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BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DE-FOA-0002740	81.254	$	$	$ 6,712,758.00	$ 9,839,674.00	$ 16,552,432.00
2.						
3.						
4.						
5. Totals		$	$	$ 6,712,758.00	$ 9,839,674.00	$ 16,552,432.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1) DE-FOA-0002740	(2)	(3)	(4)	Total (5)
a. Personnel	$ 24,318,088.00	$	$	$	$ 24,318,088.00
b. Fringe Benefits	879,610.00				879,610.00
c. Travel	0.00				0.00
d. Equipment	32,966,041.00				32,966,041.00
e. Supplies	0.00				0.00
f. Contractual	32,874,478.00				32,874,478.00
g. Construction	0.00				0.00
h. Other	3,223,347.00				3,223,347.00
i. Total Direct Charges (sum of 6a-6h)	94,261,564.00				$ 94,261,564.00
j. Indirect Charges	6,878,465.00				$ 6,878,465.00
k. TOTALS (sum of 6i and 6j)	$ 101,140,029.00	$	$	$	$ 101,140,029.00
7. Program Income	$ 0.00	$	$	$	$ 0.00

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. DE-FOA-0002740	$ 54,009,246.00	$ 0.00	$ 0.00	$ 54,009,246.00
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	$ 54,009,246.00	$ 0.00	$ 0.00	$ 54,009,246.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 7,755,063.00	$ 1,938,765.75	$ 1,938,765.75	$ 1,938,765.75	$ 1,938,765.75
14. Non-Federal	$ 8,797,369.00	2,199,342.25	2,199,342.25	2,199,342.25	2,199,342.25
15. TOTAL (sum of lines 13 and 14)	$ 16,552,432.00	$ 4,138,108.00	$ 4,138,108.00	$ 4,138,108.00	$ 4,138,108.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. DE-FOA-0002740	$ 13,827,969.00	$ 14,954,388.00	$ 8,285,651.00	$ 2,024,570.00
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	$ 13,827,969.00	$ 14,954,388.00	$ 8,285,651.00	$ 2,024,570.00

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges:

22. Indirect Charges:

23. Remarks:

Locations of Work (DE-FOA-0002740)				
Ameren Missouri Topic 2 Rural Modernization Program				
Prime or Sub	**Name**	**City**	**State**	**Zip Code + 4**
Prime	Ameren Missouri	Hayti	MO	63851-0000
Prime	Ameren Missouri	Viburnum	MO	65439-0000
Prime	Ameren Missouri	Wardell	MO	63873-0000
Prime	Ameren Missouri	Potosi	MO	63660-0000
Prime	Ameren Missouri	Potosi	MO	63630-0000
Prime	Ameren Missouri	Eolia Village	MO	63330-0000
Prime	Ameren Missouri	Pilot Grove	MO	65237-0000
Prime	Ameren Missouri	Troy	MO	63349-0000
Prime	Ameren Missouri	Eolia Village	MO	63336-0000
Prime	Ameren Missouri	Sikeston	MO	63868-0000
Prime	Ameren Missouri	Essex	MO	63846-0000
Prime	Ameren Missouri	Sikeston	MO	63801-0000
Prime	Ameren Missouri	Moberly	MO	65257-0000
Prime	Ameren Missouri	Utica Village	MO	64686-0000
Prime	Ameren Missouri	Pilot Grove	MO	65322-0000
Prime	Ameren Missouri	Utica Village	MO	64664-0000

STATEMENT OF PROJECT OBJECTIVES (SOPO)

Rural Modernization Program

A. OBJECTIVES

Improve Grid Reliability and Visibility – Limit the impact of outages and provide increased operational visibility and control through the installation of smart reclosing devices. Install one or more pad-mounted transformers and upgrade aged rural substations with 22MVA substations and modern standard equipment. Support hardening through distribution line upgrades and the integration of Distributed Energy Resources and Electric Vehicles by increasing hosting capacity and incorporating modern relay and protective devices.

Encourage Equitable Economic Growth - Improve the quality of life for those living in rural Disadvantaged Communities (DACs) and create opportunities for economic growth. ~45% of project sites and ~70% of estimated program costs are directly located within DOE defined disadvantaged communities (DACs). The remaining projects are in areas with over 1/3 of the population living at or below 200% of the federal poverty threshold and rank in the worst ~40% of census tracts for all Justice40 socio-economic criteria in both the state and across the country.

Promote Diverse and Union Opportunities - Promote and support economic opportunities for certified underrepresented businesses (MBEs), local and union labor, and the use of Collective Bargaining Agreements. Ameren Missouri will retain high-quality jobs for our union employees around these rural communities, as well as direct work toward our skilled in-house workforce.

Invest in the American Workforce - Attract, train, and retain talent by utilizing local and statewide talent development programs and partner organizations. Ameren Missouri will partner with program(s) located in southeast Missouri to promote workforce development.

Identify Actionable Solutions - Expand outreach programs to engage and collect feedback from customers and stakeholders on program strategy, project sites, and other program activities.

B. SCOPE OF WORK

In order to achieve the program's objectives, Ameren Missouri will upgrade 13 rural distribution substations with peak loading of 2.5 MVA or less with one or more pad-mounted transformers and smart reclosing devices and reclassify them as "Points of Distribution." Individual projects of this kind are differentiated by the number of pad-mounted transformers installed (1 to 3), whether a 4 kV to 12kV distribution line conversion will occur, and whether a 12 kV line tie point is added, rebuilt, and hardened to connect to a nearby rural town. In addition to pad-mounted transformer projects, the program will also install three (3), 22 MVA substations to support future load growth while improving grid reliability and flexibility at three project sites.

Distribution upgrades foster opportunities for Ameren Missouri to deliver both high-quality work

for our union employees and substantial benefits to local communities. As part of this initiative, Ameren Missouri is committed to utilizing our union labor for skilled trade work to the greatest extent possible. Ameren Missouri will also actively engage with the communities impacted by these projects to raise equity and parity standards across the state. Ameren Missouri is committed to better understanding community needs and will work to action feedback into tangible results through our Community Benefits Agreement with program partners located in southeast Missouri. By working with our partners, Ameren Missouri is dedicated to ensuring the program delivers on its objectives.

C. TASKS TO BE PERFORMED

Task 1.0: Project Management and Planning

Subtask 1.1: Project Management Plan (PMP)

Within 30 days of award, Ameren Missouri will submit a PMP to the designated Federal Project Officer (FPO). Ameren Missouri will not proceed beyond Task 1.0 until the PMP has been accepted by the FPO. The PMP will be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes to the planned approach, budget, key personnel, major resources, etc. Ameren Missouri will manage and direct the project in accordance with the accepted PMP to meet all technical, schedule, and budget objectives and requirements. Ameren Missouri will coordinate activities to effectively accomplish the work. Ameren Missouri will ensure that project plans, results, and decisions are appropriately documented, and that project reporting and briefing requirements are satisfied.

Subtask 1.2: National Environmental Policy Act (NEPA) Compliance

As required, Ameren Missouri will provide the documentation necessary for NEPA compliance.

Subtask 1.3: Cybersecurity Plan (CSP)

Ameren Missouri will submit a CSP during award negotiations and prior to receiving funding. It will be revised and resubmitted as often as necessary, during the course of the project, to capture any major/significant changes.

Subtask 1.4: Continuation Briefing(s)

Ameren Missouri will brief the DOE on roughly an annual basis to explain plans, progress, and results of the technical effort. The briefing will also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the PMP.

Task 2.0: Community Benefits Plan

Subtask 2.1: Community Engagement

Host listening sessions at community events or public discussion forums and provide Rural Modernization project updates in rural communities across southeast Missouri.

Subtask 2.2: Community Benefits Agreement (CBA)

Finalize a signed CBA with a southeast Missouri community partner. Detail terms and requirements for Ameren Missouri to deliver benefits to southeast Missouri communities via the Rural Modernization program.

Unless otherwise noted, the following tasks are applicable to all 16 of the Rural Modernization program's projects. Ameren Missouri has established a sequence for executing the 13 pad-mounted transformers and smart reclosing devices projects and the three (3) 22 MVA substations. The 16 projects will be developed in four waves. Wave 1 consists of three pad-mounted transformer projects and two 22 MVA substation projects. Wave 2 consists of four pad-mounted transformer projects. Wave 3 consists of three pad-mounted transformer projects and one 22 MVA substation project. Wave 4 consists of the final three pad-mounted transformer projects. Each of these individual transformer plans are their own sub-project in the overall Project Schedule. All 16 transformer sub-projects include the following five key overarching tasks.

Task 3.0: Project Initiation

Subtask 3.1: Initial Assessments and Estimates

Ameren Missouri will obtain budget estimates, initiate environmental assessments, and for projects with overhead line work, obtain vegetation removal estimates.

Subtask 3.2: Risk Mitigation

Ameren Missouri will identify project risks and develop appropriate mitigation plans.

Subtask 3.3: Work Order Approval

Task 3.0 is complete upon full work order approval.

Task 4.0: Design

Subtask 4.1: Substation & Overhead Design

For the larger 22MVA substation projects, this includes an initial site layout, load study, develop one-line circuit and component diagrams and identification of specifications. Design for pad-mounted transformer projects primarily consist of line routing and creation of stringing diagrams and construction plat pages.

Subtask 4.2: Civil Design

This consists of site surveying, overhead pole design, and grading, fencing, drainage, and foundational design.

Subtask 4.3: System Protection Design

Ameren Missouri will review electrical schematics and issue relay settings.

Subtask 4.4: Communications Design

This consists of the tasks associated with network element objects, including review, and approving standard network drawings and identifying any required fiber installation.

Subtask 4.5: Drafting

This subtask includes physical and electrical design drawings and finalizing civil site and electrical wiring schematics, which are reviewed/signed off by a Professional Engineer.

Task 5.0: Procurement and Permitting

Subtask 5.1: Procurement

This subtask consists of obtaining the appropriate quantity of materials. It could also consist of obtaining service contractors. Ameren Missouri maintains and will leverage relationships with key procurement contractors for long-lead items.

Subtask 5.2: Permitting

The permitting process includes identification of any necessary permits for installation and construction, including special zoning and conditional permits.

Task 6.0: Construction

Subtask 6.1: Installation

Depending on the type of project, this subtask includes construction elements like preparing the site, pouring concrete, setting and installing transformers or substation equipment, below-grade civil foundation development, and installing manholes.

Subtask 6.2: Verification

Ameren Missouri will verify that the substation and distribution automation is appropriately sending and receiving information.

Subtask 6.3: In-Service Determination

The asset is deemed in-service upon verification of final operational checks.

Task 7.0: Close-Out

Subtask 7.1: Finalize and Update Resources

Ameren Missouri will finalize as-builts to reflect final construction installation versus initial design and update internal distribution maps.

Subtask 7.2: Recap

Ameren Missouri documents lessons learned, and the project team meets to discuss outcomes and how to improve activities for the next installation.

Subtask 7.3: Complete Close-Out List

Task 7.0 is finished upon completion of a final close-out checklist that includes updating system-wide documentation management systems.

D. DELIVERABLES

Deliverables are associated with the above defined Subtasks:

Subtask 1.1: Project Management Plan
Subtask 1.3: Cybersecurity Plan
Subtask 1.4: Pre-Continuation Briefing Document(s)

Ameren Missouri will also adhere to additional reporting requirements applicable to BIL Grid Resilience and Innovative Partnerships Topic Area 2, including but not limited to Justice40, environmental, demographic, and workforce development data collection, as requested by the DOE. Ameren Missouri will also submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

E. BRIEFINGS/TECHNICAL PRESENTATIONS

Ameren Missouri will prepare, and present periodic briefings, technical presentations and demonstrations as requested by the FPO, which may be held at a DOE or Ameren Missouri's facility, other mutually agreeable location, or via webinar. Such meetings may include all or a combination of the following:

Kickoff Briefing - Not more than 30 days after submission of the PMP, Ameren Missouri will prepare and present a project summary briefing as part of a Project Kickoff Meeting.

Pre-Continuation Briefing - Not less than 90 days prior to the planned start of a budget period, Ameren Missouri will brief the DOE on the results to date, and their plans for the subsequent periods of work. The DOE will consider the information from this briefing, as well as the content of deliverables submitted to date, prior to authorizing continuing the project.

Final Project Briefing - Not less than 30 days prior to the end of the project, Ameren Missouri will prepare and present a Final Project Briefing on the results and accomplishments of the entire project.

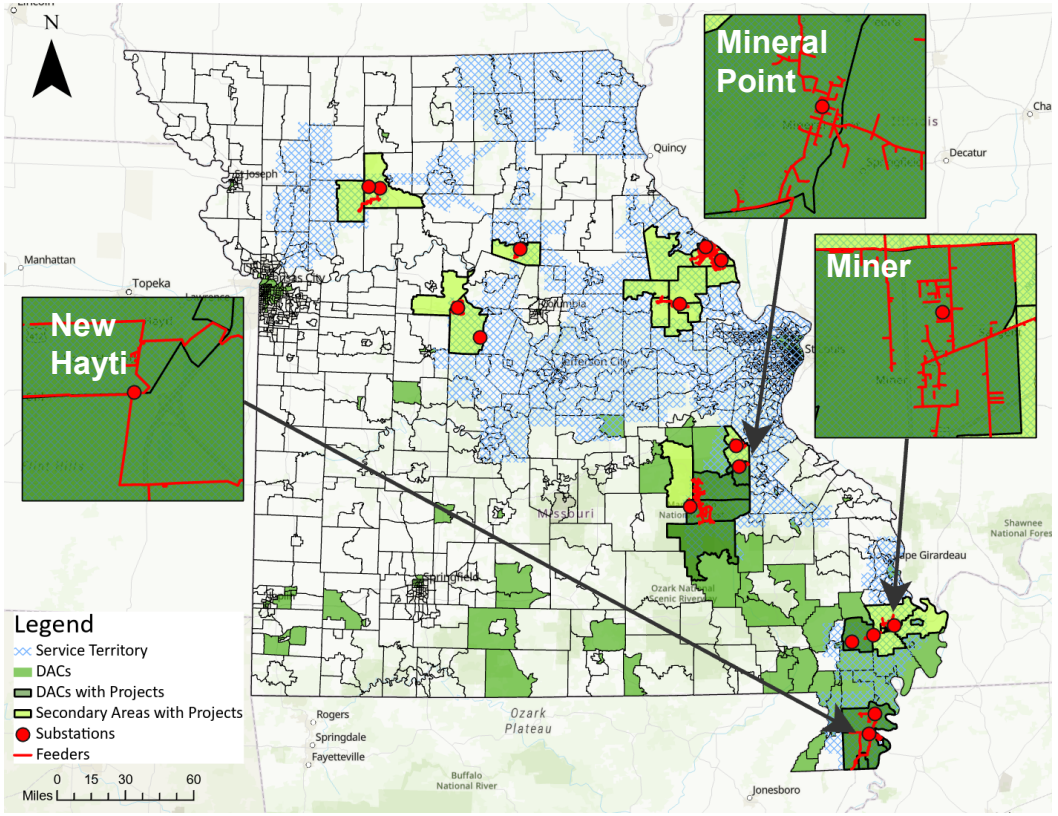
Other Briefings - Ameren Missouri will prepare and present technical, financial, and/or administrative briefings as requested by the DOE. Additionally, the DOE may require Ameren Missouri to make technical presentations at national and/or industry conferences.

Ameren Missouri's GRIP Topic 2 Proposal: Rural Modernization

An innovative, impactful solution that improves reliability and resiliency, simplifies operations, and brings smart technology to better serve rural, disadvantaged communities (DACs)

Project Title: Rural Modernization Program
Prime Recipient
Ameren Missouri
Targeted Substation Upgrades
16 Total Substations (13 Pad-Mounts and Three 22 MVA Substations)
Total Estimated Costs
~$100M
Targeted Grant Amount / Est. Ameren Missouri Share of Costs
~$50M / ~$50M
Key Personnel
<u>Project Manager</u> Jim Huss, Senior Director, Operations Excellence <u>Technical & Business Point of Contact</u> Joseph Wondolowski, Manager, Capital Planning and Analysis

Targeted Substations*



* New Hayti, Miner, and Mineral Point Substations are considered large substations and will be replaced with modern 22 MVA substations due to a current/anticipated load growth of >5 MVA which is not suitable for pad-mount upgrades. These 22 MVA substations will utilize enclosed substation switchgear design with Intellirupters.

Ameren Missouri's GRIP Topic 2 Proposal: Rural Modernization

Ameren Missouri's program enables a diverse array of grid benefits for targeted communities and customers while facilitating future integration of EVs and DERs

Central to this program are smart reclosing devices, which increase operational visibility and control, expand operational flexibility, and improve reliability and resiliency by limiting the impact of outages

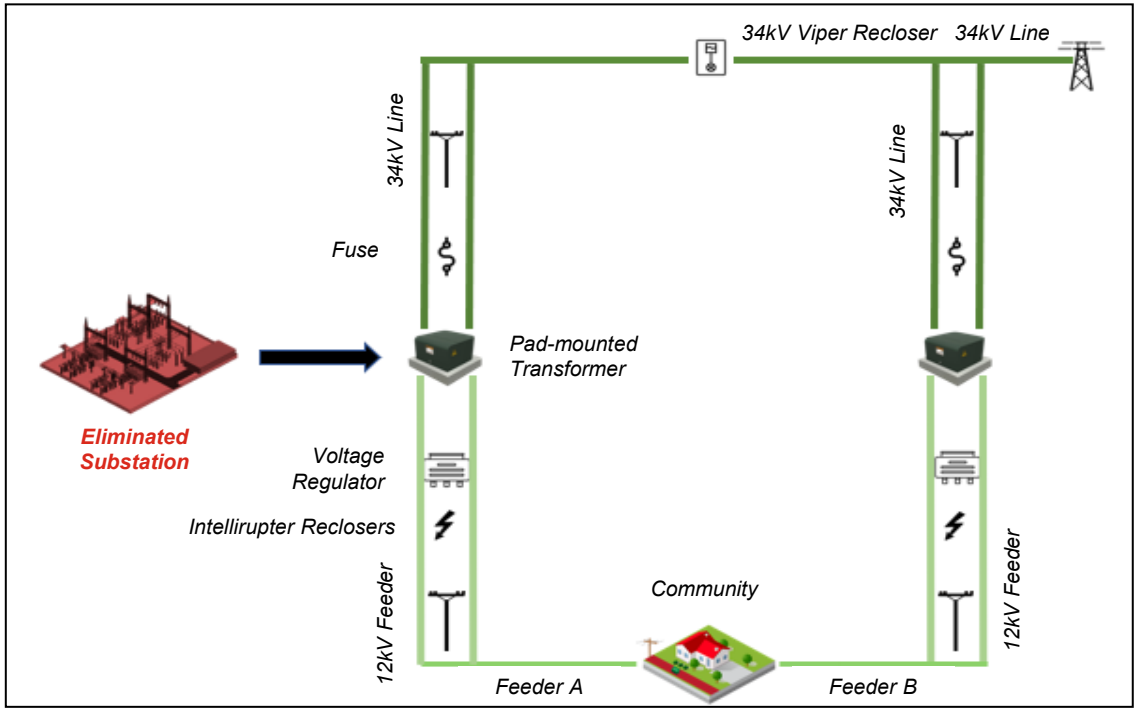
The Rural Modernization program also includes:

- 4kV to 12kV distribution line conversions
- Rebuilds and constructs new distribution feeder ties
- Installs 34kV/12kV distribution pad-mounted transformers at 13 locations
- Installs modern 22 MVA distribution substations at 3 locations

This suite of solutions leads to substantial benefits like:

- Greater grid resiliency, flexibility, and visibility
- Faster fault clearing times
- Shorter and less frequent outages
- Reduced impact of environmental hazards
- Simplified outage restoration efforts and fewer maintenance requests
- Improved public and worker safety

Rural Modernization Technology Example



The pad-mounted transformer design replaces vulnerable rural substations with minimal anticipated load growth over the next two decades. *The image above* illustrates the dual pad-mounted transformer design, where the existing substation is eliminated and replaced by two pad-mounted transformers with a smart reclosing device (i.e., Intellirupters, Viper Reclosers) at a tie-point between two ends of the town's circuit. This design requires **minimal** maintenance and adds **redundancy**, **visibility**, and **self-healing** benefits.

Ameren Missouri's GRIP Topic 2 Proposal: Rural Modernization

Along with distribution grid improvements, Ameren will work in collaboration with its community partners to achieve six main objectives as part of the Community Benefits Plan

Support the **revitalization** of economies in DACs and historically underserved communities

Develop solutions that will adequately address key community concerns and needs

Attract, develop, and retain a **diverse workforce** in the skilled energy trades

Help drive the DOE's **Justice40 priorities** to ensure equitable investment

Advance internal and external **DEIA**, **ESG**, and **health** and **safety** practices

Refine Ameren Missouri's community and labor approach so that it can be **replicated** for future AMO initiatives

a. Personnel

INSTRUCTIONS - PLEASE READ!!!
1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate ($/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate ($/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate ($/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate ($/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate ($/Hr)	Total Budget Period 5			
5	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
6	[redacted] (b) (4)																		Previous Project Data
4	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
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6	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
6	[redacted]																		Previous Project Data
6	[redacted]																		Current Labor Rate Data
2	[redacted]																		Actual Salary
2	[redacted]																		Actual Salary
2	[redacted]																		Actual Salary
2	[redacted]																		Actual Salary
2	[redacted]																		Actual Salary
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2	[redacted]																		Actual Salary
	Total Personnel Costs	16092		$3,527,258	36264		$7,003,268	51481		$7,949,262	37155		$4,814,179	9743		$1,024,121	150735	$24,318,088	

Additional Explanation (as needed): **The rural locations of focus for our proposed program entails additional costs linked to anticipated increase of labor costs and increase of logisitical costs associated with work in rural/isolated areas that are covered by a 30% contingency rate applied to all projects**

1.0 Project Overview

1.1 Background

Founded in 1902, Union Electric Company, doing business as Ameren Missouri (Ameren), is the state's largest electric utility. Ameren has over 1.2 million customers across 63 counties representing more than 500 communities and spans 20,300 square miles in central and eastern Missouri. Ameren's engineering and construction teams have a long track record of successfully planning, designing, and constructing energy infrastructure projects since its inception. More specifically and recently, from 2019 through the beginning of 2023, this team of experts will have completed 75 new or upgraded substation construction projects and installed over 1,100 distribution automation (DA) devices throughout Ameren's Smart Energy Plan (SEP). Given these past successes and the breadth of relevant experience, Ameren is excited to continue improving the grid's resiliency and reliability by integrating modern, innovative ideas, and smart grid technologies.

Ameren has a legacy fleet of more than 130 rural substations, making up almost a quarter of its distribution fleet, that was built to a now outdated standard. These substations and downstream circuits are poorly suited to integrate Distributed Energy Resources (DERs) due to their limited hosting capacity, lack of monitoring, and control capability. Much of Ameren's service territory has lower population densities, making it difficult to prioritize potential capital projects proactively. This density typically results in the need to run existing rural infrastructure to failure because replacing it is a relatively lower priority given the competing demands of the system in higher populated areas. Additionally, having only a small subset of experienced technicians to pull from compounds the problems with these substations since they require technicians with niche skill sets to service them, which ultimately results in longer restoration times when outages occur. An unintended consequence of prioritizing capital investments in higher populated areas is a lack of modern infrastructure and relatively poor reliability performance across more rural areas. As a result, nearly a third of the feeders served by these substations appear on the Worst Performing Circuit list, a list of feeders in the bottom 5% of reliability performance, largely since the circuits don't communicate. These circuits have complicated maintenance and emergency operating needs, nearing or past their engineered life, with an associated average substation age of 53 years, surpassing their typical useful life of 50 years.

1.2 Project Goal

Ameren proposes the innovative Rural Modernization program (Program) to better serve its rural and Disadvantaged Community (DAC) customers through the modernization of rural grid infrastructure. The Program will upgrade 16 targeted locations to improve local rural customer reliability and increase the ability to monitor and remotely control rural circuits while facilitating future integration of DERs and the adoption of electric vehicles (EVs).

Grid distribution upgrades include installing smart reclosing devices, 4 kV to 12 kV distribution line conversions, distribution feeder tie-ins, and substation elimination and standardization. The

goal of the Program is to deliver grid reliability and flexibility improvements with a focus on equity to rural DACs. The Program seeks to advance the Department of Energy's (DOE)'s Justice40 initiative by targeting approximately 45% of project locations serving DACs, representing approximately 70% of the estimated total Program investment. The Program aims to benefit customers in these communities through standardization and hardening of rural substations. Such efforts will enable future tie connections that give distribution operators more options when managing outages. The Program will spread the benefits of distribution upgrades from one rural municipality to the next, and support future load growth as DER adoption and commercial activity in the region increases.

Distribution upgrades foster opportunities for Ameren to deliver both high-quality work for Ameren union employees and substantial benefits to local communities. Ameren is committed to utilizing its union labor for all skilled trade work to the greatest extent possible as part of this initiative. Ameren will actively engage communities and raise equity and parity standards across the state of Missouri. The company is committed to better understanding community needs and will work to action feedback into tangible deployments that will be ensured through a Community Benefits Agreement (CBA) with the (b) (4). By working with community partners like the (b) (4), Ameren is dedicated to ensuring the Program delivers impactful benefits to its customers.

1.3 Department of Energy (DOE) Impact

The DOE's funding allows for a once-in-a-lifetime opportunity to proactively replace legacy and aging infrastructure before needing to in an unplanned manner and without burdening customers with higher costs and potentially lengthy outages. As a result of capital constraints, Ameren has historically prioritized areas of the system with high customer counts and high concentrations of critical customers (e.g., hospitals, universities, and industrial facilities) for upgrades. Due to this prioritization standard, critical components in rural infrastructure were traditionally replaced upon failure.

Upgrading these substations and their downstream feeders with modern transformers, conductors, and automated switching and monitoring devices will address the failure risks of these assets. DOE funding provides a path to address these previously deprioritized portions of the system by enabling Ameren's ability to initiate projects on a more rapid timeline. Only 13 pad-mounted transformer installations are planned to be placed into service within the next five years. However, with the DOE funding, the Program will accelerate and increase the deployment of these innovative projects more than two-fold.

Line conversions in the Program standardize capacity across Ameren's rural service territory, allowing for new feeder tie-ins that support customer reliability and add further grid flexibility, redundancy, and resiliency. DOE funding accelerates the opportunity for funding these tie-in projects as the baseline transformer and line conversion work will be complete during this effort.

