Keenoy, Erin

From: Suggett, Gaye L
Sent: Tuesday, February 13, 2024 7:20 AM
To: Hahn, Kayla; Myers, Jamie
Cc: Wood, Warren; Wills, Steven M
Subject: Requesting letter of support for Ameren Missouri's Grid Resilience Grant Application
Attachments: PSC_Letter of Support Template.docx; AMO GRIP Topic Area 1 Background Materials.pdf; Ameren_Missouri_GRIP Topic Area 1_Concept Paper_Submitted.pdf

Chair Hahn,

I am writing to you today requesting the Missouri Public Service Commission consider submitting a letter of support regarding Ameren's Round Two Topic Area 1 Grid Resilience Grants application under the Department of Energy's Grid Resilience and Innovation Partnerships funding opportunity.

With support from the grant, Ameren plans to transform a significant area within St. Louis City and County through hardening efforts for overhead and underground 3-phase circuit. Currently St. Louis City and County contain some of the oldest, worst performing, least resilient, and most difficult-to-maintain electrical circuits on Ameren Missouri's distribution grid. Through this proposed project , Ameren seeks to improve grid resiliency and reliability, thus improving the quality of life for residents in St. Louis which contains the highest concentration of disadvantaged communities within Ameren's territory.

I have attached the letter of support template for your consideration, a copy of the concept paper submitted to DOE on January 12th, and a copy of the slides that will give context to the grant we are seeking. Please note that the letter template has two of the statements highlighted and we feel inclusion of these statements will help improve the competitiveness of our application, but please make changes to this letter as you see fit.

We have begun the process of refining our project scope, so the mileage targeted is subject to change. We expect to have a draft of the technical volume ready toward the end of next month and I will keep you updated.

Thank you for your consideration.

Gaye
573-690-0338

Grid Resilience and Innovation Partnerships Project (GRIP)

FOA 3195

Concept Paper Form

The following form is to be completely filled out and submitted on https://infrastructure-exchange.energy.gov/. Ensure that the form is saved using the provided button on the bottom of the form. This will ensure that your file is properly submitted. If the button is not used, submission of application cannot be guaranteed.

Project Overview

Applicant Name: Ameren Missouri

Project Partner(s): None

Project Name: Advancing Community Resilience in St. Louis

Project Locations: Zip Codes: 63031, 63033, 63034, 63042, 63044, 63045, 63074, 63102, 63104, 63106, 63107, 63108, 63111, 63112, 6113, 63114, 63115, 63116, 63118, 63120, 63121, 63123, 63125, 63130, 63132, 63133, 63134, 63135, 63136, 63137, 63138, 63140, 63147

Applicable GRIP Topic Area T/D/T&D?: Distribution

Applicant Cost Share: $100,000,000

Federal Funds Requested: $100,000,000

Anticipated Total Project Budget: $200,000,000

Project Details

Brief description of the project, including outcomes that would result from the successful completion of the project that align with the strategic goals and objectives of the GRIP project and the applicable GRIP Topic Area. 2,000 character limit.

St. Louis City and County contain some of the oldest, worst performing, least resilient, and most difficult-to-maintain electrical circuits on Ameren Missouri's (Ameren) distribution grid. Through the proposed Advancing Community Resilience in St. Louis project (the Project), Ameren seeks to improve grid resiliency and reliability, thus improving the quality of life for residents in St. Louis which contains the highest concentration of disadvantaged communities (DAC) within Ameren's

territory. With support from the grant, Ameren plans to transform a significant area within St. Louis City and County through hardening efforts for overhead and underground 3-phase circuits (backbone). This will impact approximately 180 miles of electric distribution feeders representing 16% of the area's backbone circuits. This total Project portfolio, which represents a 100% investment in DACs, addresses circuits with an average SAIFI of 1.50 and average SAIDI of 451.31, roughly 76% and 42% higher than the average of all 3-phase distribution circuits within St. Louis DACs. Last summer's major storm season resulted in a majority of Ameren's proposed Project circuits experiencing outages over 24 hours, well above the medically-significant 8-hour threshold representing the battery lifespan of most electrically-powered medical equipment and can also leave people without essential AC/heating for an extended period of time.[1] These improvements align with several GRIP priority investments such as grid hardening, line reconductoring, smart reclosers, pole and equipment upgrades for hardening, and undergrounding. Smart reclosing devices installed via this Project improve reliability by up to 40% on feeders for which they are installed, and circuits undergrounded via this Project are expected to have an over 50% improvement in reliability.

Brief description of the impact of DOE funding on the project. 2,000 character limit.

Much of Ameren's existing distribution system was built during the 1960s and 1970s. This was a period of increased electricity use driven by significant suburbanization, increased use of air conditioners, and industrial growth. For that reason, Ameren's distribution system has been facing ever-increasing risks as critical grid components start to reach the end of their engineering useful life (typically 40 to 50 years). Ameren has developed a "Smart Energy Plan" (SEP), that commits $8.4B from 2022 to 2026 to address these issues, with a portion dedicated to upgrading and replacing critical assets in-kind. Between 2021 and 2026 Ameren has allocated $644M to critical substation upgrades at aging substations, $81M to the deployment of smart reclosing technologies at critical system load points, and $682M to end-of-life underground cable upgrades and system hardening of overhead components, via the SEP.

The DOE's funding will allow Ameren to 1) target new, supplemental, and at-scale backbone feeder hardening and undergrounding investments using innovative solutions beyond Ameren's SEP, and systematically addresses poor reliability for DACs, 2) enable greater, equitable access to reliable energy service for Ameren customers, and 3) accelerate investments in other aging assets, such as substations and additional undergrounding through proven cost effectiveness, in the targeted communities for the Project.

[1] https://www.scientificamerican.com/article/increasing-power-outages-dont-hit-everyone-equally1/

List the primary technologies and/or tools that will be deployed in the project. 2,000 character limit.

The Project will deploy several primary technologies for 4-13.2kV distribution lines in St. Louis. Overhead circuits will be hardened by replacing wood poles with larger diameter wood poles or composite poles. Additionally, Ameren will add tie connections and be reconductored to increase capacity and renew aging equipment (e.g., switches, and pole transformers) where applicable. Overhead circuits will be further hardened by installing smart reclosing devices. An estimated 30 miles of brittle overhead No.6 Copper distribution lines will be converted to Underground Residential Distribution (URD) cable using Horizontal Directional Drilling. Fault Current Indicators (FCIs) will be installed in underground circuits. Finally, the Project includes the construction of a less than 1MW Photovoltaic (PV) solar generation and energy storage sites (microgrid) at one or more community partner facilities to bolster community resilience during disruptive events.

