

Ameren Missouri 2019 Customer-Focused Capital Investment Summary

\$ - Thousands

Category 1	2019 Actual
Smart, Reliable Grid Operations	398,973
Smart Meter Program	48,330
Non-Nuclear Generation & Environmental	183,687
Nuclear Generation	74,049
Hydro Generation	36,342
Renewable & Gas Turbine Generation	12,258
Secure & Reliable Transmission	142,183
Cyber & Technology Upgrades	96,222
Operational & Customer Support Facilities	43,875
Innovative Opportunities	8,934
Grand Total - Capital	1,044,853

Grid Modernization Total	393,425
Ongoing Operations Total	651,428
Grid Modernization Total Percent	<u>37.7%</u>
Smart Meter Program Total Percent	<u>4.6%</u>

Ameren Missouri 2019 Customer-Focused Capital Investment Detailed Summary

\$ - Thousands

Category 1	Actual	2019 Plan	\$ Variance	% Variance	Notes*
Smart, Reliable Grid Operations					
Grid Modernization	207,483	192,676	14,807	7.7%	Over primarily to further support grid resiliency and reliability; invested in line capacity and system hardening projects, circuit upgrades, and emergent business.
Ongoing Operations	191,490	142,366	49,124	34.5%	Over primarily due to major and minor storms, circuit inspection, emergency work, and emergent business.
Smart Meter Program					
Grid Modernization	48,330	30,034	18,296	60.9%	Over primarily due to accelerated ramp-up while remaining within original project budget and 6% spending cap.
Non-Nuclear Generation & Environmental					
Grid Modernization	3,969	2,792	1,177	42.2%	
Ongoing Operations	179,718	183,556	(3,838)	(2.1%)	
Nuclear Generation					
Grid Modernization	9,523	11,337	(1,814)	(16.0%)	
Ongoing Operations	64,526	63,347	1,179	1.9%	
Hydro Generation					
Grid Modernization	26,537	23,424	3,113	13.3%	
Ongoing Operations	9,805	11,401	(1,596)	(14.0%)	
Renewable & Gas Turbine Generation					
Grid Modernization	573	550	23	4.2%	
Ongoing Operations	11,685	11,398	287	2.5%	
Secure & Reliable Transmission					
Grid Modernization	61,512	61,182	330	0.5%	
Ongoing Operations	80,671	80,002	669	0.8%	
Cyber & Technology Upgrades					
Grid Modernization	28,778	30,042	(1,264)	(4.2%)	
Ongoing Operations	67,444	58,500	8,944	15.3%	
Operational & Customer Support Facilities					
Ongoing Operations	43,875	54,393	(10,518)	(19.3%)	Under primarily due to a change in workplace strategy from purchasing and renovating a building to leasing a swing space.
Innovative Opportunities					
Grid Modernization	6,720	8,539	(1,819)	(21.3%)	
Ongoing Operations	2,214	5,763	(3,549)	(61.6%)	
Grand Total	1,044,853	971,302	73,551	7.6%	

Grid Modernization Total	393,425
Ongoing Operations Total	651,428
Grid Modernization Total Percent	37.7%
Smart Meter Program Total Percent	4.6%

*Variances greater than \$10M (+/-) are explained

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

Key	
Black Font	Planned 2019 Filing Projects/SWO-Funded Projects/Project Closeouts
Blue Font	Emergent 2019 Projects
Project Status "√"	Projects Placed in Service by 2019
Project Status "S"	Projects with Spend but Not in Service by 2019
Project Status "R"	Rescheduled/To Be Rescheduled Projects

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	Distribution Operations	Circuit Performance Improvements	OC132 - ARV - Circuit Performance Imprvmnt	✓			
			OC232 - NMD - Circuit Performance Imprvmnt	✓			
			OC332 - CMD - Circuit Performance Imprvmnt	✓			
			OC432 - MVD - Circuit Performance Imprvmnt	✓			
			OC532 - GWY - Circuit Performance Imprvmnt	✓			
			OC732 - SMO - Circuit Performance Imprvmnt	✓			
			JOPHS - WHOL 559-51 Charter Church Relo	✓			
			JON3P - ██████████ 220-8, OH Tie UPGR to UG	S			
			JOP8V - ██████████ 258-52 Reliability UPGR	S			
			JOPGX - ██████████ 658-52 Intellirupters	S			
Circuit Performance Improvements Total					2,695	4,322	(1,627)
Emergent Business		JOGZC - GRAT Ballpark 100 Line Ext	✓				
		JOGZB - ██████████ Line Ext	R				
Emergent Business Total					626		626
Distribution Operations Total					3,321	4,322	(1,001)
Grid Resiliency / Operating Flexibility	Distributed Solar & Energy Storage	J0J4N - Distr Solar Facility Land ██████████	S				
		J0J4P - Distr Solar Facility Land ██████████	S				
		J0J4Q - Dist Solar Facility Land ██████████	S				
		J0J4R - Distr Solar Facility Land ██████████	S				
		J0J4S - Dist Solar Facility Land ██████████	S				
		J0K9Z - Distr Solar Facility - ██████████	S				
		J0K9X - Distr Solar Facility - ██████████	R				
		J0KB0 - Solar Facility Project - ██████████	S				
		J0KB1 - Solar Facility Project - ██████████	S				
		J0KB2 - Solar Facility Project - ██████████	S				
Distributed Solar & Energy Storage Total					9,929	6,009	3,920
Line Capacity Increases		J0G30 - Weatherby 981-51, Neutral Extension	✓				
		J0G3G - Ballas 145-51, Feeder Extension	✓				
		J0G5J - CLTN-316-55, New Feeder	✓				
		J0GCM - Diamonds 132-55 Jones Ln Add Phase	✓				
		J0GCR - Farm 161-56_Lead 557-53 Tie	✓				
		J0GX9 - WWKS 647-53, Feeder Ext for Nike	✓				
		J0J46 - Webster U Cust Sub, Short Term Plan	✓				
		J0K3D - Carond - 24-51, Italgrani Recond	✓				
		J0KD7 - Lawson 982-51, Conductor UPGR	✓				
		J0K1W - Lonedell 505-51 Hwy FF Reconductor	✓				
		J0KN9 - Hillsboro 168-52 Improve voltage	✓				
		J0KNB - Ottoville 207-51 Improve voltage	✓				
		J0KNF - Star 487-52 Belle 472-52 Fdr Tie	✓				
		J0FFS - ██████████ Extension	S				
		J0HKL - 383-53 ██████████ Ex Feeder Ext	S				

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance		
Smart, Reliable Grid Operations	Grid Resiliency / Operating Flexibility	Line Capacity Increases	JOKD8 - ██████████ 740-51 tie to ██████████ 939-53	S					
			JOCBF - ██████████ 258-54 New Fdr Line - C	R					
			JOGC5 - ██████████ 165-53 ██████████ Ph4	R					
			JOJQ6 - ██████████ ██████████ ██████████	R					
			JOKNC - ██████████ 161-54 161-51 Recond-Tie	R					
			JOKNW - ██████████ 561-51 Circuit UPGR	R					
			JOKJC - Meta 844051 25KV Ph2	✓					
			JOLLF - Meta 844051 25KV Ph3	✓					
			JOP7J - ██████████ 545 Install New Feeder	S					
			Line Capacity Increases Total					9,668	1,801
		Substation Capacity Increases			JOCH7 - SLU Hosp New Cust Sub-UG-C	✓			
					JOCKP - SLU Hosp New Cust Sub-C	✓			
					JOCRG - AT&T Sub - High Side Fuses	✓			
					JODBD - Pfizer Olive New Customer Sub	✓			
					JOG5F - Pfizer Olive Cust Sub-UG-C	✓			
					JOG5K - CLTN-316-52, Feeder Ext	✓			
					JOGCJ - Central Sub Add Capacitor	✓			
					JOGX8 - Bodine Aluminum E. 2nd Sub	✓			
					JOH8G - Algana Sub 34-12kV 2nd Sub	✓			
					JOHF5 - Algana Substation - Algana Dr	✓			
					JOHFG - Amazon Loop Premier Pkwy	✓			
					JOHJS - Bodine Aluminum East Sub Line Work	✓			
					JOHLC - Research Park New Sub	✓			
					JOJ24 - Research Park Line-C	✓			
					JOKWQ - Hudlin Park Sub-UG-C	✓			
					JOKZB - Hudlin Park Substation Sub-C	✓			
					JOJCJ - ██████████ Long Term Plan-Line-C	S			
JOJGC - ██████████ (2) 22MVA Sub-C	S								
JOJGM - ██████████, new 138-12kV-Site-C	S								
JOJHX - ██████████ 138-12kV-Site-C	S								
JOJKX - ██████████ Sub Upgr W Unit	S								
JOKP9 - ██████████, ██████████ -Line-C	S								
JOKSC - ██████████ Sub Upgr- Sub-C	S								
JOKSJ - ██████████ Sub Site Purchase-C	S								
JOKSK - ██████████, ██████████ -Sub-C	S								
JOJDM - CBM ██████████, UPGR Sub-C	R								
JOJP4 - CBM ██████████, UPGR 34.5kV Line-C	R								
JOKNG - ██████████ Customer Sub-Line-C	R								
JOKS8 - ██████████ Customer Sub-C	R								
JOKS9 - ██████████ Bulk Sub34-C	R								
JOHLB - Research Park Sub Site Acquisition	✓								
JOGDV - ██████████ 34-12kV Customer Sub-C	S								

