

Chapter 7 - Appendix A

Transmission and Distribution Supplemental Information

Table 7A.1 MTEP Transmission Projects in Missouri¹

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
MTEP20	New Highway M 138/12 kV substation	Install 2 unit 138-12.47 kV substation on a site adjacent to the Dardenne Substation. (Gilmore)	Other	\$ 20,000,000	12/01/2028
MTEP20	Reconfigure Viburnum 161/34 kV Substation	Install 2 161 kV line breakers and 1 161 kV circuit switcher on the transformer to split the CLK-CMCO-2 line and create 2 circuits into Viburnum Substation.	Other	\$ 13,500,000	06/01/2027
MTEP20	New Scarlet 345 kV substation	Joint project between Ameren Missouri and AECL. Tap the Ameren Missouri Labadie-Montgomery 345kV line via a new 3-breaker, 345kV ring bus near the intersection of the line and the AECL (Central Electric Power Coop) 161kV line west of Charrette. Rebuild the existing 161kV line between the tap point and the AECL Wright City Substation as double-circuit 345/161kV. Install new 345/161kV step down transformer at Wright City.	BRP	\$ 73,600,000	06/01/2026
MTEP20	New Dougherty Ferry 138/12 kV substation	Tap the Mason-Meramec-1 & 2 lines to provide a main-tie-main configuration for the installation of a new 138-	Other	\$ 19,400,000	12/01/2030

¹ 20 CSR 4240-22.045(3)(A)1; 20 CSR 4240-22.045(3)(A)6

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		12 kV substation. Name is Caboose.			
MTEP20	New Montgomery 345 kV shunt reactor	Install 50 Mvar shunt reactor at Montgomery 345 kV substation.	Other	\$ 5,200,000	06/01/2026
MTEP20	Rebuild Bland-Franks 345 kV line	Replace structures, conductor and shield wire on approximately 44 miles 345kV line.	Other	\$ 74,000,000	12/01/2027
MTEP20	New Fountain Lakes 138/12 kV transformer No. 2	Add 2nd 138-12 kV unit at Fountain Lakes Substation.	Other	\$ 9,300,000	12/01/2027
MTEP20	Replace Mason 345/138 kV Transformer	Replace 345/138 kV, 560 MVA Transformer #2 with a 700 MVA unit	BRP	\$ 13,100,000	06/01/2026
MTEP21	New Belleau 138 kV Capacitor Bank	Install 120 Mvar capacitor bank at Belleau 138 kV	BRP	\$ 22,400,000	12/01/2026
MTEP22	New Vanduser 161 kV Ring Bus for J1034 Ringer Solar	Construct a new 161 kV switching station in Stoddard County, Missouri to provide a Point of Interconnection for the Generating Facility. The new Vanduser 161 kV J1034 Interconnection Switching Station will have a four-terminal ring-bus design with three terminal positions installed. Split the existing Morley – Stoddard 161 kV transmission line	GIP	\$ 6,730,000	12/01/2027
MTEP22	Upgrade Callaway 345 kV Substation	Add breakers on the high side of safeguard transformer A and B at Callaway 345 kV substation	BRP	\$ 5,700,000	12/01/2026
MTEP22	New Adna 345 kV Ring	The Adna switching station will be a ring bus	GIP	\$ 12,100,000	06/01/2026

