the Project in relation to the surrounding vicinity.

The Project meets the requirements for a Construction Notice ("CN") because it is within the types of projects defined by Item 2(a) of Ohio Administrative Code Section 4906-1-01 Appendix A of the Application Requirement Matrix for Electric Power Transmission Lines. This item states:

2. Adding new circuits on existing structures designed for multiple circuit use, replacing conductors on existing structures with larger or bundled conductors, adding structures to an existing transmission line, or replacing structures with a different type of structures for a distance of:

   (a) Two miles or less.

The Project has been assigned PUCO Case No. 20-1608-EL-BNR.

B(2) Statement of Need

If the proposed project is an electric power transmission line or gas or natural gas transmission line, a statement explaining the need for the proposed facility.

The Project is a PJM baseline project (b2832) necessary to tie the Kyger Creek – Sporn 345 kV #1 and #2 circuits together to provide greater capacity on the Kyger Creek – Sporn 345 kV #2 circuit. Currently, the Kyger Creek – Sporn 345 kV #2 circuit will load to 102% of its applicable rating in PJM's 2021 Winter RTEP case for loss of the Kyger Creek – Sporn 345 kV #1 circuit.

PJM identified the violation in the 2016 PJM RTEP Window, under the Winter Generation Deliverability analysis. The solution was presented and reviewed with stakeholders at the January 12, 2017 PJM TEAC meeting along with two other alternatives. The Project was selected by PJM to resolve the 2016 RTEP Window violation and subsequently was assigned baseline ID number b2832. The existing Sporn-Kyger Creek 345 kV transmission line was included in Ohio Power Company's Long Term Forecast Report Table FE-T7 (page 60 of 119).

The proposed solution for this baseline need is necessary for the Company to continue to provide safe and reliable service to customers. Instead of rebuilding or reconductoring the existing Kyger Creek – Sporn 345 kV #2 circuit, which spans approximately 12 miles, the Project proposes to tie the Kyger Creek – Sporn 345 kV #1 and #2 circuits together by adding one additional structure to the existing alignment to eliminate the contingency that causes the violation. Without this Project, the Kyger Creek-Sporn circuit #2 may overload, potentially requiring the Company to mitigate by load shedding.

B(3) Project Location

The applicant shall provide the location of the project in relation to existing or proposed lines and substations shown on an area system map of sufficient scale and size to show existing and proposed transmission facilities in the Project area.

The location of the Project in relation to existing transmission lines and stations is shown on **Map 1**. The Project directly impacts the following existing facilities:

- Sporn-Kyger Creek 345 kV transmission line
- Kyger Creek Station

B(4) Alternatives Considered

The applicant shall describe the alternatives considered and reasons why the proposed location or route is best suited for the proposed facility. The discussion shall include, but not be limited to, impacts associated with socioeconomic, ecological, construction, or engineering aspects of the project.

As the new structure will be placed within the existing Sporn-Kyger Creek 345 kV transmission line right-of-way ("ROW"), there will be no additional impacts to any areas outside of the existing ROW corridor, and therefore no additional alternatives were considered. The resulting alignment represents the most suitable and least impactful pole location alternative. Socioeconomic, land use, and ecological information is presented in Section B(10).

B(5) Public Information Program

The applicant shall describe its public information program to inform affected property owners and tenants of the nature of the project and the proposed timeframe for project construction and restoration activities.

The Company maintains a website (http://aeptransmission.com/ohio/) on which an electronic copy of this CN is available. An electronic copy of the CN will be served to the public library in each political subdivision

affected by this Project. The Company also retains land agents who will discuss project timelines, construction and restoration activities with affected owners and tenants.

B(6) Construction Schedule

The applicant shall provide an anticipated construction schedule and proposed in-service date of the project.

Construction of the Project is planned to begin in the first quarter of 2021 with an anticipated in-service date of June 2021.

B(7) Area Map

The applicant shall provide a map of at least 1:24,000 scale clearly depicting the facility with clearly marked streets, roads, and highways, and an aerial image.

Map 1 provides the proposed Project area and the associated station and transmission lines on a map of 1:24,000-scale, showing the United States Geological Survey (USGS) 7.5-minute topographic maps of the Danville and Mount Vernon quadrangles. **Map 2** shows the Project area at a 1:4,800-scale on recent aerial photography, as provided by the National Agricultural Imagery Program orthoimagery date 2019.