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance		
Smart, Reliable Grid Operations	Grid Resiliency / Operating Flexibility	Substation Capacity Increases	JOJMR - ██████████ (2)22MVA Line-C	S					
			JOJX7 - ██████████ Customer Sub-C	S					
			JOLD0 - ██████████ Long-Term Plan-Sub-C	S					
			JOM3X - ██████████ New Circuit-UG-C	S					
			JONG3 - ██████████ Bulk Sub-Site Purchase-C	S					
			JOPV0 - ██████████ New Cust-Sub-C	S					
		Substation Capacity Increases Total					40,568	18,258	22,310
		Switches		JOJJB - Viper SWO	✓				
				JOJX6 - Meta-Upgr 38kV Nulecs	✓				
		Switches Total					399	937	(538)
Grid Resiliency/Operating Flexibility Total					60,564	27,005	33,559		
Smart Grid		Cutout Recloser	JOJJB - DCD - UPGR Tripsaver Reclosers	✓					
		Cutout Recloser Total				1,160	1,001	159	
		Distribution Automation	0A317 - DCD - UPGR Line Capacitor Controls	✓					
			0A318 - DCD - DA Program	✓					
			JOGB1 - Charleston Main-Upgr Recl	✓					
			JOGB2 - Ashley - Add Intellinodes	✓					
			JOJN5 - Pop-Fairfield Inn-New Business DA	✓					
			JOJBW - DA for MO American Water South Plan	✓					
			JOJVK - Art Museum DA SWGR Changeout	✓					
			JOKP7 - Dexter 3 Mile 656-55 WPC	✓					
			JOKPD - ESTR-74 DA_TDL 561-51 Momentary Out	✓					
			JOKTK - Ritz Carlton 34-12kV Conversion	✓					
			JOL6N - Jeff City UND SWGR UPGR	✓					
			JOL6Q - Ellisville 218-53 SCADA SWGR	✓					
			JOLHM - ARNO-74 Viper Recloser Update	✓					
			JOLL0 - DA-Warson Fox T1/T2	✓					
			JOLL2 - DA-New Melle-52 Dutzow-53	✓					
			JOLL8 - DA-Florissant-58	✓					
			JOLNR - BGR-74 Vipers	✓					
			JOM70 - 0A318-Mackenzie Intellirupter DA	✓					
			JOM71 - 0A318-Jefferson Intellirupters DA	✓					
			JOM73 - 0A318-Rockport 587-55 Intellirupter	✓					
			JOMDB - DA-0A318 Des Peres-52	✓					
			JON0B - 0A318 Frontenac-53 Intellirupter DA	✓					
			JON0C - 0A318 Rock Hill-08 Intellirupter DA	✓					
			JON2K - DA-ESTR 72-73 Piramal Glass Vipers	✓					
			JONL4 - DA - Dougherty Fery Des Peres INTLR	✓					
			JOP65 - DA Florissant-60 Intellirupter	✓					
			JOPHR - DA-Maryville 53 UPGR	✓					
JOLL7 - DA-██████████	S								

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance		
Smart, Reliable Grid Operations	Smart Grid	Distribution Automation	JOLLB - [REDACTED] Underground DA Fiber	S					
			JON9X - [REDACTED] Telecom Equipment UPGR	S					
			JON2M - DCD - DA Controls Equipment UPGR	✓					
		Distribution Automation Total					9,874	8,151	1,723
		Fault Circuit Indicators	JOJGS - DCD - UPGR Backbone FCIS	✓					
			JOJJ6 - DCD - UPGR Terminal Pole FCIS	✓					
		Fault Circuit Indicators Total					1,998	1,898	100
		Fiber/Wireless	JOKWZ - [REDACTED] Sub Network Equipment	S					
			JOL8F - [REDACTED] Sub Network Equipment	S					
			JOL8H - [REDACTED] Fiber Installation	S					
		Fiber/Wireless Total					308	5,021	(4,713)
		LED Street Lighting	JO9H1 - LED Streetlight Program		✓				
		LED Street Lighting Total					8,736	7,771	965
		SCADA Upgrades	JOJJ4 - [REDACTED] - Add Scada	S					
			JOJTZ - [REDACTED] Sub - Add Scada	S					
			JOKOC - [REDACTED] Sub - add SCADA	S					
		SCADA Upgrades Total					86		86
TAC/Microgrid	JOQ25 - [REDACTED] -Site-C	S							
TAC/Microgrid Total					6		6		
Smart Grid Total					22,168	23,842	(1,674)		
Standardize 12kV	Convert 4kV to 12kV	JOJCD - [REDACTED], New Sub-Line-C	S						
		JOJD7 - [REDACTED] Sub 138-12kV-Line-C	S						
		JOJDN - [REDACTED] Sub-C	S						
		JOJDQ - [REDACTED] Sub Second Unit-Sub-C	S						
		JOJF6 - [REDACTED] Sub Second Unit-UG-C	S						
		JOJF7 - [REDACTED] Sub 138-12kV-UG-C	S						
		JOJJD - [REDACTED] Sub 138-12kV-Sub-C	S						
		JOJDW - [REDACTED] Sub-UG-C	R						
		JOLDN - Owensville 978052 Conversion Ph3	✓						
		JOJFC - [REDACTED] Sub-Site-C	S						
		JOL6G - [REDACTED] Sub - Land Aquisition	S						
		JOLZC - [REDACTED] Sub 138-12kV - Xmsn Tap	S						
		Convert 4kV to 12kV Total					2,928	5,129	(2,201)
Standardize 12kV Total					2,928	5,129	(2,201)		
Substations - Condition Based Modernization	OCB Upgrades	JOGRQ - OCB-Cape Plt Upgr 34kV P1	✓						
		JOGRT - OCB-Gardner Upgr 34kV P3592	✓						
		JOGRW - OCB-Miner Upgr 34kV P460	✓						
		JOGS1 - OCB-Wedekind Upgr 34kV P2	✓						
		JOGRS - OCB-[REDACTED] UPGR 34kV POS 19	S						
		JOGRV - OCB-[REDACTED] Upgr 34kV 318	S						
		JOGRZ - OCB-[REDACTED] 69kV POS 638 UPGR	S						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance			
Smart, Reliable Grid Operations	Substations - Condition Based Modernization	OCB Upgrades	JOKQH - OCB-UPGR 8 at [REDACTED] Sub-C	S						
			JOKQV - OCB [REDACTED] -34KV POS 120	S						
			JOKR4 - OCB [REDACTED] -34KV POS 14	S						
			JOKR6 - OCB [REDACTED] -34KV POS 03	S						
			JOKRN - OCB [REDACTED] -161/34KV XFMR 1	S						
			JOKRR - OCB [REDACTED] - POS 11,15,20,25, BT 1-2	S						
			JOKS2 - OCB [REDACTED] -138/34KV POS 04 XFMR 2	S						
			JOLLG - OCB [REDACTED] 38kv pos 5 and 6	S						
			JONC5 - [REDACTED] UPGR OCB on pos 1 and 5	S						
			JONM2 - OCB [REDACTED] UPGR xfmr 9 and #9	S						
			JOKQG - OCB-UPGR [REDACTED] POS 390	S						
			JOKQW - OCB [REDACTED] -69KV FDR 663	S						
			JOKR9 - OCB [REDACTED] -34KV POS 15, 23, 25	S						
			JOKRD - OCB [REDACTED] -34KV CAP BANK	S						
			JOKRZ - OCB [REDACTED] -34KV POS 710	S						
			JOKS1 - OCB [REDACTED] -34KV [REDACTED] LINE	S						
			OCB Upgrades Total					2,325	1,355	970
					Relay Upgrades	JOB47 - Overton Sub-Upgr Rly Ckt	✓			
						JOG79 - Marion Sub-Meter Upgr POS 1 & 7	✓			
						JOJJ - Relay Upgr Warrenton Substation	✓			
						JOG9T - [REDACTED] - UPGR Failing 67 Relays	S			
			JOGB0 - [REDACTED] - Upgr Relaying	S						
			JOGCQ - [REDACTED] -Upgr Rly&Brkr	S						
			JOJG7 - Relay Upgr [REDACTED]	S						
			JOJH - Relay Upgr [REDACTED] - XFMR 1	S						
			JOJV1 - Relay UPGR [REDACTED]	S						
			JOJVH - CBM [REDACTED] 34 Sub Upgr Relays	S						
			JOJWC - CBM [REDACTED] Sub Relay Upgrs	S						
			JOJXD - CBM [REDACTED] Sub Relay Upgrs	S						
			JOJXG - CBM [REDACTED] Relay Upgr	S						
Relay Upgrades Total					2,821	2,102	719			
	Sub/Switchgear Upgrades		OA664 - SWO-Dist Sub-Con Based	✓						
			OR000 - SWO-DIST. SUBS - T&DD - E63	✓						
			20783 - CBM-Cass Sub Upgr	✓						
			JO45C - Kingdom City XFMR UPGR	✓						
			JO46J - CBM Pine Lawn Sub-C	✓						
			JO8GF - CBM-Cass Sub-UG-C	✓						
			JO8LN - CBM-Duncan Sub Site Purchase	✓						
			JO89F - CBM-Duncan Sub-Line-C	✓						
			JOCDM - CBM-Arnold Sub-Relay Upgr	✓						
			JOCG1 - CBM-Duncan Sub-Line-C	✓						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	Substations - Condition Based Modernization	Sub/Switchgear Upgrades	JOCH3 - CBM-Ballas Sub-C	✓			
			JOCH9 - CBM-Elson-SUB-C	✓			
			JOCKH - CBM-Prairie Swgr 2-SUB-C	✓			
			JOCKM - CBM-Duncan Sub Upgr	✓			
			JOCM3 - CBM-Prairie Swgr 2-UG-C	✓			
			JOFLQ - McKnight New 34-12 kV Sub	✓			
			JOFXV - Hunter Sub New Feeder Pos	✓			
			JOG3L - MRSL Sub CNTL House-OH-C	✓			
			JOG3M - CBM-Ballas-Line-C	✓			
			JOG4X - P & G Relocate Cust Sub-UG-C	✓			
			JOG5G - McKnight Sub-UG-C	✓			
			JOG5H - McKnight Sub, 34kV-UG-C	✓			
			JOG8X - Flint Hill Add Unit D	✓			
			JOGBZ - CBM-Elson-LINE-C	✓			
			JOGFW - P&G Cust Sub-C	✓			
			JOGGG - Montgomery 69kV #1 Xfmr Purchase	✓			
			JOGGH - Overton 69KV #1 Xfmr Purchase	✓			
			JOGGJ - Moberly 69kV #1 Xfmr Purch	✓			
			JOHG6 - St. Louis Post Office Rewind	✓			
			JOHN7 - Spare xfmr purchase	✓			
			JOJTK - Overton - Upgr Xfmr #2	✓			
			JOJZQ - STL University Cus Sub Upgr	✓			
			JOKGD - Flint Hill Sub Upgr II -- Line C	✓			
			JOKLL - Spare XFMR Purchase (Cass)	✓			
			JOKWT - StLouisUniv Cust Sub Upgr-UG-C	✓			
			JOKZ9 - Viaduct #3 UPGR with spare	✓			
			JOLOL - UPGR Page #7 Xfmr w/ Spare	✓			
			JOL9K - Spare Transformer Purchase	✓			
			JOLPW - Spare 5 UPGR 2019-2020	✓			
			JOLRC - River Cement Xfmr V Rewind	✓			
			JOLZG - Blanchette - UPGR xfmr with spare 5	✓			
			28715 - CBM [REDACTED] Sub-C	S			
			JO8LM - CBM [REDACTED] Sub-C	S			
			JOCBL - CBM [REDACTED] -Line-C	S			
			JOCGS - CBM [REDACTED] Sub Site	S			
			JOCH4 - CBM [REDACTED] -Sub-C	S			
			JOCHF - CBM [REDACTED] UPGR Swgr-Sub-C	S			
			JOCHG - CBM [REDACTED] Sub-C	S			
			JOCJW - CBM [REDACTED] Swgr 2-LINE-C	S			
			JOCKK - CBM [REDACTED] Unit W-SUB-C	S			
JOCKN - CBM [REDACTED] -Sub-C	S						
JOCLM - CBM [REDACTED] -UG-C	S						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance				
Smart, Reliable Grid Operations	Substations - Condition Based Modernization	Sub/Switchgear Upgrades	JOCLV - CBM [REDACTED] Unit W-UG-C	S							
			JOCPK - CBM [REDACTED] -Line-C	S							
			JOG26 - [REDACTED] Sub Upgr Ctl House	S							
			JOG9S - CBM [REDACTED] Site Purch	S							
			JOGDT - CBM [REDACTED] Sub, Rebuild HiSd-Sub-C	S							
			JOH5J - [REDACTED] new site purchase	S							
			JOHB5 - [REDACTED]	S							
			JOHN5 - Spare XFMR Purchase	S							
			JOJKQ - CBM [REDACTED] Sub -Sub-C	S							
			JOKN7 - CBM [REDACTED] -UG-C	S							
			JOKSP - CBM [REDACTED] -SUB-C	S							
			JOL6C - Spare XFMR Purchase (10A)	S							
			JOL6D - Spare XFMR Purchase (5X)	S							
			JOLZ8 - Spare 5 UPGR 2019-2020	S							
			JOLZ9 - Rewind [REDACTED] D Xfmr 2019	S							
			JOMG6 - CBM [REDACTED] Sub-RE-C	S							
			JOCBN - CBM [REDACTED] Unit W-Line-C	R							
			JOJDP - [REDACTED] Cust Sub-C	R							
			JOJFX - CBM [REDACTED] -UG-C	R							
			JOJGH - CBM- UPGR Mobile sub D	R							
			JOJGK - [REDACTED] - Add Scada	R							
			JOJJ9 - [REDACTED] - Add Scada	R							
			JOJKN - [REDACTED] - Add Scada	R							
			JOJMS - CBM [REDACTED] Sub Line-C	R							
			JOJLZ - [REDACTED] Upgr-Line-C	R							
			JOKSN - CBM [REDACTED] Sub-C	R							
			JOL57 - Ballas Land swap	✓							
			JO8GH - CBM [REDACTED] Sub-UG-C	S							
			JOCDS - CBM [REDACTED] Sub-Line-C	S							
			JOCHB - CBM [REDACTED] Sub-C	S							
			JOCJ5 - CBM [REDACTED] -LINE-C	S							
			JOGJF - CBM [REDACTED] Sub,Rebuild HiSd-Line	S							
			JOJJC - [REDACTED] - Upgr Xfmr #1	S							
			JOJIF - CBM [REDACTED] Sub - Add Scada	S							
			JOJT8 - CBM [REDACTED] Sub-12 - Add Scada	S							
			JOJTD - CBM [REDACTED] Sub - Add Scada	S							
			JOLB5 - [REDACTED] Rebuild	S							
			JONM9 - CBM [REDACTED] Sub UPGR Sub-C	S							
			Sub/Switchgear Upgrades Total						44,592	64,990	(20,398)
			Substations - Condition Based Modernization Total						49,738	68,447	(18,709)

