

Ameren Missouri 5-Year Electric Customer-Focused Capital Investment Plan

\$ - Thousands

Category 1	2020 Actual	2021	2022	2023	2024*	2025*	Grand Total
Smart, Reliable Grid Operations	447,131	671,929	689,320	753,641	752,190	934,232	3,801,312
Smart Meter Program	63,938	84,054	76,782	70,906	32,778	4,640	269,160
Non-Nuclear Generation & Environmental	135,002	142,367	166,593	156,650	232,991	172,315	870,916
Nuclear Generation	71,614	78,783	95,134	92,867	72,886	75,627	415,297
Hydro Generation	24,359	43,884	41,821	35,183	37,821	3,816	162,525
Renewable & Gas Turbine Generation	17,598	52,370	31,454	16,401	11,741	21,777	133,743
Secure & Reliable Transmission	140,087	249,463	236,531	266,695	301,410	299,818	1,353,917
Cyber & Technology Upgrades	114,361	129,088	99,109	129,677	123,054	117,867	598,795
Operational & Customer Support Facilities	79,669	91,617	92,600	27,753	37,023	36,313	285,306
Innovative Opportunities	6,662	12,822	6,890	4,502	4,112	4,366	32,692
Grand Total - Capital	1,100,421	1,556,377	1,536,234	1,554,275	1,606,006	1,670,771	7,923,663

Wind Asset Acquisition (Two Sites)

621,939

518,015

518,015

Grand Total, Including Wind**

1,722,360

2,074,392

8,441,678

*2024-25 funding level based on assumption of extension of Senate Bill 564.

**Does not include 1,200 MWs of new renewable investment opportunities included in Ameren Missouri's 2020 IRP.

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Smart, Reliable Grid Operations	Distribution Operations	Emergent Business	JORTN - ██████ -New Feeder Extension 246-003		
		Emergent Business Total		541	541
	Distribution Operations Total			541	541
Grid Resiliency/ Operating Flexibility	Convert 4kV to 12kV	J0JDQ - ██████	Sub Second Unit-Sub-C		
		J0JF6 - ██████	Sub Second Unit-UG-C		
		J0JF7 - ██████	Sub 138-12kV-UG-C		
		J0JJD - ██████	Sub 138-12kV-Sub-C		
		J0LZC - ██████	Sub 138-12kV - Xmsn Tap		
		J0J3L - ██████	12kV Sub 2nd Unit-UG-C		
		J0J5P - ██████	New 34-12 kV Sub-UG-C		
		J0JD7 - ██████	Sub 138-12kV-Line-C		
		J0KSM - ██████	12 kV Sub 2nd Unit-Sub-C		
		J0KQD - ██████	New 34-12 kV Sub-C		
		J0P01 - ██████	4-12kV Conversion-UG-C		
		J0P11 - ██████	Pad-mount XFMR-Site-C		
		J0P1G - ██████	103-1 12kV Conversion		
		J0P14 - ██████	4-12kV Conversion-LINE-C		
		J0NWL - ██████	138-12kV Substation-RE-C		
		J0NXF - ██████	138-12kV Substation-Sub-C		
		J0P1Q - ██████	Conversion-Sub-C		
		J0SHH - ██████	12kV-UG-C		
		J0SHJ - ██████	-12kV-UG-C		
		J0SGB - ██████	12kV-Line-C		
		J0SGG - ██████	Pad-mount XFMR-Line-C		
		J0SHG - ██████	006-12kV Upgrade		
		J0SHD - ██████	005-12kV Upgrade		
		J0SHB - ██████	002-12kV Upgrade		
		J0SGN - ██████	001-12kV Upgrade		
		J0SGT - ██████	004-12kV Upgrade		
		J0SGV - ██████	005-12kV Upgrade		
		J0SGF - ██████	Pad-mount XFMR-Line-C		
		J0SHK - ██████	610 2.4kV to 4.2kV		
		J0SGW - ██████	-12kV-Site-C		
J0SGZ - ██████	Pad-mount XFMR-Site-C				
J0SH0 - ██████	Pad-mount XFMR-Site-C				
J0SH1 - ██████	Pad-mount XFMR-Sub-C				
J0SH2 - ██████	Pad-mount XFMR-Sub-C				

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Smart, Reliable Grid Operations	Grid Resiliency/ Operating Flexibility	Convert 4kV to 12kV	JOSH3 - ██████████ 12kV Modernize-RE-C			
			JOSH4 - ██████████ 12kV-Sub-C			
			JOSH5 - ██████████ -12kV-Sub-C			
			JOSH6 - ██████████ Pad-mount XFMR- Sub-C			
			JORPX - ██████████ New 34-12 kV Sub CNTL-C			
			Convert 4kV to 12kV Total			48,429
		Line Capacity Increases	JOKD8 - ██████████ 740-51 tie to ██████████ 939-53			
			JOP7J - ██████████ 545 Install New Feeder			
			JOCBF - ██████████ 258-54 New Fdr Line - C			
			JOJQ6 - ██████████ ██████████			
			JOKNW - ██████████ 561-51 Momentary Outage Repairs			
			JOP1K - ██████████ -80 New 34.5 kV Circuit-UG-C			
			JOP3Q - ██████████ New 34kV Feeder-UG-C			
			JOQF7 - ██████████ 844-51 25KV CONVERSION PH4			
			JOP1R - ██████████ -68/71 Reconductor			
			JOP02 - ██████████ -72 Recond to ██████████			
			JOP7K - ██████████ 786-51 ██████████			
			JOP15 - ██████████ relieve 190-54			
			JOQ9W - ██████████ 630-53 ██████████ Extension PH2			
			JOP0X - ██████████ 161-55 ██████████ 571-53 Recond DA			
			JOP3T - ██████████ -80 New 34.5kV Circuit-Sub-C			
			JOP20 - Line Capacity Increase Design			
			JOQT8 - ██████████ 638-52 Feeder Extension			
JORRW - ██████████ -77 & ██████████ 78 Reconductor						
JORS2 - ██████████ 79 Reconductor						
JORRX - ██████████ 856-57 ██████████ Recon						
JOQVD - ██████████ 209-52, EQPT UPGR						
JORQW - ██████████ New 34kV Feed-Line-C						
JORS0 - ██████████ -74 Extension from ██████████ Sub						
JORR3 - ██████████ New 34kV Feed-Sub-C						
JORRZ - ██████████ -78 Reconductor						
JOP0H - ██████████ 503-52 FDR Extension						
JOP3N - ██████████ New 34kV Feeder-Sub-C						
Line Capacity Increases Total			25,129	80,746		
Substation Capacity Increases	J0GDV - ██████████ 34-12kV Customer Sub-C					
	J0HFG - ██████████ ██████████					
	J0JGC - ██████████ (2) 22MVA Sub-C					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Smart, Reliable Grid Operations	Grid Resiliency/ Operating Flexibility	Substation Capacity Increases	J0JHX - ██████████ 138-12kV - Site - C		
			J0JKX - ██████████ Sub Upgr W Unit		
			J0JMR - ██████████ (2)22MVA Line-C		
			J0KSC - ██████████ Sub Upgr- Sub-C		
			J0KSK - ██████████ -73, ██████████ -Sub-C		
			J0LB5 - ██████████ Rebuild		
			J0JDP - ██████████ Cust Sub-C		
			J0NG3 - ██████████ Sub-Site Purchase-C		
			J0PVO - ██████████ New Cust Sub-C		
			J0JCJ - ██████████ -Line-C		
			J0LDO - ██████████ Sub-C		
			J0JF8 - ██████████ Add Xfmr-UG -C		
			J0J9S - ██████████ Add Xfmr-Line-C		
			J0KQB - ██████████ Sub-Line34-C		
			J0GH9 - ██████████ Sub-Line-C		
			J0JDM - CBM ██████████, Upgr - Sub - C		
			J0JG8 - ██████████ Add Xfmr - Sub - C		
			J0KP3 - ██████████ 2nd Unit - Sub - C		
			J0KSB - ██████████ Sub-UG-C		
			J0GDS - ██████████ Sub-C		
			J0G4W - ██████████ 34-12 kV Customer Sub-UG-C		
			J0PXQ - ██████████ New Cust Sub-UG-C		
			J0PMT - ██████████ Sub-Transmission-C		
			J0QP5 - ██████████ Sub New Feeder 234-56-Sub-C		
			J0JGM - ██████████, new 138-12kV - Site-C		
			J0SKL - ██████████ 34-12 kV Substation-UG-C		
			J0SKJ - ██████████ UPGR Substation-UG-C		
			J0SJS - ██████████ Pad-mount XFMR-Line-C		
			J0SJW - ██████████ 34-12kV Sub-Line-C		
			J0SJX - ██████████ Pad-mount XFMR- Site-C		
			J0SK0 - ██████████ 34-12kV Sub-Site-C		
			J0SK1 - ██████████ Sub Upgr- Site-C		
			J0SK4 - ██████████ 34-12kV Sub-Site-C		
			J0SK5 - ██████████ Pad-mount XFMR-Sub-C		
J0SKC - ██████████ 34-12kV Sub-C					
J0SK6 - ██████████ Sub Upgrade - Sub - C					
J0KSH - ██████████ Substation-C					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year			
Smart, Reliable Grid Operations	Grid Resiliency/ Operating Flexibility	Substation Capacity Increases	J0SK7 - [REDACTED] UPGR Substation-Sub-C J0KS9 - [REDACTED] Sub 34kV-C					
		Substation Capacity Increases Total			24,974	111,018		
		Distributed Solar & Energy Storage	J0J4P - Distr Solar Facility Land-[REDACTED] J0K9Z - Distr Solar Facility - [REDACTED] J0K80 - Solar Facility Project - [REDACTED] J0LNH - [REDACTED] Solar-Distribution J0LNK - [REDACTED] Solar-Distribution					
		Distributed Solar & Energy Storage Total			952	47,262		
		Switches	J0JJB - Viper SWO J0JJR - Nulec SWO					
		Switches Total			5,356	13,161		
		Subtransmission Switch Upgrades	J0NDS - DCD - UPGR 34kV Switches J0R47 - DA [REDACTED] -74 UPGR J0RS4 - [REDACTED] - 73&72 - New Switches					
		Subtransmission Switch Upgrades Total			2,010	7,056		
		Grid Resiliency/Operating Flexibility Total			106,850	520,674		
		Smart Grid	Smart Grid	Cutout Recloser	J0JJ8 - DCD - UPGR Tripsaver Reclosers			
				Cutout Recloser Total			4,424	22,576
				Distribution Automation	0A317 - DCD - UPGR Line Capacitor Controls 0A318 - DCD - DA Program J0RCC - DA [REDACTED] 53 Upgr J0RF9 - DA [REDACTED] 55 Upgr J0R7X - DA [REDACTED] 53 Upgr J0R77 - DA- [REDACTED] 53 UPGR J0R7W - DA [REDACTED] 55 J0N2M - Telecomm for Overhead J0RWN - Smart Grid-Future Year Engineering			
				Distribution Automation Total			18,548	83,535
				Fault Circuit Indicators	J0JGS - DCD - UPGR Backbone FCIs J0JJ6 - DCD - UPGR Terminal Pole FCIs			
Fault Circuit Indicators Total					4,398	29,309		
Fiber/Wireless	J0MJV - Private LTE MO Metro-UEC J0QKF - [REDACTED] Fiber J0RON - MO PLTE EPCore J0ROT - MO Metro PLTE Spectrum							