To access the Project location from Columbus, take I-71 South for approximately 4 miles. Take existing 105A to merge onto US-33S towards Lancaster. Continue on US-33S for approximately 68 miles to OH-32/US-33/US-50W towards Pomeroy/Chillicothe. Continue on OH-32/US-33/US-50W for approximately 2 miles before existing onto US-333E toward Pomeroy/Ravenswood. Take US-33E for approximately 18 miles and then exit onto OH-7/OH-124W toward Gallipolis. Turn right onto OH-124W/OH-7S/Ohio River Scenic Byway and continue for approximately 12 miles. The Project will be located on the left side of the road at latitude 38.916100, longitude -82.129995.

B(8) Property Agreements

The applicant shall provide a list of properties for which the applicant has obtained easements, options, and/or land use agreements necessary to construct and operate the facility and a list of the additional properties for which such agreements have not been obtained

A list of properties required for the Project are provided in the table below

Parcel ID	Easement Agreement/Option Obtained* (Yes/No)
00183000600	Yes

*The Company may supplement its existing rights under all blanket and defined easements identified above

B(9) Technical Features

The applicant shall describe the following information regarding the technical features of the project:

B(9)(a) Operating characteristics, estimated number and types of structures required, and right-of-way and/or land requirements.

The transmission line construction is estimated to include the following:

Voltage:	345 kV
Conductors:	1272 KCM ACSS 54/19 "Pheasant"
Insulators:	Ceramic
ROW Width:	150 Feet
Structure Types:	(1) 2-Pole, Double Circuit, Dead End on Pier Foundations

B(9)(b) Electric and Magnetic Fields

For electric power transmission lines that are within one hundred feet of an occupied residence or institution, the production of electric and magnetic fields during the operation of the proposed electric power transmission line.

No occupied residences or institutions are located within 100 feet of the Project.

B(9)(c) Project Cost

The estimated capital cost of the project.

The capital cost estimate for the proposed Project, which is comprised of applicable tangible and capital costs, is approximately $370,000, using a Class 4 estimate. Pursuant to the PJM OATT, the costs for this Project will be recovered in Ohio Power Company's FERC formula rate (Attachment H-14) and allocated to the AEP Zone.

B(10) Social and Economic Impacts

The applicant shall describe the social and ecological impacts of the project:

B(10)(a) Land Use Characteristics

Provide a brief, general description of land use within the vicinity of the proposed project, including a list of municipalities, townships, and counties affected.

An aerial photograph of the Project vicinity is provided as **Map 2**. The Project is located at the Kyger Generation Plant, on heavy industrial land, just outside of the Kyger Creek Station between the Ohio River Scenic Byway and the Ohio River. The Project will be located within existing ROW of the Sporn-Kyger Creek 345 kV transmission line. No tree clearing will be required for the Project. The Project is mapped in Gallia County.

B(10)(b) Agricultural Land Information

Provide the acreage and a general description of all agricultural land, and separately all agricultural district land, existing at least sixty days prior to submission of the application within the potential disturbance area of the project.

The Project is not located within registered agricultural district land, based on October 23, 2020 coordination with the Gallia County Auditor's Office. Additionally, the Project area does not contain any active agricultural row crop land.

B(10)(c) Archaeological and Cultural Resources

Provide a description of the applicant's investigation concerning the presence or absence of significant archaeological or cultural resources that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

In October 2020, cultural resource information regarding known locations of archaeological and architectural resources and their National Register of Historic Places status were obtained from the Ohio Historic Preservation Office's online system. Results of this review indicated that there were no previously identified cultural resources within 1,000 feet of the Project. A cultural resource field survey will be conducted by the Company's consultant in November 2020 and the results will be documented in a Phase I Archaeological Survey Report and a Historic Architectural Reconnaissance Survey Report which will be submitted to the State Historic Preservation Office ("SHPO"). Correspondence from the SHPO will be provided to OPSB upon receipt.

B(10)(d) Local, State, and Federal Agency Correspondence

Provide a list of the local, state, and federal governmental agencies known to have requirements that must be met in connection with the construction of the project, and a list of documents that have been or are being filed with those agencies in connection with siting and constructing the project.