If the project will be deploying hardware, describe the role and impact of hardware deployment as part of the proposed project scope and identify any elements of this deployment that represent a significant innovation for the industry and/or project. Enter "N/A" if no hardware will be deployed. 2,000 character limit.

Smart reclosing devices detect faults within a circuit and rapidly open to sectionalize outages before the fault impacts a broader portion of the system. These devices then automatically reclose to determine if the fault persists. In this way, continuity of power is ensured if the fault is momentary, resulting in an observed reliability improvement of up to 40% on circuits in which they are installed. In addition to smart reclosing devices' self- restoration capability, the distribution feeders are to be monitored by Ameren's SCADA systems to collect loading and fault data. The addition of monitoring capability will provide sufficient loading and fault data useful for improving future distribution planning in targeted areas. Composite poles are made of a fiberglass reinforced polymer material more resistant to weather, corrosion, insect infestation and other environmental effects than traditional wood poles. Composite poles will replace approximately every fifth wooden pole in an overhead line to strengthen the circuit against adverse weather. Composite poles also help mitigate the potential domino effect of downed lines during severe storms that result in extended outage restoration times. Reconductoring lines replace aging equipment at risk of failure and improve capacity to support future electrification and additional Distributed Energy Resource (DER) capacity. For undergrounded lines, URD cable is more resilient than No.6 copper wire and prevents outages associated with overhead lines such as high winds, tree and animal contact. FCIs on new and existing underground circuits provide fault monitoring capability which allow Ameren crews to troubleshoot faults more quickly in underground circuits, improving overall safety during maintenance and outage response. The microgrid facility can

provide over 10 hours of power to a communal building that can function as a shelter for members of a community when impacted by severe outages during storms.

If the project will be deploying software, describe the role and impact of software deployment as part of the proposed project scope and identify any elements of this deployment that represent a significant innovation for the industry and/or the project. Enter "N/A" if no software will be deployed. 2,000 character limit.

N/A

If the project will include development of a new business/regulatory/financing approach, describe the approach and the potential for and path to replicability or broader adoption. 2,000 character limit.

Overhead to underground distribution line conversions target approximately 33 miles of backlot (i.e., located in the backlot of residential and commercial properties) feeders in the bottom 7.5% percentile of reliability performance (i.e., a 5-year average composite SAIDI and SAIFI index score) when comparing against all feeders in St. Louis impacting DACs. The locations of these lines are a result of a legacy practice that in present-day make it exceedingly difficult to both access and service them, causing customer's to more frequently experience extended outages. These aging assets are at risk of material failure, and they are frequently overrun with fast-growing vegetation and can't be easily reached by heavy equipment due to limited or no access from the main roads, making them difficult and costly (both in time and money) to maintain and repair in the event of an outage. By undergrounding these lines, Ameren will study the avoided costs associated with maintenance and vegetation management in contrast to the cost to convert overhead lines under specific criteria. This total-cost-of-ownership (TCO) model Ameren will build aims to demonstrate the cost effectiveness of undergrounding distribution lines falling into specific criteria (easements, vegetation growth, soil conditions, etc.). This TCO model can then be leveraged for broader adoption of undergrounding within both Ameren's service territory, its region, and the broader industry following the Project.

The microgrid component of this Project is an effort to provide a resilient gathering place for members of the community in the event of a major storm. Resiliency benefits successfully realized from operating the microgrid during storms may support expansion of energy storage solutions beyond a single site and onto a circuit level for community-wide reliability benefit.

Describe the readiness, viability, and expected timing of the project (include the impact of DOE funding in the response). 2,000 character limit.

Ameren has a long track record of successfully planning, designing, and constructing undergrounding projects since the 1950s. By the end of 2022, Ameren will have completed over

1,000 projects, comprising 190,000 hours of engineering and over a million hours of underground cable construction improvements. Ameren has a proactive strategy to address potential risks to project execution through procurement partnerships, materials forecasting and local purchasing, and property owner easement dispute mitigation. Several months prior to anticipated award, Ameren will notify contractors and suppliers on anticipated additional labor and materials needs as well as DEIA goals and criteria stipulated in the grant proposal. Upon award date, estimated Q2 2025, Ameren will begin detailed engineering design of all backbone upgrades. To address the over 180 miles of construction within the Project timeframe, Ameren anticipates the need to design backbone upgrades at over 10 miles per quarter. Ameren anticipates it to take an additional calendar quarter to obtain required permits and easements for designs completed in the previous quarter. Following that, construction can begin on the designed miles at a pace of 15-25 weeks per mile per crew. Ameren will dispatch internal and contracted crews as needed to construct backbone upgrades as they are designed, and permits are obtained on a rolling basis in order to complete construction no later than Q2 2030.

Identify risks and challenges (e.g. technical, labor, financial, market, environmental, regulatory, security) to project success, and outline mitigation strategies for each risk. 2,000 character limit.

Ameren's Contractor Services and Procurement Teams proactively evaluate labor contractors according to the following year's capital construction calendar. Over the past few years, Ameren has seen an uptick in unpredictability for procuring certain materials. To help mitigate this risk, Ameren uses U.S. supply chain sourcing, coupled with 3-5 year purchasing agreements, to help control lead times, allow for ample vendor forecasting, and to procure required materials in a timely manner.

Additional extended timeline and technical risks can result from the discovery of faulty, non-compatible, or aged devices during individual overhead line project scoping, as well as unexpected interference (e.g., gas & water lines) impacting undergrounding lines. Ameren has experience constructing and maintaining infrastructure in the Project locations and will coordinate closely with water and gas utilities to identify these challenges ahead of construction.

Ameren has seen that difficulties in attaining easement rights can add an additional 2-3 months to the construction schedule of a certain line upgrade (e.g., undergrounding, feeder tie-ins). Ameren Real Estate and Contractor Services teams will work to identify existing easements where possible. Engineering design teams will work closely with Real Estate teams to identify necessary permits, such as railroad or waterway crossing permits early in the design process to ensure timely acquisition of permits.