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
	Bus for J1107 Lutesville Solar	arrangement with three-line terminal positions and provisions for one additional future terminal position. The existing Kelso-Lutesville 345 kV transmission line will be cut.			
MTEP23	Reconfigure Moreau 161 kV substation (Jays)	Construct a four position (six ultimate) 161 kV ring bus at Moreau. New name is Jays.	Other	\$ 8,500,000	06/01/2028
MTEP23	Upgrade Warson 161 kV substation	Line BKR on 4 line terminals, High Side interrupting devices on XFMRs 1,2,3,4, Add bus tie 2-3 BKR	Other	\$ 8,000,000	12/01/2029
MTEP23	Replace Mason 345/138 kV Transformer No. 1	Replace Mason 345/138 kV Transformer #1 with a 700 MVA Unit	Other	\$ 48,200,000	06/01/2027
MTEP23	Upgrade Oran 161 kV substation	Add 161 kV ring bus to split the Kelso- Morley-3 line into two lines	Other	\$ 7,800,000	06/01/2029
MTEP23	Reconfigure Mason-Carrollton-Sioux 138 kV lines	Split the ~2 mile Mason-Carrollton-8/Carrollton-Sioux-8 138 kV lines into two separate circuits to avoid the loss of a single structure causing a long-term outage on both Carrollton supplies.	Other	\$ 7,500,000	12/01/2029
MTEP23	New Seminary - Wittenberg - Grand Tower 138 kV line	This project will include building a new Perryville (Seminary) - Wittenberg - Grand Tower 138 kV line.	BRP	\$ 117,900,000	12/01/2028
MTEP23	Upgrade Pilot Knob 161 kV substation	Add circuit switcher for XFMR 1 and line breaker for 161 kV FLET -PKNB -2	Other	\$ 4,000,000	12/01/2028
MTEP23	Upgrade Selma 161 kV substation	Add line breakers to Selma-Rivermines-2 & DPFE-Selma-1 Add High	Other	\$ 3,000,000	12/01/2029

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		Side Interrupting devices to XFMR 1 & 2			
MTEP23	Upgrade Hunter 161 kV substation	Add Line breakers on H2 and H10; High Side Interrupting Devices on XFMR 1, 2, 3	Other	\$ 3,000,000	06/01/2027
MTEP23	Rebuild Clark 138/161 kV Substation to 138 kV BAAH	Rebuild Clark 138/161 kV Substation to have a 138 kV BAAH bus with 8 positions (4 existing lines, 2 XFMRs, bring in RIV-ALFM-6636) and a 161 kV ring bus with 6 positions (2 existing lines, 2 XFMRs, and new line position to Viburnum). Rebuild the existing Clark-Viburnum 161 kV line to be double circuit 161 kV lines. Add a 161 kV terminal at Viburnum Substation. Route the RIV-ALFM-6636 138 kV line into the new Clark 138 kV BAAH bus. New name is Clemens. Install 161kV PCB (or CS) on XFMR 3. Install 138kV PCB on XFMR 3. Replace existing differential relaying with new 161kV bus diff, XFMR diff, and 138kV bus diff.	BRP	\$ 68,550,000	12/01/2028
MTEP23	Upgrade Lakeshire 138 kV substation	Add line breaker to Pos. J (Baum-Wat-1)	Other	\$ 3,400,000	12/01/2027
MTEP23	New McBaine 161 kV substation	New switching station at McBaine tap off LYMT-OVRT-3. New name is Katy.	Other	\$ 14,400,000	06/01/2027
MTEP23	New Vanhorn 345 kV Substation for Wolf Creek Solar (J1352)	Construct the Interconnection Facilities at the J1352 Interconnection Switching Station, line cut-in and relay upgrades. Vanhorn	GIP	\$ 11,000,000	12/01/2026

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		sub on Montgomery-Spencer Creek 345 kV line.			
MTEP23	Upgrade Sioux 138 kV Substation	Upgrade 15H posn to higher ampacity to increase available capacity of the 700MVA Auto XFMR	Other	\$ 24,800,000	12/01/2027
MTEP23	Upgrade St Francois 345 kV substation	Install a new circuit breaker at St. Francois 345 kV Sub position V43 to complete the ring bus. Replace 138 kV breakers. Upgrade relaying.	Other	\$ 25,300,000	06/01/2027
MTEP24	Load addition at Montgomery 161 kV Substation	This project will facilitate the connection of a 250 MW datacenter load at Montgomery (161 kV) Substation with a new straight bus and terminal	Other	\$ 2,500,000	12/01/2026
MTEP24	Vessel Bulk Sub - Add 2nd 138/34 kV Transformer	At Vessel Bulk Sub Install the second 84 MVA transformer	Other	\$ 4,000,000	01/01/2030
MTEP24	Upgrade Watson 138 kV substation	Add line breakers to Pos. V & W Remove HSGS' and Add CS/PCB on the XFMRs 1,2,3	Other	\$ 6,200,000	12/01/2032
MTEP24	Rockwood 138kV Aging Infrastructure and Line Breaker Addition	At Rockwood 138/34.5 kV substation, install three 138 kV line breakers on the Rockwood-Big River-1 line position H2, Gray-Rockwood-3 position H6, Gray-Rockwood-4 position H10 having a 2000 A continuous capability.	Other	\$ 4,500,000	12/01/2030
MTEP24	Maurer Lake 161 Aging Infrastructure	Replace breaker H9 Bus Tie (G735) and associated switches (G734 and G736) Add disconnect switch and breaker to XFMR 1 and 2	Other	\$ 2,400,000	06/01/2026
MTEP24	Conway 138kV Add Breakers and	Add interrupting devices on XFMRs 1,2,3,4 Add Line BKR to MASN-	Other	\$ 2,500,000	12/01/2027