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance			
Smart, Reliable Grid Operations	System Hardening	Subtransmission Upgrades	J0GJ6 - HAYW-72 PRTC-WRDL, Reconductor	✓						
			J0H6D - BAUM-73, New Circuit-Line Jeff-C	✓						
			J0J2S - LEMY-76 - Insulator Upgrades	✓						
			J0JBV - Warson Fox - T1 and T2	✓						
			J0JCL - BERK- 71, 72 and 74	✓						
			J0JD8 - EUC-76 OH Rebuild	✓						
			J0JL4 - Revere 863-51,UPGR with 556AA	✓						
			J0JLZ - CHAR-72(892-72) Storm Hardening	✓						
			J0JNF - Selma 72-73	✓						
			J0JCH - ██████████ 2nd 34kv Supply	S						
			J0JNX - ██████████ 898075 UPGR	S						
			J0J2P - ██████████,34KV Hardening	R						
			J0JM4 - ██████████ ██████████ Ext	R						
			J0JN5 - ██████████ Improv Cirt Reliab	R						
			J0FPK - Imperial 185 Reloc 12 and 34 at Sub	✓						
			J0KG0 - BAUM-73 Reconductoring	✓						
			J0LCC - CNWY - 81, Circ UPGR	✓						
			J0PLN - VIAD-75 34kv Reconductoring	✓						
			J0LTJ - ██████████ Improve Reliability Ph 3	S						
			J0M45 - ██████████ Reconductor	S						
			J0N3Q - ██████████ Recon Ph1	S						
			Subtransmission Upgrades Total					16,939	10,912	6,027
			System Hardening Total					16,939	10,912	6,027
UG Cable Upgrades	OH to UG		23839 - OTU Ballas 145-60, Roclare	✓						
			J0KDN - Imperial 185-52 Springbrook Farms 2	✓						
			J0KDP - Moss Hollow 572-54 Est Moss Hollow	✓						
			22931 - OTU ██████████	S						
			23273 - OTU ██████████	S						
			23412 - OTU ██████████	S						
			23727 - OTU ██████████	S						
			24089 - OTU ██████████	S						
			OH to UG Total					775	409	366
			UG Cable Upgrades			0A018 - C-UPGR Program-E46	✓			
						J0GCG - C-UPGR DeSoto 551-53 Summerset	✓			
						J0J3K - C-UPGR Pond 169-57 Old State Farms Ph2	✓			
						J0JBZ - C-UPGR Hilvin Dr.	✓			
J0JCO - C-UPGR Lakeshire 51-54	✓									
J0JC4 - C-UPGR Oakbrook Gardens 52	✓									
J0JK7 - C-UPGR College Park	✓									
J0JM1 - C-UPGR Belgrade 019-52, Council Blu	✓									
J0JM5 - C-UPGR 3 Mile 656-55 50030	✓									

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	UG Cable Upgrades	UG Cable Upgrades	JOJM6 - C-UPGR 3 Mile 656-55 50034	✓			
			JOJN7 - C-UPGR Bourbeuse 503-55 ECC	✓			
			JOJP7 - C-UPGR Fairgrounds 922-52	✓			
			JOJP9 - C-UPGR St Louis Rd	✓			
			JOJPK - C-UPGR Tisdale 949-55 BLK OAKS	✓			
			JOKJ8 - C-UPGR Oakridge Estates P1	✓			
			JOKZG - C-UPGR Pond 169-57 OldStateFarm	✓			
			JOL6J - C-UPGR Gimblin-7 Circle Fault	✓			
			JOLM7 - C-UPGR S. Broadway 146-9	✓			
			JOLQ5 - C-UPGR New Bloomfield 880051 Lake Mykee UG	✓			
			JOLTH - C-UPGR Elmendorf Rd U/G Fault	✓			
			JOMJR - C-UPGR Hillsboro 168-55 L-3705	✓			
			JOMJS - C-UPGR Clarkson 282-55 L8881	✓			
			JON13 - C-UPGR Clarkson 282-51 L10719	✓			
			JON38 - C-UPGR DIAMONDS 132-51 UPRR BRIDGE HWY M	✓			
			JOJBD - C-UPGR [REDACTED]	S			
			JOJBH - C-UPGR [REDACTED] 5049	S			
			JOJBJ - C-UPGR [REDACTED]	S			
			JOJBK - C-UPGR [REDACTED] 5058	S			
			JOJBL - C-UPGR [REDACTED] 3067	S			
			JOJC7 - C-UPGR [REDACTED]	S			
			JOJCC - C-UPGR [REDACTED]	S			
			JOJCV - C-UPGR [REDACTED] , 3103	S			
			JOJCW - C-UPGR [REDACTED] 3107	S			
			JOJCX - C-UPGR [REDACTED] , 3112	S			
			JOJ CZ - C-UPGR [REDACTED] , 3116	S			
			JOJDO - C-UPGR [REDACTED] 5391	S			
			JOJD1 - C-UPGR [REDACTED] , 5395	S			
			JOJD2 - C-UPGR [REDACTED]	S			
			JOJD3 - C-UPGR [REDACTED] 10746	S			
			JOJD4 - C-UPGR [REDACTED] 10749	S			
			JOJD5 - C-UPGR [REDACTED] 10752	S			
			JOJM7 - C-UPGR [REDACTED] 656-55 50176	S			
			JOJM8 - C-UPGR [REDACTED] 656-55 50179	S			
			JOJQ8 - C-UPGR [REDACTED]	S			
			JOKJ9 - C-UPGR [REDACTED]	S			
			JON12 - C-UPGR [REDACTED]	S			
			JOPJ7 - C-UPGR [REDACTED] , PILC Exit Cab	S			
			JOJBF - C-UPGR [REDACTED]	R			
			JOJBG - C-UPGR [REDACTED] PILC Exit	R			
JOJBM - C-UPGR [REDACTED]	R						
JOJBN - C-UPGR [REDACTED]	R						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance	
Smart, Reliable Grid Operations	UG Cable Upgrades	UG Cable Upgrades	JOJBP - C-UPGR [REDACTED]	R				
			JOJBQ - C-UPGR [REDACTED]	R				
			JOJM3 - C-UPGR [REDACTED]	R				
	UG Cable Upgrades Total					23,748	27,257	(3,509)
UG Cable Upgrades Total						24,523	27,666	(3,143)
UG Revitalization	Indoor Rooms	JOHMH - Peper Lofts 701 1st In-Sub		✓				
		JOJQG - Hampton Village Indoor Room Upgr		✓				
Indoor Rooms Total						450		450
UG Revitalization	UG Revitalization	0A321 - 0A321-MDI-Underground Renewal		✓				
		0A669 - UG-MH&VLT Upgr-SWO		✓				
		J000B - 0A321-Olive 9-12th-10th Con		✓				
		J02QN - UG-Vlt UPGR Locust St-508,510 & 514		✓				
		J05QX - UG-VLT UPGR 300-304 N. 10th St.		✓				
		J0606 - UG-VLT Upgr 1141-3 Olive		✓				
		J071Q - UG-VLT UPGR 207,209 N. 13th		✓				
		J071X - UG-VLT UPGR 1027 Lucas Avenue		✓				
		J0723 - UG-VLT Upgr 615 N. 9th		✓				
		J079H - UG-MH UPGR 1504 MLK Dr.		✓				
		J079Z - UG-MH Upgr MLK&16th		✓				
		J07HK - 0A321-4th Conv-Plz to Olive Cond		✓				
		J08CW - Hall - HLST74 Reroute Cable		✓				
		J08MG - Hall - Automate Switches		✓				
		J099G - UG-VLT UPGR 700 N 13th St.		✓				
		J09FN - UG-VLT Upgr 609 N 13th		✓				
		J09FW - UG-VLT Upgr 619 N 4th St.		✓				
		J09N3 - 0A321-2nd-Morgan SEC-XFMR UPGR		✓				
		J09TD - UG-MH UPGR - Biddle St & N. 1st St		✓				
		J0BCH - 0A321-Olive-7th-Lucas Cond		✓				
		J0BRB - UG-MH Upgr - 342 N 20th St.		✓				
		J0BRD - UG-MH Upgr - 274 N 20th St.		✓				
		J0C3T - UG-MH Upgr- N Grand&Enright		✓				
		J0C3V - UG-MH UPGR- N. Grand & Enright 102		✓				
		J0C3Z - UG-MH UPGR- 10th St. & Clark Ave		✓				
		J0C93 - UG-MH 915 Spruce St		✓				
		J0C95 - UG-MH N Broadway & Destrehan		✓				
		J0CC9 - 0A321-4th+Broad Cond		✓				
		J0CCD - 0A321-ASH-52-A5-6 2-4th CAB		✓				
		J0CCG - 0A321-Chestnut+Market 14th-11th Con		✓				
		J0CCM - UG-MH Upgr- N Broadway&May		✓				
		J0CDP - Hall-HLST79 ReRoute & PILC Cable		✓				
		J0CL4 - UG-MH UPGR- 8th St. & Clark Ave.		✓				

