Build Kansas Fund | Fiscal Year 2025 Application Package | Memo

To: Representative Troy Waymaster, Chair, Build Kansas Advisory Committee
Chardae Caine, Kansas Legislative Research Department
Shauna Wake, Office of the Kansas State Treasurer

From: Jason Fizell, Interim Executive Director, Kansas Infrastructure Hub

RE: Build Kansas Fund Application #2025-106-SEKRPC

Date: May 22, 2025

Attached, please find an application made to the Build Kansas Fund by the City of Bronson. The application packet includes the following items:

- Coversheet – provides a high-level overview of the application including a unique identification number, page 1 of 23 of the Build Kansas Fund Application Package.
- Build Kansas Fund Application – includes information submitted with the Build Kansas Fund Application, pages 2-9. Page 9 provides the table of funding sources and zip codes served by the project.
- Attachments – 40101d application, pages 10-23.

Project Overview
The City of Bronson seeks funding from the U.S. Department of Energy for funding available through the SECTION 40101(d): Preventing Outages & Enhancing the Resilience of the Electric Grid program for their Bronson Electric Grid Upgrade project which includes replacing outdated wiring, transformers, insulators, and poles to improve power reliability and modernize the city's electrical system.

This opportunity is a discretionary BIL program with a local match requirement of 48.33% of the total project cost. The entity is requesting $125,522.75 from the Build Kansas Fund, and is providing a local match of $6,606.46. This request has the potential to unlock $273,370.79 in federal funds, for a total project cost of $405,500.00.

The deadline was January 9, 2025, and this Build Kansas Fund application was received on January 8, 2025.

Build Kansas Fund Steering Committee Recommendation
The Build Kansas Fund Steering Committee reviewed this application on May 14, 2025 following a successful completeness check. The Steering Committee **RECOMMENDS APPROVAL** of Build Kansas Funding to the Build Kansas Advisory Committee for final advice.

Build Kansas Fund | Fiscal Year 2025 Application Package | Coversheet

Build Kansas Fund Application Number	2025-106-SEKRPC
Applicant Name	City of Bronson
Application Date Received	1/8/2025
Project Name	Bronson Electric Grid Upgrade
Project Description	Replace outdated wiring, transformers, insulators, and poles to improve power reliability and modernize the city's electrical system
Entity Type	Local Government
Economic Development District (EDD) Planning Commission	Southeast KS Regional Planning Commission
Infrastructure Sector(s)	Energy
BIL Program	SECTION 40101(d): Preventing Outages & Enhancing the Resilience of the Electric Grid
BIL Program Type	Discretionary
Application Type	Implementation
BIL Application Deadline	1/9/2025
Build Kansas Fund Request	$125,522.75
Technical Assistance Received	General Yes ☒ No ☐
	BIL Application Yes☐ No☒
	Build Kansas Fund Application Yes☒ No☐
	Other (Brief Description): Provided General TA and BKF Application Support.
Application Notes	Build Kansas Fund contribution of $125,522.75 will unlock $273,370.79 in federal BIL funding, with a local cash contribution of $6,606.46 for a total project cost of $405,500.00
Steering Committee Funding Recommendation	**5/14/2025 | Recommend ☒ Declined ☐**
Advisory Committee Funding Recommendation	**5/22/2025 | Recommend ☐ Declined ☐**

Title

City of Bronson

01/08/2025

by **City of Bronson** in **Build Kansas Fund Application**

id. 49275131

PO Box 54
Bronson, Kansas
66716
bronson@kwikom.net

Original Submission

04/29/2025

Score	n/a
	Part 1: Applicant Information
The name of the entity applying for the Build Kansas Fund:	City of Bronson
Project Name:	Bronson Electric Grid Upgrade
Entity type:	Local Government
Entity Population:	305
Applicant Contact Name:	Danielle Minor
Applicant Contact Position/Title:	City Clerk
Applicant Contact Telephone Number:	+16209394578
Applicant Contact Email Address:	bronson@kwikom.net
Applicant Contact Address:	PO Box 54
Applicant Contact Address Line 2 (optional):	505 Clay St
Applicant Contact City:	Bronson
Applicant Contact State:	Kansas