Lastly, with strategic planning and a priority to limit disruption to its customers, Ameren anticipates outages would range from 1-4 hours for a particular area while work is being performed. Ameren's standard practice is to provide formal and advance notice about planned

outages to its customers and to perform as much work as possible during seasons of reduced load (Spring and Fall) when outside temperatures have moderated from extreme heat or cold to limit the impact to customers.

Briefly describe the Project Management Team and any key personnel and project partners, including vendors and suppliers (if identified; if not yet identified, address how the project will secure vendors/suppliers). Indicate whether the Team has the required skills, any prior applicable experience, prior projects with partners, and access to equipment /facilities to successfully execute the proposed project. If those are not met, explain how the Team will obtain knowledge/access for successful execution. 2,000 character limit.

Ameren's Operations and Technical Services Department, comprised of over 900 engineering, construction, and project management professionals, completed an average of $500M in annual capital improvement projects from 2019-2021. Ameren's Operations Excellence and Contractor Services Teams have a long track record of successfully planning, designing, and constructing undergrounding projects since the 1950s. Over the last 15 years, this team of experts has installed over 900 miles of underground cable via the directional bore process and upgraded about 700 miles of overhead line. These cables translate to over half a million hours of engineering experience. Additionally, through previous federal grant applications, Ameren will have experience developing a Community Benefits Agreement with Sikeston/Bootheel United Way Chapter and intends to follow similar engagement strategies for this Project. In addition to Ameren's already robust DEIA policies and goals, Ameren has created supplier scorecards and customized RFI/RFPs for the Project that places high value in the following three criteria: Quality Jobs, DEIA practices and adoption, and Community and Labor Engagement. Using these tools will help ensure that new opportunities to engage with diverse suppliers and contractors are balanced with preferred partners who have exceeded past project performance goals.

Over the 5-year Project period, several hundred thousand feet of cable and conduit will be needed, along with several hundred pole-top and pad-mounted distribution transformers and composite poles, as well as dozens of FCIs and smart reclosing devices. Ameren sources these materials from several Original Equipment Manufacturers (OEMs)and distributors, the majority of which have 3-5 year purchasing agreements which guarantee supply for forecasted volume sales. Ameren is confident its history in managing distribution projects and partnerships with effective development partners enables us to execute the Project.

Project Impacts

How will this project reduce innovative technology risk, achieve further deployment at-scale, and lead to additional private sector investments? 2,000 character limit.

Grant funding would enable Ameren to implement a large-scale, proactive solution to feeder level reliability metrics, as opposed to upgrading lines as needed, as Ameren does with current distribution planning initiatives. Hardening backbone feeders can serve to catalyze additional investments in associated distribution substations beyond the life of the Project. Modernizing feeders with fault monitoring and smart reclosing devices give more accurate insight on loading which better inform distribution planning. Additional investments in substations following the Project add more grid resiliency and capacity benefits to enable DER integration, electrification, and grid flexibility to these communities. Improved grid performance, capacity, and flexibility is anticipated to attract more business to these areas, benefitting the local economy. Additionally, the impact to communities by having resilient communal gathering locations via a microgrid can serve as a model for larger scale investment in storage solutions at a circuit level to further harden communities to the impacts of storms. Furthermore, throughout the undergrounding component of the Project, Ameren plans to develop a robust TCO model to further refine its deployment process for the most cost-effective and equitable prioritization of future undergrounding efforts and enable industry-wide investment into the technology.

Describe how the project supports State, local, Tribal, community and regional resilience, in reducing the likelihood and consequences of disruptive events, decarbonization, or other energy strategies and plans. 2,000 character limit.

In 2020, the state of Missouri's Department of Natural Resources Division of Energy initiated the Missouri State Energy Planning (MoSEP) process to identify and address topics critical to Missouri's current and future energy needs. On May 18, 2021, the division published the core values of the MoSEP process to guide regionally focused energy initiatives. They include ensuring secure, reliable, and resilient energy infrastructure, creating opportunities for energy-related technological innovation and workforce development, ensuring affordability and equity in access to energy resources, services, and projects, and creating initiatives that are regionally focused.

In 2018, the Missouri Legislature passed Senate Bill (SB) 564, which gave Missouri electric utilities the ability to invest additional capital in the grid. 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 spring of 2022, the Missouri Legislature passed SB 745, which extended the provisions into 2028. The Projects inclusion of smart grid technologies such as FCIs and smart reclosing devices and modernizing Ameren's urban electric grid aligns with these legislative goals. Overall, the Project's central theme around reliability, workforce development, equity in access, and regional focus in the St. Louis metro align well with state and local goals.

What will be the grid-benefitting outcomes to be delivered by the project (e.g. number of customers impacted, unlocked clean energy generation, improvement in reliability metrics). List 1-3 outcomes maximum. 2,000 character limit.

The primary benefit provided by the Project is improved system reliability. Smart reclosing devices are anticipated to improve reliability by up to 40% on the overhead circuits they are installed. In addition to this, installation of composite poles hardens distribution lines against strong winds. This was demonstrated during recent storms where lines hardened with composite poles were either unaffected or brought back 24 hours faster than lines that were not hardened. Underground fault monitoring via FCIs drastically reduce restoration times for faults in undergrounded lines. Generally, undergrounded services experience outages approximately 10 times less frequently than overhead services by better protecting circuits from exposure to disruptive events and natural hazards.[2] Consistent with the EPRI study, Ameren found an average SAIDI improvement of 53.3% and an average SAIFI improvement of 60.4% (with all three projects experiencing either a SAIDI or SAIFI improvement of at least 60%) when Ameren analyzed three recent overhead-to-underground backlot projects.

Additional grid benefiting outcomes are redundancy and increased capacity. Feeder tie-ins constructed by the Project add redundancy to the grid and better allow system operators to manage loads during storms, planned maintenance, and peak demand. Replacing traditional No. 6 copper overhead wire with undergrounded URD cable or modern overhead cable provides higher capacity to better support two-way power flow to account for future shifts in generation and load. Undergrounding converts No. 6 copper lines to No. 2 aluminum which doubles capacity. The overhead lines will be reconductored using primarily 556 aluminum with rated capacity of 693 Amps, well above the expected max loading of 4-12kV lines of 600 Amps.