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Smart, Reliable Grid Operations	Smart Grid	Fiber/Wireless	J0RW0 - ██████ Datacenter Fiber Connection			
			J0RW1 - Fiber Projects			
			J0SJ6 - PLTE Metro Site ██████			
			J0SK3 - PLTE Metro Site ██████			
			J0SPW - PLTE Metro Site ██████			
			J0SK2 - PLTE Metro Site ██████			
			J0JJG - MO Metro PLTE 2020			
			J0SW2 - MO Metro PLTE 2021			
		J0SW6 - MO Metro PLTE Fiber 2021				
		Fiber/Wireless Total			39,064	220,955
		LED Street Lighting		J09H1 - LED Streetlight Program		
		LED Street Lighting Total			10,732	47,062
SCADA Upgrades		J0K0C - ██████ Sub - Add SCADA				
		J0JRP - ██████ -12 - Add SCADA				
		J0JRV - ██████ - Add SCADA				
		J0RWM - Smart Grid - Add SCADA Projects				
		28660 - ██████ - Add SCADA				
		J0JTZ - ██████ - SWGR UPGR				
SCADA Upgrades Total			2,836	16,738		
TAC/Microgrid		J0NQC - ██████ -Facilities-C				
TAC/Microgrid Total			5,795	33,744		
Smart Grid Total			85,797	453,919		
Substations - Condition Based Modernization	OCB Upgrades	J0GRS - OCB - ██████ UPGR 34kV POS 19				
		J0KQG - OCB - Upgr ██████ POS 390				
		J0KQH - OCB - Upgr 8 at ██████ Sub-C				
		J0KR9 - OCB - ██████ -34KV POS 15, 23, 25				
		J0KRN - OCB - ██████ -161/34KV XFMR 1				
		J0KRZ - OCB - ██████ -34KV POS 710				
		J0KS1 - OCB - ██████ -34KV ██████ -71) LINE				
		J0KS2 - OCB - ██████ -138/34KV POS 04 XFMR 2				
		J0KQK - OCB - ██████ -138/34 XFMR 3				
		J0KQS - OCB - ██████ -34KV ██████ -75) LINE				
		J0KQX - OCB - ██████ -34KV LINE ██████ -71				
		J0KR0 - OCB - ██████ -161/34KV XFMR 2				
		J0KR2 - OCB - ██████ -34KV POS 1				
		J0KRH - OCB - ██████ -69KV LINE POS E				
		J0KRJ - OCB - ██████ -34KV LINE 311				

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Smart, Reliable Grid Operations	Substations - Condition Based Modernization	OCB Upgrades	J0KRK - OCB - ██████ -34KV (██████ -71) LINE D		
			J0KRM - OCB - ██████ -69KV LINE 610		
			J0KRQ - OCB - ██████ -34KV POS 03		
			J0ROM - OCB - Upgr 8 at ██████ Sub-UG-C		
			J0JSN - OCB ██████ -34KV POS 3442		
			J0QML - OCB - ██████ Sub UPGR 6		
			J0RKW - OCB - FDR UPGR ██████ phase II		
			J0JSM - OCB ██████ 34KV POS 342		
			J0KZ1 - OCB - Additional UPGR		
			OCB Upgrades Total		
		Relay Upgrades	J0JJH - Relay Upgr ██████ Substation - XFMR 1		
			J0JVH - CBM ██████ 34 Sub Upgr Relays		
			J0JWC - CBM ██████ Sub Relay Upgrs		
			J0JXD - CBM ██████ Sub Relay Upgrs		
			J0JZR - Relay Upgr ██████ Sub-BUS TIE 1-2		
			J0K05 - Upgr ██████ 21 Relay-Variou Locations		
			J0JWJ - Relay Upgr ██████ Sub-██████ -41		
			J0JWQ - Relay Upgr ██████ Sub ██████ -71		
			J0JXK - Relay Upgr ██████ Sub-XFMR D		
			J0JXL - Relay Upgr ██████ Swgr-Green Goo		
			J0RTS - Relay Upgrades		
			J0JG7 - Relay Upgr ██████ Switchgear-SUB-C		
			J0JV1 - Relay UPGR ██████ Substation NW		
			Relay Upgrades Total		
		Sub/Switchgear Upgrades	0A664 - SWO-Dist Sub-Con Based		
			0R000 - SWO-DIST. SUBS - T&DD - E63		
			28715 - CBM ██████ -Sub-C		
			J08GH - CBM ██████ Sub-UG-C		
			J08LM - CBM ██████ Sub-C		
			J0CBL - CBM ██████ -Line-C		
			J0CDS - CBM ██████ Sub-Line-C		
			J0CGS - CBM ██████ Sub Site		
			J0CH4 - CBM ██████ -Sub-C		
			J0CHB - CBM ██████ Sub-C		
			J0CHG - CBM ██████ Sub-C		
			J0CJ5 - CBM ██████ -LINE-C		
			J0CKK - CBM ██████ -SUB-C		