1.4 Community Benefits Plan Summary

Ameren's Rural Modernization Community Benefits Plan (CBP) is centered around its high standards of equity and sustainability. Ameren will leverage its relationships with community and workforce partners (b) (4) to support the Program's objectives, drive accountability, and promote transparency. Ameren will partner with the (b) (4) to support its workforce development program, creating pipelines for full-time employment opportunities in southeast Missouri. Ameren will also invite community involvement through quarterly community engagement meetings to spread awareness and elicit feedback on the Program. The Program promotes union work by utilizing Ameren's union workforce for construction activities. Ameren is confident that this approach, combined with accountability tools such as a CBP and SMART milestones, will create a lasting community, workforce, and labor development strategy that can be replicated and refined for future Ameren initiatives.

1.5 Climate Resilience Strategy

Ameren actively deploys a multi-faceted strategy to ensure the reliability and stability of the distribution system given the impacts of climate change and extreme weather for all its grid assets, consisting of prevention and protection of assets, weather monitoring, and emergency response preparation. Asset upgrades under the Program will also be hardened. Sensitive equipment is housed within the transformer's metal case, which mitigates the impact of precipitation, winds, and ice. Pad-mounted transformers replace aging wood pole substations prone to hazards such as tornadoes and extreme wind. Automated switching devices have also proven to effectively combat adverse effects of extreme weather through automatic detection, location, and isolation of grid disturbances.

Ameren undergrounds those it believes are most susceptible to weather-related damage when constructing or replacing new distribution lines. It uses composite material poles and cross-arms, line post insulators, 360-degree pole guying, high-performance wind and ice-resistant conductors, and mechanical line dampers for overhead lines. For the sections of the underground line to be addressed by the Program, Ameren will use modern insulation technologies such as ruggedized cable protection and installation in conduit instead of direct burial. All the above measures are designed to mitigate the effects of wind, ice, moisture, and extreme temperatures.

2.0 Technical Description, Innovation, and Impact

2.1 Project Description, Relevance, and Grid-Benefitting Outcomes

Ameren shares the DOE's goal of building a clean and equitable energy economy to drive growth and revitalize disadvantaged and underserved communities. Ameren understands employers and employees are attracted to areas with reliable, modern infrastructure. Ameren proposes an innovative approach to modernizing its distribution grid infrastructure to accomplish these goals and better serve its customers in rural DACs. The proposed Program will utilize smart grid

technologies and core distribution grid upgrades to maximize the impact on state-wide rural customer reliability. These smart grid investments are critical to catalyzing growth and encouraging future infrastructure investments within broader rural Missouri regions.

The Program is a suite of solutions, including DA devices, pad-mounted transformer upgrades, 4 kV to 12 kV line conversion, and increasing circuit capacity with rural substation upgrades and cross-town tie points. The innovative core technology to be deployed by the Program is DA devices (i.e., intellirupters and viper reclosers) configured with pad-mounted transformers and substation upgrades. These devices will alter the distribution network's topology to provide greater grid resiliency and flexibility. These smart reclosing devices provide operating visibility and automated switching capability to prevent or mitigate the impact of outages and add additional protective capabilities to distribution circuits to support modern grid features like EV chargers and DER adoption. Smart reclosing devices feed information to SCADA systems, allowing grid operators to identify outages and understand their extent much faster than the automated meter reading system alone. It will complement advanced meter infrastructure planned for service territory-wide installation by 2025, reducing outage response times.

Delivering measurable benefits to those who need it most is equally important to modernizing the oldest, worst-performing substations and circuits. Ameren shares the DOE's goal of prioritizing and revitalizing DACs and has worked diligently to ensure those goals are reflected in the Program. To that end, Ameren expects 100% of the benefits to flow to rural regions across 18 counties within the state. Nearly 45% of project sites are directly located within a rural DAC (see Figure 1, green shading), and the remaining to secondary areas (Figure 1, light green shading). Importantly, these secondary areas are also considered impoverished, with over one-third of the population living at or below 200% of the federal poverty threshold and ranking in the worst ~40% of census tracts for all Justice40 socio-economic criteria in both the state and across the country. These secondary areas are not classified as disadvantaged per the DOE's definition but share similar characteristics with DACs. These areas also suffer from high levels of unemployment–with an average unemployment rate higher than the national rate. The lack of employment opportunities, coupled with the burden of poverty, demonstrates the substantial need for economic growth and infrastructure upgrades in both DACs and secondary areas.

Substations serve three project sites within DACs targeted by the Program with current or anticipated load growth above five MVA. Therefore, they are not suitable for pad-mounted transformer installations. Figure 1 highlights the three sites targeted for an upgrade to modern standard 22 MVA substations to increase capacity and support anticipated load growth. The Program also includes 4 kV to 12 kV line conversions for roughly 40% of the project sites to address reliability concerns not directly associated with substations. Combined with substation upgrades, line conversions also bring additional hosting capacity and voltage stability for these circuits, enabling future adoption of DERs and EVs. This work includes replacing aging conductors, insulators, and hardening distribution poles. Line conversions to standardize capacity across rural distribution circuits allow for eliminating islanded 12 kV or 4 kV circuits through new feeder tie-ins to nearby towns, adding redundancy and resiliency. Adding redundancy through feeder tie-

ins compliments the automatic switching capabilities of smart reclosing devices by mitigating the impact of routine maintenance requiring planned outages.

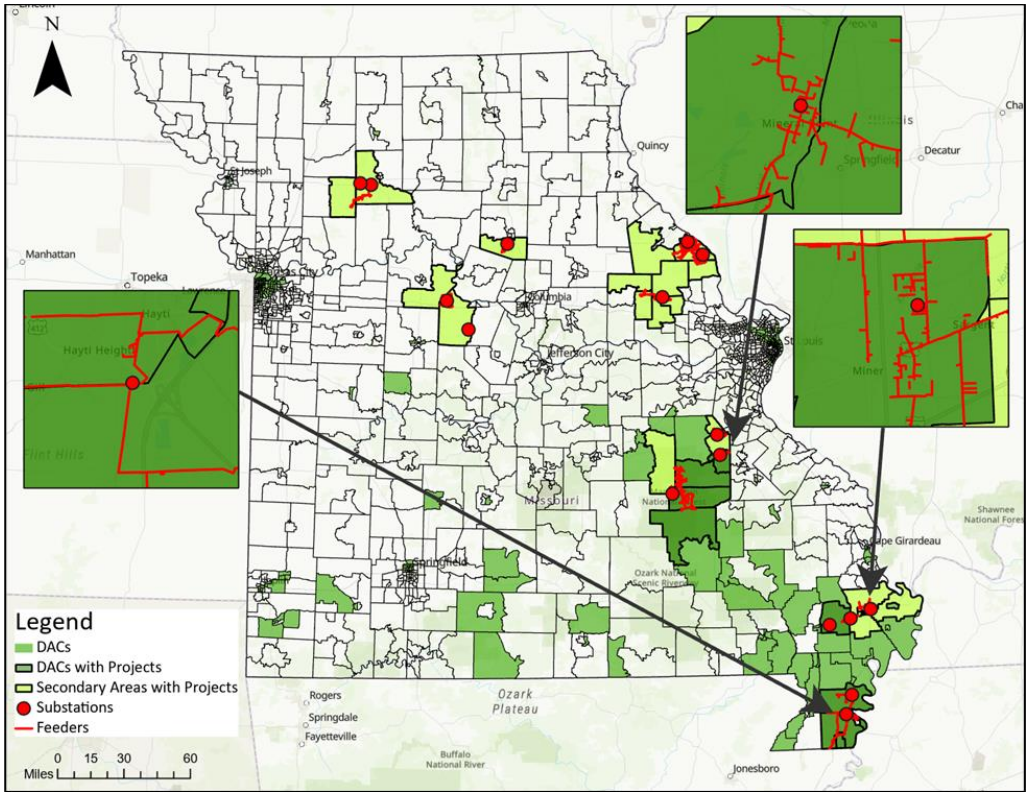


Figure 1. Targeted rural substations and locations with DACs (green) and identified secondary areas (light green). Large 22 MVA substation projects are shown in callouts next to the state map.

Furthermore, the Program includes other initiatives to drive equity and the retention of high-quality jobs across rural Missouri. Ameren will be implementing a robust CBP that includes partnerships with DAC-serving and workforce development organizations and the use of accountability tools such as a CBA and SMART milestones. Through these partnerships and tools, Ameren will be able to engage stakeholders, collect feedback, and identify deployments that best address the needs of the communities of central and southeast Missouri, helping to revitalize and grow the Missouri economy.

GRIP Topic Area 2 Objectives Align to Program's Anticipated Grid-Benefitting Outcomes

Table 1 discusses how the Program meets GRIP Topic Area 2 objectives.

GRIP Topic Area 2 Objectives	Rural Modernization Supporting Functions and Grid-Benefiting Outcomes
Prevent faults that may lead to wildfires or other system disturbances	Smart reclosing devices have the capability to detect potential faults instantly. When faults occur, they can instantaneously shut off power to protect the circuit and community from damage due to extreme weather and downed live wires. Installing smart reclosing devices between feeder tie-ins also shorten the length of individual feeder lines, thereby reducing exposure/impact of weather and animal contact (see Figure 3). Finally, 4 kV to 12 kV line conversions harden

	poles and wires, making them less vulnerable and better at preventing disruptions.
Integrate renewable energy resources at the Transmission and Distribution levels Facilitate the aggregation and integration of EV & other grid-edge devices or electrified loads	Rural substation upgrades incorporate modern protection schemes that are better adaptive to DER adoption at distribution levels. Substation upgrades and downstream 4 kV to 12 kV line conversions provide additional DER, EV charging, and renewable energy hosting capacity in expected load growth and economic development areas.

Table 1. GRIP Topic Area 2 Objectives and Program Grid Benefitting Outcomes.

GRIP Topic Area 2 Priority Investments Align to Program's Anticipated Grid-Benefitting Outcomes

Table 2 discusses the Program's alignment to and investment in Topic Area 2 priority goals of aggregation and integration of DERs and other grid edge devices.

Select GRIP Topic Area 2 Priority Investments	Alignment With the Program's Investments
Improve the visibility of the electrical system to grid operators to help quickly rebalance the electrical system with autonomous controls through data analytics, software, and sensors	The Program will install smart reclosing devices that provide monitoring capability to distribution feeders. Additionally, substation switchgear and pad-mounted transformers come equipped with microprocessor relays that provide remote control and communication capabilities that allow engineering and operating teams to see asset and circuit loading, monitor voltage, and detect and locate faults. Installation of these devices will provide grid visibility across 18 affected counties. The Program aims to impact operations in real-time and provide data for fault analysis to identify the need for future asset upgrades based on observed performance trends.
Anticipate and mitigate the impacts of extreme weather or natural disaster on grid resiliency, including investments to increase the ability to redirect or shut off power to minimize blackouts, prevent wildfires, and avoid further damage	Investments planned for the Program anticipate and mitigate the impacts of extreme weather or natural disaster on grid resiliency via the following: • **Install hardened, enclosed components**: Pad-mounted transformers and 38 kV switchgear (installed in 22 MVA substations) are enclosed in a metal cabinet and are more weather-resistant than legacy substations, resulting in a lower risk of damage due to extreme weather. • **Replace aging assets:** The Program replaces aging substation assets at risk of material failure from extreme weather or natural disasters. Smart reclosing devices automatically sense and interrupt fault currents and restore service after a momentary outage caused by extreme weather has occurred. • **Simplify storm restoration for remote communities:** For many of Ameren's rural substation locations, installing pad-mounted transformers simplifies operations and eliminates the need for technicians with specialized substation skill sets to service them. Instead, it allows any line worker to perform that work. Outside technicians will now be able to service the equipment during major events, reducing restoration times by simplifying outage response operations during storms. • **Reduce distribution line exposure to hazards:** The Program effectively reduces the length of distribution lines prone to the effects of extreme weather and animal contact by splitting them into shorter spans connected to a pad-mounted transformer and DA device for each segment. As discussed in Section 2.2, this design mitigates the impact of outages by sectionalizing a portion of the line versus impacting all the circuits in the event of a fault caused by extreme weather.

	• **Provide redundancy for rural circuits:** As discussed in Section 2.2, the dual pad-mounted transformer configuration adds redundancy to the distribution circuits. Additionally, 4 kV to 12 kV conversions standardize the voltage to that of the surrounding areas, enabling more feeder ties and adding redundancy to the circuit.
Aggregation and integration of DERs and other grid-edge devices to provide system benefits, such as renewable energy resources, EV charging infrastructure, vehicle-to-grid technologies and capabilities, and smart building technologies	The Program installs smart reclosing devices with adjustable protection settings to prepare for expected load growth stemming from the rising adoption of DERs. Ameren's legacy rural substations fleet and downstream circuits will struggle with DER integration due to capacity constraints, monitoring, and control inefficiencies. The proposal to replace selected rural substations includes pad-mounted transformers equipped with protective devices, monitoring equipment, and relays that enable increased DER adoption. 22 MVA substation upgrades and 4 kV to 12 kV line conversions increase the grid's capacity, enabling accelerated investments into EV chargers and DERs. Line conversions give Ameren the ability to add new feeder tie-ins by standardizing capacity across the circuit. The feeder tie-ins add redundancy and resiliency and, in conjunction with smart reclosing device capabilities, lead to less maintenance requiring planned outages.

Table 2. GRIP Topic Area 2 Priority Investments and Program Grid Benefitting Outcomes.

An additional grid benefit provided by pad-mounted transformers is increased public safety**.** Installing pad-mounted transformers substantially lowers the risk of electric shock to lineworkers servicing the equipment and the public because such assets lack exposed energized components compared to legacy equipment. Pad-mounted transformers are installed at ground level, preventing fall hazards for lineworkers as opposed to servicing the legacy wood pole-mounted substations using ladders. Pad-mounted transformers also have grounding connections secured within the cabinet versus the current practice of being buried underground nearby. These transformers better protect the equipment from unauthorized tampering (e.g., theft of copper wire for unlawful recycling), preventing the risk of electric shock to the public.

2.2 Innovation and Impacts

One of the key innovations pursued by this Program is the dual pad-mounted transformer design, as illustrated in Figure 2 below. Vulnerable rural substations with little anticipated load growth are eliminated and replaced with two pad-mounted transformers and a smart reclosing device at a strategic tie-point. This new equipment has minimal maintenance due to the inclusion of SCADA monitoring and self-diagnostic/self-healing capabilities. The upgrade also eliminates the substation and reclassifies the asset as a "Point of Distribution" (POD), which is capable of being serviced by lineworkers versus a small contingent of substation technicians. It also simplifies recovery operations in the event the smart reclosing device's self-healing capability is unable to restore power. The redundancy, grid visibility, and self-healing benefits will serve as a boon to these rural communities prone to extended outages since first responders must spend valuable time reaching these rural and remote locations before restoration steps can start.

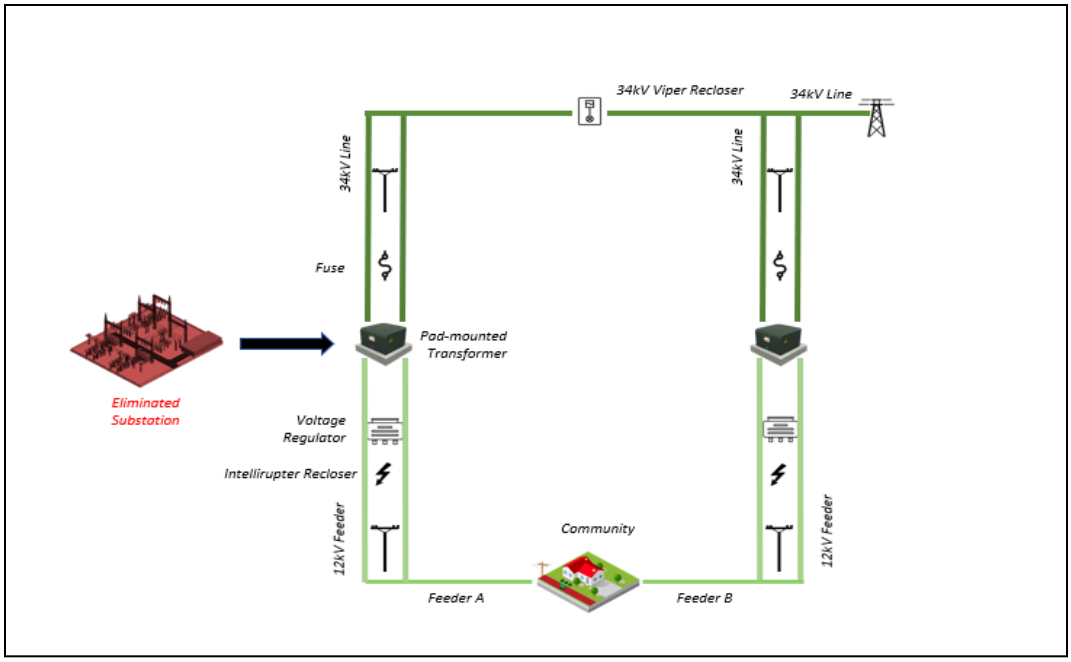


Figure 2. Illustrative example of the dual pad-mounted transformer with cross-town tie configuration replacing the legacy rural substation.

A second design scheme for installing pad-mounted transformers uses only one pad-mounted transformer. This installation is a cost-effective option for locations where the load is too small to be split evenly between two pad-mounted transformers, which may result in one of the two transformers being idle with no load. The design would appear identical to the left half of figure 2. These locations will see many of the grid benefits listed above for the dual pad-mounted transformer design, with redundancy provided by feeder ties to other pad-mount transformer sites vs. an additional pad-mounted transformer in the same town.

Combining smart reclosing devices with multiple pad-mounted transformers and feeder tie-ins will also optimize network topology, thus reducing the vulnerability of circuits to disruptive events. As shown in Figure 3, the legacy distribution circuit configuration (bottom left) contains long, low-voltage lines serving multiple communities through a single substation. This configuration presents a few problems: a) longer line length makes them vulnerable to animal contact and weather events, b) a substation fault will cause an outage over a larger area, and c) lengthy distribution lines are often complicated to maintain and restore due to location and terrain. The proposed configuration (shaded blue) effectively reduces the length of distribution lines exposed to the problems listed above by sectionalizing the low-voltage line with PODs independently served by a nearby 34 kV line, while also offering the monitoring and protection capability granted by smart reclosing devices. 12 kV distribution line upgrades are also considered storm hardening and are more able to mitigate the impact of severe weather.

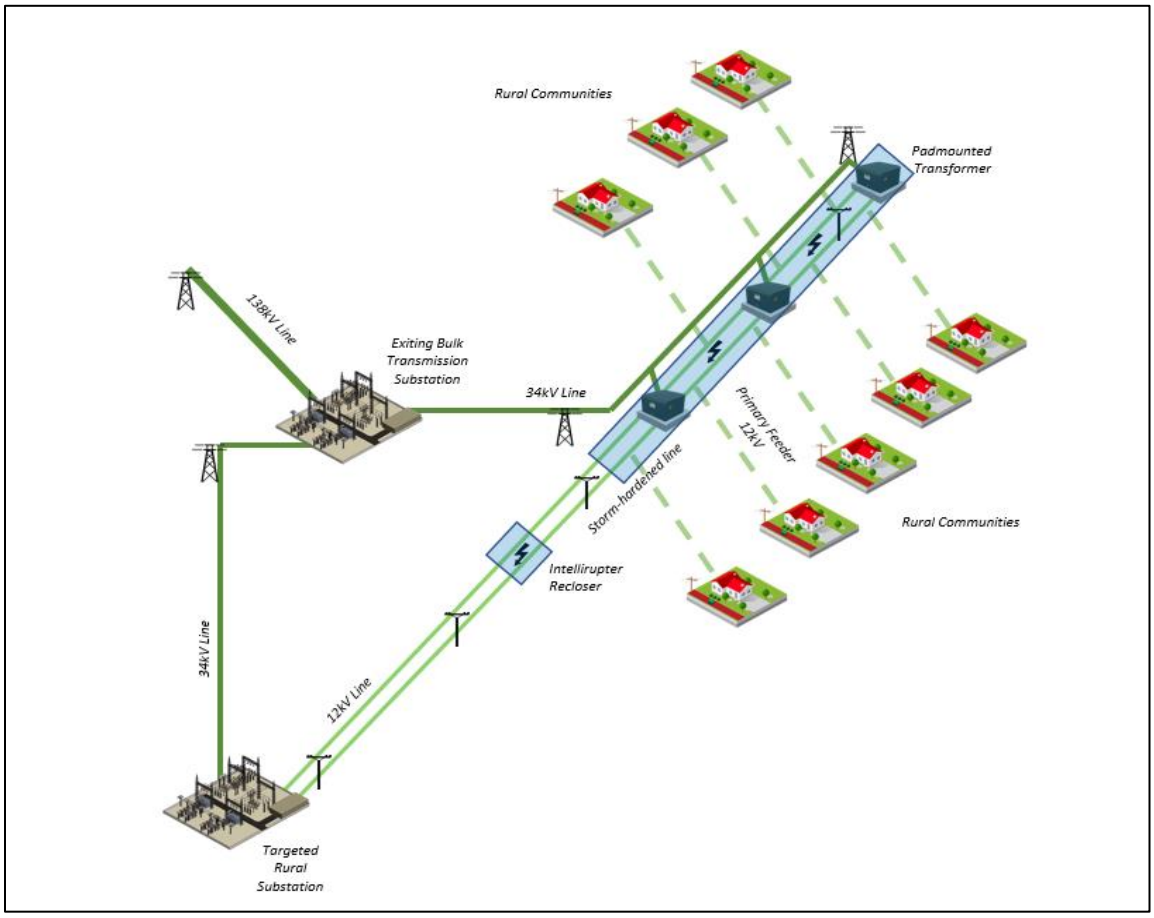


Figure 3. Illustrative example of pad-mounted transformers and smart reclosing devices impact on distribution topology. New additions are shaded in blue.

Though rebuilding the existing substation was evaluated, pad-mounted transformers are less expensive than this option and leave a smaller footprint while still holding the same loading capacity. The smaller footprint and lower cost allow pad-mounted transformers to be affordably built on either end of a small town, placing the POD closer to its intended load and further providing reliability improvement.

The Program also upgrades three rural substation sites, Miner-12, Mineral Point, and Hayti, with modern 22 MVA substations, a design Ameren has been using since 2019 due to its many advantages. This substation design standard modernizes equipment and protection schemes that are decades old, allowing for greater reliability and operating flexibility by clearing faults faster, enhancing protections from animals and weather with metal enclosures, and moving connections from overhead to underground. Additionally, the implementation of this design requires less maintenance with the enablement of remote diagnostics, fewer maintenance outages, and greater flexibility in the physical layout when faced with site challenges. Without these needed upgrades, the existing substations will not be able to serve anticipated load growth and be prone to material failure.

2.3 Feasibility

In addition to the successful completion of modern substations and DA installations discussed in Section 1.1, Ameren has placed 13 pad-mounted transformer projects in service since the initiative began in 2019. Therefore, Ameren is confident in its ability to execute the proposed projects.

[redacted] Ameren, therefore, anticipates the implementation of these devices in targeted rural locations to also significantly lower outage times.

When choosing the targeted rural locations for the Program, Ameren considered the geographic spread of projects throughout its service territory to ensure it does not overload regional divisions when assigning construction crews and design teams. Furthermore, Program projects will primarily utilize existing substation sites and easements to lower the costs and risks to the timeline associated with acquiring land rights. Projects will utilize existing 34 kV sub-transmission lines, and new tie miles are primarily along major roads and highways to simplify logistics and reduce costs.

2.4 Legislative Alignment

In 2018, the Missouri Legislature passed Senate Bill (SB) 564, which gave Missouri electric utilities the ability to invest additional capital in projects. Another provision in the law required electric utilities to submit 5-year capital investment plans, mandating at least 25% of the cost go toward grid modernization projects. These provisions enabled the SEP. The provisions in SB 564 were set to expire in December 2023, but in August of 2022, the Missouri Legislature passed SB 745, which extended the provisions into 2028. The Program's emphasis on deploying smart grid technologies and modernizing Ameren's rural electric grid aligns with these legislative goals.

In addition to the Program's alignment with state legislative goals, the benefits delivered by the Program are consistent with the office of Governor Michael L. Parson's top initiatives of workforce development, infrastructure improvement, and the cultivation of stronger communities, as indicated in his letter of support (see "LOC.pdf").

2.5 Risk Management and Achievement of Deployment At-Scale

The emerging technology risks of the Program center around the broad deployment of smart reclosing devices, which rely on wireless communication networks. The table below identifies these risks and Ameren's strategy to address them.

Innovative Technology Risk	Impact Rural Modernization Provides to Address Risk
Poor network connectivity in rural Missouri may limit the operating capabilities of smart reclosing devices.	Ameren is in the process of deploying a Private LTE network in the St. Louis metro area and is undergoing a detailed evaluation to expand the network to rural areas.
In general, manufacturers of industrial control systems (e.g., smart reclosing devices) struggle to adopt security features and often lag behind other areas of the economy. Large-scale deployment of these devices increases cyber security risks to Ameren's systems.	Ameren builds its cybersecurity standards around reputable manufacturers and services. The cybersecurity team is involved during the technological evaluation process when installing smart grid devices. Ameren's private LTE network is also protected with LTE and Multiprotocol Label Switching firewalls that move traffic through a VPN tunnel. Ameren strictly manages passwords to field equipment, ensuring factory default passwords are changed and standardized on hardened form-factor components to limit the attack surface.
Smart reclosing devices depend on third-party software and communication functions, which can leave Ameren vulnerable to supply chain risks resulting in longer lead times or limited availability of components and support.	Ameren has experience implementing the appropriate contracts with third-party vendors to ensure ongoing vendor support. Where possible, Ameren aims to diversify suppliers to hedge against supply-chain risks. Design considerations for protection systems implement common-mode failure analysis, redundancy, and layered protection to minimize or isolate the impact of local faults on equipment. In this way, Ameren mitigates the effects of lengthy lead times from suppliers if encountered.

Table 3: Ameren's Rural Modernization Risks.

Ameren also identified the following risks to the Program timeline and will use the following strategies to ensure the completion of it within the 5-year performance period.