Community Benefits Plan

SECTION 1: COMMUNITY AND LABOR: Demonstrate how this Community Benefits Plan will address community and labor engagement, and how feedback from specific and relevant community stakeholders will be incorporated into the Community Benefits Plan. 4,000 character limit.

Ameren is dedicated to ensuring that this Project will have a positive impact on local communities and that community feedback is incorporated into project planning and execution. Ameren has several internal teams who support ongoing engagement with local communities. Ameren's Energy Equity Solutions, Community Development, Local Government Affairs, and Customer Advocacy groups, as well as other Ameren teams, coordinate several virtual and in-person community engagement meetings and workshops on a recurring basis. Ameren has also recently

[2] ERPI - "Distribution Grid Resiliency: Undergrounding" – 2015 (statistics reflect approximate improved reliability for vulnerable distribution circuits during both normal operation and adverse weather conditions)

created a Community Empowerment Development team, which will champion engagement with targeted local communities.

Ameren employs a variety of communication channels to engage with its customers and stay abreast of issues. On a weekly basis, Ameren hosts community stakeholder meetings to ensure that there is a regular two-way flow of communication and that Ameren's understanding of community needs is up to date. Ameren sends "Power Forward" e-newsletters three times a month to customers, industry stakeholders, community officials, and non-profits across the country to provide updates about Missouri's most important energy issues. Ameren also hosts quarterly Community Voices Advisory Board (CVAB) meetings to ensure the delivery of affordable and reliable service for the communities that need it most. Until recently Ameren only hosted one CVAB group, focused on reaching Metro St. Louis and more urban communities. Because of the success of that original effort, Ameren launched a second set of CVAB meetings in November of 2023 that covers rural and mid-Missouri communities, such as the areas around Jefferson City. The CVAB is comprised of partnerships with diverse groups of grassroots community leaders to share perspectives and lead local change. These communication channels allow Ameren to educate communities, receive and act on feedback, and resolve concerns.

Ameren will also continue to leverage its meaningful partnerships with outside organizations. Ameren has partnered with Beyond Housing and the Urban League to assist with collecting and addressing community feedback. Both organizations represent the Project's targeted areas, serve some of the most disadvantaged communities, and align with the Project's goal of revitalizing local economies through community engagement and workforce development. 100% of targeted line hardening and undergrounding in the Project will be in the Urban League's jurisdiction of St. Louis City and North St. Louis County, while more than a quarter of feeders will impact Beyond Housing's 24:1 communities. Ameren previously obtained a joint letter of partnership from both organizations for federal funding proposals, and plans to create Community Benefit Agreements with both organizations within one year of any grant funding awarded to this Project. Those Community Benefit Agreements will include specifications surrounding the installation of neighborhood solar and storage facilities at one or more 24:1 community sites.

Ameren further prioritizes engaging with the communities it serves by collaborating with local and union labor organizations. Ameren enjoys long-standing, positive, and productive relationships with its unions across the state. Ameren's commitment to prioritize union labor can be seen in collective bargaining agreements with the International Brotherhood of Electrical Workers. These agreements ensure that union-represented employees maintain access to union membership, have robust employee benefits, and receive competitive wages including paid sick leave and paid time off. Ameren further supports union labor by including criteria in their RFPs that prioritize contractors that utilize union workers and have active, standing labor agreements. Ameren also anticipates benefiting the community with these initiatives by supporting quality local jobs by sourcing all construction labor from unions, all sourced from within 50 miles of the Program boundary.

<u>SECTION 2: WORKFORCE DEV:</u> Provide expected number of jobs or workforce development opportunities that the project will create. Describe how these positions are the result of community engagement or agreement. Explain how your project will generate quality jobs and that workforce development opportunities provided are relevant to impacted communities. 4,000 character limit.

The portfolio of infrastructure work in this Project includes both backbone hardening and undergrounding, necessitating the need for several solutions. The breadth and complexity of these projects in scope and the types of technology used will provide greater job opportunities and the need for diverse suppliers and vendors who prioritize local and union labor. The Project will require skilled trade labor such as HDD, electrical line work, design, and project management services. Ameren estimates that the proposed $200M investment of this Project will result in over 32,500 jobs, both direct and indirect, to be realized over the 25 years.

To support these new clean energy jobs and the development of these new projects, Ameren will leverage its pool of existing suppliers prioritized based on their alignment with the tenants of Justice40. That said, Ameren plans to widen its search to other qualified suppliers given the need for specialized labor sourcing and the inclusion of both 3-phase hardening and undergrounding in the Project. Ameren will continue to prioritize local contractors and vendors, to ensure that the creation of high-quality jobs continues to flow to the communities being served. Diverse suppliers who Ameren already has strong relationships with have pledged not only to sourcing labor locally, but also to assisting with local training projects for the development of skilled utility workers, demonstrating their commitment to investing in the American workforce.

If awarded grant funding for this Project, Ameren plans to commit a portion of it to skill-building and employability initiatives both internally and in local communities, such as Ameren's Skilled Craft Education Project (SCEP). SCEP is a pipeline program that prepares students for careers in skilled energy trades and can ultimately convert participants into full-time employees at Ameren and similar employers. For the past several years Ameren has partnered with North and South Technical High Schools to offer the program to students there. In 2023, the Ameren Corporation Workforce Development Group and Community Empowerment Teams expanded the SCEP to East St. Louis Senior High School. This opened the program to more participants in other DACs and historically underserved communities, showcasing the positive and growing regional impacts of this program. The SCEP serves as a pivotal employment pipeline for Ameren and similar employers in the area, as the Project has converted dozens of Program participants to full-time employees and apprentices at Ameren. Overall, the 2022 and 2023 SCEP graduating classes reached 100 students between 2022 and 2023 graduating classes, where approximately 50% were from historically under-represented groups.

To further its commitment to supporting pre-apprentice and job-readiness efforts, Ameren is partnering with the Urban League of Metropolitan St. Louis to launch the Urban Apprenticeship Readiness Program (UARP) in Q1 of 2024, in addition to expanding to Cape Girardeau in 2024, which includes the opening of a new office and training facility. This new, joint initiative between the National Urban League (NUL) and the Center for Energy Workforce and Development (CEWD), aims to increase diversity, equity, and inclusion in the energy workforce and to ensure that individuals develop skills and trades needed to meet future workforce demands in the renewable and traditional energy sectors. The UARP will target line workers, power operators, and general technicians to build industry-applicable skills.