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
	Aging Infrastructure	WLDW-1&2, CNWY-TYSN-3&4 Aging infrastructure replacements			
MTEP24	Rebuild Stoddard 161 kV substation	Rebuild Stoddard substation into a ring bus configuration, including replacement of aging/overstressed/broken equipment.	Other	\$ 15,900,000	06/01/2028
MTEP24	Taum Sauk 138 kV Upgrade for 60MW Hydro (J1213)	MISO project J1213, will add 60 MW to the existing Hydro Energy Generating Facility, Transmission Owner will modify the 138 kV bus at its existing Taum Sauk 138 kV substation.	GIP	\$ 100,000	06/01/2026
MTEP24	Reconfigure Berkeley 138 kV substation	Age and condition maintenance: Replace Breakers: BERK-138 Pos. F; BERK-138 BT 1-2; BERK-138 BT 2-3 Add high side interrupting devices. Add line BRKs to Pos. D & J.	Other	\$ 39,200,000	06/01/2027
MTEP25	New Huster-McClay 138 kV line tap for Hayford load	Temporary line tap on Huster-McClay 138 kV for new customer load	Other	\$ 500,000	06/01/2027
MTEP25	Missouri Multi-Entity New Transmission (MoMENT) Project (Primary)	New 40 mile 345 kV line from Loose Creek to Barnett. New 345/161 kV substation at Barnett. New 38 mile 345 and 161 kV double circuit line from Overton to Barnett. New 65 mile double circuit 345 kV line from Barnett to Clinton. New Clinton substation. New 50 mile double circuit 345 kV line from Clinton to LaCygne.	Other	\$ 604,000,001	12/01/2030
MTEP25	New 345 kV Lumberjack substation for Load Connection	Construct a new 345 kV substation called Lumberjack 8 position ultimate BAAH bus arrangement for the	Other	\$ 38,500,000	12/01/2027

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		connection of Load Addition at New Florence, MO			
MTEP25	New Rootbeer 345 kV Substation Load Addition	To serve the load proposed, Ameren will add a position at Rootbeer substation.	Other	\$ 2,000,000	12/01/2026
MTEP25	New Central 138 kV Substation Load Addition	Add a 138 kV position at Central substation for a new load.	Other	\$ 1,000,000	06/01/2028
MTEP25	New AECL Load Addition at Ameren Fredericktown 138 kV	Description of the load: At full capacity, it is expected that the customer will consume up to 75 MW. Overview of Ameren Fredericktown: In the Fall of 2025, Ameren will expand its 138kV ring bus at Ameren-Fredericktown. This substation is located about 3 miles from the customer load.	Other	\$ 1,200,000	12/01/2027
MTEP25	Relocate Dardenne 161/138 kV Substation	The existing Dardenne Substation has the majority of its equipment that needs to be replaced due to reliability and condition based issues rendering it costly and unreliable. In addition, the existing configuration does not meet the needs for Operations or Planning. Therefore, all equipment will be reinstalled at Belleau substation and retired from Dardenne Substation.	Other	\$ 3,600,000	12/01/2027
MTEP25	New Tibbe 138/34.5 kV Substation	Tibbe 138/34.5 kV Substation - Utilize 9.6 miles of existing 34.5 kV line in the Saddle Creek-	Other	\$ 33,000,000	12/01/2029