1. **Procurement Partnerships**: To manage the competition to procure power transformers due to their high demand, Ameren has already taken steps to inform its key suppliers of anticipated needs and timelines to procure critical substation equipment such as transformers, regulators, switchgear, and DA devices. Ameren's suppliers, (b) (4) and (b) (4) have affirmed their commitment to supplying needed equipment in time for planned projects through a letter of commitment (see "LOC.pdf").
2. **Design, Engineering, and Project Management**: Ameren's internal design and engineering team is expected to design most of the Program projects; however, internal risk teams cannot support the anticipated increased load. Ameren will partner with Missouri-based diverse engineering firms to assist in managing this potential increased load. Two of which, (b) (4) and (b) (4) have committed to supply engineering and project management support (see "LOC.pdf").
3. **Underground Utility Risk:** This Program will effectively relocate many rural substations as pad-mounted transformers replace them. Ameren has experienced three-to-six-month construction delays due to unexpected interference from underground utilities (e.g., water mains and gas lines). Ameren will take preemptive steps during the design phase by calling locates to local utilities for below-grade utility identification.
4. **Permitting & Easements:** Although most of the proposed projects use existing infrastructure and facilities, as discussed in Section 2.2, some require obtaining permits/easements that could delay construction. Ameren will dedicate internal real

estate resources and leverage existing partnerships with Missouri-based real estate firms to ensure the Program's success.

Impact of Program to Achieve Further Deployment At-Scale and Additional Private Investments

The Program's investments anticipate the future adoption of DERs. Protection settings for smart reclosing devices can be adjusted to accommodate growing DER adoption. Additionally, substation upgrades and 4kV to 12kV line conversions improve hosting capacity to accelerate private investments in EV charging stations and DERs.

The proposed projects will connect rural customers to SCADA systems, which provide loading data (i.e., electricity usage) and fault data. Combined, these new pieces of information can lead to more accurate and beneficial distribution planning for these rural areas over the current practice of Synergy modeling, which makes its own set of assumptions. Many of the projects targeted by the Program identify potential follow-on projects to upgrade and/or tie in nearby circuits beyond the Program's scope. One such example is the pad-mounted transformer installation for the town of Bunceton in central Missouri. The Program would replace the existing substation with a single pad-mounted transformer and convert the town it serves from 4 kV to 12 kV distribution lines. The conversion allows this distribution circuit served by the Bunceton-4 line to tie to the nearby Speed substation, which has 12 kV distribution lines a few miles north. The tie-in created after this project would connect the once isolated rural community to another to the north and add further grid flexibility by allowing the two circuits to share the load and supports customer reliability, and improves resilience through redundancy.

Other electric utilities can adopt project designs for the Program. According to the Associations of Missouri Electric Cooperatives, there are a total of 40 distribution cooperatives providing electricity to individual homes, farms, and businesses throughout the state. The scalable nature of the pad-mount and substation installations can serve as a model for rural electric cooperatives to adopt upon the success of realizing rural reliability benefits within Ameren's service territory.

3.0 Workplan

3.1 Project Objectives

The goal of the Program is to deliver grid reliability and flexibility improvements with a focus on equity to rural DACs. This goal will be accomplished by installing smart reclosing devices and replacing rural substations with pad-mounted transformers or modern standard 22 MVA substations. 45% of sites are in DACs, and nearly all construction work will utilize in-house union labor, supporting opportunities for local and minority-owned businesses and community engagement. (b) (4) [redacted]

3.2 Technical Scope Summary

Based on M-22-11, the Buy America requirements of the Bipartisan Infrastructure Law (BIL) do not apply to the projects proposed under the Program because Ameren, the prime recipient, is a for-profit entity. Ameren applauds BIL's efforts to strengthen the American manufacturing industry. Therefore, the Program will utilize domestically manufactured steel, manufactured products (e.g., transformers and switchgear), and construction materials procured through Ameren's network of suppliers, many based in Missouri.

The Program will achieve its goals by installing the technologies described in Sections 2.1 through 2.3. The Program schedule categorizes 16 total projects under four waves based on anticipated project start dates. Wave 1 consists of pad-mounted transformer projects South Viburnum, Wardell, and Star, in addition to two 22 MVA substation projects, New Hayti and Miner-12. Wave 2 consists of pad-mounted transformer projects in Bunceton, Morehouse, Blackwater, and Annada. Wave 3 consists of pad-mounted transformer projects Utica, Truxton, Fitters, and 22 MVA substation project Mineral Point. Finally, Wave 4 consists of pad-mounted transformer projects in Essex, Higbee, and Mooresville. Annual budget periods begin in quarter 4 of each calendar year. Program progress is measured through quarterly milestones detailed in Table 4, and the performance period is typically marked by Go/No-Go decision reviews as detailed in Table 5. Community Benefits SMART milestones are included in the Program schedule. They will be executed by Ameren's Community Empowerment Team throughout each performance period as detailed in the attached CBP under "Advancing Diversity, Equity, Inclusion, and Accessibility."

3.3 Work Breakdown Structure (WBS) and Task Description Summary

The Program Schedule includes a planned sequencing for executing the 13 rural pad-mounted transformer and smart reclosing devices projects and the three 22 MVA substations. Each of these individual sites is a sub-project to the overall Rural Modernization Project Schedule. Each of the 16 transformer sub-projects breaks down into the following WBS tasks: Project Initiation, Design, Procurement and Permitting, Construction, and Closeout. Unless otherwise stated, the following task descriptions apply to all 16 projects under the Program.

Project Initiation: Project initiation includes the programmatic steps required for financial work order approval. This project consists of obtaining budget estimates, initiating environmental assessments, and if applicable, vegetation removal estimates. Initiation includes the identification of project risks and mitigation plans. A key event in this phase is a project team kick-off, where project goals and outcomes are discussed with the project planning and execution team. This WBS is complete with the full work order approval.

Design: Project design for each of the 22 MVA substations consists of substation engineering design, civil engineering design, system protection design, and network communications design and drafting. The substation design includes: a) the development of the site and above-grade physical equipment layouts, b) the creation of below-grade electrical and conduit layouts, c) the

development of schematic and component wiring diagrams, d) and the development of specifications for large equipment, such as power transformers and switchgear, culminating in the development of a Bill of Material. The civil design consists of site surveying, grading, fencing, drainage, and foundational design. An independent review of the substation and civil design is performed by a substation and civil engineer and submitted for construction. System protection design includes specification of protection requirements, reviewing electrical schematics, and issuing relay settings. Network Communications design consists of the tasks associated with designing and specifying required communication devices to implement SCADA and communication applications, including reviewing and approving network drawings, and identifying any required fiber installation. Drafting consists of both physical and electrical design drawings and the finalization of civil site drawings that are reviewed and approved by a professional engineer.

The project design for the pad-mounted transformers is minimal since the pad-mounted transformer design is self-contained. When overhead work is planned with either pad-mounted transformers or 22 MVA substations (including cross-town ties), the design process also consists of line routing and the creation of stringing diagrams and construction plat pages.

Procurement and Permitting: The Bill of Material dictates the list of equipment needed for the Program. As noted in the Program milestones, Ameren will work proactively with key procurement contractors for long-lead time equipment, such as transformers and enclosed 38 kV switchgear. The procurement task allows time to acquire these long lead materials and all other materials appearing in the Bill of Materials. Procurement will also consist of obtaining service contractors for the civil site and below-grade electrical work where Ameren lacks the equipment for performing welds or is limited by resources.

Permitting includes the review of local land disturbance, environmental, construction, and building permit requirements, as applicable, as well as acquiring land and easements. Ameren's Real Estate Department engage with municipalities and impacted communities in coordination with contracted locally-based easement specialist. In addition to land use, the permitting process includes the identification of any special zoning and conditional permits for construction required, along with fencing, roadway entrance, and any special material use permits.

Construction: Includes all the activities needed to initiate construction (e.g., confirmation of materials in-hand, permits approved, etc.), site development, equipment installation, device testing, and start-up, all activities associated with overhead construction, such as setting poles and stringing wire. Construction activities differ between the pad-mounted transformer projects and 22 MVA substation projects as the larger substation upgrades are more complex. As a standard self-contained transformer, pad-mounted transformer construction activities include prepping the pad-mounted transformer site, installing the below-grade grounding, pouring the concrete pad, and then setting and installing the pad-mounted transformer. The 22 MVA substation projects include site grading, spill control installation, pouring foundation piers and pads, fencing, and above-grade equipment installation, including structural steel. All enclosed switchgear, power transformers, and ancillary devices are independently installed in the 22 MVA

substations, versus the pad-mounted transformer design, which is self-contained. Following installation and verification that the substation is appropriately sending and receiving information, testing activities that take place prior to start-up include relay testing, wire checks, and calibration. The substation or pad-mounted transformer is deemed in-service upon verification of final operational checks. Following this milestone, the initiation of post-in-service documentation, including as-built drawings, begins.

Closeout: Activities include finalizing as-builts to reflect final construction installation versus initial design and updating Ameren internal distribution GIS maps. Ameren also documents lessons learned, and the project team meets to discuss the outcome and how to improve activities for the next installation. As part of this process, a final closeout checklist is performed, which includes updating system-wide documentation management systems.

3.4 Milestone Summary

Table 4 is a summary of quarterly Program milestones used to track and verify progress until the final objectives of all projects completing Close Out. Table 5 is a summary of the Go/No-Go Review Criteria reviewed during each project performance cycle. Figure 5 contains the Rural Modernization Program schedule.

Quarter	Milestone	How it is Verified
Q4 2023	Program Kick-off Meeting, Submit Cybersecurity Plan	Meeting minutes delivered to the steering committee Confirmation of receipt of the Cybersecurity Plan from the DOE
Q1 2024	Wave 1 pad-mounted transformer projects designed and the first 22 MVA substation projects designed	Approved design drawings for South Viburnum, Wardell, and Truxton pad-mounted transformer projects and New Hayti 22 MVA substation project
Q2 2024	Second 22 MVA substation project designed Wave 1 projects designed	Approved design drawings for Miner 22 MVA substation project
Q3 2024	Start Wave 2 of pad-mounted transformer projects	Begin project initiation phase for Bunceton, Morehouse, Blackwater, and Annada pad-mounted transformer projects
Q4 2024	50% of Wave 2 pad-mounted transformer projects designed (Bunceton and Annada)	Approved design drawings for Bunceton and Annada pad-mounted transformer projects
Q1 2025	Procurement for Wave 1 pad-mounted transformer projects complete Start of Wave 3 projects	Project managers confirm the balance of materials received for the South Viburnum, Wardell, and Truxton projects Begin project initiation phase for Utica, Star, and Fitters pad-mounted transformer projects, and Mineral Point 22 MVA Substation Project
Q2 2025	Wave 2 projects designed	Approved design drawings for Bunceton, Annada, Morehouse, and Blackwater pad-mounted transformer projects

Q3 2025	Wave 1 pad-mounted transformer projects in service	Project managers confirm pad-mounted transformer projects in service
Q4 2025	Wave 3 projects designed	Approved design drawings for Utica, Star, and Fitters pad-mounted transformer projects, and Mineral Point 22 MVA Substation Project
Q1 2026	Start of Wave 4 projects	Begin project initiation phase for Essex, Higbee, and Mooresville pad-mounted transformer projects
Q2 2026	Wave 4 projects designed	Approved design drawings for Essex, Higbee, and Mooresville pad-mounted transformer projects
Q3 2026	At least 1/3 of projects in service	Pad-mounted transformer projects South Viburnum, Wardell, Truxton, Annada, Bunceton, and Blackwater in service
Q4 2026	First 22 MVA substation project in service	Miner-12 substation in service
Q1 2027	Wave 1 and 2 projects in service	Pad-mounted transformer projects Bunceton, Utica, Morehouse, Blackwater, and Annada in Service New Hayti substation in service
Q2 2027	Procurement for final 22 MVA substation and Wave 4 projects complete	Project managers confirm the balance of materials received for the Mineral Point substation
Q3 2027	Construction for Wave 4 projects 50% complete	Project managers confirm the balance of materials received for pad-mounted transformer projects Essex, Higbee, and Mooresville
Q4 2027	Wave 4 projects in service	Pad-mounted transformer projects Essex, Higbee, and Mooresville in service
Q1 2028	Final 22 MVA substation constructed	Mineral point substation in service
Q2 2028	100% of planned projects closed out *(End of Project Goal)*	Individual project managers report completion to the Program manager and steering committee

Table 4. Program Quarterly Milestones.

3.5 Go/No-Go Decision Points

Quarter	Go / No-Go Criteria	How it is Verified
Q4 2023	Confirm order of long-lead equipment for the first 24 months of construction projects; Long lead equipment includes substation and pad-mount transformers, and 38kV switchgear	Vendor receipt of the purchase order from Ameren with an estimated delivery date to allow for construction
Q3 2024	Receipt of long lead materials and completion of the design for wave 1 pad-mounted project (South Viburnum, Wardell, and Star substations)	Design drawings approved and delivered to the project manager Long lead materials confirmed within stock for the 3 pad-mounted transformer projects (South Viburnum, Wardell, and Star substations)
Q1 2025	Finalize and obtain a signed CBA with the (b) (4) It will detail terms and requirements for Ameren to deliver benefits to southeast Missouri communities via the Program	3 projects impacting the targeted community (Miner-12, Morehouse, and Essex) were assessed to be on schedule for completion. Signed CBA between (b) (4) and Ameren
Q3 2026	100% of projects completed the design phase, with 2/3 of projects having all	Individual project managers report the status of criteria to the Program lead during the Go/No-Go review

	materials and equipment procured and 1/3 of projects in service	
Q3 2027	100% of projects have all materials and equipment procured, and 75% of projects are in service	Individual project managers report the status of criteria to the Program lead during the Go/No-Go review
Q2 2028	*See Q2 2028 End of Project Goal in Table 6 above*	*See Q2 2028 End of Project Goal in Table 6 above*

Table 5. Program Go/No-Go Review Criteria Summary.

3.6 Project Management

Work Management

Ameren will form a cross-functional Rural Modernization steering committee comprised of five senior electric utility executives with over 150 years of combined comprehensive experience in operations, engineering, construction, external affairs, procurement, and diversity, as shown in Figure 4 below. This steering committee will provide oversight and key decision-making authority for the core project team.

In addition to the cross-function Rural Modernization steering committee described above, Figure 4 shows the organizational structure of the Project Execution Team will include. Strategic Planning and Design initiation is the first step for each project. With assistance from Substation Maintenance and Construction team, Strategic Planning finalizes individual project scopes and presents them in a formal project charter. Design and Engineering work in tandem with Strategic Planning to develop the technical design components of each project. This team is led by Ameren's internal design and engineering resources, supplemented with contracting partners.

Once the individual project charters and design specifications are approved, the project is turned over to Ameren's Project Management Office to manage the execution of the project scope, schedule, and budget with support from the procurement division for materials and equipment, and the real estate division for acquiring land rights as needed. Construction is performed primarily by Ameren's Substation Construction and Maintenance department and regional Divisions, and work is assigned by region to Division leads representing Southeast Missouri (SEMO), Northeast Missouri (NEMO), and Central Missouri (CEMO) based on project location. These division leads to oversee the day-to-day activities of line construction projects assigned to their division. Division leads coordinate with Ameren's Contractor Services department to source and direct contracted labor to support overhead, and underground line construction activities for specific tasks carried out by contracted construction work. Ameren's Substation Construction and Maintenance Services manage contracted labor for substation construction. Finally, the Rural Modernization Community Empowerment Team will work alongside the core project execution team to ensure community input is considered and incorporated into project execution plans and the objectives of the CBP are met.

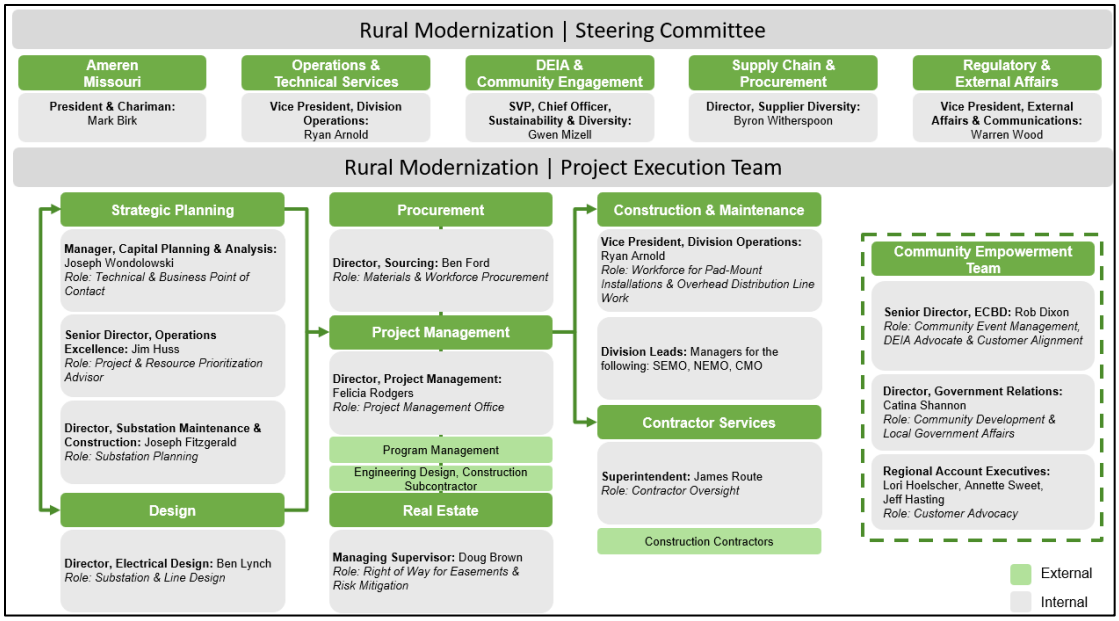


Figure 4. Rural Modernization Organizational Structure

Project Team

The Program will be led by a core team of Engineering, Operations, and Project Management Professionals with decades of combined experience supporting and executing distribution capital investment projects at Ameren. The scope of projects under the Program generally aligns with the work these individuals and their teams perform today to plan and install distribution capital projects. A summary of their expertise and qualifications is detailed below:

- **Manager, Capital Planning and Analysis, Joseph Wondolowski,** will be the Program's technical and business point of contact responsible as the liaison between Ameren and the DOE, gathering input from Program stakeholders used for the DOE communications, including providing necessary deliverables and briefings to the DOE, in accordance with Program requirements. Joseph has four years of capital planning and strategy experience at Ameren and currently oversees the development and execution of the annual and five-year capital budgets. He will dedicate 15-20 hours per month and have a dedicated full-time assistant assigned from Ameren's Capital Governance Group.
- **Sr. Director of Operations Excellence, Jim Huss,** head of Operation Excellence, will act as the Core Team's Project & Resource Prioritization Advisor and overall Program lead. Jim has served Ameren's Distribution Division for 32 years in technical engineering, supervisory, and operational oversight roles. As the senior director of Operations Excellence, Jim has overseen capital planning and project execution responsibilities similar to his responsibilities under the Program. As the senior manager of Distribution Operations and supervising engineer, Jim cultivated his expertise and knowledge through work with the same grid-improving technology, including DA and SCADA systems, utilized in the Program. He anticipates dedicating between 4-8 hours each week to the Program.

- **Director of Substation Maintenance and Construction, Joseph Fitzgerald,** will act as a Core Team leader for the planning and construction of the substation projects. Joseph has nearly 20 years of experience in substation design, including DA and electrical engineering. He anticipates dedicating between 4-8 hours each week to the Program.
- **Director of Electrical Design, Ben Lynch**, will act as the Core Team's Lead Design Engineer. Ben has served on Ameren's Distribution Division for 22 years in electrical design, relay, and metering design, and as a substation engineer. He anticipates dedicating between 4-8 hours each week to the Program, and design engineers that report to him anticipate dedicating 15-20 hours per month to support the additional workload.
- **Director of Project Management, Felicia Rodgers**, will have overall ownership of Program Management. She has over 10 years of experience at Ameren conducting project auditing, controls, and project management. Her staff will work with internal and external project managers required to execute the Program, each requiring at least three years of relevant experience. Her direct reports anticipate dedicating 15-20 hours per month for the additional workload, while she anticipates dedicating between 4-8 hours each month for additional oversight.
- **Vice President of Division Operations, Ryan Arnold**, will act as Electrical Team Coordinator for internal electrical services. Ryan will manage the internal workforce from the Regional Division Operation Centers across the state. He is a former union lineman and has served in various leadership positions in Electrical Operations and as a labor relations representative over the past 18 years at Ameren. He will be a part of monthly meetings that track Program progress, and his division leads anticipate dedicating 15-20 hours per month to support the additional workload.
- **Superintendent of Contractor Services, James Route,** will act as the interface between contracting construction resources needed for the execution of Rural Modernization. He has seven years of experience directing construction and maintenance activities, and monitoring and controlling capital project costs and schedules. He anticipates dedicating between 4-8 hours each week to the Program.
- **Regional Account Executive for Southeast Missouri (SEMO), Jeff Hasting**, will act as the Community Empowerment Team lead. He has experience facilitating the resolution of customer-related issues with division engineering, construction, and service departments and building positive relationships with municipal and community organizations on behalf of Ameren as an Ameren Regional Account Executive. His role will be tasked with educating community stakeholders and organizations on key project developments and outcomes and helping incorporate community and stakeholder feedback into project planning. He anticipates dedicating between 4-8 hours each month to the Program.

Risk Management

Ameren's risk management plan for all distribution construction projects will follow the same general steps by developing:

- A full list of all the foreseeable risks during the project
- A rating of the likelihood of each risk occurring

- A rating of the impact on the project should each risk occur
- A priority rating of the overall importance of each risk
- A set of preventative actions to reduce the likelihood of the risk occurring
- A set of contingent actions to reduce the impact should the risk occur
- A process for managing risks throughout the life of the project
- Assigning contingency dollars to each risk item identified

This risk management approach involves the development of a risk register for each project in the Program. The project team will meet monthly to review the risk register and update changes to risk items as needed. Risk Owners are assigned to each risk and are responsible for monitoring their assigned risk and reporting their status to the Project Manager. Risk Owners participate in monthly risk assessment meetings to discuss identified risks and potential contingencies to mitigate the risk. The Project Manager will need to prioritize risks based on the effect they may have on the project. A probability and impact factor is assigned to each risk within the risk register to accomplish this. Impacts will be assigned to several potential project areas, including but not limited to technical performance, schedule, cost, and safety. Once the risks are appropriately ranked, the highest risk items will have triggers identified by their Risk Owners that will indicate that a risk is about to occur to enact the appropriate risk response strategy.

Risks to the Program schedule posed by potential labor disputes are mitigated through signed labor agreements with unions that protect Ameren against work stoppages and contain formalized processes to settle disputes, and protect workers' rights to act as a collective voice. These measures have led to successfully avoiding strikes for the past 48 years.

Project Deviations

Ameren will follow the same change management process in effect across all capital projects for the Program. Cost deviations greater than $250,000 must be communicated through a monthly variance process and updated in the Utilities Internal Planner (UIP) system. Ameren will close out the change process by logging updates in the Oracle Primavera Project Manager (OPPM) Current State Tab and reporting the variance in the internal Monthly Variance files—any change to scope obtaining approval of varying responsible parties depending on timing and magnitude of the cost. When a scope change results in a cost increase greater than $500,000 for projects under $5M, greater than 10% on projects greater than $5M, or is done prior to project kick-off, the project must reinitiate the final approval process. Scope changes after project kick-off are tracked by the project manager in OPPM and communicated through the Monthly Variance File. Changes to the project schedule that impact in-service dates will be approved by the Project Manager for changes in the current year and require obtaining Project Manager and Project Sponsor approval for changes across multiple years. The Project Manager will follow this step by updating UIP, PowerPlant, OPPM Current State Tab, and the project schedule.

Material/Quality Control

Ameren adheres to established quality assurance and control processes and procedures for all major aspects of a project. Key processes are summarized below.

Engineering Quality Control: Projects under the Program will be designed using company standard designs where applicable. Standard designs have been reviewed and approved by Ameren's Standards Department. When standard designs are not available or cannot be applied, it is the responsibility of the assigned resource to produce an alternate engineering solution. This situation could happen in areas with site terrain, real estate, space limitations, below-grade obstructions, etc. The Program may utilize contract engineers to augment existing teams. Contract engineers apply their company's quality control Program, which includes independent design review. Ameren also reviews contract engineer designs for alignment with Ameren standards, as described above.

Materials Quality Control: For non-standard items, measures are established for the selection and review for suitability of the application of materials, parts, equipment, and processes. Measures are established to ensure that applicable regulatory requirements, design bases, and other requirements necessary to assure adequate quality are suitable, included, and referenced in procurement documents for material, equipment, and services. As a measure to ensure material quality for distribution infrastructure projects, approved suppliers are utilized. Once materials are received from suppliers, material handling and receipt inspections are performed in accordance with existing practices. The Materials Engineer and Standards & Reliability Engineer assigned to each project will support discussions around material quality issues should they arise.

Construction Quality Control: Construction will be managed by the Construction Supervisor, who will be supplemented by Specialty Inspectors, including concrete, soil testers, and other materials testers whose task is to ensure the final product is built in accordance with the approved construction standards, drawings, and specifications. The Project Manager will provide a construction specification that is issued, which typically includes the scope of work, technical requirements, construction specifications, standards, and commercial terms and conditions. Ameren construction specifications provide specific subject matter direction and guidance to the Construction Supervisor and contractors. Subject matter experts will update construction specifications and standards. Construction specifications and standards were developed to align with industry requirements and good utility practice and have been vetted by independent Ameren personnel.

Communications Plan

Ameren's Customer Operations maintain a Communications Plan procedure which applies to all distribution capital projects, including those under the Program. This procedure delineates a communications matrix which helps project team members understand what information to communicate, who should communicate, when to communicate, and to whom to communicate. Project Managers take a proactive approach to developing a communications strategy utilizing the matrix early in project planning by identifying all relevant meetings and communications

necessary for project execution. These communications include but are not limited to schedule update meetings, public stakeholder communications, design status meetings, procurement strategy meetings, and safety communications. The communications matrix will identify key Ameren stakeholders required to be a part of these communications and specify at which frequency communications will occur. The Technical and Business Point of Contact for the Program will coordinate with Project Managers to incorporate additional communications necessary to track Program progress for updates to the Steering Committee and the DOE.

4.0 Technical Qualifications and Resources

In addition to a competent technical team, as described in Section 3.6 above, Ameren's Customer Operations and Contractor Services teams have a long track record of successfully planning, designing, and constructing power infrastructure projects. One of the first implementations of the enclosed switchgear design for 22 MVA substations was for the Deer Creek substation in 2020. This substation was built next to the Brentwood MetroBus facility in St. Louis County to supply the additional load required to charge MetroBus' initial fleet of 18 battery electric buses acquired through a Federal Transit Administration grant. The $11M substation investment tripled the power supply capacity to the community and modernized the energy system for the city of Brentwood and the surrounding communities.

The pad-mounted transformer design was first implemented in 2020, with over 10 projects in service as of the start of 2023. Ameren undergoes a review process of each of these substation projects during project closeout to document lessons learned and improve upon the processes. Ameren's construction crews and project management professionals have demonstrated success installing projects of similar scope. They are confident in their ability to execute the additional substation projects proposed in this portfolio.