Overall, Ameren is confident that this new program will result in an increase of local indirect and direct jobs that are high-quality, well-paid, and held to the highest standards of workforce safety. The prevalence of programs, such as this one, will further the proliferation of Ameren's apprentice and training programs, and markedly increase the number of skilled energy jobs across St. Louis and surrounding areas.

<u>SECTION 3: DEIA:</u> Identify Community Benefits Plan elements that will support Diversity, Equity Inclusion, and Accessibility, including methods to ensure accountability to specific goals throughout the project. 4,000 character limit.

Ameren's commitment to programs and initiatives that create a diverse, equitable, inclusive, and accessible (DEIA) workforce and community is foundational to the company's vision of a clean and equitable energy economy. These initiatives have allowed Ameren to report significant progress. Ameren's board of directors reflects strong racial and gender diversity: 57% of the board is comprised of women or racial/ethnic minorities. Additionally, Ameren has established a partnership with the University of Missouri-St. Louis to provide additional resourcing to an accelerator program that supports diverse entrepreneurs and empowers diverse business start-ups. Ameren has also recently committed to increase its 26% trailing 3-year average spend with MBEs to 30% by CY2028. Ameren's ongoing commitment to DEIA has been widely recognized: DiversityInc has listed Ameren in their top five utilities since 2009, and ranked Ameren number one in their Hall of Fame in 2023.

This historic funding opportunity uniquely positions Ameren to further promote the equity of its workers, customers, partners, and communities. Ameren plans to advance DEIA initiatives by continuing to increase diversity in its own organization, promoting workforce training and opportunities for underserved communities, and committing to an increased spend and net-new multi-year contracts with diverse suppliers. Ameren will ensure accountability to these commitments by establishing specific, metrics-driven, tangible SMART goals, which will include clear milestones and checkpoints.

Past experiences have taught Ameren that the most effective approach to developing DEIA goals that can be incorporated into Project execution is through collaboration with its partners. As was discussed on in previous sections, Ameren's Skilled Craft Education Program is a pipeline program that Ameren runs through a partnership with three local high schools. The SCEP is an impactful project not only because it fosters hands-on skills-based training for high school students and serves as a key pipeline into clean energy jobs, but also because it targets underrepresented students. These students might otherwise not have the opportunity to obtain such training through costly trade schools. The SCEP is a key component of Ameren's investment in promoting diversity and equity across its workforce and providing opportunities to students in disadvantaged communities. Across 2022 and 2023, 48% and 50% respectively of students enrolled in the SCEP have been from diverse historically underrepresented groups in the workforce. Moving forward, Ameren will use a portion of any funding received from this grant to support efforts to reach at least 50% diversity among students enrolled in the project.

Furthermore, the Advancing Community Resilience in St. Louis Program will require substantial efforts and commitments from contractors and suppliers to ensure successful project execution. Ameren's Supplier Diversity group currently evaluates Project vendors on diversity and equity factors, such as certified minority-owned, on top of traditional factors such as cost and credibility. Ameren has identified six diverse vendors, contractors, and suppliers, who will be signing contracts and providing labor to complete the construction of the projects in this Project. Ameren chose to partner with these suppliers based on their strong alignment with the principles of Justice40, including placing a high value on diversity, community involvement, and quality jobs. Ameren will seek signed letters of commitment from these vendors stating that they will support local labor and provide safe and amicable working conditions to all employees. Ameren also commits to identifying one or more additional preferred vendors, contractors, and/or suppliers to support this effort, and will include the names of those preferred vendors in the full application.

SECTION 4: JUSTICE40: Identify how this project will contribute to the Justice40 Initiative goal that 40% of overall benefits flow to disadvantaged communities. 4,000 character limit.

Ameren recognizes the importance of ensuring that project benefits flow to disadvantaged communities to further equity, drive economic development, and adhere to the Justice40 initiative. Understanding the magnitude of the impact on resiliency and reliability that a project such as this one could have on underserved communities, Ameren decided aimed to target circuits that were directly in DACs. As a result, 100% of the circuits and lines impacted by both the 3-phase hardening and undergrounding projects in this Project portfolio are in DACs.

Of the 900 plus 3-phase miles of lines that cross directly through DACs in St. Louis City and County, Ameren has identified approximately 30 miles that represent the worst 7.5%, measured by combined SAIDI and SAIFI scores. Ameren plans to underground these miles, all of which are backlot. Following a similar exercise, while excluding lines planned for undergrounding, Ameren then identified approximately 150 miles that represent the 25% worst-performing lines that serve

DACs, excluding any lines that are not 3-phase. By using this methodology, Ameren has created a portfolio that will either harden or underground some of the most vulnerable miles of circuits and lines in St. Louis, all of which run through DACs.

Over 55% of the households in the areas impacted by the Project live at or below 200% of the federal poverty threshold, consistent with the DOE's classification of high-poverty census tracts used to designate DACs. Furthermore, these areas rank in the bottom 13% of census tracts in the U.S. and the bottom 9% of census tracts in Missouri according to the DOE's Justice40 criteria that assess socio-economic conditions. These areas are not only significantly impoverished but suffer from high levels of unemployment; they have an average unemployment rate almost three times higher than the national rate. The lack of employment opportunities coupled with the burden of poverty demonstrates a substantial need for economic growth and infrastructure upgrades in DACs and surrounding areas.

This Project will have significant positive impacts on DACs and their surrounding communities in the greater St. Louis area. First, hardening and undergrounding the worst performing circuits in Ameren's DAC communities will decrease the energy burden for those communities, especially as the undergrounding component of the Project is largely targeting backlot circuits. The Project will also decrease the environmental exposure and burdens that DACs experience at a disproportionately high rate by lowering disruptions due to severe weather, animal contact, and vegetation growth. Hardening and undergrounding of three-phase circuits will also increase reliability and resiliency for these communities, with an up to 40% improvement in reliability for circuits hardened by smart reclosing devices and stronger poles and wires, and up to 50% improvement for circuits undergrounded within Ameren's impacted DAC communities by 2030.