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance		
Smart, Reliable Grid Operations	UG Revitalization	UG Revitalization	J0D3P - UG-VLT UPGR 32 S 14th	✓					
			J0D3S - UG-MH UPGR-1513 St Charles St	✓					
			J0D9K - UG-MH UPGR N. 6th St. & Biddle St.	✓					
			J0DJT - UG-MH UPGR-Delmar Blvd & N. 15th St	✓					
			J0F23 - UG-MH UPGR-213 N. 10th St.	✓					
			J0FFV - Hall-HLST78 PILC-Cab-Con	✓					
			J0FGV - Hall-HLST81 UPGR PILC	✓					
			J0G2N - UG-MH UPGR- 3703 N. Broadway	✓					
			J0G2W - UG-VLT Upgr- 419 N. 10th	✓					
			J0GBC - 0A321-City Hall Ntwk Upgr	✓					
			J0GBS - 0A321-16 Clark Conduit	✓					
			J0H3R - UG-VLT Upgr-402 N. 10th	✓					
			J0H4J - UG-MH UPGR- NE Corner-Olive & 11th	✓					
			J0H51 - UG-MH UPGR 198 S. 18th St.	✓					
			J0H52 - UG-MH UPGR-Osage St & Nebraska Ave	✓					
			J0H53 - UG-MH UPGR-S. Broadway & Keokuk St.	✓					
			J0H77 - UG-MH UPGR- 1900 Market St.	✓					
			J0H78 - UG-MH UPGR- 1970 Market St.	✓					
			J0H7B - UG-MH UPGR- 244 S. 18th Street	✓					
			J0H8B - UG-MH UPGR-N. 10th St and Clark Ave	✓					
			J0H8N - UG-MH UPGR-N. Broadway & Chestnut	✓					
			J0H8P - UG-MH UPGR-Pine St. & N. Broadway	✓					
			J0HB6 - UG-MH Upgr-999 N. 13th	✓					
			J0HDF - Post Office 34kV SWGR Install	✓					
			J0HJ7 - UG-MH UPGR Broadway and Rutger	✓					
			J0HM9 - 0A321-Raeder Place In-Sub UPGR	✓					
			J0J3G - Hall - Automate Switches UG Dept	✓					
			J0J8T - UG-MH Upgr-Step Jones&Plmth	✓					
			J0LJP - UG-MH Upgr- 236 S Central Ave	✓					
			J0LJQ - UG-MH Upgr- 3607 Broadway	✓					
			J0LWZ - UG-MH UPGR-S. Broadway & Osage	✓					
			J0M0L - UG-VLT Upgr - 1622 Pine NV	✓					
			J03P8 - 0A321-				S		
			J06WP - UG-MH UPGR -				S		
			J071Z - UG-VLT UPGR				S		
			J08L8 - UG-MH UPGR				S		
			J0994 - UG-VLT UPGR				S		
			J09FP - UG-VLT Upgr				S		
			J09FQ - UG-VLT UPGR				S		
			J0CCF - 0A321-			CAB-DA	S		
			J0CCQ - 0A321-			Cond	S		
			J0CFF - 0A321-			Con	S		

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	UG Revitalization	UG Revitalization	J0CLD - 0A321- [REDACTED] CAB-CON	S			
			J0D3L - UG-VLT Upgr [REDACTED]	S			
			J0D3M - UG-VLT Upgr [REDACTED]	S			
			J0D3N - UG-VLT UPGR [REDACTED]	S			
			J0D3Q - UG-VLT UPGR [REDACTED]	S			
			J0D3R - UG-VLT Upg [REDACTED]	S			
			J0D3V - UG-VLT Upg [REDACTED]	S			
			J0D3W - UG-VLT Upg [REDACTED]	S			
			J0D3Z - UG-VLT Upgr [REDACTED]	S			
			J0D43 - UG-VLT UPGR [REDACTED]	S			
			J0D4Q - UG-MH Upgr [REDACTED]	S			
			J0D4R - UG-MH Upgr [REDACTED]	S			
			J0D4S - UG-MH UPGR [REDACTED]	S			
			J0D9L - UG-MH UPGR [REDACTED]	S			
			J0D9M - UG-MH UPGR [REDACTED]	S			
			J0F4V - UG-MH UPGR [REDACTED]	S			
			J0F77 - UG-MH UPGR [REDACTED]	S			
			J0FCS - 0A321- [REDACTED] DA-SWGR	S			
			J0FD5 - 0A321- [REDACTED] Con	S			
			J0FD6 - 0A321- [REDACTED] CAB	S			
			J0FGX [REDACTED] UPGR PILC	S			
			J0FK1 - 0A321- [REDACTED] Con	S			
			J0FK2 - 0A321- [REDACTED] Diversify	S			
			J0FK4 - 0A321- [REDACTED] Diversify	S			
			J0FZ7 - UG-MH UPGR [REDACTED]	S			
			J0G2S - UG-MH Upgr [REDACTED]	S			
			J0G2T - UG-MH Upgr [REDACTED]	S			
			J0G2V - UG-VLT Upgr [REDACTED]	S			
			J0GB9 - 0A321- [REDACTED] Diversify	S			
			J0GBB - 0A321- [REDACTED]	S			
			J0GBJ - 0A321- [REDACTED] Conduit	S			
			J0GBK - 0A321- [REDACTED] Conduit	S			
			J0GBT - 0A321- [REDACTED] Conduit	S			
			J0GBV - 0A321- [REDACTED] Conduit	S			
			J0GBW - 0A321- [REDACTED] Conduit	S			
			J0H00 - UG-MH UPGR [REDACTED]	S			
			J0H01 - UG-MH UPGR [REDACTED]	S			
			J0H3S - UG-VLT Upgr [REDACTED]	S			
			J0H3T - UG-VLT UPGR [REDACTED]	S			
			J0H54 - UG-MH UPGR [REDACTED]	S			
J0H55 - UG-MH UPGR [REDACTED]	S						
J0HB7 - UG-MH UPGR [REDACTED]	S						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	UG Revitalization	UG Revitalization	J0HBQ - UG-MH 405	S			
			J0HBR - UG-MH S:	S			
			J0HC1 - UG-VLT Upgr	S			
			J0HCL - UG-MH Upgr	S			
			J0HCX - 0A321-	S			
			J0HMB - 0A321-	S			
			J0HP1 - 0A321-	S	-NW XFMR PTO UPGR		
			J0HP2 - 0A321-	S	-Ntwk PROT Fiber		
			J0HP3 - 0A321-	S	-Vault		
			J0HWK - UG-MH Upg	S			
			J0HWL - UG-MH Upg	S			
			J0J8P - UG-MH Upgr	S			
			J0JDT - 0A321-	S	Cable Upgr		
			J0JDX - 0A321-	S	Fdr Exit Condui		
			J0JVF - UG-MH UPGR	S			
			J0JVG - UG-MH UPGR	S			
			J0LTN - 0A321-	S	CAB		
			J0LV2 - UG-MH Upgr-	S			
			J0LV3 - UG-MH Upgr-	S			
			J0M2Q - UG-MH Upgr-	S			
			J0M2R - UG-MH Upgr-	S			
			J0M4B - UG-VLT Upgr -	S			
			J0M4H - UG-VLT Upgr-	S			
			J0M7C - UG-VLT Upgr-	S			
			J0MDP - UG-MH Upgr-	S			
			J0MJH - UG-VLT Upgr-	S			
			J0MP3 - UG-VLT Upgr-	S			
			J0MP4 - UG-MH Upgr-	S			
			J0NGT - UG-MH UPGR-2347	S			
			J0NKB - UG-MH Upgr-	S			
			J0NKC - UG-MH Upgr-	S			
			J0NKD - UG-MH Upgr-	S			
			J0NKF - UG-MH Upgr-	S			
			J0NKS - UG-MH Upgr-	S			
			J0NKT - UG-MH Upgr-	S			
			J0NKV - UG-MH Upgr-	S			
			J0NKW - UG-MH Upgr-	S			
			J0NKX - UG-MH Upgr-	S	06		
			J05BJ - UG-MH UPGR	R			
			J06RB - UG-MH Upgr	R			
J0CD5 - UG-MH Upgr-	R						
J0CKS - UG-MH UPGR-	R						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Smart, Reliable Grid Operations	UG Revitalization	UG Revitalization	JOD3X - UG-VLT Upgr	R			
			JODJV - UG-MH UPGR	R			
			JOE24 - UG-MH UPGR	R			
			JOE4R - UG-MH UPGR	R			
			JOE4Z - UG-MH UPGR	R			
			JOE9B - 0A321-	Con	R		
			JOE9T - 0A321-	Con	R		
			JOEZW - UG-MH UPGR		R		
			JOE2M - UG-MH UPGR		R		
			JOE2P - UG-MH UPGR		R		
			JOE2Q - UG-MH UPGR		R		
			JOE2R - UG-MH UPGR		R		
			JOE2X - UG-VLT Upgr		R		
			JOE2Z - UG-VLT Upgr		R		
			JOEBD - 0A321-	Conduit	R		
			JOEBG - 0A321-		R		
			JOE2T - UG-MH UPGR		R		
			JOE2V - UG-MH UPGR		R		
			JOE2W - UG-MH UPGR		R		
			JOE2X - UG-MH UPGR		R		
			JOE2Z - UG-MH UPGR		R		
			JOH0K - UG-MH UPGR		R		
			JOH3N - UG-VLT Upgr		R		
			JOH3P - UG-VLT Upgr		R		
			JOH3Q - UG-VLT Upgr		R		
			JOH4H - UG-MH UPGR		R		
			JOH79 - UG-MH UPGR		R		
			JOHG2 - UG-MH UPGR		R		
			JOHG3 - UG-MH UPGR		R		
			JOHJ8 - UG-MH UPGR		R		
			JOHNZ - 0A321-	CAB Upgr	R		
			JOJ8Q - UG-MH Upgr		R		
			JOJ8S - UG-MH Upgr		R		
JOJ8V - UG-MH Upgr		R					
JOJDZ - 0A321-Spot Network Vault Revitaliza		R					
JOJF2 - MH Sys Monitorng & Ventilation UPGR		R					
JOJF4 - 0A321 - Secondary Network Upgrs		R					
JOJV8 - UG-MH Upgr		R					
JOJLKH - Pilot - City Streetlight Voltage Co		S					
		UG Revitalization Total			26,852	25,353	1,499
		UG Revitalization Total			27,302	25,353	1,949
Smart, Reliable Grid Operations Total					207,483	192,676	14,807