Projects under the Program will utilize existing distribution infrastructure at the targeted location to the maximum extent practicable. This existing infrastructure includes installed distribution poles and pole-mounted transformers, distribution wire, and existing rights of way and easements to reduce project costs and complexity. Replacement of existing rural substations with either pad-mounted transformers or modern 22 MVA substation equipment will require purchasing equipment such as prefabricated pad-mounted transformer pads, pad-mounted transformers, 22 MVA power transformers, 38 kV enclosed switchgear, smart reclosing devices, voltage regulators, switches and fuses. Projects that create feeder ties and/or undergo 4 kV to 12 kV distribution line conversions will also require the purchase and installation of poles and conductors. Ameren already has all available equipment committed to other ongoing distribution capital projects. The attached Budget Justification Workbook details estimated costs for new equipment and facilities.

Ameren has experience executing these projects and does not anticipate requesting technical services from the DOE/NNSA FFRDCs to complete the Program tasks.

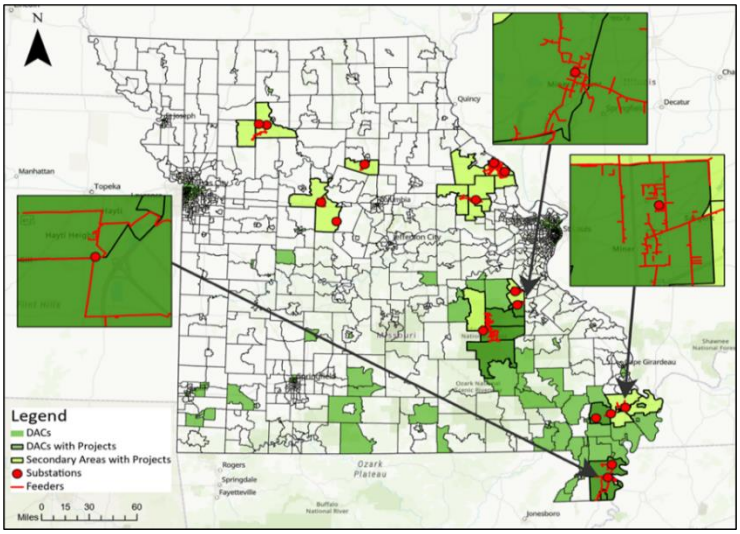
Abstract for Public Release, Application for DE-FOA-0002740,
Grid Resilience Grants, Topic Area 2

Name of Applicant: Ameren Missouri
Project Manager: [Jim Huss, Sr. Director, Operations Excellence]
Project Title: Rural Modernization

Ameren Missouri has a legacy fleet of rural substations built to a now outdated standard, poorly suited to integrate Distributed Energy Resources (DERs) due to their limited hosting capacity and lack of monitoring and control capability. The answer to this problem, the Rural Modernization program (Program), is an innovative and impactful solution that improves reliability and resiliency, simplifies operations, and brings smart technology to better serve customers in the rural areas of the service territory.

Ameren Missouri will accomplish this through substation and downstream component upgrades, along with the development of overhead ties to better utilize its assets in the case of an outage. At the core of this Program are smart reclosing devices, [which support reliability improvements (up to 40%)] and resiliency by limiting the impact of outages and providing increased operational visibility and control. Furthermore, the Program will support the integration of DERs and electric vehicles by increasing hosting capacity and incorporating modern relay and protective devices. Specifically, in addition to smart reclosing devices, the Program includes installing pad-mounted transformers, 4 kV to 12 kV line conversions, and increasing capacity with large substation upgrades and cross-town tie points. These upgrades are targeted at locations across Ameren Missouri's rural service territory, as shown in the map below. Along with these objectives, this Program will allow Ameren Missouri to:

- Support the revitalization of local economies in historically-underserved rural, disadvantaged communities (DACs), as may be seen in the Figure below.



Map of targeted rural substations and locations with DACs (green) and identified secondary, historically underserved areas (yellow), 22 MVA large substation projects are shown in callouts.

- Develop solutions that will adequately address key community concerns and needs.
- Attract, develop, and retain a skilled workforce in the energy trades.
- Help drive the DOE's Justice40 priorities.
- Advance internal and external DEIA, ESG goals, and health and safety practices.
- Refine existing community and labor strategy to create a lasting approach that can be replicated and refined for future Ameren Missouri initiatives.

Ameren Missouri Community Benefits Plan for GRIP Topic Area 2: Smart Grid Grants (BIL sec. 40107)

Community Benefits Plan

Ameren Missouri (Ameren) shares the Department of Energy's (DOE's) goals of building a clean and equitable energy economy to drive growth and revitalize underserved communities. Ameren understands that partnerships with the communities and workforce it supports and serves are a critical element to these goals. If awarded funding, Ameren will be executing its newly developed, robust multi-channel Community Benefits Plan (CBP) in collaboration with partners. It focuses on high standards for equity and sustainability and broadens current community and labor outreach efforts. This CBP expands Ameren's approach to support Missouri's energy workforce, increases the diverse supplier spending and investment, and promotes diversity, equity, inclusion, and accessibility (DEIA) practices for Ameren employees, contractors, and suppliers. Most importantly, the company has prioritized deploying projects and benefits in underserved rural communities to advance crucial Justice40 initiatives.

This CBP leverages critical partnerships with organizations representing DOE-defined Disadvantaged Communities (DACs) and historically underserved communities impacted by Ameren's Rural Modernization program. Alongside program partners, Ameren has identified critical SMART milestones that will promote program accountability and provide transparency to program-targeted communities. Ameren's leadership and staff, led by the Rural Modernization Community Empowerment Team, will be collaborating with the following partners:

Partner Organization	Description of Organization
(b) (4)	(b) (4) is a local community impact and fundraising organization with a goal to improve the lives of and create possibilities for the people of Scott, New Madrid, Mississippi, Stoddard, and Butler counties of Missouri. (b) (4) is focused on creating long-lasting changes by addressing underlying areas such as education, health, and financial stability problems.
	The (b) (4) is a community action agency that works to cultivate opportunity and support people in reaching their highest potential, focusing efforts on addressing poverty in the communities they serve. (b) (4) serves the Bollinger, Cape Girardeau, Iron, Madison, Perry, St Francois, Ste. Genevieve, and Washington counties of Missouri.
and expansion of the Urban Apprenticeship Readiness Program (UARP) into Cape Girardeau	(b) (4) empowers African Americans and others in securing economic self-reliance, social equality, and civil rights. This organization's strategy prioritizes economic opportunity, educational excellence, community empowerment, and civil rights and advocacy for the people and communities they serve. (b) (4) is currently expanding the UARP to Cape Girardeau. This program provides workforce development opportunities for historically underserved and underrepresented individuals to prepare them for a career in the skilled energy trades.
	These unions protect the collective voice and bargain the concerns and needs of skilled electric trade workers across north, central, and southeast Missouri. These unions are proud members of the (b) (4) an organization that works to organize all workers in the electrical industry across the nation to provide fair wages, benefits, and rights.

Table 1. Rural Modernization Program Community Partners.

Ameren's relationship with [SBUW] is of special significance as part of this program because the company plans to enter a Community Benefits Agreement (CBA) with this organization by the

end of Q1 CY 2025. Ameren has secured letters of commitment and partnership from the aforementioned partners as well as vendors, contractors, suppliers, and elected officials, as shown in the "LOC.pdf" & "Ameren Missouri_Partner.pdf." These partners understand that this grant proposal will allow the company to deploy critical investments and initiatives that will support the revitalization of local economies in DACs and historically underserved rural communities, as well as develop solutions that will adequately address key community concerns and needs. Ameren will also work diligently with partners to identify initiatives that can best attract, develop, and retain a skilled workforce in the energy trades. These deployments will help drive the DOE's Justice40 priorities and advance internal and external DEIA, environmental, social, and governance (ESG), health, and safety practices. With these program partners, Ameren will create a lasting community and labor approach that can be replicated and refined for future initiatives.

Community & Labor Engagement

Ameren is committed to continuously involving customers in the planning process to ensure the needs of the communities it serves will truly benefit from infrastructure deployment plans. Ameren's Regional Account Executives, Community Development Group, and other teams already coordinate several virtual and in-person community engagement meetings and workshops on a recurring basis and utilize several communication channels across the state through monthly local county chamber meetings, monthly Power Forward e-newsletters, and weekly engagements with key community stakeholders. Attendees and members of these groups include county and local legislators and stakeholders, community-based and economic development organizations, as well as educational institutions. These existing forums allow Ameren to educate communities better, receive and act on feedback, and resolve concerns.

Using robust communication channels as a foundation, Ameren's newly organized Rural Modernization Community Empowerment Team, led by Ameren Regional Account Executives throughout Ameren's service territory, is missioned with engaging Ameren customers and communities to understand their needs and concerns. These Regional Account Executives are responsible for personally establishing and maintaining relationships with legislative officials, community and civic leaders, critical customers, and residents in their respective regions (i.e., southeast Missouri (SEMO), northeast Missouri (NEMO), and central Missouri (CEMO)). They are crucial to identifying opportunities and implementing energy-related solutions that help meet Ameren's customers' needs regarding service-related issues. Ameren's approach includes involving program partners (see Table 1) in outreach efforts and vice versa to engage with communities and to go above and beyond existing Ameren channels and efforts. The Community Empowerment Team will serve as the primary point of contact for the community to engage with Ameren's proposed program. This open communication channel will help develop critical and effective solutions that deliver valuable long-term benefits to Ameren customers and communities by enabling multiple opportunities to converse with stakeholders and community members across all project phases. This channel further promotes energy democracy in the areas targeted by the Rural Modernization program. To assist Ameren with this process of collecting, actioning, and addressing community feedback, it has partnered with the (b) (4) [redacted] All three of these organizations represent targeted program areas, serving some

of Ameren's most disadvantaged rural communities, and align with the program's goal of revitalizing local economies through community engagement and workforce development. These organizations have signed letters of commitment and partnership demonstrating that they are committed to the planned engagement approach and will help hold Ameren accountable.

The (b) (4) is a longstanding partner of Ameren; the company has long supported (b) (4) mission and goals to "advance the common good by building opportunities for individuals and families to become self-sufficient and live independent, successful lives." To deliver high-quality benefits that reflect this vision, Ameren's Community Empowerment Team has already begun working diligently to begin the process of developing a CBA with the (b) (4) on behalf of the SEMO communities served by the (b) (4) (Map 1). As shown, the Rural Modernization program will deploy multiple projects within the (b) (4) service region.

Ameren has also begun the process to identify existing and new public events and mediums with program partners to schedule meetings to seek feedback from community members across SEMO and (b) (4) communities on potential program plans and initiatives, as well as CBA benefits for deployment. Ameren plans to finalize and formalize a CBA with (b) (4) by the end of Q1 CY2025, as demonstrated in the attached letter (see "Ameren Missouri_Partner.pdf). This CBA will delineate the required terms for Ameren, including the delivery of impactful benefits identified and supported by community stakeholders in exchange for continuous local support throughout the duration of the program. Ameren will work with the (b) (4) to collect community feedback and action concerns into real, tangible developments that can be deployed in DACs and historically underserved areas. Ameren will work with the (b) (4) to determine the proper allocation of resources that will best allow targeted DACs and underserved areas to reap the benefits of the Rural Modernization program.

Additionally, Ameren is also working with the (b) (4) to engage DACs and underserved communities in SEMO targeted by the program. Primarily serving program-relevant SEMO counties, the (b) (4) is committed to providing critical support and guidance to make this program successful. The (b) (4) is prepared to deploy personnel to work with the Community Empowerment Team to coordinate outreach efforts that mediate thoughtful community engagement and identify opportunities to address community concerns. As proud partners, Ameren and the (b) (4) have identified successful opportunities in the past, such as allocating $15,000 to underserved customers to assist with their energy bills and payments. Ameren will continue to work with the (b) (4) to build upon these efforts and deliver positive benefits to DACs in SEMO, as stated in the attached letter of commitment from the (b) (4) (see "LOC.pdf").

The Community Empowerment Team's coordinated outreach with (b) (4) and (b) (4) to host and schedule public meetings, workshops, and forums will continue to open avenues to discuss other relevant Ameren initiatives, both during and following the completion of the Rural Modernization program. As part of this initiative, and to best hold Ameren accountable, the company is committed to hosting a minimum of one engagement event across SEMO per quarter upon the allocation of awarded funding and throughout the duration of the program with additional post- program sessions. These engagements will be tracked with program

partners and posted on a newly developed Rural Modernization program landing page on the Ameren website. This webpage, to be published by the end of Q2 CY2024 or before the start of program construction, whichever comes first, will showcase this CBP and the associated community SMART milestones, as indicated below in Table 2.

The Community Empowerment Team will also engage with Ameren workforce stakeholders by leveraging workforce development networks to ensure investments lead to hiring outcomes through advocacy, awareness, and education. Ameren plans to continue using this network of workforce partners via the (b) (4) to continue serving the state's energy workforce. The (b) (4) builds relationships with the statewide economic, workforce, and education development stakeholders, advocates, and organized labor groups to ensure the Missouri energy industry is staffed with qualified and diverse workers.

Ameren has also planned a formal partnership with the (b) (4) to support the expansion of the UARP. A new initiative of the Urban League resulting from a federal funding award in October 2022, the UARP aims to serve historically underrepresented individuals and equip them with the necessary skills and certificates for a career in the skilled energy trades. (b) (4) is currently establishing new offices and facilities to expand UARP's reach in Missouri, with the newest location in Cape Girardeau expected to open by the end of CY2023. As such, Ameren has established a formal partnership with the (b) (4) to identify effective means to market UARP developments and updates to the local community, as demonstrated in the attached letter (see "Ameren Missouri_Partner.pdf"). Ameren will collaborate with the (b) (4) to address critical skilled trade labor needs that will help support the development of an inclusive workforce prepared to aid the energy transition across the state. Ameren and the (b) (4) will coordinate to develop UARP participants for future full-time and part-time opportunities in the Missouri energy industry.

Furthermore, Ameren has longstanding and positive relationships with union partners, demonstrated by labor agreements with all seven utilized unions in Missouri representing Ameren employees, which have been in place for decades. These union partners are supportive and excited about the Rural Modernization program and its ability to continue to deliver local jobs to their communities. This advocacy is best demonstrated through the letters of commitment signed by (b) (4) and (b) (4) (see "LOC.pdf"). Together, Ameren and union partners will continue to discuss how the company can best support unions across the state and expand employee resources. Support includes workplace safety and health initiatives, robust employee benefits, and other services offered to union members and other Ameren full-time employees.

This community and labor engagement strategy invites all relevant stakeholders to the table to discuss the Rural Modernization program. Ameren welcomes feedback from community members and laborers and will work to ensure that their concerns are addressed in a timely and adequate manner. Ameren is excited to partner with more rural serving organizations, especially in DACs, to ensure that the benefits of the program flow to those who need them most.

Ameren Missouri Community Benefits Plan for GRIP Topic Area 2: Smart Grid Grants (BIL sec. 40107)

Investing in the American Workforce

Aligned with Ameren's mission to actively engage the community and labor partners, the company is committed to contributing to local and national economic prosperity by ensuring fair, good-paying jobs for its workforce. Ameren's investments in workforce development and union workers ensure greater access to equitable, safe, and quality jobs for the service territory. Ameren is especially proud of this longstanding, positive, and productive relationship with unions across the state. The company has held and renewed labor agreements with all seven unions across Missouri, representing over 2,400 full-time Ameren employees. These employees are represented by nationally recognized groups such as the (b) (4) and the (b) (4) These union-contracted employees provide Ameren with services ranging from the skilled trades, such as distribution line repair and installation of specialized equipment, to clerical and engineering specialties. Furthermore, Ameren partners with over 10 workforce development organizations missioned with growing the local energy workforce in Missouri. These groups provide opportunities for people, including underrepresented workers, to develop skills, join apprenticeship programs, and obtain certifications needed for jobs in the energy industry today and into the future.

Ameren believes that encouraging and providing opportunities that heighten the demand for union workers can significantly improve the company's ability to attract and retain talent. That is why Ameren has meticulously developed and refined the Rural Modernization's program portfolio to ensure it utilizes in-house union workers for project execution. Ameren's workforce is skilled at executing these types of projects. Ameren is committed to utilizing in-house union construction workers to the greatest extent possible to support the program's performance period. Ameren has discussed these projects with union partners and they are committed to supporting the company in completing them, as demonstrated by their letters of commitment (see "LOC.pdf"). Furthermore, Ameren will be deploying projects in DACs and historically underserved areas that will require skilled trade labor, such as line work and crane operators. These project efforts will help Ameren better retain high-quality jobs for union members in and near these communities. In addition to competitive wages, Ameren's labor agreements with Ameren full-time union employees ensure access to benefits such as healthcare and life insurance, pension and 401(k) plans, guaranteed paid sick leave, and paid time off options. Ameren also provides union members access to services like an Ameren Employee Assistance Program. This benefit provides problem assessment services, grief counseling to employees and their families, and tuition assistance of up to $5,250 per year to all Ameren co-workers immediately upon hire for course work relevant to current or future positions within Ameren. These union partners help ensure Ameren's unionized full-time employees are prioritized for all available local work, given the availability of those workers, within their union's respective jurisdiction. All the unions to be utilized for program efforts have Domicile Agreements, guaranteeing Ameren prioritize local union members for all work, including construction, ongoing operations, and maintenance needs. These unions will promote practices that retain substantial opportunities for the local workforce in DACs and historically underserved communities. These labor agreements allow Ameren to utilize other local union non-Ameren employees based on

project demands on an as-needed basis. These agreements mitigate the risks associated with workforce availability and better ensure the program's stability, success, and longevity.
Demonstrative of Ameren's commitment to growing the American workforce and aligned to its ESG initiative of building a better Missouri workforce, the company intends to grow its partnership with the (b) (4) and the expansion of the UARP for the new Cape Girardeau chapter. Specifically, Ameren's Workforce Development group and Community Empowerment Team will help identify Ameren program resources that will help accelerate expansion, including marketing strategies and potential job placements for program participants. Notably, both Ameren and the (b) (4) are a part of the aforementioned (b) (4) As a co-chair of the (b) (4) Ameren has made expanding the (b) (4) UARP in Cape Girardeau a top priority. Together Ameren, the (b) (4) and the (b) (4) have determined a need for thousands of energy-skilled trade laborers by 2030 to support the energy transition in Missouri. Ameren's past effort with both partners leads it to believe that this collaboration will provide substantial opportunities for underrepresented workers to hold in-demand positions in the skilled energy trades. In fact, the (b) (4) Save Our Sons program, which seeks to help economically- disadvantaged black men living in the St. Louis region find jobs and earn a livable wage, has had great success. Impressively, 99% of Save Our Sons graduates have received part-time or full-time employment, with an outstanding 96.71% retention rate in graduates holding and keeping employment after completing the curriculum. Save Our Sons is continuously working to surpass its goals of ensuring that 61% of participants will enter employment, education, or training, 82% will retain such an opportunity, and 90% will complete critical financial literacy education. This program, focused on general workforce development, is the foundation for expanding the (b) (4) which specializes in and promotes energy-related jobs. Given the success of this and other programs, Ameren is excited to formally partner with the (b) (4) to expand this program in the Missouri bootheel region. Ameren is confident it can further support the (b) (4) and (b) (4) to maximize UARP's impact and help ensure similar employment outcomes.

Ameren has proactively engaged its unions and workforce partners. With dedicated groups such as the Community Empowerment Team, Labor Relations, and Workforce Development, it knows first-hand that effective and open engagement is essential to continuing to identify opportunities that better protect workers and develop the energy economy workforce of tomorrow. Through these resources, Ameren was able to continue developing robust workforce safety initiatives and policies, such as Ameren's co-worker to co-worker engagements (c2c) and injury prevention training. This c2c fostered over 128,00 safety discussions in 2021 between Ameren employees, helping reduce the incident report rate by 75% in 2021 from 2005 outcomes. As part of the program, Ameren will continue this engagement with unions, workforce partners, and other stakeholders to identify new investments. This engagement will improve safety and address the concerns of current and potential employees, attracting and retaining local industry talent.

Highlighting strong relationships with Ameren staff, the company is proud to state that it has been in compliance with and has had no violations of the National Labor Relations Act, Fair Labor Standards Act, Occupational Safety and Health Act, Service Contract Act, Davis-Bacon Act, Title VII of the Civil Rights Act, and any other federal, state, and local fair labor law or regulation over the past two years. Furthermore, Ameren's labor agreements have also helped avoid a union

strike since 1975. Given these labor agreements, Ameren employees are protected to organize as a collective voice, are ensured that health and safety standards are met and reviewed on a recurring basis, are encouraged to raise concerns, and have access to methods to settle disputes. Ameren's employment practices are structured to ensure fair treatment of all employees.

Ameren is committed to continuing to engage with unions, the (b) (4) and other labor stakeholders throughout the program's life and thereafter. The outreach the Community Empowerment Team has planned for this program will engage these and other related groups in exploring opportunities that will help with the retention of quality jobs today and help transition workers to prepare for future jobs.

Advancing Diversity, Equity, Inclusion, and Accessibility

As a result of this historical federal funding opportunity, Ameren is uniquely positioned to promote the equity of its workers, customers, and by extension, Missouri and the United States as a whole. Ameren's experiences have taught it that the most effective approach to identifying and developing DEIA goals and initiatives that can be embedded into overall program execution and ensuring accountability is through collaboration with community partners. With this in mind, Ameren's Community Empowerment Team has worked with program partners to understand local community needs and priorities, which have helped inform program priorities and DEIA goals and outcomes. Should funding dollars be awarded, these community efforts have culminated in developing specific SMART goals for the program (see Table 2). The table below outline Ameren's SMART milestones and its efforts to support community and labor engagement, retain high-quality jobs, invest in the local workforce, and advance DEIA and Justice40 initiatives.

Program Community SMART Milestone	Impact
Before the start of program construction or by the end of Q2 CY2024, whichever comes first, Ameren's technology and communications teams will work together with a third-party agency to develop and publish a publicly accessible webpage that will share information about the program, including the CBP and associated SMART milestones.	• Supplements verbal communication and provides a continuously available accessible resource to be updated throughout the project • Establishes a forum for community members to share insights and feedback that will be collected and addressed by Ameren • Provides communities, specifically those from DACs and underserved communities, greater transparency to Ameren program plans, promoting accountability
By the end of Q1 CY2025, the Community Empowerment Team will finalize and obtain a signed CBA with (b) (4) It will detail terms and requirements for Ameren to deliver benefits to SEMO communities via the Rural Modernization program. The CBA will be communicated with the DOE, (b) (4) customers, and targeted program communities through newly planned community events.	• Ensures benefits are delivered to the community partner and community, since Ameren will be legally bound to provide those benefits. • Benefits are developed from community feedback to provide meaningful community investment. • Addresses the needs of historically disadvantaged and underserved communities • Guarantees accountability for Ameren
Aligned with Ameren's goals to continuously develop diverse leaders who can help identify, address, and lead future Ameren initiatives and practices, Ameren is committed to increasing its percentage of Black co-	• Better equips Ameren staff to develop leaders that can better understand the needs and views of historically underrepresented groups in the energy workforce

workers who participate in the Leadership Development challenge to surpass current Black Ameren Director/Sr. Director representation of 6%, by the end of Q3 CY2026. The Leadership Development Challenge is a training program that provides employees an opportunity to gain leadership skills to be promoted and excel at the next level.	• Enables Ameren to better identify leaders that can aid in creating more inclusive services and initiatives for Ameren to provide to employees and customers • Encourages a more welcoming workplace culture • Promotes accountability for Ameren to better provide pathways to increase future senior leadership diversity
In an effort to bolster energy democracy in historically underserved areas and collect ample community feedback to identify effective future program and company initiatives, Ameren is committed to hosting at least 16 community events or public discussion forums in rural communities across SEMO by the end of Q3 CY2027. The meeting topics and other relevant information will be tracked and posted on the proposed new program Ameren webpage.	• Gathers community input and feedback on Ameren's project planning practices and scope, as well as on concerns and needs • Engages disadvantaged and underserved communities targeted by the program • Opens a forum for community members to discuss updates, goals, other energy-related topics, and tangential Ameren initiatives • Ensures the program and future Ameren initiatives are aligned with the needs and values of DACs
Ensure accountability of support for minority-owned businesses by achieving and verifying an increased trailing 3-year average Ameren Customer Operations (Ameren's distribution capital business line) vendor spend rate with certified diverse suppliers and certified minority, women, veteran-owned business enterprises of 30% of total Ameren Customer Operations vendor spend (CY2025-27) by the end of Q2 CY2028. This is an increase from the current trailing 3-year average of 26% (CY2020–22), representing the largest supplier diversity spend goal in the business line's history, to be published on Ameren's 2027 ESG report released in CY2028.	• Provides greater access to economic and entrepreneurial opportunities for businesses better representing historically underrepresented groups • Creates an opportunity for Ameren to foster new partnerships with historically underrepresented businesses and grow the vendor base for continued business even after program completion • Helps dismantle economic barriers traditionally faced by historically underrepresented groups in the workforce by ensuring access to new, lucrative contracting opportunities • Better ensures access to millions of dollars in contracting opportunities to certified diverse suppliers and minority-owned business enterprises

Table 2. Rural Modernization Program Community SMART Milestones and Impacts.