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		73 feeder, at 138 kV. In addition, construct 6.1 miles of new 138 kV line to establish the Gray Summit-Prairie Dell and Franklin-Prairie Dell 138 kV lines. Establish a new 138 kV ring bus at the Tibbe 138-34.5 kV Substation. (fka Prairie Dell)			
MTEP25	Upgrade California 161 kV Terminal	Add a line breaker on the AECl terminal and a new terminal for Apache Flats. New terminal contains a breaker and two switches and houses the line to Apache Flats. BARN-CALF-1 will be rebuilt into a double circuit from California to structure 197A which eliminates the tap to Apache Flats.	Other	\$ 22,600,000	12/01/2027
MTEP25	New Vulcan 138/34 kV Substation	Build a new 138-34.5 kV bulk substation on property adjacent to the MSD Lemay Pump. (fka Germania)	Other	\$ 12,000,000	12/01/2030
MTEP25	Rebuild Overton-Sedalia East 161 kV Line (MPFCA)	Rebuild 10 miles of existing Overton – Sedalia East 161 kV	GIP	\$ 9,710,000	12/01/2030
MTEP25	Rebuild Overton-McBaine Tap 161 kV Line (MPFCA)	Rebuild the existing Loy Martin – Overton 161 kV transmission line from the McBaine Tap to Overton.	GIP	\$ 9,552,000	12/01/2030
MTEP25	Rebuild McCredie-Overton 345 kV Line (MPFCA)	Rebuild 35.5 miles of the 345 kV McCredie-Overton transmission line, including a river crossing	GIP	\$ 63,115,000	06/01/2031
MTEP25	Grain Belt Express	This transmission project includes all the network	GIP	\$ 171,000,000	12/01/2030

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
	HVDC Network Upgrades (H104-H105)	upgrades that are required to support generation interconnection projects H104 and H105.			
MTEP25	Grain Belt Express AECI Facilities Construction Agreement (GI-083)	The network upgrades outlined in the affected system study for AECI GI-083 are being performed to accommodate the interconnection with GrainBelt Express HVDC interconnection (GBX) at McCredie substation. This is required per Ameren's contractual obligation with GBX and in compliance with FERC Order 888, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities.	GIP	\$ 70,460,000	12/02/2027
MTEP25	Rebuild Baumgartner 138 kV Substation	This project will replace aging infrastructure at Baumgartner 138 kV substation	Other	\$ 6,300,000	06/01/2028
MTEP25	Replace Tyson 345/138 kV transformer 3	Replace Tyson XFMR 3 with a new 345/138kV 700 MVA unit.	Other	\$ 8,500,000	12/01/2030
MTEP25	New Blanchette 138 kV Ring Bus	Install a 4 position ring bus at Blanchette 138kV Substation. In addition, fiber will be installed to Kisker with some line re-routing.	Other	\$ 7,000,000	06/01/2029
MTEP25	Reconfigure Overton 161kV Substation	Rebuild the existing Overton 161kV straight bus as a breaker-and-a-half (BAAH) station.	Other	\$ 46,000,000	12/01/2027
MTEP25	Upgrade Ashley 161 kV substation	Install high side interrupting devices on XFMRs 1, 2, & 3 Install line	Other	\$ 4,100,000	12/01/2027

Project Approved In:	Project Title	Project Description	Allocation Type per FF	Estimated Cost	Expected ISD (Max)
		breakers on Cahokia and Hall Street			
MTEP25	Upgrade Belleau 138 kV substation	Expand Belleau by adding 2 positions for O'Fallon so they don't tap the lines. (i.e. (2)new 138kV Line positions for 138kV Feeds to O'Fallon)	Other	\$ 3,000,000	06/01/2027
MTEP24	LRTP-37: Maywood - Belleau - MRPD - Sioux - Bugle	Install single circuit 345kV transmission line from the existing Maywood Substation to the existing Belleau Substation, to the new MRPD Substation, to the existing Sioux Substation, from the new MRPD Substation to the existing Bugle Substation.	MVP	\$ 822,500,000	06/01/2032
MTEP21	LRTP-10: Denny – Zachary – Thomas Hill – Maywood	Install single circuit 345kV transmission line from the new Denny Substation to the existing Zachary Substation, to the existing Thomas Hill Substation, to the existing Maywood Substation.	MVP	\$ 558,193,372	06/01/2030
MTEP21	LRTP-11: Maywood – Meredosia	Install single circuit 345kV transmission line from the existing Maywood Substation to the existing Meredosia Substation.	MVP	\$ 300,800,000	06/01/2028
MTEP21	LRTP-13: Coddington – Ipava	Install single circuit 345kV transmission line from the existing Coddington Substation to the existing Ipava Substation.	MVP	\$ 591,614,315	12/31/2029
MTEP21	LRTP-09: Orient – Denny - Fairport	Install single circuit 345kV transmission line from the existing Orient Substation to a new Denny Substation, to the existing Fairport Substation.	MVP	\$ 1,227,081,476	06/01/2030