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance		
Smart Meter Program	Smart Meter Program	Smart Meter Program	JOD07 - SMP Elec Meters & Install SWO	✓					
			JODMW - SMP Network Lab	✓					
			JOLCF - SMP Lease Space Reno	✓					
			JOBJ7 - SMP Phase 1	S					
			JOCZR - SMP Sys Int & BPD	S					
			JOCZV - SMP IT Hardware 2019	S					
			JOCZW - SMP Shop UPGR	S					
			JOD00 - SMP ██████████ TestEqpt	S					
			JOD08 - SMP ██████████ Network EqptInst	S					
			JOD0B - SMP ██████████ Ntwk EqptInst	S					
			JODG5 - SMP ██████████ MkRdy	S					
			JODG8 - SMP ██████████ MkRdy	S					
Smart Meter Program Total						48,330	30,034	18,296	
Smart Meter Program Total						48,330	30,034	18,296	
Smart Meter Program Total						48,330	30,034	18,296	
Non-Nuclear Generation & Environmental	Grid Performance	Controls Upgrades for Faster Ramp Rates/Lower Minimums	JOK95 - ██████████ Low Load Study	R					
			Controls Upgrades for Faster Ramp Rates/Lower Minimums Total						110
		Cyber Security Upgrades / New Technologies	J05HW - Rush Island Cyber Security	✓					
			20248 - ██████████ 800xA HMI LIFECYCLE UPGR	S					
			J05HF - ██████████ U1-4 HMI LIFECYCLE UPGR	S					
		Cyber Security Upgrades/New Technologies Total					1,700	571	1,129
		Exciter Upgrades	14350 - LBD U2 Excitation UPGR	✓					
			J0FJR - ██████████ U1 HP/LP Exciter Digital FE UPGR	S					
			J0FJT - ██████████ U2 HP/LP Exciter Digital FE UPGR	S					
		Exciter Upgrades Total					845	1,029	(184)
GSU Transformer Upgrades	J0C4X - LBD U1 XFMR Explosion Protection	✓							
	J0C51 - LBD U2 XFMR Explosion Protection	✓							
	J0C52 - LBD U3 XFMR Explosion Protection	✓							
	J0C49 - MR U4 Transformer Explosion Protection	✓							
GSU Transformer Upgrades Total					1,424	1,082	342		
Grid Performance Total					3,969	2,792	1,177		
Non-Nuclear Generation & Environmental Total					3,969	2,792	1,177		
Nuclear Generation	Grid Performance	Controls Upgrades for Faster Ramp Rates/Lower Minimums	11293 - CAL Turbine Controls Digital UPGR	✓					
			J0PLL - ██████████ XMB01 Exciter Transformer UPGR	S					
		Controls Upgrades for Faster Ramp Rates/Lower Minimums Total					9,402	11,228	(1,826)

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance	
Nuclear Generation	Grid Performance	Switchyard Breaker / Relay Upgrades	J0CW9 - █████ SPV Digital Relay UPGR	S				
		Switchyard Breaker/Relay Upgrades Total				121	109	12
	Grid Performance Total				9,523	11,337	(1,814)	
Nuclear Generation Total						9,523	11,337	(1,814)
Hydro Generation	Grid Performance	Exciter Upgrades	J03HQ - KEO U1 EXCITER DFE UPGR J06KN - KEO U2 EXCITER DFE UPGR	✓ ✓				
		Exciter Upgrades Total				2		2
	GSU Transformer Upgrades	J0KTB - █████ U2 GSU XFMR UPGR	S					
	GSU Transformer Upgrades Total				285		285	
	Pump Storage Reliability Enhancements	J04FV - TS U1 Wicket Gate Bushing UPGR J0GDG - TS U2 Wicket Gate Bushing UPGR	✓ ✓					
	Pump Storage Reliability Enhancements Total				25,899	23,145	2,754	
	Switchyard Breaker / Relay Upgrades	J0LR1 - █████ Switchyard Disconnect Switch UPGR	S					
	Switchyard Breaker/Relay Upgrades Total				351	279	72	
Grid Performance Total				26,537	23,424	3,113		
Hydro Generation Total						26,537	23,424	3,113
Renewable & Gas Turbine Generation	Grid Performance	Cyber Security Upgrades / New Technologies	J0JNG - Fleet Cyber UPGR	S				
		Cyber Security Upgrades/New Technologies Total				573	550	23
	Grid Performance Total				573	550	23	
Renewable & Gas Turbine Generation Total						573	550	23
Secure & Reliable Transmission	Grid Performance	Line Reliability Improvements	J0C7Z - Hall Street (138kV) - New Line Pos.	✓				
			J0DWB - MER-WAT-2 138kV-RR Line Pos	✓				
			J0DWC - MRSL-LKSH-4 138kV-RR Line Pos	✓				
			J0KH7 - █████ -1 & -2 Shield Wire UPGR	S				
			J0LQZ - █████ 161kV Line UPGR	S				
	Line Reliability Improvements Total				499	1,028	(529)	
	Mobile Transformers	J0H64 - Mobile XFMR 345/138kV-UE	S					
	Mobile Transformers Total					6	(6)	
Substation Reliability Improvements			J08XQ - Lakeshire MER-WAT-2 Line In/Out	✓				
			J08Z1 - Tyson V16 345kV BRKR UPGR	✓				
			J08Z2 - Tyson V2 345kV BRKR UPGR	✓				
			J0C65 - NERC Franklin - Add 3 BRKR	✓				
			J0FS7 - █████ GATE Lead Lines	S				
			J0FS8 - █████ (138kV) -Add 2 Line BRK	S				
			J0G99 - █████ LN Brkr Add	S				
J0HRD - Line Re-Route █████ Sub	S							