Investing in DAC communities through this Project will not only improve the day-to-day experience of the customers who live there due to improved service, but this Project will also serve as a significant driver of economic growth to those communities. The projects will increase access to low-cost capital in DACs, while also increasing clean energy jobs, the overall clean energy job pipeline, and job training for individuals in DACs. Additionally, through Ameren's commitment to provide increased contract opportunities to MBEs, DACs in the Ameren territory will experience increased clean energy enterprise creation and contracting. Ameren is excited to engage its communities to further the DOE's Justice40 initiative and strengthen its just energy ecosystem in underserved, marginalized, and disadvantaged communities.

Ensure that the form has been fully and correctly completed. Once you have verified that all the information is accurate click the button below. You will not be able to make changes to this form afterwards. Submit the completed form to https://infrastructure-exchange.energy.gov/.

Infrastructure Investment and Jobs Act (IIJA)

Grid Resilience & Innovation Partnerships (GRIP) Round 2 Topic Area 1

February 2024

Grid Resilience and Innovation Partnerships (GRIP) Overview

Topic Area 1

Program	Grid Resilience Grants (Sec. 40101c)
Objective	To support activities that reduce the likelihood and consequence of impacts to the electric grid due to extreme weather, wildfire, and natural disaster.[1]
FY24 – 25 Funding	$918M (30% reserved for small utilities[2])
FY24 – 25 Award Funding Cap	Up to $100M, **increase to $250M** if (a) construct new Tx line or (b) **aggregates multiple utility service territories**
# of FY24 – 25 Awards	10-20 (3-6 to small utilities)
Performance Period	60 Months
Minimum Cost-Share	100% (33% for small utilities)
Eligible Applicants	**Electric grid operators**, electricity generators, electricity storage operators, Tx owners or operators, Dx providers, fuel suppliers, & others

DOE Priorities

- Projects that address **comprehensive transformational transmission and distribution technology solutions** that will **mitigate one or multiple specific hazards** across a region or within a community
- Projects that **enable a system operator** to develop expertise in and **demonstrate the benefits of modern approaches** to provide improved system resilience
- Projects that are structured to **encourage consistency of approach** and **dissemination of learnings** by including **participation of multiple eligible entities**

Key Considerations

- As opposed to last year, applicants may use formula grants towards supplemental funding requirements
- Priority investments now include Smart Reclosers and other associated technologies
- **Priority investment added for projects that span multiple service areas**
- Greater focus on transmission

[1] Grants under this program are in general intended to be supplemental to existing hardening efforts of applicants for any given year
[2] Small utilities are defined as entities that sell no more than 4,000,000 MWh of electricity / year

Grid Resilience and Innovation Partnerships (GRIP) Overview

Topic Area 1 Continued

TA-1:Grid Resilience Grants (Sec. 40101c) Priorities

• "…demonstrate a clear **strategic approach, supported with innovative uses of technology to assist in risk identification, project planning, and operation** (e.g., improved forecasting, work order management, and crew deployment approaches)."

• "Substation hardening projects with automation and digitization scope, as well as substation hardening projects that are coordinated with upgrades to enable distributed energy resource (DER) integration and/or electrification-readiness."

• "Improvement of system adaptivity specifically for resilience purposes, such as through deployment of Fault Location, Isolation, and Service Restoration (FLISR) and/or use of & **smart reclosers** and similar technologies."

• "…**minimize or mitigate system conditions that exacerbate the risk of specific hazards** (such as, but not limited to, wildfire occurrence)…"

• "…**cover multiple utility service territories** and will **evolve and share utility best practices in areas such as vegetation management, pole, and equipment replacement for storm hardening, and undergrounding."**

• "**Advanced reconductoring** approaches that expand transmission and distribution capacity along existing infrastructure and rights of way…"

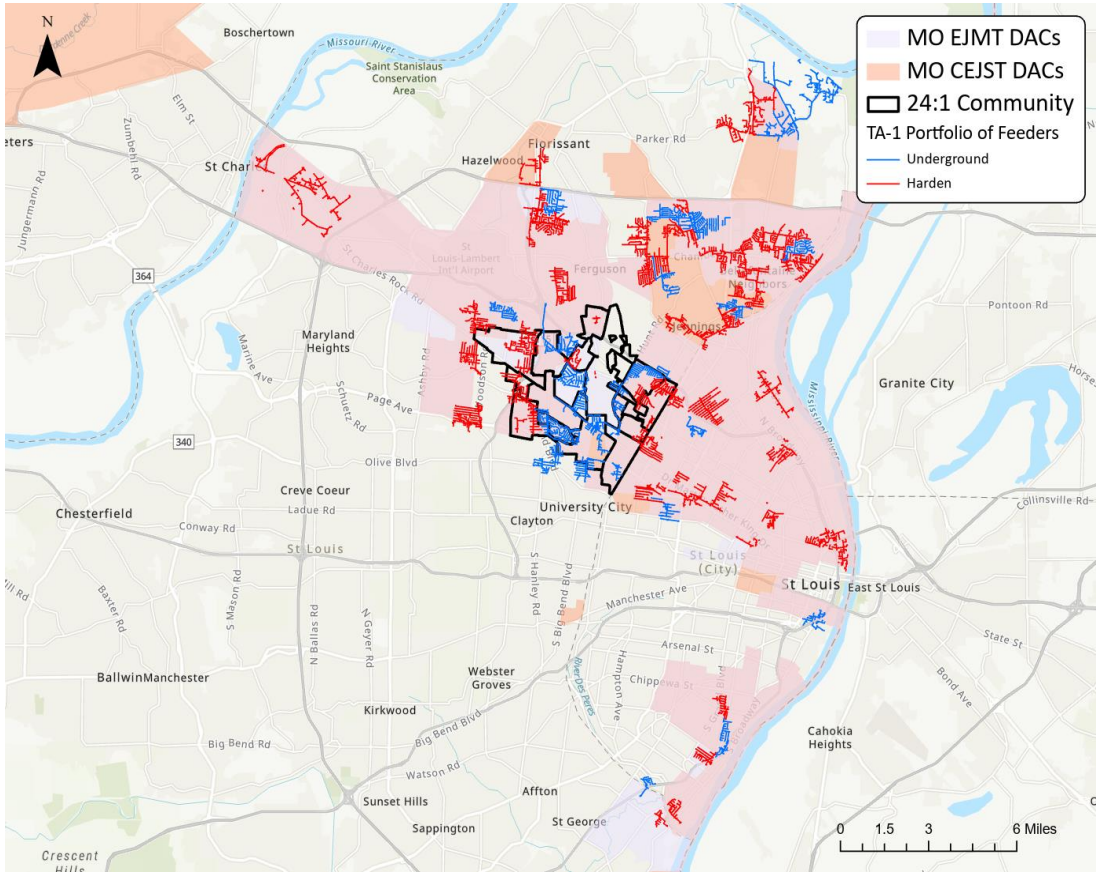
• "…to construct new transmission (at or above 69 kV) infrastructure to resolve a specific, identified contingency condition, provided that applicants describe the nature of the condition and the impact of that condition on system resilience (generally or to a specific subset of customers)"