Table 7A.2 Transmission Projects under Consideration²

Project Name	Project Description	Expected ISD (Max)
Quinn 161 kV Ring Bus for Millcreek E0017	A 161 kV 3-position ring bus, capable of future expansion to 6-positions, will be constructed to serve as the Point of Interconnection for Millcreek GIA E0017. The new ring bus will be named Quinn.	12/01/2027
Sullivan Renewable Energy Center E0013-Greenbrier 345 kV Ring Bus on Denny-Zachary Line	A 345 kV 3-position ring bus, capable of future expansion to 6-positions, will be constructed to serve as the Point of Interconnection for Sullivan Renewable Energy Center (E0013). The new ring bus will be named Greenbrier.	12/01/2028
Vichy Solar (J2238) Wildcat 345 kV Ring Bus	This project will construct a new 345 kV 3-position ring bus named Wildcat to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Vichy Solar, LLC. The existing 345 kV Bland-Franks-3 transmission line will be split and terminated into two of the positions at the new 345 kV Wildcat Substation. This project is described in more detail in the Generator Interconnection Agreement, J2238.	12/01/2028
Scopus Solar (J2265) Scopus 345 kV Ring Bus	This project will construct a new 345 kV 3-position ring bus named Scopus to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Scopus Solar, LLC. The existing 345 kV Lutesville-Saint Francois-1 transmission line will be split and terminated into two of the positions at the new 345 kV Scopus Substation. This project is described in more detail in the Generator Interconnection Agreement, J2265.	12/01/2028
Lucky Rock Solar Farm (J1948) New Position at Hannibal W 161 kV	This project will construct a new 161 kV interconnection facility at Hannibal West Substation to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Lucky Rock Solar Farm, LLC.	06/01/2028
Warren II Storage (J2179) New Position at Montgomery 345 kV	This project will construct a new 345 kV terminal position at Montgomery to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Warren II, LLC.	12/01/2028
Adair PV 1 (J2142) Gibbs 345 kV Ring Bus	This project will construct a new 345 kV 3-position ring bus named Gibbs to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Adair PV 1, LLC. The existing MYWD-FABI-5088 345 kV	12/01/2028

² 20 CSR 4240-22.045(6)

Project Name	Project Description	Expected ISD (Max)
	transmission line will be split and terminated into two of the positions at the new Gibbs Substation.	
Mighty Mississippi Solar (J2155) Richter 161 kV Ring Bus	This project will construct a new 161 kV 3-position ring bus named Richter to serve as the Point of Interconnection for the Interconnection Customer's Generating Facility, Mighty Mississippi Solar, LLC. The existing 161 kV Comstock-New Madrid transmission line will be split and terminated into two of the positions at the new 161 kV Richter Substation	06/01/2028
Tom Sawyer Solar (J2288) New Position at Spencer Creek 345 kV	This project will update relay settings and pilot scheme for Tom Sawyer Solar, LLC under GIA J2288, in order to interconnect with the 345 kV Spencer Creek substation via a 345 kV shared lead-line with GIA project J1268.	12/01/2026
New 345 kV Substation for Project Diamond Load Addition	Construct a new 345 kV substation, 12 position ultimate BAAH bus arrangement for the connection of 1000 MW load addition.	12/01/2030
Project Diamond Temporary Taps	Construct temporary taps on Gray Summit-Tyson 345 kV lines to serve 350 MW of customer load. This is temporary until the new Project Diamond 345 kV BAAH substation can be built.	12/01/2027
Sullivan Renewable Energy Center E0013-New 345 kV Ring Bus on Denny-Zachary Line	The new E0013 Interconnection Switching Station will be located in Sullivan County, MO. The switching station will be a ring bus arrangement with three-line terminal positions and provisions for three additional future terminal positions.	12/01/2029
Upgrade Huster-Belleau-3 & McClay-Belleau-1 138 kV Lines	Upgrade the Huster-Belleau-3 & McClay-Belleau-1 138 kV lines to 2000 amps.	12/01/2029
Upgrade Wildwood-GraySummit-2 138 kV Line to 2000 Amps	Upgrade approximately 14.88 miles of the Wildwood-Gray Summit-2 138 kV line to have a minimum continuous summer emergency capability of 2000 Amps.	12/01/2026
Upgrade Baumgartner-Watson-1 138 kV Line	Upgrade approximately 4.35 miles of existing line conductor from Lakeshire Tap to Watson 138 kV substation of the existing Baumgartner-Watson-1 138 kV line to have a minimum continuous summer emergency capability of 1200 amps. This addresses thermal constraints on the Baumgartner-Watson-1 138 kV line for	12/01/2026