Applicant Contact Zip Code:	66716
Is the Project Contact the same as the Applicant Contact?	Yes
	Part 2: Build Kansas Fund - Eligibility Criteria
Certify that you are pursuing an Infrastructure Investment and Jobs Act (IIJA) funding opportunity for which your entity is eligible:	Yes
Certify that the Infrastructure Investment and Jobs Act (IIJA) funding opportunity you are pursuing has a required non-federal match component:	Yes
What is the primary county that the project will occur in?	Bourbon County

The Build Kansas Fund is intended to support Kansas-based infrastructure projects. Please provide a list of all the zip codes this project will be located in, along with an estimated percent [%] of the project located in that zip code. For example, if seeking funding for road infrastructure, provide a rough percent of the roads expected in each zip code:

Zip Code Percentage.xlsx

	Part 3: Infrastructure Investment and Jobs Act (IIJA) - Grant Application Information Please Note: This information is related to the federal Infrastructure Investment and Jobs Act (IIJA), commonly known as the Bipartisan Infrastructure Law (BIL), funding opportunity to which you will apply. This is NOT information for the Build Kansas Match Fund.
Please enter the Infrastructure Investment and Jobs Act (IIJA) funding opportunity title that the entity is applying for:	SECTION 40101(d): Preventing Outages & Enhancing the Resilience of the Electric Grid

What is the funding agency for this Infrastructure Investment and Jobs Act (IIJA) funding opportunity?	U.S. Department of Energy
What is the Assistance Listing Number (ALN) for this Infrastructure Investment and Jobs Act (IIJA) funding opportunity?	81.254
What is the federal application due date for this Infrastructure Investment and Jobs Act (IIJA) funding opportunity?	1/9/2025
Application Type:	Implementation
What is the federal fiscal year for this Infrastructure Investment and Jobs Act (IIJA) funding opportunity?	2024
Enter the amount of funding being applied for, from the Infrastructure Investment and Jobs Act (IIJA) funding opportunity:	$273,370.79 for a total project cost of $405,500.00
Enter the total project cost:	$405,500.00
Enter the required non-federal match percentage:	48.33%

	Part 4: Build Kansas Fund - Match Application Information Beginning in July 2024 and moving forward, eligible applicants are expected to contribute a portion of the non-Federal match requirement. This contribution can be in the form of cash and/or in-kind contributions. The goal is to demonstrate the applicant's commitment to the project. The contribution should be significant enough relative to the Build Kansas Fund request. For a local public entity, 5% of the non-federal match is a good guideline, but not a requirement. See Build Kansas Fund Program Guidance for exceptions and more information.
Enter the non-federal cash match amount being requested from the Build Kansas Fund:	$125,522.75 for a total project cost of $405,500.00
Enter the non-federal cash match amount being provided by the eligible applicant, if applicable:	$6,606.46 for a total project cost of $405,500.00
Enter the estimated value of the non-federal in-kind match amount being provided by the eligible applicant, if applicable:	00

Expected breakdown of funding sources to support the project: Enter the funding source and projected amount from each source to support this project:

Kansas+DOT+table_V2.xlsx

	Part 5: Build Kansas Fund - Means Test and Eligible Applicant Match
What other available funding sources that are currently planned to go unused by your entity will be leveraged for this project?	Our organization operates with a limited capital improvement fund, which is already stretched thin to address essential needs such as acquiring a new utility truck, backhoe, and investing in critical sewer infrastructure and road maintenance. Allocating this funding toward electrical infrastructure at this time would significantly deplete the account, leaving insufficient resources for these pressing priorities. This underscores the importance of seeking additional funding sources to ensure all community needs are met without compromising other essential projects.