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Smart, Reliable Grid Operations	Substations - Condition Based Modernization	Sub/Switchgear Upgrades	JOCKN - CBM [REDACTED] -Sub-C		
			JOCLV - CBM [REDACTED] UG-C		
			JOGDT - CBM [REDACTED] Sub, Rebuild HiSd-Sub-C		
			JOGJF - CBM [REDACTED] Sub,Rebuild HiSd-Line		
			J0HB5 - [REDACTED]		
			J0JJC - [REDACTED] - Upgr Xfmr #1		
			J0JF - CBM [REDACTED] Sub - Add Scada		
			J0JKQ - CBM [REDACTED] Sub -Sub-C		
			J0JT8 - CBM [REDACTED] Sub-12 - Add Scada		
			J0L6C - Spare XFMR Purchase (10A)		
			J0L6D - Spare XFMR Purchase (5X)		
			J0JFX - CBM [REDACTED] -UG-C		
			J0CPK - CBM [REDACTED] Line-C		
			J0JDV - [REDACTED] Sub Upgr - UG - C		
			J0CM7 - CBM [REDACTED] Sub-UG-C		
			J08GM - CBM [REDACTED] Sub-OH-C		
			J0JMK - CBM [REDACTED] -Line-C		
			J0K7M - CBM [REDACTED] - Line - C		
			J08FR - CBM [REDACTED] Sub-Line-C		
			J0KSN - CBM [REDACTED] - Sub - C		
			J0CGW - CBM [REDACTED] Sub, Upgr		
			J0JGD - CBM [REDACTED] - Sub - C		
			J0J5 - [REDACTED] - Upgr Xfmr #1		
			J0JKS - [REDACTED] Sub Upgr - Sub - C		
			J0JKV - CBM [REDACTED] - Sub - C		
			J0K08 - [REDACTED] -Upgr Switchgears		
			24548 - CBM [REDACTED] Sub-C		
			28690 - CBM [REDACTED] Site Acq. for New Sub		
			J0CKJ - CBM [REDACTED] HISD SW-Sub-C		
			J0JG9 - [REDACTED] - UPGR Both SWGR		
			J0JRS - [REDACTED] - Add SCADA		
			J0JS6 - CBM [REDACTED] - Sub - C		
			J0JT4 - [REDACTED] - Add SCADA		
			J0JT6 - [REDACTED] - Add SCADA		
J0JT9 - [REDACTED] - Upgr Xfmr #2					
J0JTC - [REDACTED] Add SCADA					
J0K2B - [REDACTED] - Add SCADA					

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Smart, Reliable Grid Operations	Substations - Condition Based Modernization	Sub/Switchgear Upgrades	JOP31 - CBM - ██████████ - Rebuild Sub UG-C		
			JOP2V - CBM - ██████████ Upgr UG-C		
			JONZH - CBM - ██████████ Sub Upgr LINE-C		
			JOP2R - CBM - ██████████ Sub Upgr UG-C		
			JOP4X - CBM - ██████████ UPGR Xfmr 1		
			JOP4Z - CBM - ██████████ Sub, UPGR Swgr		
			JOP21 - CBM - ██████████ Sub Upgr LINE-C		
			JOP3H - CBM - ██████████ Skid Substation		
			JOP3K - CBM - ██████████ Sub UPGR		
			JOP4W - ██████████ - Swgr UPGR		
			JOPOQ - CBM - ██████████ Upgr LINE-C		
			JOQNW - CBM - ██████████ -SITE-C		
			JONZI - CBM - ██████████ UPGR-UG-C		
			JOP0S - CBM - ██████████ UPGR-Line-C		
			JOP1M - CBM - ██████████ UPGR-Site-C		
			JOP1N - CBM - ██████████ Sub Upgr-Sub-C		
			J01WC - CBM - ██████████ Sub-C		
			J0JJ7 - ██████████ - Upgr Xfmr #2		
			J0JTB - ██████████ - Upgr Xfmr #1		
			JOR05 - CBM - ██████████ Sub Upgrade-Site-C		
			JOQXF - Spare 10A-2 161-34kV Transformer		
			JOCPL - CBM - ██████████ UPGR Swgr-Line-C		
			J0CHF - CBM - ██████████ UPGR Swgr-Sub-C		
			JOP2G - CBM - ██████████ Sub Upgrade-UG-C		
			JOP2L - CBM - ██████████ W, Rebuild-UG-C		
			JOP2Z - CBM - ██████████ Rebuild sub UG-C		
			JONWS - CBM - ██████████ Sub Upgrade-Line-C		
			JOP33 - CBM - ██████████ Sub Upgrade-Sub-C		
			J0CHM - CBM - ██████████ Sub-C		
			JOP18 - CBM - ██████████ Sub Rebuild LINE-C		
			JOP42 - CBM - ██████████ Sub Upgrade - Sub - C		
			JOP4J - CBM - ██████████ Sub Upgrade SUB-C		
			JORXN - CBM - Future Year Engineering		
			JOP45 - CBM - ██████████ Upgrade - Sub - C		
JOP53 - CBM - ██████████ Rebuild sub-C					
JORWP - Telecom for Substations					
JOSJ4 - CBM - ██████████ Sub, Modernize-UG-C					

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Smart, Reliable Grid Operations	Substations - Condition Based Modernization	Sub/Switchgear Upgrades	J0SJQ - ██████████ Sub Upgrade - Line - C					
			J0SJF - CBM-██████████ Sub, Upgrade SUB-C					
			J0SHL - CBM-██████████ Sub, Modernize-Sub-C					
			J0P06 - CBM-██████████ Sub, UPGR SWGR LINE-C					
			J0P13 - CBM-██████████ Sub, UPGR LINE-C					
			J0P3X - CBM-██████████ Sub Upgrade LINE-C					
			J0G9S - CBM-██████████ UPGR Swgr-Site					
			J0NLX - ██████████ UPGR XFMR 8					
			JOQPS - ██████████ UPGR XFMR 2					
			JOQXJ - CBM-██████████ Shaft 3 Sub UPGR					
			J0P22 - CBM-██████████ Sub UPGR Line-C					
			J0P3V - ██████████ 1 UPGR					
			J0P3W - ██████████ 4 UPGR					
			J0P41 - ██████████ 1 UPGR					
			J0P44 - ██████████ 2 UPGR					
			J0P4C - ██████████ 2 UPGR					
			J0P4D - ██████████ 3 UPGR					
			J0P4F - ██████████ 1 UPGR					
			J0P4H - CBM-██████████ Sub UPGR Sub-C					
			JOJXR - CBM-██████████ UPGR Swgr 1					
			J0P3L - CBM-██████████ Sub Upgr-SUB-C					
			16016 - Substation Spare EQPT UPGR					
			J0G26 - ██████████ Sub CTL House-SUB-C					
			J0NM9 - CBM-██████████ Sub UPGR Sub-C					
			J0P40 - CBM-██████████ Sub Upgr-SUB-C					
			Sub/Switchgear Upgrades Total				89,453	496,375
			Substations - Condition Based Modernization Total				102,974	565,711
System Hardening	Subtransmission Upgrades	J0JNX - ██████████ 898075 UPGR						
		J0M3X - ██████████ -81 New Circuit-UG-C						
		J0KPM - Subtransmission Upgrades - 2021						
		J0P1T - ██████████ -76 Reconductor						
		J0NV7 - ██████████ -T-1 Recon						
		J0M41 - ██████████ -72 Upgrade						
		J0M3Z - ██████████ -75 Upgrade						
		JOQ8J - ██████████ -72 PH 2						
		J0NZV - ██████████ -72 Recond ██████████						
		J0P05 - ██████████ -74, Reconductor to 954						

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Smart, Reliable Grid Operations	System Hardening	Subtransmission Upgrades	J0Q8H - ██████ -71 Part 2		
			J0P2F - Reconductor/rebuild ██████ -72		
			J0NT9 - ██████ -74 Circuit Improvement		
			J0NQX - ██████ -44 Pole UPGR Phase 1		
			J0NR2 - ██████ of ██████ Phase 1		
			J0P2B - ██████ 72 Reconductor		
			J0NSJ - ██████ 73 Storm Hardening		
			J0M4M - ██████ -81 New 34.5 kV Circuit-Sub-C		
			J0P3Z - ██████ 83/89 Split-Sub-C		
			J0QWG - ██████ -T-2 ██████ -71 Recon PH 3		
			J0QSZ - ██████ -T3 Upgrade PH 2		
			J0QZV - ██████ 81 New 34.5 kV ██████ Sub-C		
			J0QZW - ██████ -81 New 34.5 kV ██████ Sub-C		
			J0RLG - ██████ -83/89 Split-UG-C		
			J0RLK - ██████ B-T-3 & ██████ -80 Reconductor		
J0SSL - ██████ -71 ██████ UPGR					
J0M44 - ██████ -79 UPGR					
Subtransmission Upgrades Total				52,710	328,669
System Hardening Total				52,710	328,669
	UG Cable Upgrades	OH to UG	23273 - OTU- ██████ 267-55, ██████		
			J0KN3 - OTU- ██████ 267-52, ██████ Ph 2		
			23374 - OTU-INSIDE LOOP ██████		
			J0K62 - OTU- ██████ 165-51, ██████		
			J0K64 - OTU- ██████ 165-56 UG		
			23401 - OTU- ██████ 674-53 ██████		
			J0R6M - OTU- ██████ 52 WPC Reloc		
			J0R6Q - OTU- ██████ 003 CERT		
			J0R6T - OTU- ██████ 53 - CERT		
			J0RBC - OTU- ██████ 53 - CERT		
			J0K63 - OTU- ██████ 165-51 ██████ Reloc		
			J0SWV - OTU- ██████ 53 CERTS		
			J0RH4 - OTU- ██████ 052 CERT		
			J0RZ0 - OTU- ██████ 103-1 ██████		
			OH to UG Total		
UG Cable Upgrades			0A018 - C-UPGR Program-E46		
			J0KJ9 - C-UPGR ██████ 689-52 ██████ P2		
			J0JQ9 - C-UPGR ██████ 235-55, ██████ -51		