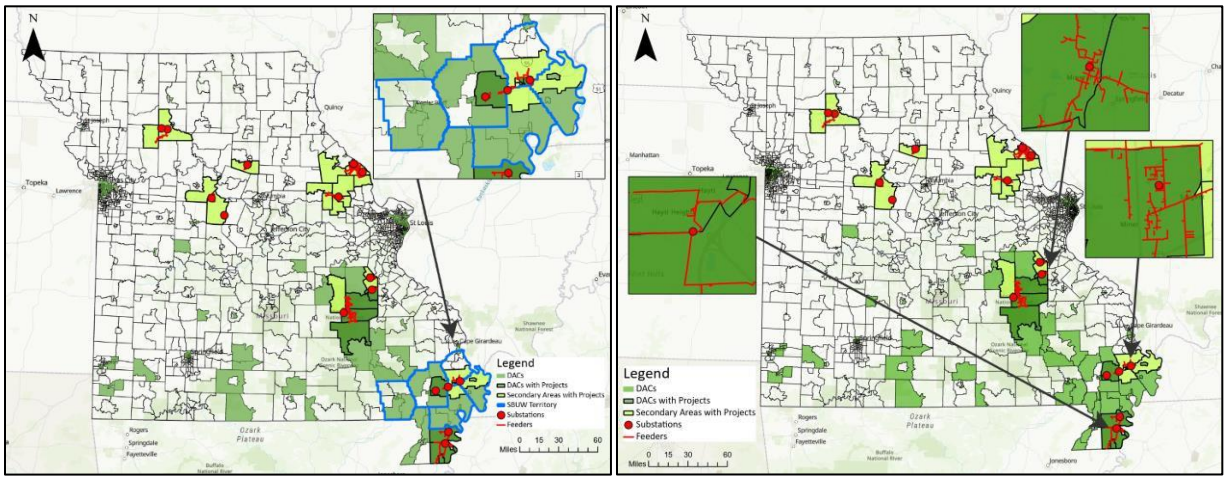
In addition to Ameren's DEIA objectives, the Community Empowerment Team and Workforce Development group will continue to focus on collaborating with Ameren partners, such as the (b) (4) and (b) (4) as discussed above. These relationships will help identify investments and initiatives that will best foster a safe and equitable working and community environment. In particular, Ameren will be working with the (b) (4) to help with the kick-off of the Cape Girardeau chapter of the (b) (4) Not only does the (b) (4) make substantial investments in the American workforce through training and development efforts, but it targets underrepresented individuals, further promoting equity and inclusion in the Missouri workforce. Ameren and the (b) (4) share goals of increasing DEIA principles in the workforce and ensuring individuals develop skills and trades needed to meet future labor demands in the energy sector.

Ameren's partnership with the Urban League**,** its relationship with the (b) (4) and other alliances will help ensure workforce programs attract, develop, and retain energy workforce

talent from rural and historically underserved communities and demographics across Missouri. After the Rural Modernization program is complete, Ameren plans to continue to work with local communities and workforce, government officials, and other industry stakeholders across Missouri to ensure a strong workforce that better incorporates DEIA objectives.

Justice40 Initiative Plan

The program deploys projects within DACs and historically underserved communities to improve system flexibility, resiliency, and reliability. The program upgrades and enables autonomous control and smart grid functions for targeted rural substations. Over 40% of the program's projects are located in DACs, accounting for approximately 70% of total program investment. Projects located within regions shaded green in Map 1 represent these DACs. Regions shaded in light green are census tracts not classified as disadvantaged per the DOE's definition but share similar characteristics with DACs. Over one-third of the population in these areas live at or below 200% of the federal poverty threshold. These areas also rank in the worst ~40% of census tracts in both Missouri and the greater United States according to the DOE's Justice40 criteria that assesses socio-economic conditions. These secondary areas are not only significantly impoverished, but they suffer from high levels of unemployment–with an average unemployment rate greater than the national rate. The lack of employment opportunities coupled with the burden of poverty demonstrates substantial need for economic growth and infrastructure upgrades in DACs and the program's identified secondary areas.



Map 1 (left). Map of Rural Modernization Program's Proposed Projects, DACs, and Secondary Areas with SBUW Territory. Map 2 (right). Map of Rural Modernization Program's Proposed Projects, DACs, and Secondary Areas.

In addition to these infrastructure deployments, these impacted communities will also realize benefits from other program initiatives, such as Ameren's workforce development partnership initiatives and intent to enter into a CBA, among others. Ameren has planned efforts with community partners such as the (b) (4) the (b) (4) and the (b) (4) The company has identified the below Justice40 benefits that will flow to DACs and historically underserved communities (see Table 3).

Ameren Missouri Community Benefits Plan for GRIP Topic Area 2: Smart Grid Grants (BIL sec. 40107)

Justice40 Policy Priority	Program Initiatives that Advance DOE Goal
Decrease energy burden in DACs	Over 40% of the program's projects are directly located within a DAC, with approximately 70% of the total program spend dedicated to projects in DACs.
Decrease environmental exposure and burdens for DACs	Installation of pad-mounted transformers in DACs can effectively reduce the length of distribution feeders prone to the effects of extreme weather and animal contact, reducing the chances of events such as wildfires and the associated emissions.
Increase parity in clean energy technology access and adoption in DACs	Substation upgrades and downstream 4 kV to 12 kV line conversions in DACs provide additional distributed energy resources, electric vehicle charging infrastructure, and renewable energy hosting capacity, empowering the community's ability to utilize renewable energy as an alternative to traditional fossil fuel generation as load increases.
Increase access to low-cost capital in DACs	Unfortunately, this priority does not apply to the Rural Modernization program as Ameren will continue to own the infrastructure, and there are no planned loans or co-ownership opportunities as a result.
Increase clean energy enterprise creation and contracting in DACs	Ameren will prioritize contracts awarded to and capital invested in minority-owned, women-owned, and veteran-owned businesses. If additional engineering support is needed for this program, Ameren is committed to working with (b) (4) a minority-and women-owned business.
Increase clean energy jobs, job pipeline, and job training for individuals in DACs	Ameren will provide resources to help the (b) (4) with the kick-off and expansion of the UARP in Cape Girardeau. This program targets historically underrepresented individuals in the energy workforce and members of DACs in the region to develop the skills and obtain certificates required to pursue a career in the skilled energy trades.
Increase energy resiliency in DACs	The Rural Modernization program deploys new technologies and upgrades at DAC substations in DACs, such as smart reclosing devices, enabling autonomous monitoring and self-healing capabilities. The program will include new pad-mounted transformers and design schemes that better protect against faults due to events such as wildfires and animal disturbances. Due to the deployment of these technical initiatives on substations in DACs, (b) (4)
Increase energy democracy in DACs	The Community Empowerment Team is committed to working with (b) (4) and (b) (4) to host at least one workshop or event per quarter, starting Q4 CY 2023 until Q4 CY2028, with members of DACs and rural communities across SEMO. The Rural Modernization program will include the finalization of a CBA with (b) (4) that ensures community members an opportunity to select a diverse array of benefits and deployments.

Table 3. Justice40 Policy Priorities and Rural Modernization Program Alignment.

Ameren is dedicated to ensuring that infrastructure is deployed to program-targeted areas and that such efforts will substantially benefit customers and communities. Ameren is committed to working with (b) (4) to finalize a CBA that administers and guarantees the delivery of impactful benefits to disadvantaged and historically underserved communities represented by (b) (4)

In addition to Ameren's formal CBA planned with (b) (4) Ameren is committed to working with its program partners to help ensure all the benefits of the Rural Modernization program are tracked and accounted for. Specifically, Ameren will work with program partners to ensure

the following anticipated program benefits are met:

Anticipated Benefit	Expected Timeframe	Reporting & Tracking Method
Increased energy democracy through a greater number of workshops and events hosted in DACs across SEMO to discuss Rural Modernization as well as other Ameren and energy industry initiatives with community stakeholders and members	Before, during, and after the Rural Modernization program's completion, with at least one event to be hosted per quarter starting Q4 CY2023 to Q4 CY2028	Through the completion of the periodically required DOE Pre-Continuation briefing reports, Ameren will report the number of publicly open community events hosted in support of the Rural Modernization program, between each report
Improved workforce development opportunities for members of DACs in SEMO and historically underrepresented individuals through the kick-off of the (b) (4) UARP new chapter in Cape Girardeau	During the program, the Cape Girardeau office and chapter of the UARP are expected to open for applications from interested personnel by the end of CY2023	After the launch of the program's Cape Girardeau chapter, Ameren will provide a link to the program's webpage for public viewing on the new Rural Modernization landing page on the Ameren website
Almost 70% of program spend will deploy infrastructure (i.e., new transformers and autonomous control devices) that provides electricity to targeted DACs, made possible by DOE funding	After the program's expected completion in Q2 CY2028	Through the completion of the periodically required DOE Pre-Continuation Briefing reports and SF-425 forms throughout the program, all program expenditures and projects will be catalogued and summarized to track what projects and program efforts have been completed and the associated costs with those, helping pinpoint costs targeted at DACs
Increased economic opportunities in DACs through the retention of high-quality jobs for Ameren, full-time employees under labor agreements with unions that have domicile requirements that help ensure local union members receive priority for project work in their jurisdiction, better ensuring that many of the union jobs required for the program are utilizing people from DACs near respective projects as much as possible	Upon the start of, expected Q1 CY2025, and until the completion of construction efforts for the Rural Modernization program, expected to be complete by Q2 CY2028	Through the completion of the DOE's required Final Project Briefing Report, all program projects and outcomes, including the number of union labor utilized, will be catalogued for the DOE to review with the number of union personnel utilized throughout the program

Table 4. Delivery of Benefits from the Rural Modernization Program.

Ameren is excited to deliver these anticipated benefits to DACs and surrounding communities to ensure it continues to provide quality energy service to customers in rural areas across Missouri. Ameren is committed to administering such benefits within the specified timelines and encourages its partners to hold the company accountable with joint reporting and tracking methods.

Ameren recognizes that such innovative projects could result in environmental impacts. In fact, Ameren is proud to state that after a thorough impact analysis by the company's Environmental Services group and in partnership with (b) (4) the program is expected to have minimal negative environmental impacts within all areas targeted. (b) (4) is an external consulting and engineering firm that Ameren leveraged to

evaluate the potential environmental impacts of the program best. Ameren anticipates the only environmental impacts to be localized to the project sites, which sit far away from local residents and facilities. The small impacts Ameren does anticipate are the removal and clearing of adjacent vegetation such as trees, soil degradation, and erosions concentrated in areas directly below and adjacent to substations, and disturbances of wetlands from the instillation of poles, only when and if a pole is deemed necessary to support other needed infrastructure. Given that these impacts do not present any possibility of long-term or significant impacts on local environments, Ameren and its partners have deemed these impacts negligible. Nevertheless, Ameren has longstanding, required corporate practices and processes that guarantee these impacts are adequately addressed, mitigated, and, if needed, communicated with customers.

Ensuring these benefits are delivered to DACs and surrounding areas and mitigating any potential negative impacts is of the utmost importance to Ameren. The Rural Modernization program will work to advance the White House's Justice40 initiative and the DOE's policy priorities in Missouri.

Conclusion

Ameren is excited to work with program partners, laborers, legislators, communities, and customers to deliver impactful and innovative grid benefits to DACs and surrounding areas across Missouri. Ameren will leverage sophisticated tools, including program SMART milestones, an anticipated CBA with (b) (4) a formal partnership with the (b) (4) UARP, and labor agreements with in-house union workers to drive program success. Ameren will continue to garner support from its network of partners to ensure benefits are created by and for local communities across central and southeast Missouri. Through its valued relationships, Ameren will promote accountability and provide transparency for Ameren customers and communities. By directing investments and program initiatives in DACs and historically underserved communities, the program will deliver substantial benefits and needed impacts to rural communities and workers across Missouri. Ultimately, Ameren is excited to engage communities across the state to further the DOE's Justice40 initiative to create a more equitable industry for Ameren customers and the larger workforce.

Project/Performance Site Location(s)

Project/Performance Site Primary Location

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1: (b) (4)

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

Project/Performance Site Location 1

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1: (b) (4)

Street2:

* City:

* State:

Province:

* Country:

* ZIP / Po

Project/Performance Site Location 2

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1 (b) (4)

Street2:

* City:

* State:

Province

* Countr

* ZIP / P

Project/Performance Site Location(s)

Project/Performance Site Location 3

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1: (b) (4)

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

Project/Performance Site Location 4

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1 (b) (4)

Street2:

* City:

* State:

Province

* Country

* ZIP / P

Project/Performance Site Location 5

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1 (b) (4)

Street2:

* City:

* State:

Province

* Country

* ZIP / P

Project/Performance Site Location(s)

Project/Performance Site Location 6

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1

Street2:

* City:

* State:

Province

* Countr

* ZIP / P

(b) (4)

Project/Performance Site Location 7

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country:

* ZIP / Po

(b) (4)

Project/Performance Site Location 8

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 9

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country:

* ZIP / Po

(b) (4)

Project/Performance Site Location 10

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country:

* ZIP / Po

(b) (4)

Project/Performance Site Location 11

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 12

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country:

* ZIP / Po

(b) (4)

Project/Performance Site Location 13

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country

* ZIP / P

(b) (4)

Project/Performance Site Location 14

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1:

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

(b) (4)

Project/Performance Site Location(s)

Project/Performance Site Location 15

☐ I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Ameren Missouri

UEI:

* Street1: (b) (4)

Street2:

* City:

* State:

Province:

* Country

* ZIP / Po

Additional Location(s)

Add Attachment | Delete Attachment | View Attachment

OMB Number: 4040-0004
Expiration Date: 11/30/2025

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 03/16/2023

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Union Electric Company d/b/a Ameren Missouri

* b. Employer/Taxpayer Identification Number (EIN/TIN): (b) (4)

* c. UEI: (b) (4)

d. Address:

* Street1: 1901 Chouteau Avenue
Street2:
* City: St. Louis
County/Parish:
* State: MO: Missouri
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 63101-3003

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Joseph
Middle Name:
* Last Name: Wondolowski
Suffix:

Title: Manager, Capital Planning & Analysis

Organizational Affiliation:

* Telephone Number: (b) (6)
Fax Number:

* Email: (b) (6)

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

Q: For-Profit Organization (Other than Small Business)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

National Energy Technology Laboratory

11. Catalog of Federal Domestic Assistance Number:

81.254

CFDA Title:

Grid Infrastructure Deployment and Resilience

*** 12. Funding Opportunity Number:**

DE-FOA-0002740

* Title:

BIL Grid Resilience and Innovation Partnerships (GRIP)

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Rural Modernization Program

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: MO-001 * b. Program/Project: MO-006

Attach an additional list of Program/Project Congressional Districts if needed.

1246-Ameren Missouir_GRIP Topic 2 Applicat | Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2023 * b. End Date: 09/30/2028

18. Estimated Funding ($):

* a. Federal	47,130,781.00
* b. Applicant	54,009,248.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	101,140,029.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Joseph

Middle Name:

* Last Name: Wondolowski

Suffix:

* Title: Manager, Capital Planning & Analysis

* Telephone Number: (b) (6) Fax Number:

* Email: (b) (6)

* Signature of Authorized Representative: Joseph C Wondolowski * Date Signed: 03/16/2023

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action:

- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:

- [ ] a. bid/offer/application
- [x] b. initial award
- [ ] c. post-award

3. * Report Type:

- [x] a. initial filing
- [ ] b. material change

4. Name and Address of Reporting Entity:

- [x] Prime
- [ ] SubAwardee

** Name:* Ameren

** Street 1:* 1901 Chouteau Avenue

Street 2:

** City:* ST Louis

State: MO: Missouri

Zip: 63103

Congressional District, if known: MO-001

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency:

National Energy Technology Laboratory

7. * Federal Program Name/Description:

Grid Infrastructure Deployment and Resilience

CFDA Number, *if applicable:* 81.254

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*

$

10. a. Name and Address of Lobbying Registrant:

Prefix: Mr. ** First Name:* Matthew *Middle Name:*

** Last Name:* Forck *Suffix:*

** Street 1:* 1901 Chouteau *Street 2:*

** City:* ST. Louis *State:* MO: Missouri *Zip:* 63103

b. Individual Performing Services (including address if different from No. 10a)

Prefix: Mr. ** First Name:* Christopher *Middle Name:*

** Last Name:* Hickling *Suffix:*

** Street 1:* 1331 Pennsylvania Avenue NW, Suite 550S *Street 2:*

** City:* Washington *State:* DC: District of Columbia *Zip:* 20004

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

*** Signature:** Joseph C Wondolowski

***Name:** *Prefix:* Mr. ** First Name:* Joseph *Middle Name:*

** Last Name:* Wondolowski *Suffix:*

Title: Manager, Capital Planning and Analysis **Telephone No.:** (b) (6) **Date:** 03/16/2023

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(b) (4)

Department of Energy
Office of Grant Program
1000 Independence Ave SW
Washington DC. 20585

Re:
Partnership with Ameren Missouri for Rural Modernization Proposal under Application DOE- FOA-0002740, Smart Grid Grants

Dear Sir/Madam,

(b) (4) pleased to provide this letter to confirm our partnership with Ameren Missouri to carry out the efforts related to their Rural Modernization proposal. (b) (4) is fully committed to aid Ameren Missouri's Rural Modernization program by fostering community engagement and program accountability.

We plan to work in conjunction with Ameren Missouri's Community Empowerment Team to represent our communities and provide diverse array of services and advocacy. (b) (4) will work with Ameren Missouri's Community Empowerment Team to better understand and allocate programs and resources to effectively plan program initiatives as well as to finalize a Community Benefits Agreement with Ameren Missouri on behalf of the communities we serve by end of Q1 CY2025. This will drive our mission to fight for the health, education, and financial stability of every individual in the communities we serve.

(b) (6)

(b) (4)

(b) (4)

03/07/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Partnership with Ameren Missouri for Their Rural Modernization Proposal Under Their Application for DE-FOA-0002740, Smart Grid Grants

Dear Sir/Madam,

(b) (4) is pleased to provide this letter confirming our partnership with Ameren Missouri to carry out efforts related to the expansion of (b) (4) as part of their proposed Rural Modernization program initiatives. (b) (4) is a new, joint initiative between (b) (4) As proud supporters and partners of Ameren Missouri, we believe in the Rural Modernization program's ability to foster economic growth in historically underserved areas of southeastern Missouri and that its deployments align with our expansion of (b) (4) which will include the opening of a new office and training facility.

We plan to work in conjunction with Ameren Missouri's Workforce Development group to identify a diverse array of services and resources that can support the start of our new (b) (4) in conjunction with their deployment of the Rural Modernization program. Furthermore, we are prepared to deploy personnel to work with Ameren Missouri (b) (4) to identify effective means to market program developments and updates with communities. We also plan to collaborate with these partners to address critical skilled labor and trade needs that will help support the development of an inclusive workforce prepared to support the energy transition in Missouri. Through these efforts we will coordinate to provide a pipeline of full-time opportunities to program participants. We also plan to act as an advocate for our communities and local labor partners by working with the Ameren Missouri team to better understand and address feedback and develop solutions to assure that community concerns are considered.

We are excited to be included as a partner of the Rural Modernization program team and applaud Ameren Missouri for their proactive engagement with our organization and partners. We are fully prepared to work with Ameren Missouri and our program partners to kick-off the start of (b) (4)

Sincerely,

(b) (6)

(b) (4)

PROJECT DESCRIPTION AND ASSURANCES DOCUMENT (PDAD)

Project title: Rural Modernization: Ameren Missouri's Innovative Plan to Improve Grid Reliability, Resiliency, and Flexibility in Rural Missouri

Applicant Name: Ameren Missouri
Applicant Address: 1901 Chouteau Ave, St. Louis, Missouri, United States
Names of all team member organizations (if applicable): N/A

Principal Investigator / Business Point of Contact (Name, Address if different than Applicant's, Phone Number, E-mail):
Name: Joseph Wondolowski, Manager of Capital Planning and Analysis, Ameren Missouri
Email: (b) (6)
Phone Number: (b) (6)

Include any statements regarding confidentiality:
Notice of Restriction on Disclosure and Use of Data
The data contained in this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, Department of Energy shall have the right to use or disclose the data here to the extent provided in the award. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the applicant.

Federal Share: $47M
Cost Share: $54M
Total Estimated Project Cost: $101M

Item 1: Specify (mark with "X")" the FOA Topic Area and as applicable the Area of Interest (AOI):

_____Topic Area 1: **Grid Resilience Grants** (BIL section 40101(c))
__X__ Topic Area 2: **Smart Grid Grants** (BIL section 40107)
_____Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 1 (**Transmission** System Applications)
_____Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 2 (**Distribution** System Applications)
_____Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 3 (**Combination** System Applications)

Items 2-6 from PDAD template are not applicable to Topic Area 2 Application

Item 7: Authorized Organizational Representative (AOR): please provide name, address, phone number and e- mail address for the authorized agent to bind the entity

Authorized Organizational Representative (AOR):
Name: Joseph Wondolowski, Manager of Capital Planning and Analysis, Ameren Missouri
Address: 1901 Chouteau Ave, St. Louis, Missouri, United States
Phone: (b) (6)
E-mail: (b) (6)

Item 8: Signature of Authorized Organizational Representative (AOR)

Joseph Wondolowski

Annette Sweet

Regional Account Executive

Northeast MO Division

Ameren Missouri

Contact: (b) (6) [redacted]

Grant Program Role

Customer Advocacy

Professional Experience

Ameren Missouri – Kirksville, MO **1980-Present**

Regional Account Executive

- Responsible for personally establishing and maintaining a relationship with top management for Ameren's large/sensitive customers
- Key point of contact for legislative officials, community, and civic leaders to actively promote all corporate public relations activities and business initiatives
- Facilitate efforts of our internal stakeholders, including Economic Development, Energy Efficiency & Renewables, Regulatory, Legislative, and Corporate Communications
- Lead special projects and task teams as assigned by Division Director
- Provide prompt, creative, and integrated business solutions focused on improving customer loyalty and enhanced profitability for both parties
- Serve as the main point of contact for assigned commercial and large commercial and industrial customers, key community stakeholders, municipal leaders, and elected officials
- Partner on activities related to state legislation with the Government Relations Department to communicate and enlist business and local community support
- Advance public relations for the company through active involvement on strategically selected boards and/or committees, make presentations to elected officials, local government staff, and community leaders at local civic and community events
- Facilitate the resolution of customer and constituent-related issues with division engineering, construction, and service departments by collaborating with internal departments
- Identify energy-related opportunities to help meet customer needs and provide solutions to their service-related issues
- Identify opportunities to introduce subject matter experts in energy efficiency, energy solutions, business development, government relations, economic development, and corporate contributions

- Coordinate implementation of all agreements and documents related to rates, products, and services; secure municipal franchises, street lighting contracts, rider agreements, and etc.
- Manage customer and key contact information in the customer relationship management system, recording every meeting within established deadlines, customer issues, and sales/service opportunities
- Serve as a representative of the company at sponsored trade shows, community events, educational sessions, and related training and certifications
- Partner with Corporate Communications and/or Division Director relative to media inquiries, government relations, corporate contributions, and advertising to communicate uniform messages to key stakeholders
- Manage the application, installation, and billing associated with the new distributive generation and net metering
- Administer the district's advertising budget and local community funds and provide guidance relative to the Division's annual corporate contributions fund according to the Company's and the Division's strategic charitable contributions goals
- Participate in major storm events as information liaison for assigned geographical communities, key stakeholders, and assigned customers
- Awarded the 4-Way Test Award
- Inducted into the Kirksville Chamber of Commerce Hall of Fame

Education & Training

(b) (6)

- Bachelor of Arts, Business

Numerous Ameren or state-sponsored training programs such as customer lighting systems, energy use, financing energy improvements, energy efficiency, utility systems, economic development symposiums, disaster response, and clean energy

Ben Ford

Sr. Director, Sourcing and Category Management

Supply Chain

Ameren Services

Contact: (b) (6)

Grant Program Role

Materials and Workforce Procurement

Professional Experience

Ameren – St. Louis, MO **2018-Present**

Sr. Director, Sourcing and Category Management

- Responsible for establishing and implementing the vision, strategy, and business direction for Ameren Supply Chain's procurement-related functions while fostering Ameren's brand and image in the industry and community through participation in the external organization and Boards of Directors.
- Establishing the vision, strategy, and business direction for the Ameren Supply Chain's procurement-related functions, including purchasing, strategic sourcing, project procurement, category management, and contract development and negotiations functions, with the goal of delivering significant enterprise-wide value for the supported business segments and broader corporate strategy. This strategy includes the responsibility for the design and implementation of the new Supply Chain Operating Model and subsequent continuous improvement efforts to support this model.
- Responsible for the risk management and effective deployment of over $3B in core and non-core, direct and indirect spending for projects, services, maintenance, and equipment for energy delivery, transmission, fossil, nuclear and renewable generation, and corporate services operations across Missouri and Illinois.
- Leading a team of approximately 80 managerial, professional, support, and skilled craft personnel with an annual budget responsibility of over $10M.
- Responsible for developing strategies to enable Ameren's Integrated Resource Plan (IRP), which includes building renewable wind and solar generation, new transmission investment, battery storage, and other related infrastructure.
- Establishing an Ameren-wide category management organization to leverage sourcing strategies to ensure continuity of supply, maximize cost savings/value realization, and support Ameren's corporate strategies, including customer affordability.
- Responsible for the establishment of key supply chain function groups across Supplier Quality, Category Management, and Market Intelligence.

Enbridge Energy Partners, LP – Houston, TX **2015-2018**

Director Major Gas Projects – Supply Chain Management

- Main focus was the development and execution of major capital projects for natural gas pipelines and gas processing facilities in the US. Large diameter (36-to-48-inch, 3000 psi MAOP) pipeline experience, brown/greenfield Compressor, and M&R Station from Class 5 Estimate development through contracting strategy, design, procurement, construction, start-up/commissioning, and turnover to operations.
- Coordinated with the procurement groups within the key EPCM/EPC contractors' organizations and developed appropriate "aligned" relationships between key contractors that supported the required behaviors between the parties involved.
- Responsible for the transformation of the engagement model between Engineering and Supply Chain to enable functional support from the initial project development through the execution phases of projects and conduct key negotiations for critical construction packages (pipeline and facilities).

Alcoa World Alumina – Pittsburgh, PA **2008-2015**

Global Procurement Director – Capital

- Project management and leadership of breakthrough technology projects from the business development stage through start-up activities. Provided leadership of project resources as required for executing major project functions like engineering, procurement, contract management, and project controls.
- Led a team tasked with ensuring competitive advantage across three major projects ($2.3B) spends to maximize procurement advantage and deliver cost impacts on average of 10% across the program. Management of EPCM activities to develop strategies across raw materials, capital equipment, and services, including the evaluation of LCC sourcing for critical lead items.
- Created and managed leveraged agreements, managed key supplier and customer relationships, and executed commodity planning and management processes.