Will any American Rescue Plan Act (ARPA) or Coronavirus State & Local Fiscal Recovery Fund monies will be used for the non-federal match?	$0
What other sources of in-kind match will be leveraged for this project? Please list and include the actual or estimated value of each.	n/a
What other funding sources (local, federal, or non-federal) will be used for this match?	n/a

Describe your efforts to find other available funding sources for this project:	The City of Bronson has taken proactive steps to identify and secure additional funding sources to support this critical electrical infrastructure project. Recognizing the significant cost of $405,500 and its potential impact on our community, we have implemented measures to contribute locally while seeking external assistance. In a significant effort to generate funding, the City has approved new electric rates, which will gradually increase starting in January 2025 and again in January 2026. This incremental adjustment will provide additional revenue to help sustain and improve the electric grid without placing an immediate, overwhelming burden on our residents. The phased approach reflects our commitment to balancing fiscal responsibility with sensitivity to the economic challenges faced by our low-income and disadvantaged community. Our organization operates with a limited capital improvement fund, which is already stretched thin to address essential needs such as acquiring a new utility truck, backhoe, investing in critical sewer infrastructure and road maintenance. Allocating this funding toward electrical infrastructure would significantly deplete the account, leaving insufficient resources for these pressing priorities. This underscores the importance of seeking additional funding sources to ensure all community needs are met without compromising other essential projects. The City of Bronson remains steadfast in its pursuit of comprehensive funding solutions to support this vital project. By leveraging grant opportunities and responsibly managing local resources, we aim to complete the upgrades without overburdening our residents. These efforts underscore our commitment to enhancing the resilience and reliability of Bronson's electric system, ensuring long-term benefits for all members of our community.

Part 6: Additional Information

Please upload a draft or final version of the Infrastructure Investment and Jobs Act (IIJA) program grant application associated with this request OR an executive summary providing an overview of the project:

Submission__Bronson_Electric_Grid_Upgrades.pdf

Provide any additional information about this project not covered in previous sections of this application (optional):	Upgrading the electric grid would be a transformative improvement for our small town, enhancing reliability, capacity, and efficiency. Modernizing this infrastructure would support current and future community needs, attract new businesses, and ensure our public spaces, like the park, are well-equipped to host events and activities. These upgrades would not only benefit residents but also strengthen the foundation for long-term growth and sustainability in our town.

Part 7: Terms and Conditions

Understanding of Fund Release Requirements:	checked

Understanding of Use of Funds:	checked
Understanding of Reporting Requirements:	checked
Authority to Make Grant Application:	checked
Persons and Titles: The following persons are responsible for making this Build Kansas Fund application.	Danielle Minor
Position/Title:	City Clerk
Additional:	
Position/Title:	
Additional:	
Position/Title:	
Additional:	
Position/Title:	

Source	Amount	% of Project
Build Kansas Funds (non-federal match)	$125,522.75	30.96%
Eligible Applicant Cash Match	$6,606.46	1.63%
Eligible Applicant In-Kind Match (estimated value)	$0.00	0%
BIL Federal Funds (applied for)	$273,370.79	67.42%
Additional Project Contribution (if applicable)	$0.00	0%
TOTAL PROJECT COST	**$405,500.00**	**100%**

***Applicant satisfies recommended match contribution of 5% of the required match**

Zip Code	% of project in zip code
66716	100%
	100% In Kansas

Title

Bronson Electric Grid Upgrades

01/08/2025

by **City of Bronson** in **SECTION 40101(d) Second Round: Preventing Outages & Enhancing the Resilience of the Electric Grid**

id. 49275043

PO Box 54
Bronson, Kansas
66716
bronson@kwikom.net

Original Submission

01/08/2025

	Section 1: Applicant Information
Entity name:	City of Bronson
Are you submitting a new application, or will you be resubmitting the application you submitted last round?	New Application
Entity Type:	Distribution Provider
Entity address:	PO Box 54 505 Clay St. Bronson Kansas 66716 US 37.887583 -95.029087
Employer Identification Number (EIN):	48-6037250
Unique Entity Identifier (UEI):	CGVWFHJS1WY5