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Smart, Reliable Grid Operations	UG Cable Upgrades	UG Cable Upgrades	J0JQD - C-UPGR	273-52, [REDACTED]-51		
			J0JRG - C-UPGR	148-10 6936		
			J0JQQ - C-UPGR	260-53, [REDACTED]		
			J0JRC - C-UPGR	167-52, [REDACTED]		
			J0JSC - C-UPGR	573-52, 4444-5057		
			J0JNB - C-UPGR	127-55 [REDACTED]		
			J0JNH - C-UPGR	587-55, [REDACTED]		
			J0JK9 - C-UPGR	890-53, [REDACTED]		
			J0JKC - C-UPGR	890-52, [REDACTED]		
			J0K71 - C-UPGR	633-53, 10454		
			J0K7G - C-UPGR	628-53, 50172		
			J0K7J - C-UPGR	628-56, 50046		
			J0Q97 - C-UPGR	024, PILC Exit		
			J0JCM - C-UPGR	214-53, [REDACTED]		
			J0JBG - C-UPGR	246 PILC Exit		
			J0JQT - C-UPGR	259-58, [REDACTED]		
			J0ST5 - C-UPGR	127-51, [REDACTED]		
			J0JK8 - C-UPGR	689-51, [REDACTED]		
			J0JKD - C-UPGR	638-51, [REDACTED]		
			J0JKF - C-UPGR	672-53, [REDACTED]		
			J0JM9 - C-UPGR	633-57, 10130		
			J0SWC - C-UPGR	- PILC		
			J0SWD - C-UPGR	- PILC		
			J0SWF - C-UPGR	[REDACTED] 015, PILC Exit		
			J0SWG - C-UPGR	- PILC		
			J0SWH - C-UPGR	- PILC		
			J0SWJ - C-UPGR	- PILC		
			J0SWL - C-UPGR	[REDACTED] 317 - PILC		
			J0SWN - C-UPGR	55 [REDACTED]		
			J0SWP - C-UPGR	503-51, [REDACTED]		
			J0SWQ - C-UPGR	127-56, [REDACTED]		
			J0SWR - C-UPGR	556-54, [REDACTED]		
			J0SWS - C-UPGR	555-55, [REDACTED]		
J0SX4 - C-UPGR	127-56 [REDACTED]					
J0SWM - C-UPGR	560-56, 15344					
J0SWT - C-UPGR	551-53,54 fdr					
J0SX0 - C-UPGR	546-51 & 53 FDR					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Smart, Reliable Grid Operations	UG Cable Upgrades	UG Cable Upgrades	JOSX1 - C-UPGR ██████████ 553-53,55 FDR			
			JOSX3 - C-UPGR ██████████ 560-51 & 52, FDR			
			JOSWK - C-UPGR ██████████ -1 UPGR			
	UG Cable Upgrades Total				42,503	331,547
	UG Cable Upgrades Total				54,154	344,352
	UG Revitalization	Indoor Rooms		JOJG4 - ██████████ Indr Rm		
				JONBT - ██████████ Indr Rm		
				JONBV - ██████████ Indr Rm		
	Indoor Rooms Total				623	2,158
	UG Revitalization			0A321 - 0A321-MDI-Underground Renewal		
				J0CCQ - 0A321-██████████ Cond		
				J0FD5 - 0A321-██████████ Con		
				J0FD6 - 0A321-██████████ CAB		
				J0FGT - 0A321-██████████ Con		
				J0GB9 - 0A321-██████████ Diversify		
J0GBB - 0A321-██████████ Building Room						
J0GBD - 0A321-██████████ Conduit						
J0GBJ - 0A321-██████████ Conduit						
J0GBT - 0A321-19 ██████████ Conduit						
J0GBV - 0A321-20 ██████████ Conduit						
J0HP1 - 0A321-480V Spot-NW XFMR PTO UPGR						
J0HP3 - 0A321-██████████ 7 ██████████ -Vault						
J0JDT - 0A321-██████████ Cable Upgr						
J0LTN - 0A321-██████████ -59 Hyperion FO-TEMP CAB						
J0F9B - 0A321-██████████ Cond						
J0HP2 - 0A321-██████████ -Ntwk PROT Fiber						
J0JF2 - MH Sys Monitorng & Ventilation UPGR						
J0CDN - ██████████ 73 ReRte-PILC Cab						
J0GB8 - 0A321-██████████ Conduit						
J0GBF - 0A321-██████████ NW1267 Ref						
J0GBH - 0A321-██████████ NW48 Reformation						
J0GBL - 0A321-██████████ NW12 Reformation						
J0HPO - 0A321-██████████ A5-7 ██████████ CAB						
J0J5Q - 0A321-██████████ Project Top Dog Conduit						
J0J61 - 0A321-██████████ Conduit						
J0J62 - 0A321-██████████ 216V Grid-NW XFMR PTO						
J0JDR - 0A321-██████████ 11 ReRoute Cab						