Project Name	Project Description	Expected ISD (Max)
	the P6 event of Beehive-Watson-1351 & Central-Watson-1 138 kV lines.	
New Castle Bluff BESS Energy Center connection (R1059)	The Castle Bluff Energy Center (CBEC) is a new planned battery energy storage system (BESS), located at the Meramec Energy Center property, to be owned and operated by Ameren Missouri. MISO project R1059	12/01/2026
Replace Marshall 138 kV Aging Infrastructure	Replace aging infrastructure and add high side breakers.	12/01/2027
Upgrade Saunders 345/69kV substation (Phase 2)	Add second 345/69 kV transformer and required substation equipment for Mt. Pleasant Municipal Utilities. This project completes the loop initiated in MTEP22 project 18063.	06/01/2029
New Macon County Solar Plainview 161 kV Ring Bus (J2050)	Construct a new six-terminal 161 kV ring bus design with three terminal positions installed to serve as the Point of Interconnection for Macon County Solar under GIA J2050. Station name is Plainview.	12/01/2027
New Big Hollow BESS Energy Center Connection (R1058)	The Big Hollow Energy Center BESS is an ~400 MW battery energy storage system that is owned and operated by Ameren Missouri. This was studied as a replacement project R1058	06/01/2027
New Big Hollow CTG Energy Center interconnection (R1057)	The Big Hollow Energy Center is an ~800 MW gas combustion turbine site that is owned and operated by Ameren Missouri. This was studied as a replacement project R1057	06/01/2027
Replace Labadie 345 kV 3-4 bus tie switches	Labadie 345 kV 3-4 bus tie. Replace 2000 Amp switches with 3000 Amp switches	12/01/2027
New Castle Bluff Energy Center Meramec 138 kV connection (R1047)	The Castle Bluff Energy Center (CBEC) is a new planned 800MW gas combustion turbine site, located at the Meramec Energy Center property, to be owned and operated by Ameren Missouri.	12/01/2026
New Reform Solar Odyssey 345 kV Ring Bus (J1836)	The J1836 Generating Facility will interconnect with the Transmission System via a 345 kV leadline running from the Interconnection Customer's collector substation to the Transmission Owner's J1836 Interconnection Switching Station in Callaway County, Missouri. Substation name is Odyssey.	06/01/2027