Please upload verification of eligible entity size and documentation of annual sales per year:

Bronson_EIA_Report_2023.pdf

EIA Table

2023 Utility Bundled Sales to Ultimate Customers List.xlsx

Project Manager name:	Danielle Minior
Project Manager phone number:	+16209394578
Project Manager e-mail address:	bronson@kwikom.net
IRS Form W-9: **Bronson_W-9.pdf**	
Latest financial statement and financial statement audit: **2023_Audit_City_of_Bronson.pdf**	
Please acknowledge whether your entity has ever submitted an application, similar in nature, to the DOE under BIL Section 40101c, DE-FOA-002740, Grid Resilience and Innovation Partnerships (GRIP):	No
	Section 2: Project Description and Scope
Project Name:	Bronson Electric Grid Upgrades
Project type:	Hardening of power lines, facilities, substations, or other systems
Project description and scope:	The City of Bronson, a small community with a population of 305 and 137 electric meters, is located on Highway 54 between Fort Scott and Iola, Kansas. Bronson is undertaking a comprehensive electrical infrastructure upgrade to replace aging systems and improve the reliability of power distribution throughout the community. This upgrade will focus on the south and north sides of town, encompassing both residential and commercial areas. The core components of the project include replacing old copper wiring with aluminum wire, replacing all brown ceramic insulators, cutouts, and upgrading outdated transformers and poles. These efforts will ensure a more efficient, safer, and environmentally friendly power grid for the residents of Bronson. South Side of Bronson The electrical infrastructure on the south side of the city, which is fed by the local substation, requires significant upgrades to maintain power delivery and reliability. The project includes replacing approximately 60,000 feet of old copper wiring with aluminum wire and replacing 28 outdated delta system transformers containing PCBs. In addition, all poles supporting the transformers and cutouts will be replaced to meet modern standards, plus 22 other poles. The upgrades on the south side are divided into specific segments, each

with its own requirements:
1. City Side of County Line Road to Bat Street:
o Length: 3,600 feet of 2-phase aluminum wire.
o Equipment: 2 transformers and 2 poles will be replaced.
2. City Side of County Line Road (Near Substation) to Linn Street:
o Length: 16,500 feet of 3-phase aluminum wire.
o Equipment: 1 transformer and 1 pole to be replaced.
3. Bay to Elm Street:
o Length: 650 feet of 2-phase aluminum wire.
4. Linn Street to Weir Street:
o Length: 7,425 feet of 3-phase aluminum wire.
o Equipment: 2 transformer and pole replacement.
5. Bay to Spruce (Near City Dump):
o Length: 5,475 feet of wire (3-phase: 3,300 feet; 2-phase: 900 feet).
o Equipment: 3 transformers and poles will be replaced.
6. Charles to Bay Street:
o Length: 1,032 feet of 2-phase aluminum wire.
7. Spruce to Pine (Hwy 54):
o Length: 2,850 feet of 3-phase wire.
o Equipment: 1 transformer and pole replacement.
8. Bay to Linn Street:
o Length: 3,300 feet of 3-phase aluminum wire.
o Equipment: 1 transformer and pole replacement.
9. Bay to Weir Street (Leading to Ball Field):
o Length: 4,050 feet of 3-phase wire.
o Equipment: 3 transformers and poles will be replaced.
10. Cedar to Linn Street:
o Length: 450 feet of 3-phase wire.
North Side of Bronson
The north side of the city requires similar electrical infrastructure upgrades, with several areas needing new transformers, poles, and substantial rewiring. Key areas of focus include:
1. Along the Highway (Randolph to Charles):
o Length: 1,800 feet of 3-phase aluminum wire.
o Equipment: 2 transformers and poles will be replaced.
2. Pine to Wright Street:
o Length: 600 feet of 2-phase wire.
o Equipment: 1 transformer and pole replacement.
3. Charles to Clay Street:
o Length: 600 feet of 2-phase wire.
4. Pine to North of Hodge Street:
o Length: 5,250 feet of 3-phase wire.
o Equipment: 4 transformers and poles will be replaced.
5. Hodge to City Limits:
o Length: 2,000 feet of 2-phase wire.
o Equipment: 3 transformers and poles will be replaced.
6. East Randolph to State Street:
o Length: 1,560 feet of 2-phase wire.
o Equipment: 3 transformers and poles will be replaced.
7. East Randolph to City Limit on Wright Street:
o Length: 3,000 feet of 2-phase wire.
o Equipment: 2 transformers and poles will be replaced.
8. Wright Street to Eugene Street:

o Length: 600 feet of 2-phase wire.
9. City Hall Block:
o Poles: 6 poles will be replaced in the block in front of City Hall.
10. Other Poles Across the City:
o Poles: 16 additional poles (not including transformers) will be replaced across various locations in the city.
Key Objectives
• Replacement of Copper Wire: Approximately 60,000 feet of outdated copper wire will be replaced with more efficient and durable aluminum wire, improving the overall transmission of electricity while reducing maintenance costs and environmental impact.
• Transformer and Pole Upgrades: 28 old delta system transformers containing PCBs will be replaced with modern, environmentally-friendly transformers. In addition, aging poles will be replaced across both the south and north sides of the city, ensuring the infrastructure meets current safety and operational standards.
• Enhanced Power Distribution: The upgrade will enable more reliable and efficient distribution of power, reducing outages and improving power quality for both residential and commercial customers in Bronson.
• Environmental Responsibility: By replacing PCBs in transformers and updating the system with modern materials, the project will contribute to the city's environmental sustainability goals. The new transformers are safer and more energy-efficient, benefiting the community and the ecosystem.
• Safety and Reliability: Replacing old and deteriorating components, including transformers, poles, and wires, will enhance the overall safety of the electrical system. This will help prevent potential hazards such as electrical fires, power outages, or system failures.
Conclusion
The City of Bronson's electrical infrastructure upgrade represents a significant step toward modernizing the city's power distribution system. By replacing outdated equipment, such as copper wiring, old transformers, and poles, with state-of-the-art aluminum wire, modern transformers, and new poles, the project will increase the reliability, efficiency, and safety of the electrical grid. These improvements will provide long-term benefits for residents and businesses, ensuring that Bronson remains well-equipped for future growth and energy demands.

Section 3: Need for Funding

Project funding need: In the small community of Bronson, home to 305 residents, our electrical infrastructure urgently needs modernization. Our current copper wiring and aging poles are becoming increasingly unreliable, requiring frequent maintenance and posing potential safety risks. Upgrading to aluminum wiring and replacing old poles would improve the durability and safety of our electricity supply, reduce power loss, and significantly enhance overall system reliability. However, the cost of this critical infrastructure improvement is substantial.

In 2006, we made a major improvement by converting the Delta System from 2400V to 4160V, increasing system efficiency and capacity. Additionally, we have established a tree-trimming program to reduce outages caused by vegetation. While these efforts have improved reliability, further modernization is necessary to meet current and future demands. To help address funding challenges, we are implementing electric rate increases starting in 2025 and again in 2026. However, these rate adjustments alone will not be sufficient to cover the substantial costs of the required infrastructure upgrades, making external funding essential to protect our residents from further financial strain.

Bronson falls in a disadvantaged zone according to the Climate Economic Justice Screening Tool, which underscores our need for external support. Specifically, our community ranks in the 91st percentile for annual energy cost as a share of household income, illustrating the heavy financial burden our residents already bear just to meet basic energy needs. Additionally, Bronson is in the 77th percentile for low-income populations, making our residents particularly vulnerable to any additional financial strain.