The Project involves installing one structure. It is anticipated that the area of disturbance associated with the activity will be less than one acre and therefore, below the reporting levels for an OEPA Stormwater Pollution Prevention Plan. If the area of disturbance exceed 0.9 acre then AEP will prepare a SWPPP and coordinate with the OEPA.

The Project crosses a Federal Emergency Management Agency ("FEMA") 100-year floodplain area (map number 39053C0167E). According to the Gallia County Special Purpose Flood Damage Reduction Regulations, 10/16/2003-Section 3.9-A-the Project is exempt from floodplain coordination with Gallia County.

AEP will coordinate with the Huntington, West Virginia Branch of the United States Army Corps of Engineers regarding the aerial crossing of the Ohio River in order to determine the level of permitting required.

No other local, state, or federal permits are applicable to the Project.

B(10)(e) Threatened, Endangered, and Rare Species

Provide a description of the applicant's investigation concerning the presence or absence of federal and state designated species (including endangered species, threatened species, rare species, species proposed for listing, species under review for listing, and species of special interest) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

Coordination letters will be submitted to the United States Fish and Wildlife Service ("USFWS"), Ohio Ecological Services Field Office, and the Ohio Department of Natural Resources ("ODNR") Ohio Natural Heritage Program ("ONHP"), seeking an environmental review of the Project for potential impacts to threatened or endangered species. Once a response has been received from USFWS and ODNR, information will be provided to the OPSB.

The USFWS Federally Listed Species located on the USFWS website IPAC (Information for Planning and Consultation) was reviewed October 22, 2020 (available at https://ecos.fws.gov/ipac/) to determine the threatened and endangered species currently known to occur in Gallia County and specifically the project area.

The Project is within the range of the Indiana bat and northern long-eared bat. Due to this potential, the USFWS/ODNR recommends seasonal tree cutting for trees >3 inches diameter at breast height between October 1 and March 31 to avoid adverse impacts to this species. However, no tree clearing activities are anticipated to be required for the construction of the Project. Therefore, the Project is not likely to adversely affect the Indiana bat or northern long-eared bat.

Although the Ohio River is adjacent to the Project area, no in water work is proposed as part of the Project. Therefore, there will be no impacts associated with the clubshell, pink mucket, snuffbox, sheepnose, or fanshell.

As the Project area is entirely disturbed, and lacking key characteristics required to support the Running Buffalo Clover, the Company determined that there is no suitable habitat for the Running Buffalo Clover in the project area. Therefore, the Project is not likely to adversely affect the Running Buffalo Clover.

The Ohio Department of Natural Resources, Ohio Natural Heritage Database was reviewed for Gallia County. As no work will occur in the water, the following list of species includes only, the state endangered and species of concern birds, and mammals. There are currently Northern Harrier, Black Bear, Sharp-shinned Hawk, Henslow's Sparrow, Grasshopper Sparrow, Eastern Whip-poor-will, Great Ergret, Black-Billed Cuckoo, Northern Bobwhite, Red-headed Woodpecker, Prothonotary Warbler, Cerulean Warbler, Big Brown Bat, Red Bad, Prairie Vole, Little Brown Bat, Tri-Colored Bat, Deer Mouse, Badger, Gadwall, Hermet Thrush, Yellow-crowned Night-Heron, Yellow-bellied Sapsucker. This is a general list for the entire county and not location specific to the Project area. However as the Project area

is completely disturbed and essentially void of vegetation, the area lacks suitable habitat for any of the above listed species.

B(10)(f) Areas of Ecological Concern

Provide a description of the applicant's investigation concerning the presence or absence of areas of ecological concern (including national and state forests and parks, floodplains, wetlands, designated or proposed wilderness areas, national and state wild and scenic rivers, wildlife areas, wildlife refuges, wildlife management areas, and wildlife sanctuaries) that may be located within the potential disturbance area of the project, a statement of the findings of the investigation, and a copy of any document produced as a result of the investigation.

A review of the National Wetland Inventory (NWI) database indicated that there were no NWI-mapped wetlands identified within 100 feet of the Project. Additionally, as the Project area has been completely disturbed and is part of an industrial development, no wetlands or streams were identified in the Project area. It is recognized that the project area is in the vicinity of the Ohio River.

No properties identified in the National Conservation Easement Database (http://www.conservationeasement.us) were identified in the project vicinity.