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year			
Smart, Reliable Grid Operations	UG Revitalization	UG Revitalization	J0JDS - 0A321-██████████ 4 ReRoute Cab					
			J0JFQ - 0A321-██████████ 52 ReRoute Cab					
			J0JFS - 0A321-██████████ 55 ReRoute Cab					
			J0JFT - 0A321-██████████ 9 ReRoute Cab					
			J0JG6 - ██████████ - Reroute Conduit & Cable					
			J0FD8 - 0A321-██████████ -6 CAB-Sec Upgr					
			J0KNL - 0A321-██████████ -1-8 Prim-CAB-Sect					
			J0JFM - 0A321-██ CON					
			J0NBC - 0A321-██					
			J0P4P - 0A321-██████████ 1834 NW-VLT-XFMR CAB UPGR					
			J0P4Q - 0A321-██ InRm					
			J0P4R - 0A321-██████████ -75 PILC Upgr					
			J0QQ9 - 0A321-██ UG Loop					
			J0RJP - 0A321-██████████ 71 ██████████ Cond-Cab					
			J0RJQ - 0A321-██████████ -53 Reroute & PILC					
			J0RLJ - 0A321-██████████ 52 PILC & Reroute					
			J0RZ3 - 0A321-██████████ - DA Controls SWO					
			J0S0W - 0A321-██████████ -51,53,54 Diversify					
			J0S43 - 0A321-██████████ 53 Reroute Cab					
			J0S44 - 0A321-██ Upgr					
			J0JDX - 0A321-██████████ ██████████ Fdr Exit Conduit					
			J0JDZ - 0A321-Spot Network Vault Revi					
			UG Revitalization Total				40,246	206,781
					UG Manhole/Vault	0A669 - UG-MH&VLT Upgr-SWO		
						J0994 - UG-VLT UPGR ██████████		
						J0D3L - UG-VLT Upgr ██████████		
						J0D3R - UG-VLT Upgr ██████████		
			J0D3W - UG-VLT Upgr ██████████					
			J0D3X - UG-VLT Upgr ██████████					
			J0D4S - UG-MH UPGR - ██████████					
			J0F4Z - UG-MH UPGR- ██████████					
			J0FZW - UG-MH UPGR- ██████████					
			J0G2M - UG-MH UPGR- ██████████					
			J0G2Q - UG-MH UPGR- ██████████					
			J0G2R - UG-MH UPGR- ██████████					
			J0G2S - UG-MH Upgr- ██████████					
			J0G2T - UG-MH Upgr- ██████████					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Smart, Reliable Grid Operations	UG Revitalization	UG Manhole/Vault	J0G2V - UG-VLT Upgr		
			J0G2X - UG-VLT Upgr		
			J0G2Z - UG-VLT Upgr		
			J0H3N - UG-VLT Upgr		
			J0H3P - UG-VLT Upgr		
			J0H3Q - UG-VLT Upgr		
			J0H3S - UG-VLT Upgr		
			J0H3T - UG-VLT UPGR	(N) (SC)	
			J0HC1 - UG-VLT Upgr		
			J0HCL - UG-MH Upgr		
			J0JVG - UG-MH UPGR		
			J0M2Q - UG-MH Upgr		
			J0M4B - UG-VLT Upgr		
			J0M4H - UG-VLT Upgr		
			J0M7C - UG-VLT Upgr		
			J0MDP - UG-MH Upgr		
			J0MP3 - UG-VLT Upgr		
			J0MP4 - UG-MH Upgr	t.	
			J0NKB - UG-MH Upgr	t	
			J0NKC - UG-MH Upgr		
			J0NKD - UG-MH Upgr		
			J0NKF - UG-MH Upgr		
			J0NKS - UG-MH Upgr		
			J0NKT - UG-MH Upgr		
			J0NKW - UG-MH Upgr		
			J0NKX - UG-MH Upgr		
			J060C - UG-VLT (SC) UPGR		
			J06WQ - UG-VLT UPGR		
			J0721 - UG-VLT UPGR		
			J099H - UG-MH UPGR		
			J09FX - UG-VLT UPGR		
			J0Q0Q - UG-MH Upgr		
			J0Q0R - UG-MH Upgr		
J0Q0S - UG-MH Upgr					
J0Q0T - UG-MH Upgr					
J0Q0V - UG-MH Upgr					
J0QHT - UG-MH Upgr					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Smart, Reliable Grid Operations	UG Revitalization	UG Manhole/Vault	J0QM4 - UG-MH Upgr		
			J0QM5 - UG-MH Upgr		
			J0QM6 - UG-MH Upgr		
			J0QM7 - UG-MH Upgr		
			J0QMC - UG-MH Upgr		
			J0QQ3 - UG-MH Upgr		
			J0QRZ - UG-MH Upgr		
			J0QS0 - UG-MH Upgr		
			J0R9R - UG-MH Upgr		
			J0R9S - UG-MH Upgr		
			J0RGW - UG-MH Upgr		
			J0RGX - UG-MH Upgr		
			J0RK6 - UG-MH Upgr		
			J0RK7 - UG-MH Upgr		
			J0RK8 - UG-MH Upgr		
			J0RK9 - UG-MH Upgr		
			J0RKC - UG-MH Upgr		
			J0RQ2 - UG-MH Upgr		
			J0RQ3 - UG-MH Upgr		
			J0RT6 - UG-MH Upgr		
			J0RT7 - UG-MH Upgr		
J0RW8 - UG-MH Upgr					
J0RW9 - UG-MH Upgr					
J0RWB - UG-MH Upgr					
J0RZ8 - UG-MH Upgr					
J0RZ9 - UG-MH Upgr					
J0S67 - UG-MH Upgr					
J0S66 - UG-MH Upgr					
UG Manhole/Vault Total				11,217	50,480
UG Revitalization Total				52,086	259,419
Smart, Reliable Grid Operations Total				455,112	2,473,285
Smart Meter Program	Smart Meter Program	Smart Meter Program	J0D07 - SMP Elec Meters & Install SWO		
			J0D0J - SMP Ntwk Eqplnst		
			J0DH2 - SMP MkRdy		
			J0DH3 - SMP MkRdy		
			J0CZZ - SMP IOC		
			J0L2P - SMP Meter Farm		

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year		
Smart Meter Program	Smart Meter Program	Smart Meter Program	J0BJB - SMP Phase 3				
			J0D0C - SMP ████████ Ntwk Eqplnst				
			J0D0K - SMP ████████ Ntwk Eqplnst				
			J0DH4 - SMP ████████ MkRdy				
			J0M17 - SMP Digital Deploy Support				
			J0D0F - SMP ████████ Ntwk Eqplnst				
Smart Meter Program Total				71,240	251,623		
		Customer Requirements & Communications	J0DWD - SMP Communications J0L2V - SMP TOU Web Presentment J0CZS - SMP TOU Digital SI UPGR				
Customer Requirements & Communications Total				12,814	17,537		
Smart Meter Program Total				84,054	269,160		
Smart Meter Program Total				84,054	269,160		
Non-Nuclear Generation & Environmental	Grid Performance	Cyber Security Upgrades/ New Technologies	J05HF - ████████ U1-4 HMI LIFECYCLE UPGR				
			J0JQ1 - ████████ Cybersecurity- Priority 1				
		Cyber Security Upgrades/New Technologies Total				1,343	3,783
		Exciter Upgrades	J0FJR - ████████ U1 HP/LP Exciter Digital FE UPGR				
			J0FJT - ████████ U2 HP/LP Exciter Digital FE UPGR				
		Exciter Upgrades Total				1,321	5,408
GSU Transformer Upgrades							
GSU Transformer Upgrades Total					643		
Grid Performance Total				2,664	9,834		
Non-Nuclear Generation & Environmental Total				2,664	9,834		
Nuclear Generation	Grid Performance	Controls Upgrades for Faster Ramp Rates/ Lower Minimums	11293 - ████████ Turbine Controls Digital UPGR				
			J0F5W - ████████ Digital Feedwater UPGR				
			J0PLL - ████████ XMB01 Exciter XFMR UPGR				
		Controls Upgrades for Faster Ramp Rates/Lower Minimums Total				1,464	7,100
		Switchyard Breaker/ Relay Upgrades	J0CW9 - ████████ MA104 SPV Relay UPGR				
Switchyard Breaker/Relay Upgrades Total				1,221	2,531		
Grid Performance Total				2,685	9,631		
Nuclear Generation Total				2,685	9,631		
Hydro Generation	Grid Performance	Cyber Security Upgrades/ New Technologies	J0JMC - Hydro Cybersecurity-Priority 1				
			Cyber Security Upgrades/New Technologies Total				86

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Hydro Generation	Grid Performance	Exciter Upgrades	J02NO - U2 Exciter UPGR			
			J06VD - U9 EXCITER UPGR			
			J06VG - U11 EXCITER UPGR			
			J06VH - U12 EXCITER UPGR			
			J06VJ - U13 EXCITER UPGR			
			J06VK - U14 EXCITER UPGR			
			J06VL - U15 EXCITER UPGR			
			J06VF - U10 EXCITER UPGR			
		Exciter Upgrades Total			1,786	8,395
		GSU Transformer Upgrades	J0KTB - U2 GSU XFMR UPGR			
GSU Transformer Upgrades Total			221	4,891		
Switchyard Breaker/Relay Upgrades	J0LR1 - SWYD Disconnect Switch UPGR					
Switchyard Breaker/Relay Upgrades Total			143	717		
Grid Performance Total			2,236	14,089		
Hydro Generation Total				2,236	14,089	
Renewable & Gas Turbine Generation	Grid Performance	Cyber Security Upgrades/ New Technologies	J0JMJ - CTG Cybersecurity- Priority 1			
		Cyber Security Upgrades/New Technologies Total			1,034	1,034
		Exciter Upgrades	J0KQ2 - CTG Excitation System UPGR J0KQ3 - CTG Excitation Sys Modern			
		Exciter Upgrades Total			1,768	8,299
		GSU Transformer Upgrades	J0C9K - CTG U2 U5 XFMR Expl Protect			
		GSU Transformer Upgrades Total			459	460
		Grid Performance Total			3,261	9,793
Renewable & Gas Turbine Generation Total				3,261	9,793	
Secure & Reliable Transmission	Grid Performance	Line Reliability Improvements	J04P7 - Line Upgr			
			J0FS7 - CTG 3 and CTG 4 Lead Lines			
			J0KH7 - -1 & -2 Shield Wire UPGR			
			J0LOC - 1			
			J0LQZ - 161kV Line UPGR			
			J0HZS - Rbld Str 112-117			
			J0HZT - 345kV Rbld			
			J0H1V - Reconductor			
			J0PVR - J817 -3 (161kV) - Reroute			
			J0QD3 - -7407 - Reroute			