Education & Training

(b) (6)

- Bachelor of Mechanical Engineering, Mechanical Engineering

(b) (6)

- Graduate Diploma, Business

Ben Lynch, PE, PMP

Sr. Director, Electrical Design

MO Ops & Tech Services

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Substation & Line Design

Professional Experience

Ameren Missouri – St. Louis, MO **2022-Present**

Director, Electrical Design

- Leads the Electric Design group consisting of Substation Design, Overhead Line Design, Generation I&C Design, Generation Electrical Projects, Renewable Project Design, Drafting, Mapping, and Document Control
- Responsible for 148 management and bargaining unit employees
- Executive Sponsor for Ameren Military Veteran Employees (AMVE) employee group
- Planning Section Chief during Missouri Major Storms

Ameren Missouri – St. Louis, MO **2018-2022**

Director, Relay & Metering

- Led the Missouri Relay and Metering Groups
- Responsible for 130 management and bargaining unit employees
- Led the rollout of the Advanced Metering Infrastructure rollout to customers
- Acted as Deputy Incident Commander during Missouri Major Storms

Ameren Missouri – St. Louis, MO **2016-2018**

Director, Archview Division

- Led the Missouri Archview Overhead Division
- Responsible for 90 management and bargaining unit employees

Ameren Missouri – St. Louis, MO **2014-2016**

Superintendent, System Relay

- Provided 2nd-line leadership to 30 bargaining unit employees of IBEW 1439, 702, and 2
- Supervised six System Relay supervisors
- Increased the System Relay VPQ engagement scores from 33% to 52%

- Increased the System Relay Kenexa Behavior Change Index from 23% to 73%
- Provided monthly review and budgetary oversight for a $5.8 million budget
- Developed an electronic schedule to provide transparency to bargaining unit employees
- Team owner for Distribution Relay Routine Continuous Improvement Team

Ameren Missouri – St. Louis, MO **2014-2014**

Supervising Engineer, Substation Design

- Supervised nine Substation Design Engineers, one Drafting Supervisor, and 10 Electrical Drafters
- Provided budgetary oversight for a $56 million 2014 Substation Design budget
- Led the Energy Delivery Centralized Project Close-out Team to ensure compliance
- Assisted in the creation of the Substation Project Estimating Accuracy Policy

Ameren Missouri – St. Louis, MO **2004-2014**

Substation Engineer

- Provided support for 200+ substations and oversaw four supervisors and 25 technicians
- Authored Fall Protection Standard 101, ED Distribution Smart Grid Analysis, ED Bulk Smart Grid Analysis, and ED Transmission Smart Grid Analysis
- Conducted outage reviews; participated in Division Reliability & Load Analysis meetings

Ameren Missouri – St. Louis, MO **2001-2004**

Transmission Substation Design Engineer

- Designed, engineered, and converted crucial breaker and feeder projects
- Completed various metering and SCADA projects

Education & Training

(b) (6)

- Bachelor of Science, Electrical Engineering

(b) (6)

- Master of Business Administration

Credentials

- Certified Project Management Professional (PMP)
- Licensed Professional Engineer (PE) in Missouri & Illinois

Catina Shannon

Director, Government Relations

MO Regulation Administration

Ameren Missouri

Contact: [redacted]

Grant Program Role

Community Development & Local Government Affairs

Professional Experience

Ameren – St. Louis, MO **2018-Present**

Director, Government Relations

- Lead a team of 15 government professionals who have the responsibility to advocate and defend company interests within the Missouri General Assembly
- Responsible for legislative issues at the state and local levels of government
- Duties include, but are not limited to the following:
    - Develop strategic plans for lobbying Missouri General Assembly and Missouri Public Service Commission on legislative issues affecting utilities
    - Administrating PAC contributions which include developing employee solicitation forms, developing the overall PAC budget, creating PAC newsletter, conducting annual PAC meetings, and facilitating PAC executive meetings
    - Political and Charitable outreach
    - Legislative Communications – including selecting and hiring outside consultants for special projects as needed

Ameren Missouri – Jefferson City, MO **2005-2018**

Legislative Representative

- Responsible for legislative issues at the state and local levels of government
- Duties include, but are not limited to the following:
    - Develop strategic plans for lobbying Missouri General Assembly and Missouri Public Service Commission on legislative issues affecting utilities
    - Administrating PAC contributions which include developing employee solicitation forms, developing the overall PAC budget, creating PAC newsletter, conducting annual PAC meetings, and facilitating PAC executive meetings
    - Political and charitable outreach
    - Legislative communications

Missouri Legislative Black Caucus – Jefferson City, MO **1998-2005**

Conference Coordinator

- Responsible for planning and managing the annual Leadership Conference for the Missouri Legislative Black Caucus Foundation, Inc.
- Duties include, but are not limited to, the following:
    - Developing overall conference budget
    - Managing and overseeing all fundraising activities, including soliciting major corporate sponsors, individual donors, and in-kind contributors
    - Developing and coordinating workshops, receptions, as well as selecting and vetting keynote speakers
    - Overseeing the invitation of exhibitors and vendors showcased during the conference
    - Creating and maintaining databases for all functions and events

Missouri Public Service Commission – Jefferson City, MO **1997-1998**

Chief of Staff to the Commissioner

- Coordinated with staff regarding utility cases before the commission.
- Responsible for organizing utility cases for appellate court and public hearings for commissioners
- Coordinated round-table panel discussions on rate increases for utilities and organized community education meetings about how the rate-making process affects the consumers
- Coordinated travel arrangements and organized all commission events

Education & Training

(b) (6)

- Bachelor of Science, Criminal Justice

(b) (6)

- Master of Public Administration

Douglas J. Brown

Manager, Real Estate

Ameren Services

Contact: (b) (6)

Grant Program Role

Right of Way for Easements and Permitting Oversight

Professional Experience

Ameren Services – St. Louis, MO **1988-Present**

Manager, Real Estate

- Manage core real estate functions, such as property acquisition, easement acquisition, property management, corporate real estate management, and property sales
- Budget responsibility for the core real estate functions
- Work with the Director of Real Estate on the preparation and ongoing management of the budget
- Participate in joint planning of real estate services with business line representatives
- Hire and oversee the work of professional real estate contractors and consultants
- Supervise, develop, and evaluate supervisory and non-supervisory real estate personnel
- Acquire appropriate easements for critical projects

Relevant Projects

- Oversaw the Mark Twain project for ATXI, a 96-mile 345 kV transmission line project located in northeast Missouri, and acquired over 400 easements
- Oversaw the Lutesville-Heritage project for Ameren Missouri, a 12.5 mile 345 kV transmission line project located in Cape Girardeau County, and acquired 40 easements

Education & Training

(b) (6)

- Bachelor of Science, Business Administration

Credentials

SR/WA designation with the International Right of Way Association

Felicia Rodgers

Director, Project Management Office

Operations & Tech Services

Ameren Missouri

Contact: (b) (6) [redacted]

Grant Program Role

Project Management Office

Professional Experience

Ameren Missouri – St. Louis, MO **2022 - Present**

Director Project Management

- Manages Ameren Missouri's Power and Customer Operations capital budget of >$500M.
- Oversees portfolio health performance metrics; conducts an analysis of metrics to identify improvement opportunities with project management methods or techniques.
- Provides leadership, guidance, and support to project management teams on processes such as project initiation, procurement, contract development, risk management, engineering, change control, safety, document control, finance, quality assurance, staffing, performance management, communications, and change management.
- Partners with corporate stakeholders in developing and maintaining a robust performance management framework to ensure strategic objectives are met.
- Monitors industry trends and coordinates continuous improvement efforts where improvement opportunities are identified, or specific levied requirements are involved.
- Ensures stakeholders meet commitments to deliver projects safely, on scope, on schedule, within budget guidelines, and meet customer quality expectations.
- Leads scheduling efforts and resource leveling across the distribution portfolio.

Ameren Missouri – St. Louis, MO **2019-2022**

Senior Manager Project Management

- Oversaw successful execution of Ameren Missouri's Smart Energy Plan Capital Portfolio.
- Supported PMO leaders in developing and reviewing resource staffing plans to balance utilization, meet customer needs, and schedule demands.
- Monitored group morale and performance, promoted a team atmosphere, encouraged professional development, and recommended promotions and annual raises.

Ameren Missouri – St. Louis, MO **2017-2019**

Manager Project Controls

- Managed 14 project and outage schedulers that planned and reported project and outage costs. Performed in-depth schedule, report, and energy center, job planning reviews.
- Provided project management training to project managers and project engineers to ensure teams were in compliance with project management procedure requirements.
- Monitored project teams' compliance with Ameren and Power Operations project management procedures and processes through review of project documentation and processes, including work orders, contracts, project change requests, identification and control of risks, and cost monitoring.

Ameren Missouri – St. Louis, MO **2015-2017**

Supervisor, Project Audit

- Managed audit teams conducting 10-12 project management, operational, and business process audits on-time, within budget, and with resource constraints annually.
- Drove change across the organization by identifying risks and control gaps around risk mitigation strategies and existing processes and communicated to executive leadership.
- Identified and integrated improvement opportunities into the audit process to increase efficiency, specifically timekeeping, audit work instructions, and scheduling practices.

Ameren Missouri – St. Louis, MO **2013-2015**

Senior Project Auditor

- Led audit teams of three to five peers that assessed risks and mitigation strategies, planned, coordinated, and executed project audits within resource constraints.
- Developed and presented project management policy and procedure training.

Ameren Missouri – St. Louis, MO **2013-2013**

Project Auditor

- Assessed business risks, including compliance with Ameren project management policies and procedures, industry-leading practices, and subject matter expert opinion.
- Performed audits within budget, schedule, and resource constraints.

Education & Training

(b) (6)

- Bachelor of Science, Mechanical Engineering

(b) (6)

- Master of Science, Engineering Management

Jaime Sobotka, PMP

Manager, Electrical Design

MO Ops & Tech. Services

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Substation Design

Professional Experience

Ameren Missouri – St. Louis, MO **2021-Present**

Manager, Electrical Design

- Leads five groups with a total of 40 engineers in distribution substation engineering, renewables engineering, Generation I&C engineering, and Generation EE engineering.

Ameren Missouri – St. Louis, MO **2021 – 2022**

Manager, Project Management

- Led team of internal and external project managers to execute projects in Customer Operations and Power Operations
- Established a reporting process with the CBM SEP category owner and cleaned up OPPM while ensuring projects were adequately justified through the gate process

Ameren Missouri – St. Louis, MO **2018 – 2021**

Project Manager

- Managed Fiber and PLTE projects comprising $410M over the project lifecycle
- Obtained approval from CPOC after receiving approval from the Gate Approval Board
- Developed project charter, change requests, and other documentation as required
- Worked closely with leadership on strategic planning and budget Category balancing
- Led Contract Development Teams to bid on professional services and materials after developing requirements
- Coordinated across engineering groups – Substation, Civil, Transmission, Digital, Operating, Facilities, and Cyber to establish design criteria and obtain approvals
- Led project team meetings across function groups, outside contractors, and suppliers
- Managed contractors and coordinated with internal labor resources to achieve project objectives and ensure scope, budget, and schedules were met
- Worked with Real Estate and Environmental to obtain all required permits

- Organized closeout activities and reviewed final deliverables provided by the contractor
- Managed a portfolio of Distribution Automation projects comprised of over $20M

Ameren Missouri – St. Louis, MO **2016 – 2018**

Electrical Project Engineer

- Engineered and installed Transformer Explosion Protection Systems to prevent fires
- Engineered and installed excitation control systems in Hydro and Coal Energy Centers
- Incorporated engineering design changes to ensure proper independent reviews of engineering modifications

Sunnen Products Company – St. Louis, MO **2014-2016**

Electrical Engineer – Product Design and Development

- Designed 3-phase machine control systems according to NFPA, NEC, and CE standards
- Wrote PLC code for machines and came up with tests for bugs and logic errors

Missouri Energetics and Pulsed Power Laboratory – Columbia, MO **2013-2014**

Undergraduate Research Assistant

- Worked with a doctor to create a pulse of power capable of producing 2kV per centimeter of the electric field through a mouse's brain to target tumors and introduce immune-labeled goal-coated nanoparticles

Bastian Robotics – Maryland Heights, MO **2013-2013**

Controls Engineer Intern

- Expanded standard AutoCAD drawing package for engineering group
- Wrote a visual program to export AutoCAD text data to excel and import it into RSLogix5000
- Converted ladder logic code from Rockwell Logix5000 to Siemens Step7

Education & Training

(b) (6)

- Bachelor of Science, Electrical Engineering

Credentials

Project Management Institute – Project Management Professional (PMP)

Fundamentals of Engineering Certification (EIT/FE)

James Route

Superintendent, Contractor Services

ED Construction Services

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Contractor Oversight

Professional Experience

Ameren Missouri – St. Louis, MO **2016-Present**

Contractor Services Superintendent

- Directs and coordinates the construction, maintenance, and inspection activities with customers, contracts, and other Ameren business segments – managed $52M+ in Capital and O&M upgrades; budget review/analysis
- Sets clear expectations for direct reports and contract leadership while overseeing overhead and underground electrical distribution – pre-construction contract negotiations, scheduling, and document review
- Contractor evaluations – score cards, safety assessments, project reviews, logging milestones and forecasts
- Monitors and controls project cost and schedules to ensure proper resources are allocated, resulting in a 95% on-time and in-budget rate – resource adjustments, change order estimating, labor, and material quantity tracking
- Performs field safety observations targeted at identifying potential risks – provided follow-up communications
- Performs schedule and cost analysis on current and future projects – helps define scope, project, and work plan
- Managed storm restoration and recovery activities – oversaw out-of-state resources, matched capability to storm requirements, provided safety briefings, supervised utility pole erections and stringing of new power lines
- Ameren's Mutual Assistance Manager – coordinates overhead line resources for natural disasters impacting the US energy grid, dispatched 100+ link workers supporting hurricane Harvey, Irma, Maria, Florence, and etc.

375th Civil Engineer Squadron – Scott AFB, IL **2008-2016**

Deputy Chief of Operations

- Partnered with leaders in developing goals and objectives that integrated organization/strategic objectives

- Led Scott's safety management program and provided quarterly training for all new base facility managers
- Oversaw an annual $20M+ operations, maintenance, repair, construction, logistics, and utility budget
- Provided weekly updates and comments to Army Core of Engineer liaison for design reviews at the 35%, 65%, and 95% level
- Supervised operational maintenance and repair on all infrastructure and utility systems to include a $75M privatized water distribution and maintenance contract
- COR – reviewed and approved progress, financial reports, contract submittals, invoices, drawings, plans, and items requiring approval; provided change order recommendations

375th Civil Engineer Squadron – Scott AFB, IL **2006-2008**

Chief's Enlisted Manager; Chief Master Sergeant

- Oversaw the health and morale of nearly 400 military and civilian personnel
- Served as a unit technical resource for safety compliance; referenced OSHA and Air Force Occupational Safety & Health – established safety programs that protected personnel from work-related deaths, injuries, and illnesses
- Inspected job sites to ensure procedures were followed and compliance was maintained relative to all applicable DoD standards, Air Force instructions, and federal regulatory requirements supporting construction and facility maintenance – proposed and justified revisions in work priorities and staffing levels

HQ Air Mobility Command – Scott AFB, IL **2005-2006**

Command Infrastructure Manager; Chief Master Sergeant

- Utilized numerous software applications to review projects to ensure they met Air Force, State, Federal, EPA, ADA, United Facilities Criteria, and NFPA Standards
- Applied operational principles, regulations, Air Force Instructions, practices, and techniques to match capabilities to CE requirements
- Provided environmental management support; reviewed pest management plans; validated $13M in environmental improvement projects and provided environmental stewardship across AMC's enterprise

Education & Training

(b) (6)

- Bachelor of Science, Occupational Education with Specialization in Infrastructure Management

(b) (6)

- Dual Master of Arts, Human Resources Development and Management & Leadership

Jeff Hasting

Regional Account Executive

Meramec Valley MO Division

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Customer Advocacy

Professional Experience

Ameren Missouri – Cape Girardeau, MO **2021-Present**

Regional Account Executive

- Responsible for developing and maintaining positive relationships with assigned municipal, commercial, and industrial customers, high-visibility institutions, community organizations, elected officials, and local government
- Provide prompt, creative, and integrated business solutions focused on customer loyalty
- Partner on activities related to state legislation as a Registered Lobbyist
- Advance Public Relations through active involvement on strategically selected boards
- Facilitate the resolution of customer and constituent-related issues with division engineering, construction, and service departments
- Respond to operational and service issues and participate in rate reviews and identify energy-related opportunities to help meet customer needs and provide solutions
- Identify opportunities to introduce subject matter experts in energy efficiency, energy solutions, business development, government relations, economic development, and corporate contributions
- Coordinate implementation of all agreements related to rates, products, and services
- Manage key contact information in the customer relationship management system
- Serve as company representative at sponsored trade shows, community events, educational sessions, and related training and certification events
- Partner with Corporate Communications and/or Division Director relative to media inquiries, government relations, corporate contributions, and advertising to communicate uniform messages to key stakeholders
- Administer the district's advertising budget, local community funds, and provide guidance relative to the Division's annual corporate contributions fund according to the Company's and the Division's strategic charitable contributions goals
- Participate in major storm events as information liaison for assigned geographical communities, key stakeholders, and assigned customers

Summit Distributing – Earth City, MO **2020-2021**

Market Manager

- Managed, coached, and trained a team of Account Managers across multiple channels
- Exceeded distribution and sales volume goals
- Developed and implemented a road map for new product introductions to the market
- Created sustainable relationships with retailers to drive distribution and volume goals

Enhance America/Bright Star Marketing Inc. – Washington, MO **2010-2021**

VP Sales Manager

- Developed and implemented a sales road map resulting in growth from $200,000 to $17,000,000, annually
- Leadership of five territory managers and independent representatives
- Developed new international markets resulting in over 50 new global customers
- Collaborated with project managers, engineers, and clients on designs, new product development, artwork, logos, and client approvals through to production and delivery of marketing assets
- Managed all advertisements, social media marketing, and trade show exhibits

Enhance America – Washington, MO **2000-2010**

Key Account Manager

- Senior manager responsible for 75% of key accounts and 80% of the organization's sales volume
- Network management of several international manufacturers, including neon and LED signs, illuminated products, signage, displays, merchandisers, and packaging.
- Project management from concept to delivery
- Managed sales development, pricing, territory development, sales support, fulfillment, and customer service
- Managed all advertising, direct marketing, email marketing, product promotions, and trade show marketing

Education & Training

(b) (6)

- Bachelor of Science, Business Administration Management

Jim Huss, PE

Sr. Director, Operations Excellence

MO Ops & Tech Services

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Project & Resource Prioritization Advisor

Professional Experience

Ameren Missouri – St. Louis, MO **2019-Present**

Sr. Director, Operations Excellence

- Oversee Distribution Operating team, Subtransmission and Distribution Planning activities, Distribution Construction Standards team, and participation in the oversight of Ameren Missouri Capital Planning and project execution

Ameren Missouri – St. Louis, MO **2016-2019**

Director, Distribution Operating

- Distribution Operating includes two dispatch offices that own and operate the distribution system daily, including issuing switching instructions, Lockout/Tagout procedures, and outage management/restoration. The group also includes St. Louis Metro Area First Responders or one-person crews for trouble dispatching

Ameren Missouri – St. Louis, MO **2014-2016**

Senior Manager, Distribution Operations

- Direct responsibility for oversight of two dispatch offices, the Distribution Management System, and SCADA systems that monitor much of the distribution system from the dispatch offices

Ameren Missouri – St. Louis, MO **2007-2014**

Supervising Engineer

- Oversight of Distribution SCADA System, Distribution Automation, SmartGrid, Distribution Management System Implementation, Emergency Operations Center

Ameren Missouri – St. Louis, MO **1995-2007**

Engineer Distribution Operating

- SCADA, Power Quality, Distribution Automation

Ameren Missouri – St. Louis, MO **1991-1995**

Engineer, Electrical Design

- Engineer Electrical Design UE's Callaway Nuclear Plant. Design plant modifications, perform detailed load flow calculations, and engineering support during plant refueling outages

General Dynamics – St. Louis, MO **1988-1991**

Flight Control System Design and Test

- Digital Flight control systems testing

Education & Training

(b) (6)

- Bachelor of Science – Electrical Engineering

(b) (6)

- Master of Science – Electrical Engineering

Credentials

Licensed Professional Engineer (PE) in Missouri No. 025706

Joseph Fitzgerald

Director, Substation Maintenance & Construction

MO Operations & Tech Services

Ameren Missouri

Contact: (b) (6) [redacted]

Grant Program Role

Substation Planning

Professional Experience

Ameren Missouri – St. Louis, MO **Aug 2021 – Present**

Director, Substation Maintenance & Construction

- Leads an organization of 135+ management and skilled craft workers responsible for the construction, maintenance, and asset management of 800+ distribution and transmission substations across the state of Missouri.

Ameren Missouri – St. Louis, MO **Jan 2019 – Aug 2021**

Superintendent, Substation Maintenance & Construction

- Led a dynamic workforce of 6 first line supervisors and 60+ IBEW 1439 substation electrical mechanics responsible for the safe and reliable performance of 450+ distribution and transmission substations.
- Fostered a culture of safety with 0 unsafe acts by championing pro-active hazard recognition, achieving peer safety observation objectives, and ensuring every co-worker has a deep understanding of fundamental safety topics.
- Collaborated closely with the Substation Construction organization to coordinate labor resources and ensuring efficient and timely completion of the SEP (Smart Energy Plan) portfolio of projects.

Ameren Missouri – St. Louis, MO **Mar 2016 – Jan 2019**

Project Lead, Enterprise Asset Management

- Project Lead for Program Aspire Project 2, designing and implementing a software suite to transform the asset and work management, scheduling, and field mobility platforms for ~450 management and field workers across Ameren Illinois, Missouri, and Transmission.
- Indirect leader of a cross-functional team of ~35 internal employees and consultants engaged in the Functional Design of Aspire Project 2 consisting of 130 design sessions with 120 unique Business and IT participants.

Ameren Missouri – St. Louis, MO **Aug 2005 – Mar 2016**

Career Engineer, Substation Maintenance & Construction

- Asset manager for 100+ distribution and transmission substations focused on safe and reliable equipment performance, often balancing demanding operating constraints, resource limitations, and evolving financial guidance.
- Provided technical guidance to substation field resources while fostering a collaborative atmosphere built on mutual respect and trust.

Education & Training

(b) (6)

- Bachelor of Science, Electrical Engineering with Power Specialization

Professional Licensing

Licensed Professional Engineer (P.E.)

Joseph Wondolowski, CPA

Manager, Capital Planning and Analysis

ED Operations Support

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Technical and Business Point of Contact

Professional Experience

Ameren Missouri – St. Louis, MO **July 2022-Present**

Manager, Capital Planning and Analysis

- Serve as central point of contact for all Ameren MO capital functions (Generation, Nuclear, Customer Operations, etc.) and the in-house regulatory and legal counsel related to the Missouri Public Service Commission. Oversees the development and execution of annual and five-year capital budget, ~$10B for 2023-2027
- Responsible for coordinating with the Project Management, Distribution Operations and Planning Leadership, Corporate Accounting and Finance teams (functions and segment finance teams), and Capital Investment Category Owners to ensure all leadership and stakeholders have capital investment visibility and transparency
- Manages the preparation of documentation for Regulatory submittals, Board presentations, and Senior Leader ad hoc requests
- Identifies and implements process improvements to increase efficiency, transparency, and accuracy utilizing internal and external (benchmarking) best practices
- Develops standardized business case solutions and a consistent system practice across all functions

Ameren Missouri – St. Louis, MO **Apr 2020 – July 2022**

Supervisor, Capital and Financial Planning

- Managed project to extend provisions of beneficial regulatory frameworks through collaboration with Executive, Operations, Financial, and Legal leadership
- Served as the central point of contact for the assignment and oversight of activities, support, and collaboration with corporate and business unit leadership in matters of capital governance and analysis to include capital planning and strategy, project benefit analysis, project tracking (both tactical and strategic), communication with internal and external stakeholders, and the implementation of high value, highly visible, sensitive and multi-faceted projects

Ameren Missouri – St. Louis, MO **May 2019 – Apr 2020**

Capital Planning and Business Case Lead

- Independently developed business cases and implemented tracking methodologies to articulate the value of investments and verify capital investments are appropriately selected based on key attributes
- Lead the development, implementation, and execution of a strategic value realization process to ensure benefits are appropriately identified, baselines captured, and KPIs set

Ameren Corporation – St. Louis, MO **Oct 2014 – May 2019**

Supervisor, Internal Audit

- Lead the design and execution of financial, regulatory, Sarbanes-Oxley, and ad hoc engagements to meet department deadlines
- Developed relationships to gain support and consensus for audit engagements and reporting
- Coordinated the development of executive level audit reports and related Audit and Risk Committee materials
- Provided training for Sarbanes-Oxley requirements to various internal business functions.
- Served as department mentor to assist in training and development of new team members

Deloitte & Touche LLP – St. Louis, MO **May 2013 – Oct 2014**

Audit Senior

- Served as the primary liaison between firm management and client representatives
- Participated in and lead healthcare provider, not for profit, and commercial audit engagements
- Oversaw the work of staff auditors to ensure compliance with firm standards
- Performed analytical procedures to understand fluctuations in account balances from prior years

CliftonLarsonAllen LLP – Peoria, IL **Jan 2012 – Apr 2013**

Assurance Associate

- Performed audit procedures in numerous financial areas
- Conducted client interviews to complete fraud inquiries

Education & Training

(b) (6)

- Bachelor of Science, Accounting
- Master of Science, Accounting

Lori Hoelscher

Sr. Regional Account Executive

Central MO Division

Ameren Missouri

Contact: (b) (6) [redacted]

Grant Program Role

Customer Advocacy

Professional Experience

Ameren Missouri – Jefferson City, MO **1985-Present**

Sr. Regional Account Executive/Customer Relationship Manager (1985-2017)

- Responsible for personally establishing and maintaining a relationship with top management for Ameren's large/sensitive customers
- Key point of contact for legislative officials, community, and civic leaders to actively promote all corporate public relations activities and business initiatives
- Facilitate efforts of our internal stakeholders, including Economic Development, Energy Efficiency & Renewables, Regulatory, Legislative, and Corporate Communications
- Lead special projects and task teams as assigned by Division Director
- Provide prompt, creative, and integrated business solutions focused on improving customer loyalty and enhanced profitability for both parties
- Serve as the main point of contact for assigned commercial and large commercial and industrial customers, key community stakeholders, municipal leaders, and elected officials
- Partner on activities related to state legislation with the Government Relations Department to communicate and enlist business and local community support
- Advance public relations for the company through active involvement on strategically selected boards and/or committees, make presentations to elected officials, local government staff, and community leaders at local civic and community events
- Facilitate the resolution of customer and constituent-related issues with division engineering, construction, and service departments by collaborating with internal departments
- Serve as a trusted energy advisor, responding to operational and service issues, and participate in rate reviews
- Identify energy-related opportunities to help meet customer needs and provide solutions to their service-related issues

- Identify opportunities to introduce subject matter experts in energy efficiency, energy solutions, business development, government relations, economic development, and corporate contributions
- Coordinate implementation of all agreements and documents related to rates, products, and services; secure municipal franchises, street lighting contracts, rider agreements, and etc.
- Manage customer and key contact information in the customer relationship management system, recording every meeting within established deadlines, customer issues, and sales/service opportunities
- Serve as a representative of the company at sponsored trade shows, community events, educational sessions, and related training and certifications
- Partner with Corporate Communications and/or Division Director relative to media inquiries, government relations, corporate contributions, and advertising to communicate uniform messages to key stakeholders
- Participate in tariff review teams and other teams as assigned by the Director. Run electric rate comparisons and provide an explanation of rates along with load management strategies
- Manage the application, installation, and billing associated with the new distributive generation and net metering
- Administer the district's advertising budget, local community funds and provide guidance relative to the Division's annual corporate contributions fund according to the Company's and the Division's strategic charitable contributions goals
- Participate in major storm events as information liaison for assigned geographical communities, key stakeholders, and assigned customers