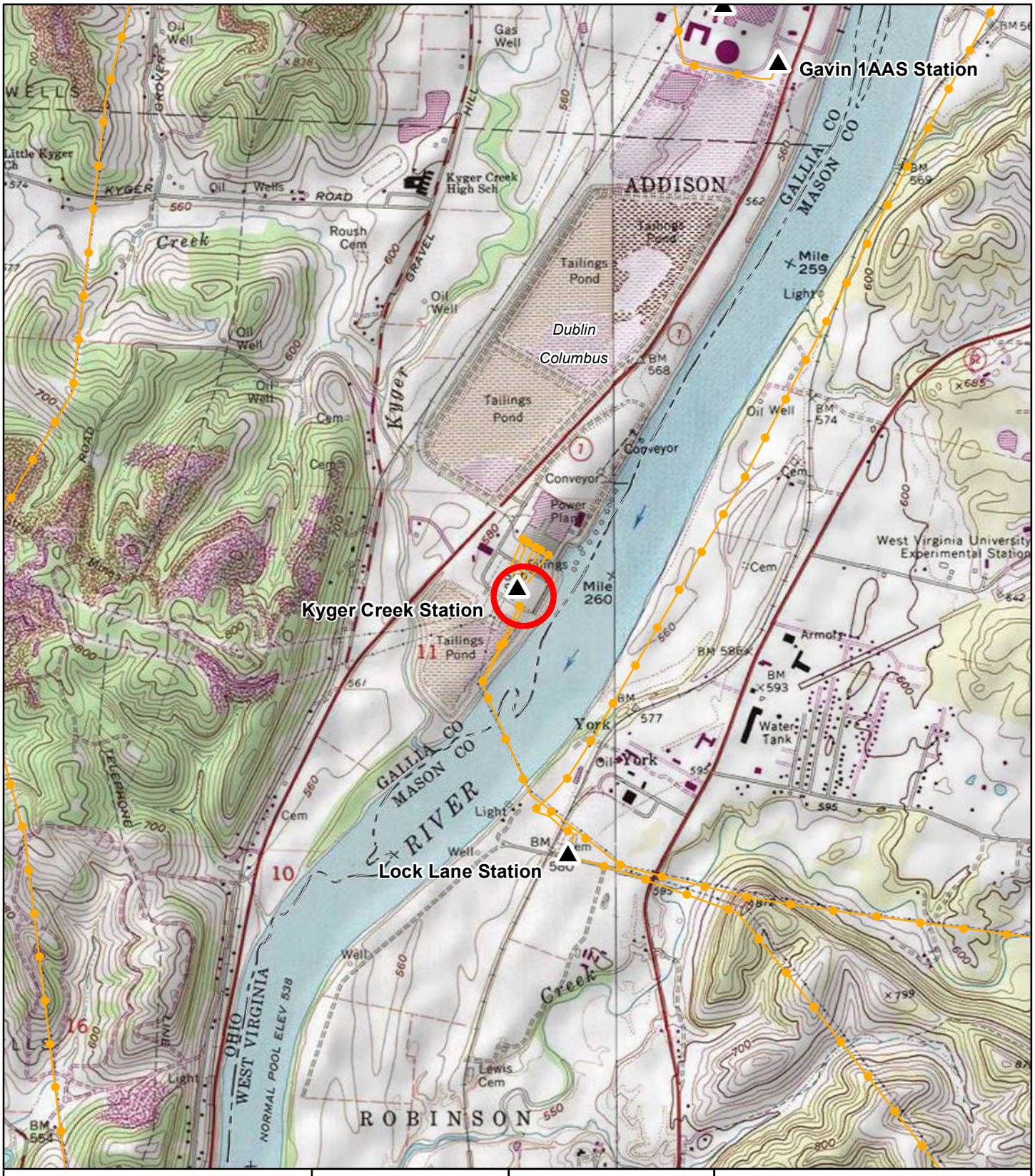
The FEMA Flood Insurance Rate Map (FIRM) was consulted to identify any floodplains/flood hazard areas that have been mapped in the Project area (specifically, map number 39053C0167E). Based on this map, the Project is within a FEMA 100 year floodplain and will require coordination with the appropriate local agency with jurisdiction.

B(10)(g) Unusual Conditions

Provide any known additional information that will describe any unusual conditions resulting in significant environmental, social, health, or safety impacts.