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year		
Secure & Reliable Transmission	Grid Performance	Line Reliability Improvements	J0PVS - J817 -3 - New Structure				
			J0QVR - -S-7 - Insulators and ABPDs				
			J0P8Z - -7891-Line Rebuild				
			J0R87 - -1 - Str. 75 New Steel Pole				
			J0RBN - Rebuild Sub Supply Lines				
			J0SPQ - 138kV Rebuild				
			J0RS8 - -7288 Line Rebuild				
			Line Reliability Improvements Total				11,399
		Mobile Transformers		J0H64 - Mobile XFMR 345/138kV-UE			
		Mobile Transformers Total				251	9,461
		Substation Reliability Improvements		J0FS8 - (138kV) -Add 2 Line BRK			
				J0HZM - 138kV Ring Bus			
				J0HZN - - Add 161kV Line & Tie BRKRs			
				J0KW1 - (161 kV) 6-Position Ring Bus			
				J0G9L - Sub Add Line BRKRs			
				J0HZJ - 138kV Ring Bus			
				J0HZK - 138kV RB Line Work			
				J0J7V - 161kV Ring Bus			
				J0P8X - (161kV)-Add Bus Tie			
				J0PWJ - J817- IF Line POS			
				J0POK - H and U BRKR UPGRs			
				J0POR - BT 1-2 UPGR			
				J0P8W - 161 kV Ring Bus			
		J0QVM - Install Network Equipment					
		J0QVN - Additional Property Purchase					
		J0QX7 - Sub Comms Equipment					
		J0QZ4 - Sub - Network Equipment					
		J0QZ5 - Sub - Network Equipment					
		J0ROH - Comm Equipment					
		J0SL1 - Comm Equipment					
		J0SQ5 - 138kV Capacitor bank					
		J0PWP - J817 Network UPGR					
Substation Reliability Improvements Total				25,228	133,126		
VAR Compensation		J0GXG - Static VAR Sys.					
		J0G9J - Add Shunt Reactor					
VAR Compensation Total				16,303	27,028		
Grid Performance Total				53,181	355,674		

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

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Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Secure & Reliable Transmission	Modernization	Breaker Upgrades	J087S - [REDACTED] BT-1-2 Brkr-Relay-Switch		
			J0C5Z - [REDACTED] BT1-2 Brkr Upgr		
			J0C7M - [REDACTED] Brkr 6300 Upgr		
			J0C63 - [REDACTED] Circuit Breaker UPGR		
			J0G9G - [REDACTED] BRKR-Bus UPGR BT 1-2 3-4		
			J0J81 - [REDACTED] BRKR UPGR BT 3-4		
			J0J83 - [REDACTED] BRKR UPGR BTs 1-2 2-3		
			Breaker Upgrades Total		5,567
		Physical Security Upgrades	J0JH5 - CIP v5 [REDACTED] Relay Upgr		
		Physical Security Upgrades Total		1,113	1,151
		Transformer Upgrades	J0G8Z - [REDACTED] XFMR Upgr and Brkr Addn		
			J0HK6 - [REDACTED] XFMR 2 Upgr		
	J0J7X - [REDACTED] Sub XFMR-BRKR, switch UPGR				
Transformer Upgrades Total		7,513	28,332		
Modernization Total				14,193	43,519
Smart Grid	Intelligrid	J0DL5 - INTG CORE MED [REDACTED]			
		J0DLV - INTG CORE MED [REDACTED]			
		J0DLZ - INTG CORE MED [REDACTED]			
		J0DM5 - INTG CORE MED [REDACTED]			
		J0DM7 - INTG CORE MED [REDACTED]			
		J0DM8 - INTG CORE MED [REDACTED]			
		J0DMH - INTG CORE MED [REDACTED]			
		J0DMM - INTG CORE MED [REDACTED]			
		J0KSW - INTG [REDACTED]-3			
		J0LMJ - INTG - [REDACTED]			
		J0LS5 - INTG Access High [REDACTED]			
		J0LS7 - INTG Access High [REDACTED]			
		J0LSS - [REDACTED] - INTG OPGW Pole UPGR			
		J0LST - [REDACTED] - INTG OPGW Pole UPGR			
		J0LSW - [REDACTED]-3- INTG OPGW			
		J0LSZ - [REDACTED] - INTG OPGW Pole UPGR			
		J0LTO - [REDACTED]-1- INTG OPGW			
		J0LT1 - [REDACTED] - INTG OPGW Pole UPGR			
		J0LVQ - [REDACTED] - INTG OPGW			
		J0LVS - [REDACTED]-1 - INTG OPGW			
J0MB2 - INTG Access High [REDACTED]					
J0MCJ - INTG Access High [REDACTED]					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Secure & Reliable Transmission	Smart Grid	Intelligrid	J0MCN - INTG Access High [REDACTED] 345kV		
			J0MNP - INTG Access High [REDACTED] 69kV		
			J0PXX - [REDACTED] Fiber		
			J086S - INTG Sub Trans. I/S 2020-MO		
			J0871 - INTG Sub Dist.I/S 2021-MO		
			J0L67 - [REDACTED] - INTG Relay Upgrades		
			J0L68 - [REDACTED] -INTG Relay Upgrade		
			J0L69 - [REDACTED] - INTG Relay Upgrade		
			J0L6B - [REDACTED] INTG Relay Upgrades		
			J0LP3 - INTG Access High [REDACTED]		
			J0LSX - [REDACTED] - INTG Pole UPGR		
			J0M8V - INTG Access High [REDACTED]		
			J0M8W - INTG Access High [REDACTED]		
			J0M8Z - INTG Access High [REDACTED]		
			J0MB1 - INTG Access High [REDACTED]		
			J0MB3 - INTG Access High [REDACTED]		
			J0MD7 - INTG Access High [REDACTED]		
			J0NMC - INTG Access Med [REDACTED]		
			J0NMF - INTG Access Med [REDACTED] 2		
			J0NMS - INTG Access Med [REDACTED] 2		
			J0Q4V - INTG Access Med Trans MO		
			J0LS4 - INTG Access High [REDACTED]		
			J0LS6 - INTG Access High [REDACTED]		
			J0MB0 - INTG Access High [REDACTED]		
			J0MB4 - INTG Access High [REDACTED]		
			J0MB5 - INTG Access High [REDACTED]		
			J0MCG - INTG Access High [REDACTED]		
			J0MCH - INTG Access High [REDACTED]		
			J0MCL - INTG Access High [REDACTED]		
			J0MCM - INTG Access High [REDACTED]		
			J0MCP - INTG Access High [REDACTED]		
			J0MCR - INTG Access High [REDACTED]		
			J0MCS - INTG Access High [REDACTED]		
			J0MD6 - INTG Access High [REDACTED]		
			J0MD8 - INTG Access High [REDACTED]		
J0MFP - INTG Access High [REDACTED]					
J0MFR - INTG Access High [REDACTED]					

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Secure & Reliable Transmission	Smart Grid	Intelligrid	J0MZQ - INTG Dist Lines I/S 2020-Mo		
			J0NMD - INTG Access Med		
			J0NMN - INTG Access Med		3
			J0N5B - INTG Access Med		
			J0N5D - INTG Access Med		
			J0N5F - INTG Access Med		
			J0N5T - INTG Access Med		
			J0N5X - INTG Access Med		
			J0N5Z - INTG Access Med		
			J0N6F - INTG Access Med		
			J0N77 - INTG Access Med		
			J0NMK - INTG Access Med		
			J0LB0 - INTG Trans Lines		
			J0NMJ - INTG Access Med		
			J0DKW - INTG Access High		
			J0LVT - 2 OPGW		
			J0MCK - INTG Access High		
			J0NMH - INTG Access Med		-1
			J0PM6 - INTG Access Med		-1 (526)
			J0R60 - INTG ACCESS MED		
			J0RD4 - INTG Access High		Fiber Inst
			J0RVL - INTG Access Med		
			J0MCQ - INTG Access High		Switching
			J0NML - INTG Access Med		
			Intelligrid Total		
Monitoring Upgrades		J0R88 - 4585 - New Tower Lights			
		J0R89 - 9 - New Tower Lights			
		J0R8B - 7 - New Tower Lights			
		J0R8C - - New Tower Lights			
		J0R8D - - New Tower Lights			
		J0R8F - 4 - New Tower Lights			
Monitoring Upgrades Total				1,937	7,122
Relay Upgrades		J06FM - - UPGR 6 Relays			
		J0F59 - (138kV) -Relay UPGR			
		J0G9B - Panel UPGR			
		J0GXF - Swyd Upgr Controls			
		J0J4Z - Sub Relay UPGR			