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance			
Secure & Reliable Transmission	Grid Performance	Substation Reliability Improvements	J0J7V - ██████████ 161kV Ring Bus	S						
			J0KW1 - ██████████ (161 kV) 6-Position Ring Bus	S						
			J0G8Z - ██████████ XFMR Upgr and Brkr Addn	R						
			J0G9L - ██████████ Sub Add Line BRKRs	R						
			J0HXP - ██████████ -1 LN Brkr Add	R						
			J0J30 - ██████████ Removals	R						
			J0HZM - ██████████ 138kV Ring Bus	S						
			J0HZN - ██████████ - Add 161kV Line & Tie BRKRs	S						
			J0LPO - ██████████ - Add BRKRs	S						
			J0LSN - ██████████ - Land Purchase	S						
			Substation Reliability Improvements Total					4,336	1,275	3,061
			VAR Compensation J0GXG - ██████████ Static VAR Sys.				S			
			VAR Compensation Total					126	299	(173)
			Grid Performance Total					4,961	2,608	2,353
Modernization	Breaker Upgrades	J08K6 - Overton BRKR UPGRs	✓							
		J08XN - Cape BT-1-2 & BT-3-4 Brkr Upgr	✓							
		J08XS - Marshall BT-3-4 Brkr UPGR	✓							
		J08XZ - Tyson BT- 2-3 345kV Brkr UPGR	✓							
		J0BZH - Callaway V45 V51 & V85 Brkr Upgr	✓							
		J0C4J - Montgomery -V41 345kV BRKR UPGR	✓							
		J0C5L - Bland 345kV-Upgr V23 Brkr	✓							
		J0C5M - Bland 345kV-Upgr V25 Brkr	✓							
		J0C5Q - Montgomery-Upgr V35 Brkr	✓							
		J0C8X - Gray Summit - Upgr Brkr H3 & H11	✓							
		J0HQR - UEC Capital Spare Sub Equip 2018	✓							
		J0J7R - Marshall Posn W Brkr Upgr	✓							
		J0J80 - General Motors BT Brkr Upgr	✓							
		J0J82 - Point Prairie 161kV BT Brkr Upgr	✓							
		J0JGT - Overton Upgr 161kV Brkr/Relays	✓							
		J0FSJ - ██████████ Brkr Upgr	S							
		J0G94 - ██████████ Upgr Brkr/Switches	S							
		J0G9G - ██████████ Brkr/Bus Upgrs BT 1-2 3-4	S							
		J0J7Z - ██████████ Substation PCB 1 & PCB 4 UPGR	S							
		J07WC - Adair Sub Reliability Impv Mod	✓							
		J0C5W - Gray Summit-138kV Upgr Brkr 11 & 12	✓							
		J08XR - ██████████ BT-2-3 Brkr/Switch Upgr	S							
		J0J81 - ██████████ Brkr Upgrs BT 3-4	S							
		Breaker Upgrades Total					10,025	7,402	2,623	
		Physical Security Upgrades J090J - CIP V5 Low Brickhouse				✓				
		J090K - CIP V5 Low Central				✓				
		J090L - CIP V5 Low Gray Summit				✓				

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Modernization	Physical Security Upgrades	J090M - CIP V5 Low Maline	✓			
			J090P - CIP V5 Low Marshall	✓			
			J090S - CIP V5 Low Belleau	✓			
			J090V - CIP V5 Low Cape	✓			
			J090W - CIP V5 Low Joachim	✓			
			J090X - CIP V5 Low Kelso	✓			
			J090Z - CIP V5 Low Mariosa Delta	✓			
			J0911 - CIP V5 Low OSAGE	✓			
			J0914 - CIP V5 Low Rivermines	✓			
			J091B - CIP V5 Low St. Francois	✓			
			J091C - CIP V5 Low Taum Sauk	✓			
			J091D - CIP V5 Low Wildwood	✓			
			J091G - CIP V5 Low Apache Flats	✓			
			J091H - CIP V5 Low Arnold	✓			
			J091J - CIP V5 Low Baumgartner	✓			
			J091K - CIP V5 Low Berkeley	✓			
			J091L - CIP V5 Low Big River	✓			
			J091M - CIP V5 Low Boyd Branch	✓			
			J091N - CIP V5 Low California	✓			
			J091Q - CIP V5 Low Clark	✓			
			J091R - CIP V5 Low Cominco	✓			
			J091S - CIP V5 Low Conway	✓			
			J091W - CIP V5 Low Franklin	✓			
			J091X - CIP V5 Low Fredricktown	✓			
			J091Z - CIP V5 Low General Motors	✓			
			J0920 - CIP V5 Low Guthrie	✓			
			J0921 - CIP V5 Low Hall Street	✓			
			J0923 - CIP V5 Low Hannibal West	✓			
			J0924 - CIP V5 Low Highway N	✓			
			J0925 - CIP V5 Low Hunter	✓			
			J0926 - CIP V5 Low Huster	✓			
			J0927 - CIP V5 Low JC Zion 161-69kV	✓			
			J0929 - CIP V5 Low Lakeshire	✓			
			J092B - CIP V5 Low Loy Martin	✓			
			J092D - CIP V5 Low McClay	✓			
			J092F - CIP V5 Low Mid Rivers	✓			
			J092G - CIP V5 Low Miner	✓			
			J092M - CIP V5 Low Moberly	✓			
			J092P - CIP V5 Low Moreau	✓			
			J092Q - CIP V5 Low North Farmington	✓			
J092V - CIP V5 Low Pilot Knob	✓						
J092W - CIP V5 Low Point Prairie	✓						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Modernization	Physical Security Upgrades	J092X - CIP V5 Low Rockwood	✓			
			J092Z - CIP V5 Low Sandy Creek	✓			
			J0930 - CIP V5 Low Selma	✓			
			J0931 - CIP V5 Low Stoddard	✓			
			J0932 - CIP V5 Low Sweetwater	✓			
			J0933 - CIP V5 Low Tegeler	✓			
			J0937 - CIP V5 Low Viaduct	✓			
			J0938 - CIP V5 Low Warrenton	✓			
			J0939 - CIP V5 Low Warson	✓			
			J093B - CIP V5 Low Wedekind	✓			
			J0DW1 - CIP V5 Low Bailey	✓			
			J0DW2 - CIP V5 Low Belgrade	✓			
			J0DW3 - CIP V5 Low Blanchette	✓			
			J0DW4 - CIP V5 Low Eldon	✓			
			J0DW5 - CIP V5 Low Viburnum	✓			
			J0GVN - CIP V5 Low Hayti	✓			
			J0GZ0 - CIP V5 Low Heritage	✓			
Physical Security Upgrades Total					305		305
Transformer Upgrades			J0NCJ - ██████████ -UPGR 345KV XFMR	S			
Transformer Upgrades Total					430		430
Modernization Total					10,760	7,402	3,358
Smart Grid	Intelligrid	J04GW - INTG Core High Trans UEC	✓				
		J09QL - INTG Mason - McClay	✓				
		J09TZ - INTG Belleau	✓				
		J09V0 - INTG Callaway	✓				
		J09V1 - INTG Central	✓				
		J09V2 - INTG Clarkson	✓				
		J09V3 - INTG Conway	✓				
		J09V5 - INTG Hunter	✓				
		J09V6 - INTG Labadie	✓				
		J09V8 - INTG Mason	✓				
		J09VB - Intelligrid Montgomery	✓				
		J09VC - INTG Page	✓				
		J09VF - INTG Rush Island	✓				
		J09VH - INTG Spencer Creek	✓				
		J09VJ - INTG CORE MED TYSON	✓				
		J09VK - INTG Watson	✓				
		J09XF - INTG Belleau-Huster	✓				
		J09XG - INTG Mason-Labadie	✓				
		J09XH - INTG GRAT-POP-CNTL-WAT-MRSL	✓				
		J09XJ - INTG Montgomery-Callaway	✓				
J0B2X - INTG Hunter-Hunter South	✓						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Smart Grid	Intelligrid	JOB30 - INTG Page-Mason	✓			
			JOB31 - INTG Russell -Gratiot	✓			
			JOB71 - INF C-RUSSEL-GRATIOT	✓			
			JOCTL - RELB Clarkson Sub	✓			
			JOCTM - RELB Conway Sub	✓			
			JOCTN - RELB Hunter Sub	✓			
			JOCTQ - RELB Page Sub	✓			
			JOCTR - RELB Wildwood Sub	✓			
			JOCTS - RELB Belleau Sub	✓			
			JOCTT - RELB Mason Sub	✓			
			JOCTW - RELB Central Sub	✓			
			JOCTX - RELB Gratiot Sub	✓			
			JOCTZ - RELB Marshall Sub	✓			
			JOCV0 - RELB Poplar Sub	✓			
			JOCV1 - RELB Russell Sub	✓			
			JOCV2 - RELB Watson Sub	✓			
			JODKX - INTG CORE MED APACHE FLATS	✓			
			JODLO - INTG CORE MED ASHLEY	✓			
			JODL1 - INTG CORE MED BAILEY	✓			
			JODL3 - INTG CORE MED BAUMGARTNER	✓			
			JODL4 - INTG CORE MED BERKELEY	✓			
			JODL6 - INTG CORE MED BLANCHETTE	✓			
			JODL7 - INTG CORE MED BLAND	✓			
			JODL9 - INTG CORE MED CARROLLTON	✓			
			JODLC - INTG CORE MED DORSETT	✓			
			JODLD - INTG CORE MED EUCLID	✓			
			JODLF - INTG CORE MED FOUNTAIN LAKES	✓			
			JODLH - RELB Apache Flats	✓			
			JODLJ - INTG CORE MED FRANKLIN	✓			
			JODLK - INTG CORE MED FROG HOLLOW	✓			
			JODLL - INTG CORE MED FT ZUMWALT	✓			
			JODLN - INTG CORE MED GRAY SUMMIT	✓			
			JODLP - INTG CORE MED HALL ST	✓			
			JODLQ - INTG CORE MED HUSTER	✓			
			JODLR - INTG CORE MED JEFF CITY ELM ST	✓			
			JODLS - INTG CORE MED JEFF CITY PLANT	✓			
			JODLT - INTG CORE MED JOACHIM	✓			
			JODLV - INTG CORE MED KELSO	✓			
			JODLW - INTG CORE MED LAKESHIRE	✓			
			JODLX - INTG CORE MED LOOSE CREEK	✓			
JODLZ - INTG CORE MED LUTESVILLE	✓						
JODM0 - INTG CORE MED MARIOSIA DELTA	✓						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Smart Grid	Intelligrid	JODM1 - INTG CORE MED McCLAY	✓			
			JODM5 - INTG CORE MED MOREAU	✓			
			JODM6 - INTG CORE MED NORTH PARK	✓			
			JODM7 - INTG CORE MED ORAN	✓			
			JODM9 - INTG CORE MED RINGER	✓			
			JODMB - RELB Ashley - MO	✓			
			JODMC - INTG CORE MED SCRUGGS	✓			
			JODMD - INTG CORE MED SIOUX 345 kV	✓			
			JODMF - RELB Bailey	✓			
			JODMG - INTG CORE MED ST FRANCOIS	✓			
			JODMH - INTG CORE MED STODDARD	✓			
			JODMK - INTG CORE MED TEGELER	✓			
			JODML - INTG CORE MED WARSON	✓			
			JODMM - INTG CORE MED ZION	✓			
			JODMN - RELB Baumgartner	✓			
			JODMS - RELB Blanchette	✓			
			JODN9 - RELB Carrollton	✓			
			JODNH - RELB Euclid	✓			
			JODQ7 - RELB Franklin	✓			
			JODQG - RELB Ft. Zumwalt	✓			
			JODQH - RELB Hall Street	✓			
			JODQN - RELB Huster	✓			
			JODQR - RELB Jeff City - Plant	✓			
			JODQV - RELB Lakeshire	✓			
			JODQZ - RELB Lutesville	✓			
			JODR1 - RELB McClay	✓			
			JODRB - RELB Oran	✓			
			JODRD - RELB Richland	✓			
			JODRM - RELB Scruggs	✓			
			JODRZ - RELB St. Francois	✓			
			JODS0 - RELB Stoddard	✓			
			JODS1 - RELB Tegeler	✓			
			JODSD - RELB Warson	✓			
			JODZR - INTG Core High Dist UEC	✓			
			JOF2J - RELB Rush Island	✓			
			JOFB5 - INTG Callaway -Bland	✓			
			JOFB6 - INTG Callaway -Loose Creek	✓			
			JOFN3 - INTG Hall Street- Ashley	✓			
			JOFN4 - INTG Fountain Sioux- Huster	✓			
			JOFN6 - INTG Mason MO- Carrollton	✓			
JOFNB - INTG Mason MO-Marshall	✓						
JOFNF - INTG Meramec -Tyson	✓						