To the best of the Company's knowledge, no unusual conditions exist that would result in significant environmental, social, health, or safety impacts.

Appendix A Project Maps and Figures



LEGEND:

- Existing Station
- Existing Transmission Line
- Project Area

Data Sources: AEP, USGS 7.5 minute Topographic Quandrangle (Addison)

Coordinate System and Datum: NAD 83 State Plane Ohio South

October 28, 2020

FIGURE 1
TOPOGRAPHIC OVERVIEW

AEP OHIO

Sporn-Kyger Creek 345 kV Pole Installation Project

0 1,000 2,000 3,000 4,000

Feet

- Proposed Structure
- Existing Substation
- Existing Structure
- Proposed Centerline
- Existing Transmission Line
- Parcel (Corelogic)

Data Sources or Notes:
NAIP Orthoimagery (2019)

Coordinate System
and Datum
NAD 83 State Plane
Ohio South

November 05, 2020

FIGURE 2
AERIAL MAP

AEP OHIO

Sporn-Kyger Creek 345 kV Pole Installation Project

0 200 400
Feet

Appendix B PJM Submittal and 2020 Long Term Forecast Report

PUCO Form FE-T7: AEP Ohio Power
Characteristics of Existing Transmission Lines

Transmission Name & Line No.[a]	Point of (Origin - Terminus)	Summer Capability		Winter Capability		Operating Voltage (kV)	Design Voltage (kV)	Right-of-Way		Type of Supporting Structure	Number of Circuits		Substations on the Line
List Each Transmission Line of 125 kV or More	Indicate Location of Line's Beginning and Terminus	Normal Rating	Emergency Rating	Normal Rating	Emergency Rating	Indicate Design Voltage and Operating Voltage For Each Line		Length (Miles)	Width Max./Min. (feet)	Steel Towers, Wood Poles or Underground, etc. and Number of Miles of the Line of Each Structure	Design	Installed	Substation Name
24800	Herlan - Natrium #2	205	284	258	320	138	138	27.9	100/100	Wood - H-frame	1	1	SOMERTON
28497	Herlan - South Caldwell	205	284	258	320	138	138	15.4	100/100	Wood - 1 pole	1	1	CALDWELL
24802	Herlan - Summerfield	205	284	258	320	138	138	1.41	100/100	Steel - Lattice	1	1	
640	Hess Street - OSU	187	240	240	285	138	138	1.92	100/100	UG Cable - Duct & Manhol	1	1	
679	Hess Street - Vine	183	251	204	269	138	138	2.42	100/100	UG Cable - Duct & Manhol	1	1	
641	Hess Street - Wilson Road	187	223	247	281	138	138	6.86	100/100	UG Cable - Duct & Manhol	1	1	FIFTH AVENUE
21678	Highland (CSP) - Seaman	195	220	216	239	138	138	14.39	100/100	Steel - 2 pole	1	1	
2982	Hillsboro - Millbrook Park	185	185	234	234	138	138	95.06	100/100	Steel - Lattice	1	1	
18077	Hillsboro - Wildcat	185	185	234	234	138	138	9.88	100/100	Steel - 1 pole	1	1	
22498	Holloway - Tidd	971	971	1234	1234	345	345	22.87	150/150	Steel - Lattice	1	1	
22939	Howard - Melmore #1	136	167	179	206	138	138	26.97	100/100	Wood - 1 pole	1	1	
22941	Howard - Melmore #2	136	167	179	179	138	138	26.97	100/100	Wood - 1 pole	1	1	
12239	Howard - North Bellville	136	173	179	206	138	138	18.01	100/100	Wood - 1 pole	1	1	
25597	Howard - North Lexington	200	200	253	253	138	138	12.5	100/100	Steel - Lattice	1	1	
13577	Howard - Shelby #2 138 kV	96	96	96	96	138	138	2.36	100/100	Steel - Lattice	1	1	
4783	Howard - West End Fostoria 138 kV	136	167	179	179	138	138	45.34	100/100	Steel - Lattice	1	1	CHATFIELD