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year
Secure & Reliable Transmission	Smart Grid	Relay Upgrades	J0JGQ - [REDACTED] Relay Upgr [REDACTED] -4		
			J0JHS - [REDACTED] Bus 1 2 Relay Upgrs		
			J0LW6 - [REDACTED] 6H & 24H Relay UPGR		
			J0J52 - [REDACTED] Relay UPGR		
			J0JGZ - [REDACTED] Relay Upgrs [REDACTED] -3 -4		
			J0FS6 - [REDACTED] (138kV) - Relay UPGR		
			J0G96 - [REDACTED] Relay Upgr [REDACTED] -4		
			J0KGR - [REDACTED] 138kV Rly UPGR		
			J0JH9 - [REDACTED] Relay Upgrs		
			J0JHD - [REDACTED] Relay Upgrs		
			J0JHP - [REDACTED] Relay Upgrs		
			J0J51 - [REDACTED] Sub Relay UPGR		
			J0LFN - [REDACTED] - Relay Upgrade		
			J0LFP - [REDACTED] Sub Relay UPGR		
			J0LFQ - [REDACTED] - Relay UPGR		
			J0LFR - [REDACTED] - Relay UPGR		
			J0R30 - [REDACTED] Relay Upgrades		
			J0R31 - [REDACTED] Relay Upgrades		
			J0R32 - [REDACTED] Relay Upgrades		
			J0LFM - [REDACTED] Relay UPGR		
			J0QWW - [REDACTED] -Relay Upgrade		
			J0J85 - [REDACTED] UPGR Relays and SW		
			J0S7X - [REDACTED] -002 Relay Work		
			J0S7Z - [REDACTED] 002 Relay Work		
			J0JGV - [REDACTED] UPGR Relays-BT BRKR		
			J0JGX - [REDACTED] Relay UPGR		
			J0NB3 - [REDACTED] Relay UPGR		
			J0QT5 - [REDACTED] Relay UPGR		
			J0NB2 - [REDACTED] Relay UPGR		
			J0NB4 - [REDACTED] Relay UPGR		
			J0NB5 - [REDACTED] Relay UPGR		
			J0NB6 - [REDACTED] Relay UPGR		
			J0NB7 - [REDACTED] Relay UPGR		
			J0NB8 - [REDACTED] Relay UPGR		
			J0S7L - [REDACTED] - New APP DFR UPGR		
			J0S7R - [REDACTED] - New APP DFR UPGR		

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year		
Secure & Reliable Transmission	Smart Grid	Relay Upgrades	J0J50 - [REDACTED] Relay UPGR				
		Relay Upgrades Total		14,139	26,853		
	Smart Grid Total			63,336	229,105		
Secure & Reliable Transmission Total				130,710	628,298		
Cyber & Technology Upgrades	Customer Support	Intelligrid	J07S9 - INTG Access High Implem 2020 UEC J0MCB - INTG Access High NWG 4 - Dist UEC J0MC6 - INTG Access High NWG 4 Trans UEC J0MPH - INTG Digital - MO J0MC8 - INTG AH UEC DIST 21 NWG 2 J07SB - INTG AH UEC NWG 3 J0MC5 - INTG AH UEC NWG 3 J0MC9 - INTG AH UEC NWG 3 J0SL2 - INTG AM UEC NG1 GP J0SL7 - INTG AM UEC NG1 GP [REDACTED] CTG J0SLD - ADSS INTG AM UEC NG 1 [REDACTED] J0SLS - INTG AM UEC NG1 T J0SM3 - INTG AM UEC NG1 D J0PQ3 - INTG Access Medium UEC				
			Intelligrid Total		9,337	33,840	
			Work & Asset Mgmt System Upgrades	J0642 - GIS Electric UPGR - UEC J0K6T - ADMS Annual Upgrades - UEC J0DX6 - ASPIRE P3 AMO HW J0PSJ - ADMS Annual Upgrades 2021 UEC J0K74 - DER Mapping UEC J0S2C - Distributed Energy Res Sys Mgmt UEC J0DX2 - ASPIRE P3 E&G UEC J0RZZ - DFE CE - GIS Electric UEC J0S03 - DFE CE - Sub, Relay, Trans UEC			
				Work & Asset Mgmt System Upgrades Total		19,533	78,260
				Customer Support Total		28,870	112,100
Cyber Security	Cyber Security Upgrades/ New Technologies	J0S45 - Enhanced Vulnerability PI 2021 UEC J0Q61 - Centralized OT Cybersec - UEC 21					
		Cyber Security Upgrades/New Technologies Total		1,714	2,067		
Cyber Security Total			1,714	2,067			

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	Project Detail	2021	5-Year	
Cyber & Technology Upgrades	Run The Business	Network & Server Upgrades	J0S26 - 6 GHZ Microwave Int Rem UEC J0S2H - Commun Tower UPGR - UEC 2021			
		Network & Server Upgrades Total		4,246	11,065	
	Run The Business Total			4,246	11,065	
Cyber & Technology Upgrades Total				34,830	125,232	
Innovative Opportunities	Electrification Infrastructure	Electrification Infrastructure	J0NL8 - EV Chargers - Battery Backup J0NLC - Electric School Bus J0NLF - Electric Equipment J0NL9 - EV Chargers - DC J0NLB - EV Chargers - Multifamily J0NLD - Electric Shuttle Bus J0NL7 - EV Chargers - MO Workplace J0NLG - EV Transportation - On Road J0SM4 - Surge Protection J0SM6 - Power Quality J0SM9 - EV Services			
			Electrification Infrastructure Total		8,533	15,634
			Electrification Infrastructure Total		8,533	15,634
			Grid Innovative Technologies	Grid Innovative Technologies	J0KVF - Energy Analysis Tool J0Q19 - UEC Electric Lawn Equipment Phase 1 J0Q04 - UEC Data Centers Pilot (Hardware) J0GJQ - Distributed Technology Pilots - UEC J0KJ1 - Distributed Technology Pilots - UEC J0QZ7 - UEC DER PHASE IV J0RJ4 - [REDACTED] Turbine	
	Grid Innovative Technologies Total				2,343	7,378
Grid Innovative Technologies Total			2,343	7,378		
Innovative Opportunities Total				10,876	23,012	
Grid Modernization Projects Total				726,428	3,562,334	

NOTE: Only 2021 projects are listed.

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	2021	5-Year	
Smart, Reliable Grid Operations	Distribution Operations	Customer Requested	6,798	41,817	
		Emergency Work	17,178	105,143	
		Emergent Business	38,684	273,187	
		Fleet	19,420	114,599	
		General Plant	2,070	18,590	
		Government Relocations	4,544	26,878	
		Reliability & NESC	19,641	116,950	
		Transformers & Tools	23,251	143,680	
		Worst Performing Circuits	1,754	10,530	
		Office Furniture & Fixtures	638	3,845	
		Storms Rebuild	4,894	29,492	
		Circuit Inspection Resulting Work	43,148	193,663	
		UG Inspections Resulting Work	2,986	17,972	
		Device Inspection Resulting Work	673	4,002	
		Street Light Inspection Resulting Work	96	585	
	Distribution Operations Total			185,775	1,100,933
	Grid Resiliency/Operating Flexibility		Line Capacity Increases	18,309	185,702
			Subtransmission Switch Upgrades	3,479	19,933
	Grid Resiliency/Operating Flexibility Total			21,788	205,635
	Substations - Condition Based Modernization		Sub/Switchgear Upgrades	3,076	3,076
		Substation Spill Control	3,627	14,624	
Substations - Condition Based Modernization Total			6,703	17,700	
System Hardening		Brittle Conductor Upgrades	614	1,204	
		Inaccessible Circuit Relocations	1,937	2,555	
System Hardening Total			2,551	3,759	
Smart, Reliable Grid Operations Total			216,817	1,328,027	
Non-Nuclear Generation & Environmental	Modernization	Component/Material Upgrades	3,823	89,402	
		Controls/Communication Upgrades	7,386	36,013	
	Modernization Total			11,209	125,415
	Regulatory & Facilities	Facility Upgrades	16,407	52,204	
		Regulatory Required	35,165	186,537	
	Regulatory & Facilities Total			51,572	238,741
Reliability		Component Replacements	76,922	496,926	
Reliability Total			76,922	496,926	
Non-Nuclear Generation & Environmental Total			139,703	861,082	
Nuclear Generation	Modernization	Component/Material Upgrades	34,344	170,981	