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Smart Grid	Intelligrid	JOFNK - INTG Franklin-Gray Summit	✓			
			JOFNM - INTG Apache Flats -Zion	✓			
			JOFNN - INTG Mariosa Delta-Moreau	✓			
			JOFNP - INTG Loose Creek- Mariosa Delta	✓			
			JOFNQ - INTG Morley-Berntie	✓			
			JOFPL - RELB Kelso Trans	✓			
			JOG7Q - INTG CORE MED - APCH-SCRG-45	✓			
			JOG7R - INTG CORE MED - ZION-SCRG-47	✓			
			JOG7S - INTG CORE MED - ZION-FROG-41	✓			
			JOG7V - INTG CORE MED - STRC 127 MOREAU-AME	✓			
			JOG7W - INTG CORE MED -ADRN-MEX-43	✓			
			JOG80 - INTG CORE MED -DORSETT CAMPUS	✓			
			JOG87 - INTG CORE MED IT Trans 2018 UEC	✓			
			JOG88 - INTG CORE MED IT Trans 2019 UEC	✓			
			JOG8M - INTG CORE MED TELECOM UEC 2018	✓			
			JOG8P - INTG CORE MED TELECOM UEC 2019	✓			
			JOHR5 - INTG C.MED TELECOM UEC MH MERAMEC	✓			
			JOHVZ - INTG CORE MED TELECOM UEC 2019 -Loc	✓			
			JOJ87 - BELU-MTGY-6 Add OPGW	✓			
			JOKSW - INTG L- BLAN-3	✓			
			JODKW - INTG CORE MED ██████████ GEN	S			
			JODKZ - INTG CORE MED ██████████	S			
			JODL2 - INTG CORE MED ██████████	S			
			JODL5 - INTG CORE MED ██████████	S			
			JODL8 - INTG CORE MED ██████████	S			
			JODLM - RELB ██████████	S			
			JODM3 - INTG CORE MED ██████████	S			
			JODM8 - INTG CORE MED ██████████	S			
			JODMR - RELB ██████████	S			
			JODNO - RELB ██████████	S			
			JODQQ - RELB ██████████	S			
			JODR2 - RELB ██████████	S			
			JOG7X - INTG CORE MED ██████████	S			
			JOG7Z - INTG CORE MED ██████████	S			
			JOGGK - INTG CORE MED ██████████ Sub	S			
			JOGGL - INTG CORE MED ██████████ Sub	S			
			JOHR4 - INTG CORE MED TELE UEC 2019 ██████████	S			
			JOHVX - INTG CORE MEDTELE UEC 2019 IS DEC19	S			
			JOHW6 - INTG CORE MED Trans UEC IS SEPT 19	S			
			JOKWW - ██████████ COMM EASE.- ██████████	S			

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance				
Secure & Reliable Transmission	Smart Grid	Intelligrid	JOKWX - █████ COMM EASEMENT █████	S							
			J086S - INTG Sub Trans. I/S 2020-MO	R							
			J086Z - INTG Sub Dist.I/S 2019-MO	R							
			JODMQ - RELB █████	R							
			JOHDG - INTG CORE MED █████	R							
			JOKVC - INTG CM █████	R							
			JOL5M - INTG CM-R Baldwin	✓							
			JOL5N - INF LABADIE-BLAND	✓							
			JOLDM - INF HLST-A	✓							
			JOM5L - INTG -STODDARD- BERTIE	✓							
			JOGK7 - INTG CORE MED TELECOM UEC 2020	S							
			JOLBO - INTG Trans Lines █████ -P	S							
			JOLMJ - INTG - █████	S							
			JOLN1 - INTG Access High █████ Sub	S							
			JOLS5 - INTG Access High █████	S							
			JOLS7 - INTG Access High █████	S							
			JOLSS - █████ - INTG OPGW Pole UPGR	S							
			JOLST - █████ - INTG OPGW Pole UPGR	S							
			JOLSW - █████ -3- INTG OPGW	S							
			JOLSX - █████ - INTG Pole UPGR	S							
			JOLSZ - █████ - INTG OPGW Pole UPGR	S							
			JOLTO - █████ -1- INTG OPGW	S							
			JOLT1 - █████ - INTG OPGW Pole UPGR	S							
			JOLVQ - █████ - INTG OPGW	S							
			JOLVS - █████ -1- INTG OPGW	S							
			JOLVT - █████ -3 INTG OPGW	S							
			JOM4P - INTG - █████	S							
			JOM90 - INTG Access High █████	S							
			JOM91 - INTG Access High █████	S							
			JOMB2 - INTG Access High █████	S							
			JOMCJ - INTG Access High █████	S							
			JOMCN - INTG Access High █████ 345kV	S							
			JOMNP - INTG Access High █████ 69kV	S							
			JOPXX - █████ Fiber	S							
			Intelligrid Total						42,385	47,165	(4,780)
			Monitoring Upgrades			JOC81 - Labadie Unit 2 PMU Add	✓				
						JOC85 - █████ Unit 1 PMU Add	S				
			Monitoring Upgrades Total						33		33
			Relay Upgrades			JOBZJ - Callaway PCB Relay UPGR V41/V43	✓				
						JOD41 - OVERTON -Line Rly Upgr	✓				
						JOF5P - Mason Sub Relay Upgr	✓				
						JOF6J - WARSON -Rly Upgr	✓				

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance			
Secure & Reliable Transmission	Smart Grid	Relay Upgrades	J0G93 - Central-CNTL-WAT Relay UPGR	✓						
			J0G95 - Hall Street Relay UPGR	✓						
			J0G9F - Tyson Relay Panel UPGR	✓						
			J0G9H - Watson Relay Upgr CNTL-WAT-1	✓						
			J0HPP - Hunter Relay UPGR	✓						
			J0JH4 - Belleau XFMR Brkr and Relay Upgr	✓						
			J0G9B - [REDACTED] Relay Panel UPGR	S						
			J0GXC - [REDACTED] Relay and Station UPGR	S						
			J0GXF - [REDACTED] Swyd Upgr Controls	S						
			J0HRF - [REDACTED] 345kv -Rly UPGR	S						
			J0JGZ - [REDACTED] Relay Upgrs [REDACTED] -3 -4	S						
			J0JH1 - [REDACTED] Relay Upgrs [REDACTED] -1 -3	S						
			J06FM - [REDACTED] - UPGR 6 Relays	R						
			J0G91 - [REDACTED] Relay UPGR	R						
			J0HRG - [REDACTED] 345kV -Equip UPGR	R						
			J0J50 - [REDACTED] Relay UPGR	R						
			J0J51 - [REDACTED] Sub Relay UPGR	R						
			J0J52 - [REDACTED] Relay UPGR	R						
			J0JH3 - [REDACTED] -6 Relay Upgr	R						
			J0H62 - Ashley - GATE Relay Upgr	✓						
			J0MHK - Huster sub relay UPGR	✓						
			J0FS9 - [REDACTED] (138kV) -Relay UPGR	S						
			J0J4Z - [REDACTED] Sub Relay UPGR	S						
			J0JGQ - [REDACTED] Relay Upgr [REDACTED]	S						
			J0JGV - [REDACTED] Upgr Relays/BT Brkr	S						
			J0JH2 - [REDACTED] Relays Upgrs Posn H8 H13	S						
			J0JHS - [REDACTED] Bus 1 2 Relay Upgrs	S						
			J0LW6 - [REDACTED] 6H & 24H Relay UPGR	S						
			J0MKX - [REDACTED] - 138KV relay UPGR	S						
			J0MPM - [REDACTED] Relay UPGR 2 [REDACTED]	S						
			Relay Upgrades Total					3,373	4,007	(634)
			Smart Grid Total					45,791	51,172	(5,381)
			Secure & Reliable Transmission Total						61,512	61,182
Cyber & Technology Upgrades	Business & Corp Services	Enterprise System Upgrades	J0K40 - UPGR Security Camera - UEC	S						
			J0M01 - UPGR Security Camera - UEC GENERATION	S						
		Enterprise System Upgrades Total				165	1,368	(1,203)		
	Business & Corp Services Total				165	1,368	(1,203)			
	Customer Support	Intelligrid	J06K8 - Intelligrid Core Med 2019 UEC	✓						
		J04GX - Intelligrid Core High Implem UEC	✓							
		J04GZ - Intelligrid Core Med Implem 2018 UEC	✓							
		J0MJV - Private LTE MO [REDACTED] -UEC	S							
Intelligrid Total					3,464	2,676	788			