665	Huntley - Linworth	223	223	281	281	138	138	3.72	100/100	Steel - 1 pole	1	1	
19359	Hyatt - Vassell	1370	1409	1779	1781	345	345	15.88	150/150	Steel - Lattice	1	1	
6226	Hyatt (CSP) - Maliszewski #1	223	310	281	349	138	138	6.83	100/100	Wood - 1 pole	1	1	
6227	Hyatt (CSP) - Maliszewski #2	338	407	427	484	138	345	5.1	150/150	Steel - Lattice	1	1	
645	Hyatt (Csp) - Sawmill #1	340	434	430	501	138	138	5.32	100/100	Steel - 1 pole	1	1	
25058	Hyatt (CSP) - Sawmill #2	388	526	492	597	138	765	5.32	200/200	Steel - Lattice	1	1	
584	Hyatt (OP) - Marysville	1166	1376	1481	1639	345	345	23.24	150/150	Steel - Lattice	1	1	
550	Hyatt (OP) - West Millersport	971	1376	1234	1585	345	345	49.68	150/150	Steel - Lattice	1	1	
26958	June Road - Tidd	195	220	216	239	138	138	42.3	100/100	Steel - 1 pole	1	1	EAST AMSTERDAM, BROADACRE, PANDA ROAD SWITCH
26957	June Road - Wagenhals	335	392	424	466	138	138	11.5	100/100	Wood - 2 pole	1	1	
544	Kammer - South Canton	2977	2977	2977	2977	765	765	79.57	200/200	Steel - Lattice	1	1	
19899	Kammer - Vassell	4047	4571	4484	4961	765	765	114.47	200/200	Steel - H-frame	1	1	
22338	Kammer - West Bellaire	1740	2034	2022	2235	345	345	13.21	150/150	Steel - Lattice	1	1	
722	Kammer South - Ormet #1	296	398	375	452	138	138	11.54	100/100	Steel - Lattice	1	1	
2101	Kammer South - Ormet #2	296	398	375	452	138	138	11.54	100/100	Steel - Lattice	1	1	
723	Kammer South - Ormet #3	296	296	375	375	138	138	11.53	100/100	Steel - Lattice	1	1	
724	Kammer South - Ormet #4	296	296	375	375	138	138	11.52	100/100	Steel - Lattice	1	1	
725	Kammer South - West Bellaire	296	398	375	452	138	138	13.58	100/100	Aluminum - Guyed V	1	1	
29397	Karl - Morse #2 138 kV	240	286	286	286	138	138	11.2	100/100	Steel - Lattice	1	1	
621	Kenny - Roberts	213	282	221	328	138	138	3.4	100/100	UG Cable - Duct & Manhol	1	1	
27882	Kirk - Mink	338	338	427	427	138	138	3.52	100/100	Steel - 1 pole	1	1	
2276	Kirk - Newark Center	338	338	427	427	138	138	26.27	100/100	Steel - Lattice	1	1	
19339	Kirk - West Hebron	167	245	210	271	138	138	9.7	100/100	Wood - 1 pole	1	1	
8311	Kirk - West Millersport 345kV	1166	1166	1481	1481	345	345	9.47	150/150	Steel - 1 pole	1	1	
21	Kyger Creek - Spom #1	1028	1419	1294	1585	345	345	12.5	150/150	Steel - Lattice	1	1	
22177	Kyger Creek - Spom #2	971	1419	1234	1585	345	345	12.52	150/150	Steel - Lattice	1	1	
11546	Levee-Belmont(FE)	129	161	162	186	138	138	5.2	100/100	Wood - H-frame	1	1	
27082	Lick - Rhodes	219	238	238	238	138	138	4.2	100/100	Wood - H-frame	1	1	
771	Lockwood Road - Robison Park	219	255	277	303	138	138	32.85	100/100	Wood - H-frame	1	1	SOUTH HICKSVILLE
629	LSII - Marion Road	439	439	472	472	138	138	4.62	100/100	Steel - Lattice	1	1	

AEP Transmission Zone

- Generation Deliverability (FG# 84) :
- Kyger Creek to Sporn 345 kV circuit #2 is overloaded for single contingency loss of the Kyger Creek – Sporn 345 kV circuit #1.
- **Alternatives considered:**
  - 2016_3-4B ($ 15.5 M)
  - 2016_3-4C ($ 0.3 M)
  - 2016_3-5E ($ 19.8 M)
- **Recommended Solution:**
  - Six wire the Kyger Creek to Sporn 345 kV circuits #1 and #2 and convert them to one circuit . (2016_3-4C)
- **Estimated Project Cost:** $ 0.3 M
- **Required IS Date:** 12/1/2021