Project Name	Project Description	Expected ISD (Max)
New Bollinger County Solar 345 kV Ring Bus Substation (J1519)	Install a new 345 kV line position to serve as the Point of Interconnection for Bollinger County Solar, LLC under GIA J1519, within the new 3-position ring bus.	12/01/2027
Upgrade Maline 138 kV substation	Bus Tie 2-3 BKR – Priority 3, air leaks Bus Tie 1-2 BKR – Priority 5 Add interrupting devices to XFMRs 1, 2, 3, 4	06/01/2028
New Point Prairie 161 kV Ring Bus	Rebuild Point Prairie 161kV substation as a five-position ring bus with one position available for future expansion.	12/01/2028
Expand Wildwood 345 kV and 138 kV substation	Rebuild Wildwood 345 kV into a five-position ring bus and build two (2) new 138 kV lines from Wildwood to Eatherton and Babler. Build two (2) new positions at Wildwood for the new lines.	12/01/2029
Upgrade Sioux-Roxford 138 kV Lines	Increase ampacity of both Sioux-Roxford-6704 & Sioux-Roxford-6700 138 kV lines.	12/01/2029
Apply Pike – Peno Creek 161 kV E3X	Add E3X coating to Pike – Peno Creek 161 kV to increase ampacity	12/01/2029
Upgrade Montgomery 345 kV terminal equipment	Upgrade Montgomery bus/terminal equipment to 4000 A	12/01/2029
New Project Point 345 kV BAAH substation	Construct a new 8 position, 345kV BAAH switching station south of Joachim substation and route the following 2 345kV lines into this new switching station: Rush Island-Joachim-2 and Rush Island-Tyson-5668. Reconnector the following 3 138kV lines to 2000A: Boyd Branch-Saint Francois-1, Joachim-Boyd Branch-1, Joachim-Saint Francois-2. Reconnector Rush Island-Joachim 345 kV.	12/01/2029
New Elkhorn 280 MVAR Cap Bank	Add 280 MVAR Cap Bank at Project Elkhorn	12/01/2028
New Montgomery 345 kV Temporary Tap (Elkhorn Phase 1)	Construct temporary taps on Montgomery-Lumberjack 345 kV lines to serve 250 (+42) MW of customer load. This is temporary until the new Project Elkhorn 345 kV BAAH substation can be built.	12/30/2027
New Load Addition at New Yoshi 345 kV substation	Construct a new 345 kV substation, 12 position ultimate BAAH bus arrangement for the connection of 400 MW load addition. Construct 20 miles 345 kV double circuit line between Lumberjack/Project Elkhorn substations and Project Yoshi. Construct 10 miles 345 kV line between Scarlet and Project Yoshi.	12/01/2028
New Load Addition at New Elkhorn 345 kV	Construct a new 345 kV substation, 12 position ultimate BAAH bus arrangement for the connection of 1000 MW load addition. Construct 3.25 miles 345 kV double circuit	12/01/2028

Project Name	Project Description	Expected ISD (Max)
substation (Elkhorn Phase 2)	line from Lumberjack to split Odyssey-Montgomery 345 kV line.	
Increment Hayford 345 kV Load Addition	Hayford connection to Belleau-Graus 345 kV line for customer load addition	12/01/2030
New Hayford 345 kV Substation for load addition	Construct a new 345 kV BAAH substation on Sioux-Belleau 345 kV line.	12/01/2027

Table 7A.3 Transmission and Distribution Avoided Costs³

\$/kW	Transmission				Distribution			
	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall
2027	-	-	\$1.39	-	\$6.91	-	\$16.11	-
2028	-	-	\$1.42	-	\$7.04	-	\$16.44	-
2029	-	-	\$1.45	-	\$7.18	-	\$16.76	-
2030	-	-	\$1.47	-	\$7.33	-	\$17.10	-
2031	-	-	\$1.50	-	\$7.48	-	\$17.44	-
2032	-	-	\$1.53	-	\$7.62	-	\$17.79	-
2033	-	-	\$1.56	-	\$7.78	-	\$18.15	-
2034	-	-	\$1.60	-	\$7.93	-	\$18.51	-
2035	-	-	\$1.63	-	\$8.09	-	\$18.88	-
2036	-	-	\$1.66	-	\$8.25	-	\$19.26	-
2037	-	-	\$1.69	-	\$8.42	-	\$19.64	-
2038	-	-	\$1.73	-	\$8.59	-	\$20.04	-
2039	-	-	\$1.76	-	\$8.76	-	\$20.44	-
2040	-	-	\$1.80	-	\$8.93	-	\$20.84	-
2041	-	-	\$1.83	-	\$9.11	-	\$21.26	-
2042	-	-	\$1.87	-	\$9.29	-	\$21.69	-
2043	-	-	\$1.91	-	\$9.48	-	\$22.12	-
2044	-	-	\$1.95	-	\$9.67	-	\$22.56	-
2045	-	-	\$1.98	-	\$9.86	-	\$23.01	-
2046	-	-	\$2.02	-	\$10.06	-	\$23.47	-

³ 20 CSR 4240-22.045(2); 20 CSR 4240-22.045(3)(A)3; 20 CSR 4240-22.050(5)(A)1

Compliance References

20 CSR 4240-22.045(2)	15
20 CSR 4240-22.045(3)(A)1	1
20 CSR 4240-22.045(3)(A)3	15
20 CSR 4240-22.045(3)(A)6	1
20 CSR 4240-22.045(6)	11
20 CSR 4240-22.050(5)(A)1	15