Education & Training

(b) (6)

- Bachelor of Science, Business Administration

(b) (6)

- Master of Business Administration

Rob Dixon

Sr. Director, Economic Community and Business Development

MO Economic Development

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Community Event Management, DEIA Advocate & Customer Alignment

Professional Experience

Ameren Missouri – St. Louis, MO **2021-Present**

Sr. Director, Economic Community, and Business Development

- Oversees various key initiatives in Ameren Missouri related to customer affordability through revenue growth
- Leads the planning and implementation of strategies designed to foster service area community and economic growth
- Directs a team of professionals who interact with customers, public agencies, and local elected officials and their staff on issues affecting utility, including planning/operations
- Fosters and maintains strong stakeholder relationships
- Supports public-private partnerships to address community growth and development
- Leads initiatives, including new business location, expansion, and retention projects that increase the efficient utilization of Ameren Missouri's electrification programs

State of Missouri – Jefferson City, MO **2017-2021**

Director, Department of Economic Development

- Appointed to serve as a member of the Governor's cabinet and confirmed by the Missouri Senate to lead and manage the state agency with primary responsibility over the community, economic, workforce development, tourism, energy, and other policy areas

Missouri Community College Association – Jefferson City, MO **2015-2017**

President/CEO

- MCCA represents Missouri's 12 community colleges, their boards of trustees, administration, faculty, staff, and students and is an organization for Missouri's community colleges, providing government advocacy, networking, and education information and resources

Springfield Area Chamber of Commerce – Springfield, MO **2010-2015**

Executive Vice President

- Provided leadership and supervision to three to six operational departments
- Assisted with strategic planning and carried out executive functions and special projects, including representing the Chamber to a wide variety of organizations

Interim President & CEO

- Responsible for providing leadership and oversight for the successful implementation of the organization's mission, goals, and other policies set forth by the Board of Directors
- Led and managed six organizational departments and a staff team of 22 professionals, focused on economic development, governmental affairs, membership development, communications, administration, community development, and special events
- Assured sound fiscal and operational management of the Chamber, including oversight of administrative and financial policies and controls

Vice President, Business Assistance

- Created, implemented, and led a business retention and expansion program to support and assist industry in a ten-county region, including Missouri's third-largest metro area
- Served as liaison to local government on economic and community development, business climate, and development policies
- Led a workforce development program and supervised workforce development staff
- Managed economic development projects and assisted companies with government relations, site selection, workforce qualifications, financial/tax incentives, and other details to facilitate job creation and capital investment

City of Hollister, MO – Hollister, MO **2010-2010**

Executive Director and Director, Community & Economic Development

- Managed public relations and communications for the organization and the community
- Responsible for building and implementing community economic development programs, including business attraction, retention/expansion, and small business development efforts

United States Marine Corps – Worldwide **1998-2003**

Marine Corps Recruiting

Education & Training

(b) (6)

- Bachelor of Arts, Political Science

(b) (6)

- Master of Public Administration

Ryan Arnold

Vice President, Energy Delivery

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Workforce for Pad-Mount Installations & Overhead Distribution Line Work

Professional Experience

Ameren Missouri – St. Louis, MO **2021-Present**

Vice President, Division Operations

- Ameren Missouri team lead for Energy Delivery operations which encompasses most of all operations, except for our gas and fleet teams.
- Accountable for the safety of approximately 1,500+ coworkers and our 1.2 million customers throughout the state of Missouri.
- Ensures a reliable and affordable electric grid through strategic and targeted investments that will ultimately benefit our customers today and in the future.
- Responsible for proactively leading a distribution organization with building the electric grid of the future through smart investments that meet our rising customer expectations and by creating more options for excellent service.

Ameren Missouri – St. Louis, MO **2019-2021**

Director, Distribution Operating

- Successfully led an Operating team to ensure conservative operations were executed on to provide a safe, reliable, and resilient electric grid.
- Oversaw the daily operations of our distribution control offices that control all non-transmission voltages across the state.
- Sponsored funding categories for large projects in sub-transmission and distribution automation throughout the state of Missouri.
- Led the organization through multiple major storm restorations with no significant safety injuries or incidents and increased our overall storm restoration process significantly compared to prior years, greatly benefitting our customers.

Ameren Missouri – St. Louis, MO **2015-2018**

Director, Gateway Division

- Managed and led three operating distribution electric centers within the area of Metro St. Louis. These teams were responsible for the construction, maintenance, and

emergency response for the electric grid for several hundred thousand customers within a very diverse area of the corporation.

- Assisted in leading a large tornado storm response by way of 2,000+ co-workers with over 100,000 customers out of power in my division with major customers such as Boeing, Monsanto, and Supervalu requiring major repairs, all within the time communicated and with no injuries.

Ameren Missouri – St. Louis, MO **2014-2015**

Superintendent, Distribution Operating

- Led a team of team of 60+ first responders throughout Metro St. Louis while collaborating with the distribution control office of managing customer requests, outages, and emergencies.

Ameren Missouri – St. Louis, MO **2012-2014**

Superintendent, Electric Operations and Labor Relation Representative

- Led a construction and maintenance team within the Berkeley Operating center in Metro St. Louis.
- Managed multiple large overhead projects and storm response activities.
- Worked with diverse communities on our infrastructure upgrades and concerns or items we could address to better provide for the communities we serve based on their feedback.
- Negotiated several positive agreements and Labor contracts that added efficiencies, including creation of a centralized Distribution Design Group, and merger of the Distribution Overhead Seniority Group with Distribution Operating and New multi-year contract agreements established.

Education & Training

(b) (6)

- Bachelor of Science – Management
- Master of Business Administration

Credentials

- Cornell University, Labor Relations Certificate
- Chicago Booth University School of Business Executive, Development Program

Wayne Spencer

Manager, Line Design

MO Ops & Tech. Services

Ameren Missouri

Contact: (b) (6)

Grant Program Role

Line Design

Professional Experience

Ameren Missouri – St. Louis, MO **2020 – Present**

Manager, Line Design

- Manages the Large Overhead Line Project design work for Ameren Missouri
- Responsible for 3 design teams
    - Regional Design Center – Jefferson City, MO: The design group for all large projects in rural areas in Missouri
    - Metro Design Center – St. Louis, MO: The design group for all large projects in the metro St. Louis areas in Missouri
    - Design Support Engineering team – both locations: The engineering group that supports both internal design teams as well as the external design consultants, consisting of 12 external firms and approximately 150 badged consultants
- Supports over 300 completed design projects generating over 300,000 construction hours annually
- Ensures quality, timeliness of design, and costs are managed by these groups
- Issues design guidance for all design groups within Ameren Missouri
- Manages the design tools used by all design groups within Ameren Missouri

Ameren Missouri – St. Louis, MO **2018 – 2020**

Supervisor, Design

- Supervised, developed, and evaluated the work of the design center estimators
- Oversaw the direction of the design team and engaged the workgroup to maintain alignment with Ameren's vision, mission, and values
- Collaborated with district offices, internal stakeholders, and external design consultants to produce high quality large project designs on time
- Ensured design consistency by working with support engineering to develop and maintain quality reviews of completed designs

- Developed and delivered yearly evaluations to bargaining unit estimators while continually managing expectations of co-workers by setting clear expectations and following through with check points
- Managed work using a SharePoint site to assign work, track project status, evaluate workload, and meet required dates
- Planned and prioritized incoming work from multiple sources including customer work, reliability projects, and SEP projects
- Assisted the DFE team by being a part of the GIS replacement workshops and design; GWD selection, workshops and design; MMV requirements, selection, and design; and participating on the CU clean-up team

Ameren Missouri – St. Louis, MO **2014 – 2018**

Engineer

- Prepared distribution planning reports for annual load analysis meetings
- Improved system reliability through programs, large projects, MAP projects, and analysis of performance indicators
- Reviewed facilities, made recommendations, and submitted projects for system upgrades and improvements
- Maintained standard design practices by reviewing work from engineering and the design center
- Responded to customer inquiries and resolved issues as they arose
- Managed NESC (CDIS) inspection pole replacement program for operating center
- Ran safety meetings, maintained vacation calendar, and responded to requests as needed
- Oversaw workload for customer work and large projects for engineer in area

Cities Utilities of Springfield – Springfield, MO **2008 – 2013**

Engineer Co-Op

- Worked with engineers in office to assist in the design process
- Responded to and completed customer requests, planned reviews and comments, project coordination and designs, field checks, and other office responsibilities
- Coordinated projects from the plan review stage to completion, including new customer work, municipal relocations, street lighting, and long term maintenance

Education & Training

(b) (6)

- Bachelor of Science, Electrical Engineering

NETL F 451.1-1/3
Revised: 12/3/2014
Reviewed: 12/3/2014
(Previous Editions Obsolete)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: Ameren Missouri Grid Resilience and Innovation Partnership (GRIP) Topic 2 - Rural Modernization, Bipartisan Infrastructure Law (BIL) Section 40107, Smart Grid Grants

Proposer: Ameren Missouri

2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor

3. Principal Investigator: Joseph Wondolowski Telephone Number: (b) (6)

4. Project Title: Ameren Missouri GRIP Topic 2 - Rural Modernization

5. Expected Project Duration: 5 years, 2023-2028

6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
This Environmental Questionnaire (EQ) covers upgrades at 13 electric distribution pad-mount substations, 2 electric distribution substation upgrades, and one new substation. The project locations include 13 electric distribution pad-mount substations, 2 electric distribution substation upgrades, and one new substation. Additionally, 38 miles of associated overhead and underground electric distribution lines will be upgraded in rural locations throughout the state of Missouri. Furthermore, 13 miles of line will be converted from 4kV to 12kV, 5 miles of new 12kV line will be constructed, and 5.5 miles of new 12kV line will be underbuilt on existing 34kV. While new and converted distribution lines will mostly be in existing rights-of-way, some cross-town feeders and replacements will require routes that differ from current configurations, and as a result, will require new cleared easements. One new substation at Hayti will be reconstructed at an existing substation location. Asset removals will also be completed where necessary See attachment for more location details.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Activities will include the proactive replacement of at-risk, aging, critical electrical infrastructure. Specific activities will include substation upgrades as well as upgrades of existing overhead and underground distribution lines, and the construction of new tie-in and feeder lines. This will improve reliability and resiliency in rural areas and increase Ameren Missouri's monitoring and control over rural circuits. A majority of the line replacements will be in existing rights-of-way, but certain replacements as well as cross town feeders will require new or expanded cleared easement. A combination of existing and new distribution poles will be utilized to complete the distribution line work.

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.
None in addition to those listed above.

Subcontractor or sub-recipient	Location of activities for this project

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ENVIRONMENTAL QUESTIONNAIRE

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! ***If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required.***
If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

Group B

☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

☒ Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system right-of-ways, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.
No alternatives are proposed at this time. The proposed project will upgrade existing substations and associated distribution lines to increase resiliency and reliability in rural areas, as well as enable greater ability to monitor and control rural circuits.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
The project location includes 13 electric distribution pad-mount substations, 2 electric distribution substation upgrades, and one new substation on an existing substation site. Additionally, 38 miles of associated overhead and underground electric distribution lines will be converted in rural locations throughout the state of Missouri, 13 miles of line will be upgraded to 12kV, 5 miles of new 12kV line will be construction, and 6.5 miles of new 12kV line will be underbuilt on existing 34kV lines. Substation upgrades will occur on existing substation property and distribution line upgrades will

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ENVIRONMENTAL QUESTIONNAIRE

mostly occur in existing rights-of-way, although limited cross-town feeders and upgrades will require new or expanded easements. All upgrades and installations are targeting rural and remote communities across Missouri, prioritizing projects that target substations in DOE-defined disadvantaged communities. Some of the substations and distribution lines are located in town centers while others are located in largely undeveloped, rural areas. Much of the distribution line upgrade work is along existing roadways. See attachment for more details.

2. **Attach** a project site location map of the project work area.
See attached EQ Substations & Maps document.

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

1. Land Use

a. Characterize present land use where the proposed project would be located.

☐ Urban	☐ Industrial	☐ Commercial	☒ Agricultural
☐ Suburban	☒ Rural	☒ Residential	☐ Research Facilities
☐ Forest	☐ University Campus	☐ Other: _____	

b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.
The project locations include 13 electric distribution pad-mounts, 2 electric distribution substation upgrades, and 1 new substation. Additionally, 38 miles of associated overhead and underground electric distribution lines will be upgraded in rural locations throughout the state of Missouri. Furthermore, 13 miles of line will be converted from 4kV to 12kV, 5 miles of new 12kV line will be constructed, and 5.5 miles of new 12kV line will be underbuilt on existing 34kV.

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
☐ No construction would be anticipated for this project.
Substation upgrades will include the replacement and upgrade of existing substation equipment within the existing substation footprints. Aging infrastructure will be replaced with newer infrastructure. Distribution line upgrades will generally include conversion from 4kV to 12kV and will also include new tie-ins and cross-town feeders. The majority of this work will occur within existing, maintained, rights-of-way, however, limited portions will require new or expanded easements for routing purposes or construction purposes. A combination of new and existing poles will be used to support overhead distribution upgrades, while underground distribution upgrades will utilize trenchless installation methods (i.e., horizontal directional drilling [HDD]) where practicable in environmentally sensitive areas and open-trench methods in non-environmentally sensitive areas. Access to the project areas, parking, and fueling will be generally occur via existing roads and facilities, with limited off-road access required. No additional permanent support facilities are anticipated.

d. Describe how land use would be affected by operational activities associated with the proposed project.
☐ No land areas would be affected.
Land use will remain the same before and after substation and distribution line upgrades, and operation of these facilities in the future will not alter land use. Where necessary, new easements will be acquired and cleared to facilitate distribution line upgrades or new construction.

e. Describe any plans to reclaim areas that would be affected by the proposed project.
☐ No land areas would be affected.
Affected land areas include rural, residential, and agricultural areas. Following the substation and distribution line upgrades, areas will be restored to their pre-construction condition except for new easements, which will be cleared of vegetation and maintained as needed.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
☒ No ☐ Yes (describe)

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ENVIRONMENTAL QUESTIONNAIRE

No impacts to any unique or unusual landforms are anticipated to occur and all visual effects of the project would be temporary during construction except for new easements, which would be cleared of vegetation and maintained as needed.

g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No ☒ Yes (describe)
Given the scope and size of the proposed project across rural Missouri, portions will be located near or in local parks and recreation facilities, state parks, and federal parks (Mark Twain National Forest). Similarly, some forest covered land is present near the impacted areas. Local monuments are present in residential areas impacted by the Project. There are no federally recognized tribes with land in Missouri, however, lands of tribal significance are present in Missouri.

2. Construction Activities and/or Operation

a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. ☐ None

See "Attachments" below which shows the site map of transformers and substations, plus, the "IIJA Substation Recommendations" section below which identified locations of projects with relevant power lines drawn, plus roads and satellite imagery. Red circles/lines indicate that an asset is going to be moved and/or added as part of the program while no red circles/lines indicate that an asset will remain stationary throughout the program.

b. Would the proposed project require the construction of waste pits or settling ponds?
☒ No ☐ Yes (describe and identify location, and estimate surface area disturbed)

c. Would the proposed project affect any existing body of water? ☐ No ☒ Yes (describe)
Substation and overhead distribution line upgrades are not anticipated to affect existing waterbodies. Substations will not be expanded and are not located in waterbodies. Underground distribution line crossings of ponds, lakes, streams, and rivers will be completed via trenchless installation measures to the extent practicable. Should the need arise to temporarily affect an existing body of water due to workspace constraints or trenchless installation measures not being practicable, Ameren Missouri will acquire the appropriate permits required to impact a waterbody.

d. Would the proposed project impact a floodplain or wetland? ☐ No ☒ Yes (describe)
The proposed project is not anticipated to permanently impact any wetlands or floodplains. Substation upgrades will occur within existing electric substation footprints. Poles and access for overhead distribution line crossings will avoid wetlands and floodplains to the extent practicable within existing easements and new or expanded easements. Underground distribution line crossings of wetlands and floodplain areas will be completed via trenchless installation measures to the extent practicable. Should the need arise to temporarily impact a wetland or floodplain due to workspace constraints, easement acquisition, or trenchless installation measures not being practicable, Ameren Missouri will acquire the appropriate permits required to impact wetlands and/or floodplain.

e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No ☒ Yes (describe)
It is possible that minor earth disturbances associated with the proposed project could cause runoff, sedimentation, and erosion during construction during open-trench underground installation and small excavations for new distribution line poles. However, Ameren Missouri implements erosion and sediment control best management practices on all projects involving land disturbance to reduce these impacts to the extent practicable. Some examples of these control measures include installation of erosion control blankets, access matting, straw wattles, silt fences, and storm sewer inlet protection. Due to the construction methods (using trenchless installation methods in sensitive areas), work locations (mostly existing substations and rights-of-way), and implementation of best management practices, the potential for runoff/sedimentation/erosion is significantly reduced.

f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deepwater operations?
☐ No ☒ Yes (describe)
The proposed project involves upgrading existing substations and distribution lines using HDD or similar methods for underground portions. HDD is a process of installing underground electrical lines, water lines, or sewage lines by penetrating the ground surface in a limited number of locations and horizontally pushing the line or pipe underground at a desired depth. Geologic disturbances from HDD or other trenchless installation methods would be minimal. No well

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

drilling, seismic data collection, sequestration, or deepwater operations will occur. Portions of the proposed project area are within the New Madrid Fault Zone seismic area, but impacts of distribution lines is not expected to have a seismic impact.

g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
☒ No ☐ Yes (describe)

3. Biological Resources

a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
☐ None
There are a number of state and federally listed protected species potentially present in the proposed project area according to Missouri Department of Conservation (MDC) and U.S. Fish and Wildlife Service (USFWS) publicly available data. However, the implementation of upgrades to existing substations and distribution lines is not anticipated to affect these protected species. Due to the proposed construction methods, the land, waterways, etc. are not anticipated to be impacted significantly. In addition, tree/land clearing is expected to be minimal since the project is mostly using existing rights-of-way that are already cleared. Tree clearing and trimming for the limited new and expanded easements necessary can be conducted during winter months to limit impacts to federally protected bat species.

b. Would any designated critical habitat be affected by the proposed project? ☐ No ☒ Yes (describe)
According to USFWS Information for Planning Construction (IPaC) there is critical habitat and proposed critical habitat for several aquatic and terrestrial species within the regions of Missouri where the proposed work is expected to occur. Critical habitats within these regions are not expected to be affected by the proposed constructed activities because substation upgrades will occur on existing substation property, overhead distribution upgrades will occur in existing rights-of-way with minimal tree clearing for new or expanded easements. Underground distribution upgrades will be conducted using trenchless methods in sensitive areas. Erosion and sedimentation will be controlled using best management practices. Ameren Missouri will avoid known critical habitat, as defined by the USFWS, to the extent practicable. Should the need arise to affect critical habitat due to workspace constraints or trenchless installation measures not being practicable, Ameren Missouri will acquire the appropriate permits to do so.

c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
☐ No planned construction ☐ No habitats ☒ None ☐ Impact (describe)
The upgrading of existing substations and distribution lines is not expected to impact habitat.

d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☒ No ☐ Yes (describe)
Trenchless installation of underground electric distribution lines often involves the use of drilling fluid to lubricate and cool the drill bit. Drilling fluid typically is comprised of water and bentonite clay. This mixture is generally inert and non-toxic, as bentonite is a naturally occurring clay mineral. Occasionally, when drilling underneath waterbodies, drilling fluid can make its way through subsurface pathways due to pressure and enter waterbodies. While the mixture is generally non-toxic, it can increase turbidity temporarily. Ameren Missouri monitors waterway crossings for inadvertent returns of drilling fluid during trenchless installations and has a procedure for mitigating inadvertent returns to avoid excessive release into waterways.

e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

4. Socioeconomic and Infrastructure Conditions

a. Would local socio-economic changes result from the proposed project? ☐ No ☒ Yes (describe)
The proposed project would provide a positive socio-economic change by creating a more reliable and resilient power grid for Ameren Missouri customers, particularly in disadvantaged rural communities. These upgrades would also give Ameren Missouri a greater ability to monitor and control rural circuits.

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ENVIRONMENTAL QUESTIONNAIRE

b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☐ No ☒ Yes (describe)
Construction of the proposed project could temporarily affect traffic in project areas. Since the proposed work is expected to occur in mostly rural areas existing traffic is anticipated to be minimal. Should the need arise to substantially affect a roadway due to unavoidable circumstances, Ameren Missouri will acquire the appropriate permits required to impact a roadway.

c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)
No additional roads are anticipated. Existing roads will be used for transportation purposes during the rural modernization program. Minor off-road access may be required to complete the proposed project, but these access pathways would be temporary and restored to pre-construction conditions following construction.

d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)
Local energy usage is not expected to increase because of the proposed project; however, reliability and resiliency should improve for existing Ameren Missouri customers.

5. Historical/Cultural Resources

a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☐ None
Given the scope and the size of the proposed project area, there are historical, archeological, and cultural sites in the vicinity of the proposed project, including sites on the National Register of Historic Places. However, the proposed project is upgrading existing substations and distribution lines mostly within existing rights-of-way and is not expected to disturb or otherwise impact any historical, archaeological, or cultural sites.

b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☒ Yes (describe) ☐ No Impact (discuss)
The proposed project is upgrading existing substations and distribution lines in existing rights-of-way. The construction and operation of the proposed project are not expected to permanently disturb or otherwise impact historical, archaeological, or cultural sites although there are sites on the National Register of Historic Places in the vicinity of some project areas. If a portion of the proposed project is determined to potentially impact any of these sites, Ameren Missouri will consult with the State Historic Preservation Office (SHPO) and/or local historic preservation authorities to mitigate potential impacts and acquire the appropriate permits.

c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
No, the SHPO has not been contacted regarding the proposed project.

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☐ No ☒ Yes (describe)
Upgrades made to existing substations and distribution lines installations would neither enhance nor eliminate scenic views since upgrades are being made to existing structures that are already in place. New or expanded easements will be necessary in some areas, but due to the rural nature of the project area, interferences to visual resources are expected to be minimal.

e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.
There are no known tribal lands of significance or known tribal sensitivities in the proposed project area. Federal agencies are required to consult with federally recognized tribes on projects receiving federal funds.

6. Atmospheric Conditions/Air Quality

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a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at http://www.epa.gov/air/oaqps/greenbk/astate.html

	Attainment	Non-Attainment
O_3 - 1 Hour	☒	☐
O_3 - 8 Hour	☒	☐
SO_x	☒	☐
PM - 2.5	☒	☐
PM - 10	☒	☐
CO	☒	☐
NO_2	☒	☐
Lead	☐	☒

b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)
Construction from the proposed project would result in de minimis air emissions (e.g., construction vehicles, construction equipment, and dust from minor land disturbance) and would not require local, state, or federal air permits. Should the need arise to issue an air permit, Ameren Missouri will consult with the appropriate agencies to determine the appropriate permits required.

c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?
Construction of the proposed project would result in de minimis air emissions (e.g., construction vehicles, construction equipment, and dust from minor land disturbances from boring pits). The table below and questions f and g are not applicable based on the scope of this proposed project.

	Maximum per Year	Total for Project
☐ SO_x		
☐ NO_x		
☐ PM - 2.5		
☐ PM - 10		
☐ CO		
☐ CO_2		
☐ Lead		
☐ H_2S		
☐ Organic solvent vapors or other volatile organic compounds--List:		
☐ Hazardous air pollutants -- List:		

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☐ Other -- List:
☒ None

f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)
Not applicable. The proposed project is not likely to significant impact air emissions.

g. How would emissions be vented?
Not applicable. The proposed project is not likely to significant impact air emissions.

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.
There are numerous waterbodies in the proposed project area, including small streams/rivers and lakes/ponds. Portions of the project area lie near the Mississippi River and the Lamine River, Little River, and Upper Castor River are crossed aerially by the Project. Distances from waterbodies to the proposed work areas that are anticipated to receive upgrades and installations varies. Making improvements to existing, aging, substations and implementing new installations has a minimal chance of impacting nearby waterbodies. Should the need arise to affect an existing body of water due to distribution line upgrades, Ameren Missouri will acquire the appropriate permits required to impact a waterbody.

b. What sources would supply potable and process water for the proposed project?
Potable and process water needs for the proposed projected are expected to be minimal and limited to water used to facilitate HDD. Municipal water supply or water trucks will supply the water for HDD.

c. Quantify the wastewater that would be generated by the proposed project.
No wastewater will be generated during the completion of the proposed work for this project.

	Gallons/day	Gallons/year
☐ Non-contact cooling water		
☐ Process water		
☐ Sanitary		
☐ Other -- describe:		
☒ None		

d. What would be the major components of <u>each</u> type of wastewater (e.g., coal fines)? ☒ No wastewater produced

e. Identify the local treatment facility that would receive wastewater from the proposed project.
☒ No discharges to local treatment facility

f. Describe how wastewater would be collected and treated. ☒ No wastewater produced

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)

h. Would project require issuance of new or modified water permits to perform project work or site development activities?
☒ No ☐ Yes (describe)

i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced

j. Would the proposed project be permitted to discharge effluents into an existing body of water?
☒ No ☐ Yes (describe water use and effluent impact)

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k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

☐ No ☒ Yes (describe)

A NPDES Operating Permit to discharge effluents into an existing body of water is not anticipated based on the scope of this project. However, if the scope of this work includes one acre of land disturbance or more, a construction NPDES or State Land Disturbance Permit will be obtained from the Missouri Department of Natural Resources (MDNR). At this time, the construction methods for the proposed project components include minimal land disturbance and a construction NPDES or State Land Disturbance Permit may be required.

l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)

m. Would the proposed project require issuance of an Underground Injection Control (UIC) permit?

☒ No ☐ Yes (describe)

n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?

☐ No ☒ Yes (describe)

Missouri has three sensitive drilling areas and four special drilling areas for wellhead protection. Project stations and distribution lines are in the vicinity of Special Area 1 and Sensitive Area 3, per the MDNR Wellhead Protection Section. Given the rural nature of the project area, it is expected that underground drinking water wells are utilized by some residents near the project areas.

8. Solid and Hazardous Wastes

a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See EPA Municipal Solid Waste and Municipal Solid Waste by State).