GRIP TA-1 Focus Areas for Round 2

GRID RESILIENCE UTILITY AND INDUSTRY GRANTS: *Grid Resilience Utility and Industry Grants [Topic Area 1] support activities that will modernize the electric grid to reduce impacts from extreme weather, wildfires and natural disasters. The second round of funding will focus on* ***hardening infrastructure with digitization and automation****;* ***improving tools*** *to restore power to the grid during outages; and investing in* ***technologies to improve the efficiency*** *of the grid, such as* ***advanced conductors and reconductoring****.*

TA-1 Portfolio: 100% DAC Hardening & Undergrounding ($200M)

A $200M TPC would harden ~150 miles of OH & UG 3 phase circuits and underground ~30 miles of backlot circuits exclusively in DACs in St. Louis City & County



Undergrounds **~30 backlot miles** across 26 feeders	Hardens **~150 3-phase miles** (100+ OH & ~30 UG) across 53 feeders
Targets **100% DACs**	Reliability improvements for nearly **38,000 customers**, including over **350 critical customers**

Solutions Proposed

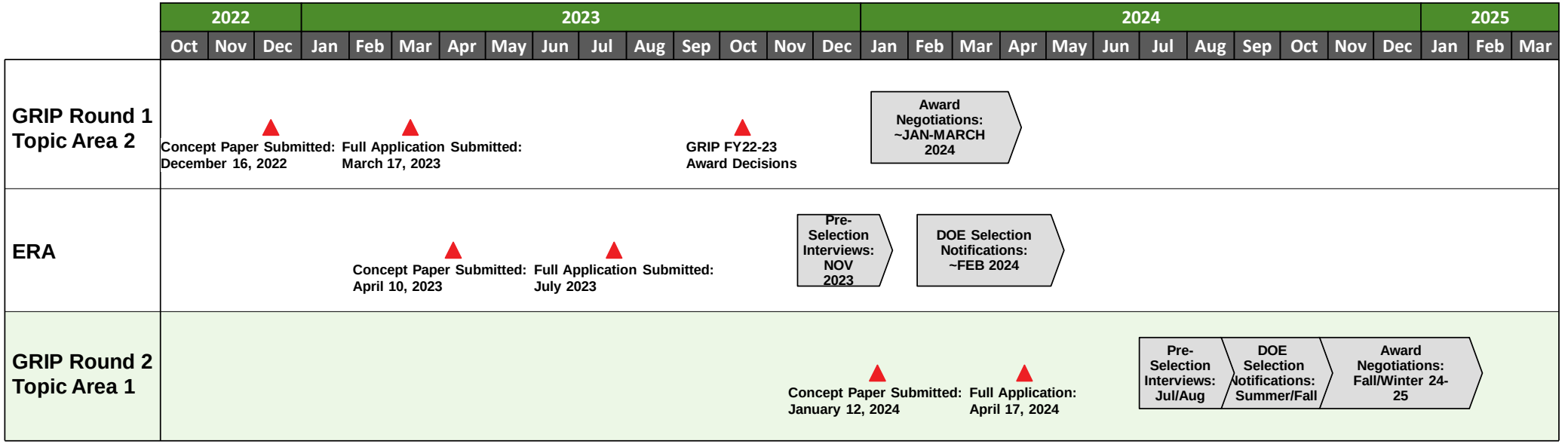
- Undergrounding aged/heavy vegetation No.6 copper overhead distr.
- Solar & Battery Storage at a community partner site (microgrid)
- Reconductoring overhead & underground distribution lines
- Reinforcing poles with larger wood poles/composite poles
- Added tie-ins or line relocations
- Fault Current Indicators & Smart Recloser Installations
- Development of a total-cost-of-ownership model for undergrounding lines based on specific criteria (easements, vegetation growth, soil conditions, etc.) and comparing the costs of undergrounding versus the cost of maintenance for the overhead line to inform future undergrounding investment
- **Community Benefits Plan** includes setting diverse supplier and labor goals, community engagement and outreach, advancing workforce development initiatives, and entering into Community Benefits Agreements to deliver and track benefits to targeted communities.

IIJA Grant Applications and Timelines

GRIP Round 2- Topic Area 1 Timeline

Item for GRIP Round 2 TA-1	Status and Timeline
Concept Paper	Due: January 12, 2024 - **Submitted**
Full Application	**Due: April 17, 2024**
Anticipated Award Decisions	Fall 2024

Application Components and Due Dates:



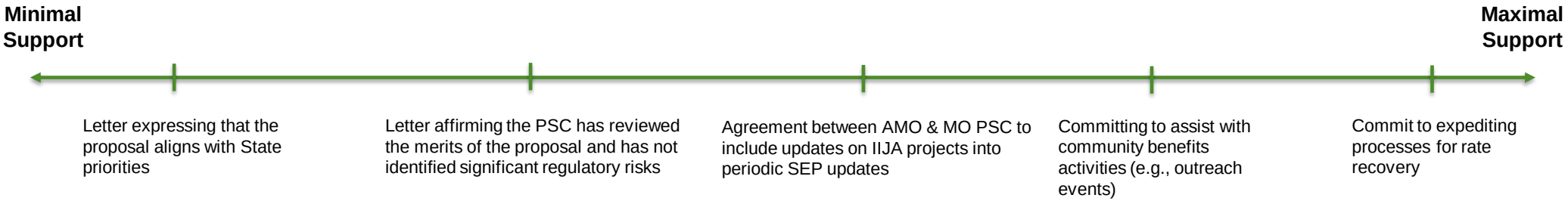
Missouri Public Service Commission & Ameren Missouri

MO PSC can express support for the proposal via a 1 or more-page letter signed by a member of the Commission a week prior to application due date of Apr. 17th

"It is important to ensure that States, Tribes or territories are engaged in the approach. The expectation of DOE is that regulatory stakeholders will be engaged in this process to ensure cost recovery may be achieved."