If this project were funded through a city loan, the repayment would require either increased taxes or utility rates, further impacting households that are already stretched thin. For many in Bronson, this additional cost would be unmanageable, worsening economic hardship in an area already recognized for its high energy burden.

To proceed with these essential upgrades while protecting the financial stability of our residents, external funding is critical. Support from federal or state programs would allow us to complete these infrastructure improvements without disproportionately impacting the community. This would not only improve safety and reliability but also align with climate justice goals by supporting an economically vulnerable population facing high energy burdens.

Provide historical and post project estimated interruption frequency and duration data, if known.	Over the past two years, the City of Bronson has experienced a noticeable number of electrical outages, averaging seven per year. In 2023, there were eight such events, primarily affecting the south side of town, though a few incidents impacted the north side or were felt town-wide due to severe storms. The outages were caused by a combination of factors, including trees falling on power lines, loose wires, outdated ceramic insulators, and aging poles. In some instances, fuses tripped, adding to the disruption. These issues highlighted the vulnerability of the city's electrical infrastructure, which struggles to keep up with modern demands and environmental challenges. In 2024, the trend continued with six outages, though these were more evenly spread across Bronson. The primary culprits remained frail power lines and outdated insulators that could no longer withstand the strain of daily use or the occasional storm. The ongoing challenges of maintaining an aging electrical system have made these outages a recurring problem, requiring attention to prevent further disruptions. The city's utility superintendent is aware of these challenges and is working toward solutions, but addressing these outdated components requires time and investment. Upgrading the lines and insulators, as well as implementing more reliable infrastructure, will help to reduce the frequency of outages in the future. In the meantime, residents of Bronson continue to face occasional inconveniences, hoping for lasting improvements in the years ahead.

Provide pro rata customer impact of total project cost.	The total cost of the electrical infrastructure upgrade project is $405,500, directly impacting 131 meters within the community. This results in a pro rata customer impact of approximately $3,091.60 per meter. For the City of Bronson, a low-income and disadvantaged community, this cost represents a significant financial burden for our residents and businesses. Many households and businesses in our community already face economic challenges, and additional costs associated with this project would disproportionately affect them. The upgrades are critical to improving the reliability and resilience of our electrical system. The current infrastructure is aging and prone to outages, posing risks to the safety, well-being, and economic stability of our residents. Enhancing the system will ensure that our community is better prepared to handle extreme weather events and other disruptions, which have become increasingly frequent in recent years. While the need for these improvements is urgent, the financial impact on our customers makes external funding essential. The City of Bronson is committed to pursuing grant opportunities, such as the Kansas Build Fund and the Section 40101(d) program, to offset these costs and minimize the financial strain on our residents. Securing this funding will allow us to move forward with the project while keeping energy costs affordable for our community. By investing in this project, we aim to provide long-term benefits, including improved energy reliability, reduced outages, and a stronger foundation for future growth and development. This investment is crucial for our community’s sustainability and resilience, ensuring that Bronson remains a safe and vibrant place to live and work. We are optimistic that with external funding support, we can achieve these goals without imposing undue financial hardship on our residents, ultimately building a brighter future for the City of Bronson.
Provide number of customers to be impacted by the project and percentage of impacted customers to total customers in the disadvantaged or underserved community.	The project to upgrade the electrical infrastructure in Bronson will directly impact the 131 electric meters currently in service, corresponding to the 131 customers who receive electricity from the city's grid. Given that each meter typically represents one residential or business customer, this means 131 direct customers will benefit from improved reliability and reduced outages. Indirectly, the upgrades will have a broader impact on the entire population of Bronson. With 305 residents as recorded in the last census, a significant portion of the town's population will experience the benefits of more reliable power, as even those not directly connected to the meters will feel the effects through a more stable electrical grid. This includes enhanced public services, local businesses, and other facilities that depend on consistent electricity, ultimately improving quality of life for the entire community.
	Section 4: Complete Budget and Narrative

Award amount requested:	273375.94
Matching funds to be provided:	132124.06

Budget (Total Costs):

Budget Template DRAFT.xlsx

Project budget upload (optional):

Project budget narrative:

This narrative outlines the estimated costs for the planned electrical upgrades, detailing the scope and purpose of each component to ensure the successful completion of the project.