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance	
Cyber & Technology Upgrades	Customer Support	Work & Asset Mgmt System Upgrades	J0642 - GIS Electric UPGR - UEC	✓				
			J0D8R - GIS Portal with Conflation - UEC	✓				
			J0DJ1 - ASPIRE P2 S&T AMO	✓				
			J0DJ5 - ASPIRE P2 S&T AMO HW	✓				
			J0GP5 - GIS Electric UPGR UEC Hardware	✓				
			J0GP7 - GIS Graphic Work Design UEC	✓				
			J0KWN - CYME Network Analysis Software - UEC	✓				
			J0DX2 - ASPIRE P3 E&G AMO	S				
			J0K6T - ADMS Annual UPGRs - UEC	S				
			J0GPB - GIS Graphic Wrk Design Hardware UEC	R				
			J063H - ADMS Enhancements 17-18 UEC	✓				
			J0DHW - DFE P8 MMV AMO HW	✓				
			J0DJG - ASPIRE SHO Building Improvements	✓				
			J03B6 - Missouri Wi Fi Expansion	S				
Work & Asset Mgmt System Upgrades Total						20,134	23,886	(3,752)
Customer Support Total						23,598	26,562	(2,964)
Cyber Security	Cyber Security Upgrades / New Technologies		J0NBK - Network ID for OT Networks - UEC	✓				
			J0NBL - Network ID for OT Networks - Fossil	✓				
			J0NBM - Network ID for OT Networks - Nuclear	✓				
			J0NBN - Network ID for OT Networks - CTG	✓				
			J0NBP - Network ID for OT Networks - Hydro	✓				
			J0K7L - Intrusion Detect OT Networks - UEC	S				
			J0DF4 - Cyber Security Operations Center UEC	✓				
Cyber Security Upgrades/New Technologies Total						1,471		1,471
Cyber Security Total						1,471		1,471
Run The Business	Network & Server Upgrades		J0KB5 - Cellular 3G Mod UPGR - UEC	✓				
			J0KB8 - Comm Tower UPGR - UEC	✓				
			J0KBB - [REDACTED] DTI Fiber UPGR	S				
			J0DGM - UEC - Private LTE Pilot	✓				
			J0LZV - [REDACTED] DTI Fiber [REDACTED]	S				
			J0M64 - [REDACTED] DTI Fiber [REDACTED]	S				
Network & Server Upgrades Total						3,544	2,112	1,432
Run The Business Total						3,544	2,112	1,432
Cyber & Technology Upgrades Total						28,778	30,042	(1,264)
Innovative Opportunities	Distributed Solar	Distributed Solar	J0B74 - Lambert Community Solar Renewable	✓				
			J0CDW - [REDACTED] Distributive Gen Solar	S				
			J0LHD - Solar Development	S				
			J0NK5 - Community Solar Program Site 2	S				
			J0NKK - Neighborhood Solar	S				
Distributed Solar Total						5,785	5,796	(11)
Distributed Solar Total						5,785	5,796	(11)

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Grid Modernization Projects

\$ - Thousands

Category 1	Category 2	Category 3	2019 Project Detail	Project Status	Actual	2019 Plan	Variance	
Innovative Opportunities	Electrification Infrastructure	Electrification Infrastructure	JOLH6 - EV Chargers - GOB Campus Gen Plant	✓				
			JON2P - EV Chargers - Workplace	✓				
			JONLZ - Electric Shuttle Bus Pilot Phase-1	✓				
			JOLHH - EV Chargers - ██████████ Dist	S				
	Electrification Infrastructure Total					420	752	(332)
	Electrification Infrastructure Total					420	752	(332)
	Grid Innovative Technologies	Grid Innovative Technologies	Grid Innovative Technologies	JOKVF - Energy Analysis Tool	S			
				JOQ18 - High Reso Image and Scanning Project	✓			
				JON5S - UEC COLM Hardware	S			
				JOP59 - Corona Imaging UEC	S			
JOQ19 - UEC Electric Lawn Equipment Phase 1				S				
Grid Innovative Technologies Total					515	1,991	(1,476)	
Grid Innovative Technologies Total					515	1,991	(1,476)	
Innovative Opportunities Total					6,720	8,539	(1,819)	
Grid Modernization Projects Total					393,425	360,576	32,849	

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	Actual	2019 Plan	Variance		
Smart, Reliable Grid Operations	Distribution Operations	Circuit Inspection	32,194	18,247	13,947		
		Customer Requested	6,477	6,093	384		
		Device Inspection	631	582	49		
		Emergency Work	17,635	10,861	6,774		
		Emergent Business	37,885	29,305	8,580		
		Fleet	13,501	15,690	(2,189)		
		General Plant	1,129	572	557		
		Government Relocations	5,547	4,093	1,454		
		Office Furniture & Fixtures	1	30	(29)		
		System Repair < \$100K	22,669	16,417	6,252		
		Storms	21,015	3,852	17,163		
		Street Light Inspection	70	61	9		
		Transformers & Tools	22,014	25,828	(3,814)		
		UG Inspection	2,378	1,347	1,031		
		Worst Performing Circuits	2,752	4,080	(1,328)		
		Distribution Operations Total			185,898	137,058	48,840
		Grid Resiliency/Operating Flexibility		Line Capacity Increases	4,546	4,524	22
Grid Resiliency/Operating Flexibility Total			4,546	4,524	22		
Substations - Condition Based Modernization		Substation Spill Control	991	168	823		
Substations - Condition Based Modernization Total			991	168	823		
System Hardening		Brittle Conductor Upgrades		616	(616)		
System Hardening Total				616	(616)		
UG Revitalization		UG Revitalization	55		55		
UG Revitalization Total			55		55		
Smart, Reliable Grid Operations Total			191,490	142,366	49,124		
Non-Nuclear Generation & Environmental	Modernization	Component/Material Upgrades	2,540	1,921	619		
		Controls/Communication Upgrades	534	334	200		
		Physical Security Upgrades	3,249	4,603	(1,354)		
	Modernization Total			6,323	6,858	(535)	
	Regulatory & Facilities	Facility Upgrades	1,685	500	1,185		
		Regulatory Required	86,592	89,904	(3,312)		
	Regulatory & Facilities Total			88,277	90,404	(2,127)	
Reliability	Component Replacements	44,226	32,727	11,499			
	Major Planned Outage	40,892	53,567	(12,675)			
Reliability Total			85,118	86,294	(1,176)		
Non-Nuclear Generation & Environmental Total			179,718	183,556	(3,838)		

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	Actual	2019 Plan	Variance
Nuclear Generation	Modernization	Component/Material Upgrades	6,017	4,860	1,157
		Physical Security Upgrades	745	109	636
	Modernization Total		6,762	4,969	1,793
	Regulatory & Facilities	Facility Upgrades	2,856	940	1,916
		Regulatory Required	23,424	20,131	3,293
	Regulatory & Facilities Total		26,280	21,071	5,209
Reliability	Component Replacements		26,048	18,177	7,871
		Refuel	5,436	19,130	(13,694)
Reliability Total			31,484	37,307	(5,823)
Nuclear Generation Total			64,526	63,347	1,179
Hydro Generation	Modernization	Component/Material Upgrades	1,835	6,177	(4,342)
		Controls/Communication Upgrades	1,040		1,040
	Modernization Total		2,875	6,177	(3,302)
	Regulatory & Facilities	Facility Upgrades	1,830		1,830
		Regulatory Required	45	367	(322)
	Regulatory & Facilities Total		1,875	367	1,508
Reliability	Component Replacements	5,055	4,857	198	
Reliability Total			5,055	4,857	198
Hydro Generation Total			9,805	11,401	(1,596)
Renewable & Gas Turbine Generation	Modernization	Component/Material Upgrades	1,843	1,269	574
		Controls/Communication Upgrades	3,065	436	2,629
	Modernization Total		4,908	1,705	3,203
	Regulatory & Facilities	Facility Upgrades	189		189
		Regulatory Required	134	386	(252)
	Regulatory & Facilities Total		323	386	(63)
Reliability	Component Replacements	6,418	9,307	(2,889)	
	Major Planned Outage	36		36	
Reliability Total			9,307	(2,853)	
Renewable & Gas Turbine Generation Total			11,685	11,398	287
Secure & Reliable Transmission	Grid Performance	Line Reliability Improvements		302	(302)
	Grid Performance Total			302	(302)
	Modernization	Physical Security Upgrades	3,308	2,852	456
	Modernization Total		3,308	2,852	456
	Reliability	Condition Based Replacements	74,094	72,432	1,662
		Storms	169		169
Reliability Total			72,432	1,831	

Ameren Missouri 2019 Customer-Focused Capital Investment Summary - Ongoing Operations

\$ - Thousands

Category 1	Category 2	Category 3	Actual	2019 Plan	Variance
Secure & Reliable Transmission	Vehicles, Tools & Other	Vehicles, Tools & Other	3,100	4,416	(1,316)
	Vehicles, Tools & Other Total		3,100	4,416	(1,316)
Secure & Reliable Transmission Total			80,671	80,002	669
Cyber & Technology Upgrades	Business & Corp Services	Department System Upgrades	2,487	2,439	48
		Enterprise System Upgrades	6,623	16,996	(10,373)
	Business & Corp Services Total		9,110	19,435	(10,325)
	Customer Support	Customer System Enhancements	14,404	15,445	(1,041)
		Work & Asset Mgmt System Upgrades	4,467	1,278	3,189
	Customer Support Total		18,871	16,723	2,148
	Cyber Security	Cyber Security Upgrades/New Technologies	5,480	4,749	731
	Cyber Security Total		5,480	4,749	731
	Foundational Enablers	Analytics & Process Automation	8,538	1,332	7,206
		New Data Centers & Facility Technologies	2,445	2,051	394
		New User Technologies	5,242	2,563	2,679
	Foundational Enablers Total		16,225	5,946	10,279
Run The Business	Network & Server Upgrades	12,981	7,386	5,595	
	User Technology Upgrades	4,777	4,261	516	
Run The Business Total		17,758	11,647	6,111	
Cyber & Technology Upgrades Total			67,444	58,500	8,944
Operational & Customer Support Facilities	Facilities	Facilities	43,875	54,393	(10,518)
	Facilities Total		43,875	54,393	(10,518)
Operational & Customer Support Facilities Total			43,875	54,393	(10,518)
Innovative Opportunities	Other	Other	2,214	5,763	(3,549)
	Other Total		2,214	5,763	(3,549)
Innovative Opportunities Total			2,214	5,763	(3,549)
Ongoing Operations Total			651,428	610,726	40,702
Grand Total - Grid Modernization Projects + Ongoing Operations			1,044,853	971,302	73,551