Examples of Regulator Support for AMO's Proposal

(*Non-Exhaustive*)

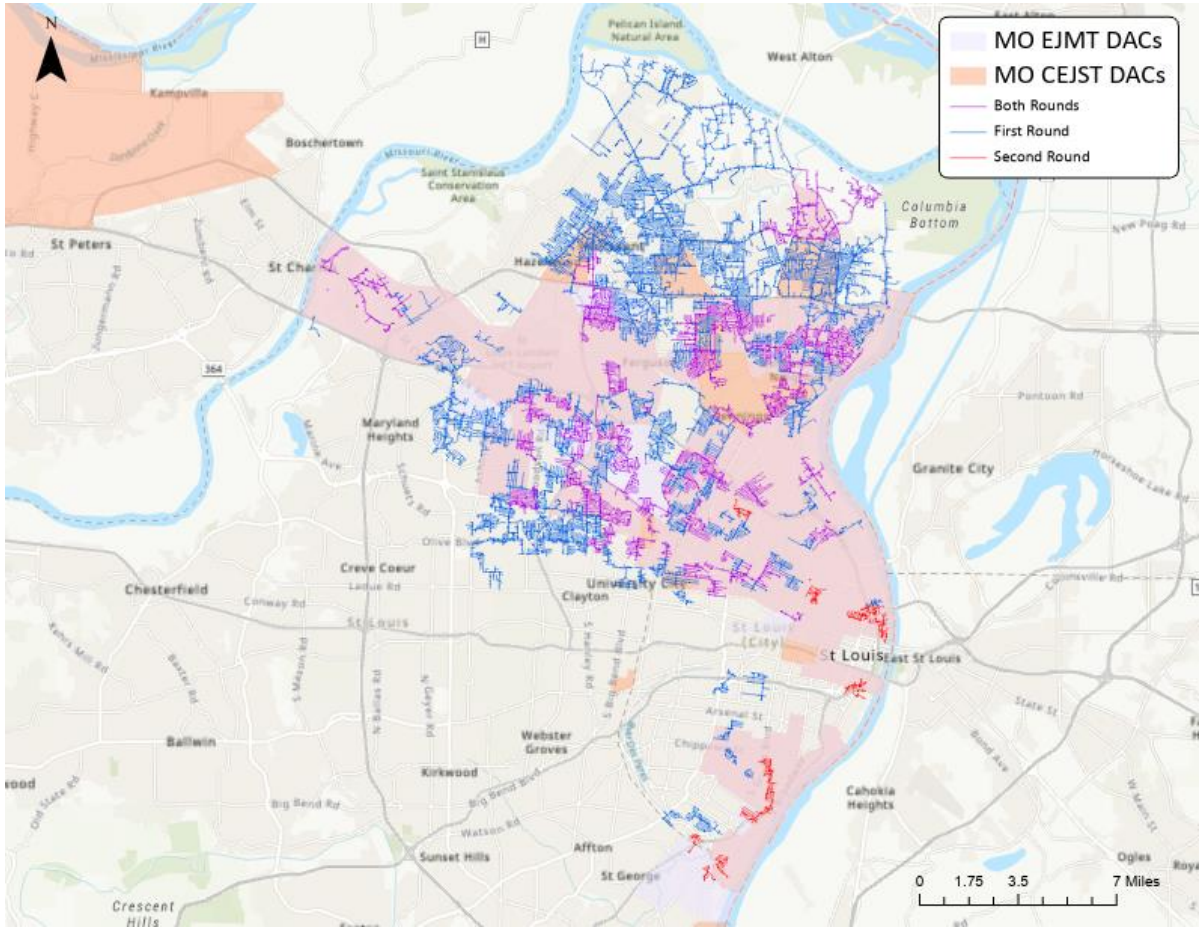


Next Steps

- Provide the submitted concept paper and a sample letter of support to PSC representatives
- Understand from the PSC representatives what statements and commitments they are comfortable making in support of AMO's application
- Understand what further information will be needed to obtain PSC support

Comparison of TA-1 Round 1 and R2

Round 2 portfolio is smaller but targets 100% DACs



U.S. Department of Energy
Office of Clean Energy Demonstrations
1000 Independence Ave SW
Washington DC, 20585

Re: Letter in Support of Ameren Missouri's Application for Federal Funding Under DE-FOA-0002970 – Energy Improvements in Rural or Remote Areas

To whom it may concern,

On behalf of the Missouri Public Service Commission, I am pleased to provide this letter of support regarding Ameren's Round Two Topic Area 1 Grid Resilience Grants application under the Department of Energy's Grid Resilience and Innovation Partnerships funding opportunity.

With the goals of addressing aging infrastructure and stimulating economic growth, workforce development, and community engagement, this program aims to underground several miles of distribution circuits running through the backlot of properties as well as harden dozens of distribution backbone feeders that serve 100% disadvantaged communities in St. Louis City & County, improving reliability, flexibility, and safety.

The Public Service Commission understands that the benefits delivered by Ameren's proposed portfolio of line projects with the Department of Energy's assistance are substantial and worthwhile for Missouri's residents and businesses. The proposal will continue to foster a safer, more reliable, and efficient electrical grid capable of supporting future load growth and investments. The program aligns with and aims to advance the Public Service Commission's mission to "ensure that Missourians receive safe and reliable utility services at just, reasonable, and affordable rates." The Public Service Commission welcomes the opportunity for Missouri utilities to partner with the federal government for infrastructure investment in our State.

The Public Service Commission applauds and supports Ameren Missouri's application under this historic federal funding opportunity. In doing so, the Public Service Commission reviewed Ameren's proposal and did not identify any significant regulatory risks. Furthermore, to provide additional oversight and accountability, the Public Service Commission is committed to continued engagement with Ameren on the proposed project via periodic progress reports and hearings. These progress updates will be in addition to existing updates that occur periodically for grid investments under Ameren's Smart Energy Plan (SEP).

On behalf of the Public Service Commission, I urge the federal government to recognize the benefits of Ameren Missouri's application for funding. Thank you for considering this request.

Sincerely,

XXXXX