	Annual Quantity
□ **Municipal solid waste (e.g., paper, plastic, etc.)**	
□ **Coal or coal by-products**	
□ **Other -- Identify: Minimal spoils -Wooden poles -Old conductor**	**Totals will be determined as design work is finalized**
□ **Hazardous waste – Identify:**	
□ **None**	

b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)

c. How and where would solid waste disposal be accomplished?

☐ None generated

☐ On-site (identify and describe location)

☒ Off-site (identify location and describe facility and treatment)

Spoils would be transported to the Ameren Missouri spoils basin, Waste Management, or Republic Services landfills and do not require treatment. Wooden poles would be transported to Republic Services landfills with no treatment required. Old conductors are recycled

d. How would wastes for disposal be transported?

Waste produced from the proposed project would be transported by Ameren Missouri or contractor personnel using trucks.

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e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at EPA Hazardous Waste website. ☒ None

f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
No hazardous wastes would be generated. Substation spoils, if generated, are screened by Ameren Missouri for polychlorinated biphenyls, which would be considered toxic. If PCBs are present, Ameren Missouri will dispose of spoils at a facility approved to handle such wastes.

g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ None ☒ Hazardous or toxic materials that would be used (identify):
PCBs in substation spoils, if present, would be considered toxic as regulated under the Toxic Substance Control Act, and would be handled as such.

b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ None
There are no anticipated impacts of this project's hazardous materials on human health and the environment. If PCBs are present, these materials are not considered hazardous waste under RCRA.

c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)
The only anticipated physical hazards are those associated with potentially live electrical equipment and those associated with construction equipment and vehicular traffic.

d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
Ameren Missouri implements a worker safety program for their employees and Ameren Missouri contractors must complete annual safety training to work on Ameren Missouri projects.

e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☒ No ☐ Yes (describe)

f. Describe any increases in ambient noise levels to the public from construction and operational activities.
☐ None ☒ Increase in ambient noise level (describe)
HDD is the only activity that will be completed during the proposed work of this project that will increase ambient noise.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?
☐ No construction planned ☒ No ☐ Yes (describe)

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)
Hearing protection will be required for workers when construction equipment is in use.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?
☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

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c. Would the proposed project involve operations of environmental monitoring and control systems?
☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act (RCRA): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated. PCBs, if present in substation spoils will be transported to a facility permitted to accept such wastes.

d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe:
Replacing aging substation infrastructure and distribution lines will avoid impacting waterbodies. Trenchless methods will be used in sensitive areas to the extent practicable. Should the need arise to affect an existing body of water due to trenchless installation measures not being practicable or construction access constraints, Ameren Missouri will acquire the appropriate permits from the MDNR and the U.S. Army Corps of Engineers (USACE) under Sections 401 and 404 of the CWA.

At this time, the construction methods of trenchless installation methods, distribution pole installation, and substation upgrades include minimal land disturbance. However, if the scope of work includes greater than one acre of land disturbance, a construction NPDES or State Land Disturbance Permit will be obtained from the MDNR under Section 402 of the CWA.

At this time, the proposed project does not have any impacts to levees. Should the need arise and impacts to levees are anticipated, Ameren Missouri will acquire the appropriate permits from the USACE and local jurisdictions under Section 408 of the CWA.

Based on the location of the proposed project, the project does not cross navigable waters. Should the need arise due to scope changes and impacts are anticipated to navigable waters, Ameren Missouri will acquire the appropriate permits from the USACE under Section 10 of the Rivers and Harbor Act.

e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

h. Endangered Species Act (ESA): ☐ None ☒ New Required ☐ Modification Required
Describe:

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Making improvements to aging substations and upgrading overhead and underground distribution lines to increase reliability and resilience is not expected to affect protected species under the ESA, despite the presence of critical habitat in the vicinity of the project area. Tree clearing can be conducted in the winter months for new or expanded easements to mitigate impacts to protected bat species. If a component of the proposed project necessitates a potential impact to a protected species or habitat, Ameren Missouri will consult with the MDC and USFWS.

i. Floodplains and Wetlands Regulations: ☐ None ☒ New Required ☐ Modification Required
Describe:
The proposed project is not anticipated to permanently impact any wetlands or floodplains. If a component of the proposed project necessitates a potential temporary impact to a wetland or floodplain, the USACE and local floodplain administrators will be consulted.

j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

k. National Historic Preservation Act (NHPA): ☐ None ☒ New Required ☐ Modification Required
Describe:
It is anticipated that impacts to historic properties or cultural resources/landmarks are not expected to occur as part of the proposed project. If a project component necessitates a potential impact to a historic or cultural resource due to easement clearing or open trench installation, the SHPO and/or local historic preservation societies will be consulted.

l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe: Not anticipated.

2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.
See descriptions above. Additional county and municipal level requirements will apply to the proposed project. These include local environmental regulations (i.e., land disturbance, floodplains), construction permits, utility permits, encroachments, traffic and department of transportation permits, noise ordinances, and others. Ameren Missouri maintains relationships with the municipalities it serves and regularly conducts substation upgrades in compliance with local regulations across their service area.

F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☒ None
The purpose of the proposed project is to increase the reliability and resiliency of electric service with a focus on disadvantaged communities. No major public controversy is expected to result from this community focused proposed project.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?
☒ No ☐ Yes (describe)

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.
☐ None (provide supporting detail) ☒ Significant impacts (describe)
The proposed project would increase the reliability and resiliency of the power grid throughout the Ameren Missouri rural service regions, with a focus on disadvantaged communities. Reliable access to electricity and fewer outage occurrences should positively impact quality of life and safety of Ameren Missouri customers.

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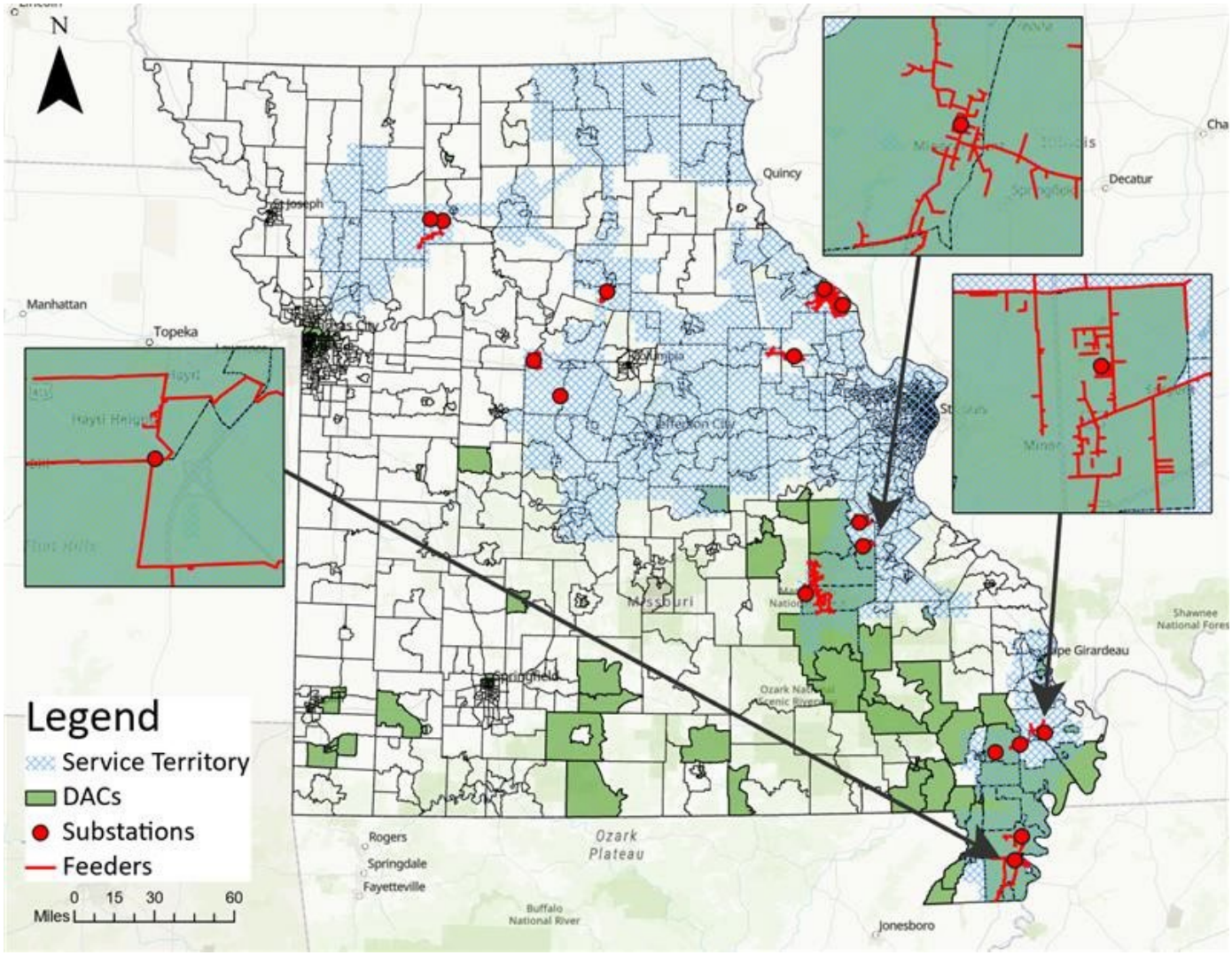
I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

Ameren Missouri's Rural Modernization program will affect multiple rural and remote communities across central and southern Missouri, prioritizing projects that target substations in disadvantaged communities. Construction activities include decommissioning some aging equipment to implement, a mix of new pad mount installations, distribution automation installations, and substation upgrades.

ATTACHMENTS:



U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: Jim Huss Date (mm/dd/yyyy): 03/16/2023

Typed Name: Jim Huss

Title: Sr. Director of Operations Excellence

Organization: Ameren Missouri

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

(b) (4)

[redacted]

IIJA Pad-Mount Projects

(b) (4)

[redacted]

[redacted]

[redacted]

(b) (4)

[redacted]

[redacted]

(b) (4)

[redacted]

[redacted]

(b) (4)

[redacted]

(b) (4)

[redacted]

(b) (4)

Signatories for the Rural Modernization Program Letters of Commitment

(included within this attachment)

Community-Based Organizations

- (b) (4) [redacted]

Government Officials

- (b) (4) [redacted]

Suppliers

- (b) (4) [redacted]

Unions

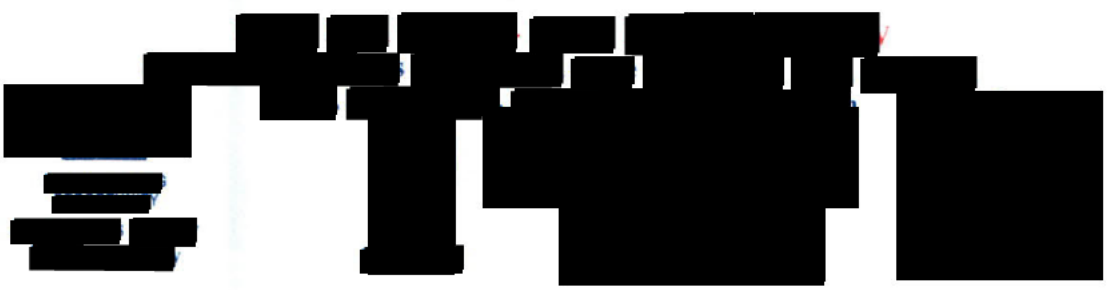
- (b) (4) [redacted]

Internal Executives

- Mark Birk, President and Chairman, Ameren Missouri
- Gwen Mizell, SVP, Chief Sustainability, Diversity, and Philanthropy Officer, Ameren Corporation

(b) (4)

[redacted]



March 8, 2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Support of Ameren Missouri's Application for Federal Funding Under Infrastructure and Investments Job Act Section 40107, Smart Grid Grants

Dear Sir/Madam,

(b) (4), my office would like to express support for Ameren Missouri's application for funding under the Infrastructure Investment and Jobs Act (IIJA) Grid Resilience and Innovation Partnerships (GRIP) and its proposed "Rural Modernization" program. The Rural Modernization program aims to upgrade critical infrastructure serving some of our most at-risk communities. Ameren Missouri's proposal will enable better electrical service, provide a safer environment, and create new jobs for some of the most underserved communities in Missouri.

The Rural Modernization program prioritizes projects deployed in some of our most underserved and disadvantaged communities. We applaud Ameren Missouri for taking an initiative to drive economic growth and revitalize infrastructure serving vulnerable rural towns and cities with the goal of fostering stronger and safer communities. Furthermore, the technologies to be installed under the program streamline the adoption of future critical technologies and increase the feasibility of other local resilience project initiatives, driving future investments, jobs, and capital to these communities. By enabling autonomous control and monitoring capabilities through the deployment of smart grid supporting technologies, the Rural Modernization program will guide Missouri towards a reliable and resilient energy future, improving the quality of life for Missourians.

The benefits of Ameren Missouri's Rural Modernization program are consistent with my office's top initiatives of workforce development, infrastructure improvement, and the cultivation of stronger communities. Thank you for considering Ameren Missouri's grant proposal.

12/7/2022

U.S. Department of Energy
Office of Grant Programs
Washington DC, USA

Re: Letter in Support of AMO Application for Federal Funding Under Infrastructure and Investments Job Act Topic Area 2 (Section 40107), Smart Grid Grants

Dear Sir/Madam,

On behalf of (b) (4), please accept this letter of support for Ameren Missouri's application for funding under the Infrastructure and Investments Job Act (IIJA) Grid Resilience Innovative Partnerships (GRIP) and the proposed Rural Modernization program.

We applaud Ameren for pursuing this once-in-a-lifetime federal funding opportunity to address aging infrastructure in rural and economically disadvantaged areas of our state. As the fourth most economically diverse state in the United States, this project will create more reliable electrical service and improve critical infrastructure across communities large and small–a quality investment for the state and U.S. economy.

Ameren Missouri is a strong partner to many municipalities across Missouri and has a history of executing projects that help deliver the economic benefits that reliable infrastructure affords. The project is directly aligned with our department's goal of developing infrastructure to support economic growth.

The project's priority focus to upgrade aging distribution infrastructure will improve the resiliency of Missouri communities and help to mitigate the impact of storms and other major events. We see the added flexibility and reliability of the electric grid in these areas as a boon that will attract new business opportunities to our state, helping our state's citizens prosper.

We fully support Ameren Missouri's initiative to address key issues affecting our citizens and thank you for carefully considering their grant proposal.

Sincerely,

(b) (6)

[redacted]

February 28, 2023

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Granholm,

[redacted] we support Ameren Missouri's application for funding under the Department of Energy's (DOE) Grid Resilience and Innovation Partnerships (GRIP) and Ameren's proposed "Rural Modernization" program. This proposal aims to upgrade and revitalize substations and supporting infrastructure that provides electricity to thousands of local, rural Missouri residents, small businesses, and critical facilities.

As long-time advocates for the hard-working people of Missouri and their businesses, we understand that infrastructure investments provide a realistic and effective opportunity to revitalize local economies and communities. Ameren Missouri's Rural Modernization program will undoubtedly encourage job creation and workforce development for our state's employers and prospective employees. With added flexibility and smart controls, the modernization of our grid will contribute to a more reliable and resilient electric service. We are proud to support a program that will provide our constituents access to a safe and efficient energy economy.

The Rural Modernization program will ultimately make Missouri a better place to live and work today and into the future. We support Ameren Missouri's proposal and their initiatives to address key issues affecting our constituents and communities and urge the DOE to recognize the valuable effects this program will have on our communities. Thank you for your consideration of this request.

Sincerely,

[redacted]

(b) (4)

(b) (4)

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

March 08, 2023

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-0002740, Grid Resilience Grants Topic Area 2

Dear Administrator of Office Programs,

(b) (4) pleased to provide this letter confirming our commitment to supporting and assisting Ameren Missouri's Rural Modernization Program (RMP) by providing distribution automation (DA) devices that configure with pad-mounted transformers and substation upgrades. We feel privileged to be a part of this program as it will grant Ameren Missouri a tremendous opportunity to address and upgrade critical infrastructure in rural and disadvantaged communities across the state. Not only will this program generate more reliable electrical service but will also foster more job opportunities for local workers and contractors.

We understand the proposal will require at least thirty-three IntelliRupter devices to realize the reliability benefits of smart reclosers in these rural modernization projects across the State within a 5-year period. (b) (4) has a longstanding relationship with Ameren Missouri, supplying approximately 1,000 distribution automation devices in previous ten years. (b) (4) experience in installing DA devices on systems with similar grid characteristics as those proposed in Ameren's RMP should result in substantial improvement in reliability. We appreciate this unique opportunity to support the goals of Ameren Missouri's RMP to add grid resiliency and flexibility to areas that need it throughout the life of the program.

We applaud the Smart Grid Grant's mission to improve reliability and resiliency all while bringing smart grid technology to Missouri's communities in need. The RMP presents a rare opportunity to implement grid infrastructure improvements correlating with our vision to "empower people to transform the grid". (b) (4), I urge the federal government to recognize the impact and benefits this program will deliver to businesses like mine, our community, and economy. Thank you for considering Ameren Missouri's grant proposal.

Sincerely,

(b) (6)

2/28/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-000270, Grid Resilience Grants Topic Area 2

Dear Administrator of Office Programs,

(b) (4) is pleased to provide this letter confirming our commitment to supporting and assisting Ameren Missouri's Rural Modernization Program (RMP) by providing professional services through the project's life as needed. We feel privileged to be a part of this program as it will grant Ameren Missouri a tremendous opportunity to address and upgrade critical infrastructure in rural and disadvantaged communities across the state. Not only will this program generate more reliable electrical service but will also foster more job opportunities for local workers and contractors.

We understand the proposal may require additional engineering and design and project management support to execute several distribution substation projects across the State within a 5-year period. As one of our earliest clients (b) (4), we are excited to partner with Ameren Missouri to provide high-quality, individualized electric distribution design and engineering services while making the following commitments:

- Supplying electric distribution design engineers and project management professionals for the RMP from 2023-2028
- (b) (4)

(b) (4) we applaud the DOE's equity goals and Justice40 initiative, as well as the Smart Grid Grant's mission to improve reliability and resiliency and while bringing smart grid technology to Missouri's communities in need. On behalf of (b) (4) I urge the federal government to recognize the impact and benefits this program will deliver to businesses like mine, our community, and economy. Thank you for considering Ameren Missouri's grant proposal.

(b) (6)

3/15/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-0002740, Grid Resilience Grants Topic Area 2

Dear Administrator of Office Programs,

(b) (4) is pleased to provide this letter confirming our commitment to supporting and assisting Ameren Missouri's Rural Modernization Program (RMP) by providing essential electrical equipment through the project's life as needed. We feel privileged to be a part of this program as it will grant Ameren Missouri a tremendous opportunity to address and upgrade critical infrastructure in rural and disadvantaged communities across the state. Not only will this program generate more reliable electrical service but will also foster more job opportunities for local workers and contractors.

We understand the proposal will require at least twenty-six voltage regulators to execute the requirements of several distribution substation projects across the State within a 5-year period. We are committed to meet the demand required throughout the 2023-2028 planned period of performance. Additionally, as a local supplier (b) (4), we are excited to support the project goal of manufacturing locally and investing in the Missouri economy. (b) (4), our (b) (4) has manufactured electrical products locally, within the state, and is a vital facility for voltage regulators nationally. We have been a partner for Ameren Missouri (b) (4) and support their growth and development in the state of Missouri and are thus, excited to continue to work with Ameren Missouri on this opportunity.

We applaud the DOE's equity goals and Justice40 initiative, as well as the Smart Grid Grant's mission to improve reliability and resiliency all while bringing smart grid technology to Missouri's communities in need. The benefits of the RMP align to (b) (4) commitment "to improving people's lives and the environment with power management technologies that are more reliable, efficient, safe and sustainable". On behalf of (b) (4), I urge the federal government to recognize the impact and benefits this program will deliver to businesses like mine, our community, and economy. Thank you for considering Ameren Missouri's grant proposal.

Sincerely,

(b) (6)

03/02/23

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-000270, Grid Resilience Grants Topic Area 2

Dear Administrator of Office Programs,

(b) (4) is pleased to provide this letter confirming our commitment to supporting and assisting Ameren Missouri's Rural Modernization Program (RMP) by providing professional services through the project's life as needed. We feel privileged to be a part of this program as it will grant Ameren Missouri a tremendous opportunity to address and upgrade critical infrastructure in rural and disadvantaged communities across the state. Not only will this program generate more reliable electrical service but will also foster more job opportunities for local workers and contractors.

We understand the proposal may require additional engineering and design and project management support to execute several distribution substation projects across the State within a 5-year period. We opened our office (b) (4) to better support Ameren Missouri's execution of its historic Smart Energy Plan. We are excited to expand our partnership with Ameren Missouri to provide high-quality, individualized electric distribution design and engineering and project management services for substation and power delivery systems to execute the RMP, as needed throughout the 2023-2028 planned period of performance.

As a certified minority-owned business, we applaud the DOE's equity goals and Justice40 initiative, as well as the Smart Grid Grant's mission to improve reliability and resiliency all while bringing smart grid technology to Missouri's communities in need. The RMPs goal to provide grid reliability and smart grid benefits to disadvantaged communities with a focus on community engagement in rural Missouri align with the spirit of (b) (4), in which we commit a percentage of our profits to non-profit organizations and engage with the communities we serve. On behalf (b) (4), I urge the federal government to recognize the impact and benefits this program will deliver to businesses like mine, our community, and economy. Thank you for considering Ameren Missouri's grant proposal.

(b) (6)

03/07/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-0002740, Smart Grid Grants

Dear Sir/Madam,

The (b) (4) is fully committed to supporting Ameren Missouri's Rural Modernization proposal. This program aims to upgrade more than a dozen substations and supporting infrastructure that provide electricity to thousands of rural Missouri residents and businesses. (b) (4) has been a long-standing partner with Ameren Missouri as demonstrated by our existing labor agreements which have been in place since the 1940s. Ameren Missouri has proactively engaged our members in support of this program, and we are excited to participate in the construction of this critical infrastructure.

This program complements Ameren Missouri's existing Smart Energy Plan (SEP) which also revitalizes and upgrades aging infrastructure across the state. With many of the program's projects being in underserved areas across our jurisdiction, we believe the Rural Modernization program will not only deliver local, high-quality jobs to our members but support revitalization of our local communities. We understand that the program will require many different efforts ranging from line construction work to specialized equipment configurations and more. Ameren Missouri employees represented by (b) (4) are well equipped with the necessary skills to complete the Rural Modernization program. Since there are (b) (4) we believe the Rural Modernization program is a perfect opportunity for our members to capitalize on this historic grant opportunity. Furthermore, we will continue to coordinate with Ameren Missouri to expand health and safety initiatives and other resources and benefits offered to full-time employees and assist them with increasing workforce development partnerships and initiatives across the state.

We applaud Ameren Missouri's application for federal grant funding and for their interest in engaging in and strengthening our relationship. The Rural Modernization program will undoubtedly fuel the economy and increase job opportunities for local union workers. (b) (4) looks forward to continuing our partnership with Ameren Missouri to best support their Rural Modernization proposal.

(b) (6)

03/06/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Their Application for DE-FOA-0002740, Smart Grid Grants

Dear Sir/Madam,

The (b) (4) is in full support of and committed to assisting Ameren Missouri's Rural Modernization proposal. This program aims to upgrade and install new, state of the art autonomous control and monitoring equipment on substations and supporting infrastructure that provides electricity to thousands of rural Missouri residents and businesses in our jurisdiction. (b) (4) has long standing, strong ties with Ameren Missouri as demonstrated by our union labor agreements which have been in place (b) (4) We've had consistent and proactive discussions with Ameren Missouri in support of this program, and we are excited to participate in the execution of projects within our jurisdiction in Missouri.

Similar to Ameren Missouri's Smart Energy Plan (SEP) initiative, the Rural Modernization proposal will upgrade aging infrastructure in historically underserved, rural communities across Missouri. With many of the program's projects being in economically disadvantaged areas across our jurisdiction, we believe the Rural Modernization program will not only deliver local, high-quality jobs to our members but support the revitalization of our local communities. We understand that the program will require many different efforts ranging from construction services to instrument configurations. (b) (4) are fully prepared to provide the necessary skills to complete the Rural Modernization program. (b) (4) Also, as part of this initiative, we will continue to engage with Ameren Missouri to expand resources, benefits, and services offered to Ameren Missouri full-time employees represented by our hall.

We strongly encourage the federal government to carefully consider Ameren Missouri's application for a federal grant. (b) (4) looks forward to continuing to provide our resources and personnel to work with Ameren Missouri to best support their Rural

(b) (6)

(b) (6)

03/17/2023

Department of Energy
Office of Grant Programs
1000 Independence Ave SW
Washington DC, 20585

Re: Commitment to Support Ameren Missouri's Rural Modernization Efforts Under Our Application for DE-FOA-0002740, Smart Grid Grants

Dear Sir/Madam,

On behalf of Ameren Missouri, we are pleased to submit this letter of commitment for the Smart Grid Grant and our proposed Rural Modernization program. We gladly confirm our organization's commitment to delivering this innovative program and its impactful benefits to our customers and the communities we serve. We intend to deploy our company resources, utilize our diverse vendor relationships, and engage our valuable community and workforce partners to develop these projects and make them a success.

The Rural Modernization program will create a more resilient electrical grid through an innovative suite of solutions including installing smart reclosing devices, upgrading critical substations and hardening downstream feeders that serve some of our most disadvantaged communities in central and southeast Missouri. This initiative will streamline operations, reduce outage response times during major events, and contribute to a generation of new jobs in high poverty areas. The technologies to be installed will also increase the feasibility of other local resilience projects and initiatives that will drive future investments.

Vital to the mission of this program are the resulting benefits that will flow to targeted communities with the goal of promoting energy equity and quality jobs. We will work to actively engage our unique and diverse local communities to understand their needs, invest in our state's energy workforce, and drive economic growth. In short, Ameren Missouri is excited for the opportunity to leverage the smart grid grant to expand our innovative and impactful solution to transform the grid of today into a more modern, reliable, and efficient grid of tomorrow.

We urge you to recognize the significant community engagement efforts and meaningful benefits to be delivered as a result of the Rural Modernization program. Thank you for your careful consideration of Ameren Missouri's application.

Sincerely,

Mark Birk, President and Chairman, Ameren Missouri

Gwen Mizell, SVP, Chief Sustainability, Diversity, and Philanthropy Officer, Ameren Corporation

Relevance	**Congessional District**
1. Applicant	MO-001
2a. Program/Project Location	MO-006
2b. Program/Project Location	MO-003
2c. Program/Project Location	MO-008