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	2021	5-Year
Nuclear Generation	Modernization	Physical Security Upgrades	656	10,607
	Modernization Total		35,000	181,588
	Regulatory & Facilities	Facility Upgrades	10,023	11,202
		Regulatory Required	4,381	17,870
	Regulatory & Facilities Total		14,404	29,072
	Reliability	Component Replacements	26,694	195,006
Reliability Total		26,694	195,006	
Nuclear Generation Total			76,098	405,666
Hydro Generation	Modernization	Component/Material Upgrades	17,527	30,983
		Controls/Communication Upgrades	5,625	19,710
	Modernization Total		23,152	50,693
	Regulatory & Facilities	Facility Upgrades	7,824	38,301
		Regulatory Required	1,768	4,749
	Regulatory & Facilities Total		9,592	43,050
Reliability	Component Replacements	8,904	54,693	
Reliability Total		8,904	54,693	
Hydro Generation Total			41,648	148,436
Renewable & Gas Turbine Generation	Grid Performance	Renewables	31,758	44,067
	Grid Performance Total		31,758	44,067
	Modernization	Component/Material Upgrades	4,331	21,309
		Controls/Communication Upgrades	4,092	14,853
	Modernization Total		8,423	36,162
	Regulatory & Facilities	Facility Upgrades	842	2,262
	Regulatory & Facilities Total		842	2,262
	Reliability	Component Replacements	8,086	41,459
Reliability Total		8,086	41,459	
Renewable & Gas Turbine Generation Total			49,109	123,950
Secure & Reliable Transmission	Grid Performance	Line Reliability Improvements	96,045	152,600
	Grid Performance Total		96,045	152,600
	Modernization	Physical Security Upgrades	3,373	3,373
	Modernization Total		3,373	3,373
	Reliability	Condition Based Replacements	13,752	538,024
	Reliability Total		13,752	538,024

Ameren Missouri 1 & 5-Year Total Electric Customer-Focused Capital Investment Plan - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	2021	5-Year	
Secure & Reliable Transmission	Vehicles, Tools & Other	Vehicles, Tools & Other	5,583	31,622	
	Vehicles, Tools & Other Total		5,583	31,622	
Secure & Reliable Transmission Total			118,753	725,619	
Cyber & Technology Upgrades	Business & Corp Services	Department System Upgrades	4,139	15,137	
		Enterprise System Upgrades	17,863	74,213	
	Business & Corp Services Total		22,002	89,350	
	Customer Support	Customer System Enhancements		23,574	95,339
		Intelligrid		265	265
		Work & Asset Mgmt System Upgrades		11,902	33,480
	Customer Support Total		35,741	129,084	
	Cyber Security	Cyber Security Upgrades/New Technologies		5,738	49,381
	Cyber Security Total		5,738	49,381	
	Foundational Enablers	Analytics & Process Automation		10,255	29,195
		New Data Centers & Facility Technologies		147	40,968
New User Technologies		2,530	3,074		
Foundational Enablers Total		12,932	73,237		
Run The Business	Network & Server Upgrades		15,712	124,124	
	User Technology Upgrades		2,133	8,387	
Run The Business Total		17,845	132,511		
Cyber & Technology Upgrades Total			94,258	473,563	
Operational & Customer Support Facilities	Facilities	Facilities	91,617	285,306	
	Facilities Total		91,617	285,306	
Operational & Customer Support Facilities Total			91,617	285,306	
Innovative Opportunities	Other	Other	1,946	9,680	
	Other Total		1,946	9,680	
Innovative Opportunities Total			1,946	9,680	
Ongoing Operations Total			829,949	4,361,329	

Grand Total - Grid Modernization Projects + Ongoing Operations	1,556,377	7,923,663
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Wind Asset Acquisition (Two Sites)	518,015	518,015
Grand Total, Including Wind**	2,074,392	8,441,678

Ameren Missouri Electric Customer-Focused Capital Investment Plan - First Adds

Category 1	Category 2	Category 3	Project Detail
Smart, Reliable Grid Operations	Grid Resiliency/Operating Flexibility	Substation Capacity Increases	JOKSJ - ██████████ Sub Site Purchase-C JOJP4 - CBM-██████████, UPGR 34.5Kv-Line-C JOJDG - ██████████ - 2nd Unit - Line-C JOJNC - ██████████ 2nd Unit - Line - C JOJKR - ██████████ 2nd Unit - Sub - C JOKSS - Bulk Subs Distance to Fault JOK09 - ██████████ Substation Upgr W Unit JOJJ1 - ██████████ - 2nd Unit - Sub - C JOJSV - ██████████ Sub Upgrade-Sub-C JORWC - ██████████ Sub UPGR-Line-C JORWD - ██████████ Sub UPGR-Sub-C JOSBJ - ██████████ Substation-UG-C JOSKK - ██████████ Sub, Upgrade-UG-C JOS9B - ██████████ Substation-Line-C JOSKQ - ██████████ Sub, Upgrade-Line-C JOS9X - ██████████ Substation-Site-C JOSB5 - ██████████ Substation-Sub-C JOSKB - ██████████ Sub, Upgrade-Sub-C
Secure & Reliable Transmission	Smart Grid	Intelligrid	JON5V - INTG Access Med ██████████ 12kv JON5W - INTG Access Med ██████████ JON60 - INTG Access Med ██████████ JON62 - INTG Access Med ██████████ JON66 - INTG Access Med ██████████ JON6D - INTG Access Med ██████████ JON6P - INTG Access Med ██████████ JON6T - INTG Access Med ██████████ JON6V - INTG Access Med ██████████ JON6Z - INTG Access Med ██████████ JON74 - INTG Access Med ██████████ JON75 - INTG Access Med ██████████ JON78 - INTG Access Med ██████████ JON7B - INTG Access Med ██████████ JOR5T - INTG ACCESS MED ██████████ JOR5S - INTG ACCESS MED ██████████ JORVK - INTG Access Med ██████████ J086T - INTG Sub Trans. I/S 2021-MO

NOTE: "First Add" projects are ready to execute when unforeseen circumstances require in-budget project deferrals or cuts, or when actual costs are less than forecasted costs on executed projects. This allows budget and grid modernization investment targets to be achieved.

Missouri Smart Energy Plan Project Name Acronym Guide	
ADMS - Ameren Data Mgmt System	MED - Medium
ARV - Archview Division	MER - Meramec Energy Center
BPD - Business Process Development	MH - Manhole
BRK / BRKR - Breaker	MKRDY - Make Ready
BT - Bus Tie	MSRP - Metro South Reliability Project
C-UPGR - Cable Upgrade	MVD - Meramec Valley Division
CAB - Cable	NMD - Northeast MO Division
CAL - Callaway	NTWK - Network
CBM - Condition-Based Modernization	NWG - Network Group
CERT - Customers Exceeding Reliability Threshold	OCB - Oil-filled Circuit Breaker
CKT - Circuit	OH - Overhead
CMD - Central MO Division	OPGW - Optical Ground Wire
COLM - Continuous Online Monitoring	OT - Operational Technology
COMM - Communication	OTU - Overhead To Underground
CON / COND - Conduit	PCB - Power Circuit Breaker
CTG - Combustion Turbine Generator	PH - Phase
CTG VEN - Venice CTGs	PMU - Phasor Measurement Unit
CTL/CNTL - Control	POS - Position
DA - Distribution Automation	PTO - Pressure, Temp, Oil Level Monitoring
DAC - Distribution Automation Controller	PQ - Power Quality
DCD - Distribution Control Dept	RBLD - Rebuild
DER - Distributed Energy Resources	RECON - Reconductor
DERMS - DER Management System	RELB - Reliability Upgrade
DFE - Digital Field Experience	RERTE - Re-route
EQPINST - Equipment Installation	SITE-C - Site Companion Project *
EQPT - Equipment	SMP - Smart Meter Program
EXT - Extension	SSM - Sisters of St. Marys Hospitals
FCI - Fault Circuit Indicator	SUB-C - Substation Companion Project *
FDR - Feeder	SWGR - Switchgear
FO - Fiber Optic	SWO - Standing Work Order
GIS - Geographic Information System	SWYD - Switchyard
GOB - General Office Building	SX - Sioux Energy Center
GSU - Generator Step Up	T&DD - Transmission & Distribution Design
GWY - Gateway Division	TAC - Technical Application Center
HISD - High Side	TDL - Terre Du Lac
HMI - Human Machine Interface	TEMP - Temperature
IC - Interconnection Customer	TOU - Time-of-use
IF - Interconnection Facility	TS - Taum Sauk Center
INF - Infrastructure	UEC - Union Electric Company
I/S - In Service	UG / UND - Underground
INTG - Intelligrid	UG-C - Underground Companion Project *
IOC - Integrated Operations Center	UPGR - Upgrade
KEO - Keokuk Energy Center	VAR - Volt Amp Reactive
LBD - Labadie Energy Center	VLT - Vault
LINE-C - Line Companion Project *	WPC - Worst Performing Circuit
MDI - Missouri Distribution	XFMR - Transformer
<p>*Companions are individual projects that make an over-arching project; by linking projects this way, administrative and executional efficiencies may be achieved.</p> <p>Other acronyms and abbreviations not defined in this list are either geographical in nature, are common acronyms (e.g., "MO" - Missouri), are used industry-wide (e.g., "NERC" = North American Electric Reliability Corporation), or are easily recognized.</p>	