Electrical Poles ($47,500)
The project requires the procurement of 50 new electrical poles to enhance the durability and reliability of the infrastructure. Each pole is budgeted at an average cost of $950, covering material, and transportation.

Transformers ($98,000)
To support increased electrical demand and improve energy efficiency, 28 new transformers will be installed. Each transformer is budgeted at approximately $3,500, inclusive of purchase, delivery, and setup.

Conductors ($30,000)
Approximately 750 conductors are necessary for this project to ensure safe and efficient energy transmission. The cost includes materials, with an average expense of $40 per conductor.

Labor ($140,000)
Labor costs include the skilled workforce required for the installation of poles, transformers, and conductors, as well as general electrical system upgrades. This estimate accounts for hourly wages, overtime, and any necessary certifications or training.

Engineering Services ($40,000)
Professional engineering services are essential to design, oversee, and ensure compliance with local codes and safety standards. This includes initial assessments, design work, and on-site supervision during the project.

Miscellaneous Materials ($50,000)
This category accounts for unanticipated material needs, such as hardware, connectors, grounding supplies, and other components not explicitly itemized but essential for the project's completion.

Total Estimated Cost: $405,500
This budget reflects a comprehensive approach to upgrading the electrical infrastructure, ensuring reliability, safety, and capacity for future growth.

Cost match commitment letter:

Bronson_Cost_Match_Letter_-_EL_Grid_Upgrade.pdf

	Section 5: Project Timeline
Project timeline:	After receiving notification of the grant in late spring or early summer of 2025, the project will proceed with planning and preparation through the summer and fall of that year. This phase will include finalizing project plans, securing necessary permits, and hiring contractors or assembling the required teams. Implementation of the project is expected to begin in the winter of 2025 and continue through the end of 2026. All work will be completed, inspected, and finalized by the end of the first quarter in 2027, ensuring the project meets all deliverables and is ready for use.
	Section 6: Bids and Estimates

Bids and estimates:

Bronson_Rebuild_Estimate.pdf

	Section 7: Community Benefit

Community benefit narrative:

In a community with a significant portion of low-income households, as noted in Section 3, replacing old copper electric lines with new aluminum lines and installing new utility poles would bring substantial benefits that enhance safety, reliability, and affordability for all residents.

Improved Safety: Copper wires, especially aging ones, can present higher risks of overheating, which can lead to electrical fires. By replacing them with new aluminum wiring that complies with modern safety standards, the community reduces the likelihood of emergencies created by such hazards. This upgrade is essential for safeguarding businesses, homes, and residents, particularly in areas where the emergency response might be limited.

Enhanced Reliability and Service: Older copper lines are prone to wear and tear, leading to power outages and service interruptions that disproportionately impact low-income families who may not have alternative power resources during extended outages. Aluminum lines and new utility poles improve the structural integrity of the electrical system, reducing maintenance needs and minimizing interruptions. The new poles are also likely to withstand extreme weather better, ensuring more consistent power availability.

Lower long-term Costs for the Community: Aluminum wiring is not only cost-effective but also durable. This choice in materials can lower utility providers' maintenance expenses, which may translate into more stable or reduced utility rates for residents over time. In a community where affordability is crucial, this long-term economic benefit is vital to supporting residents' financial well-being.

Environmental Benefits: Aluminum is a lighter, more recyclable material than copper, and investing in sustainable infrastructure contributes to a smaller carbon footprint. Through this project, the community takes a proactive approach to environmental stewardship, aligning with broader goals to support ecological health.

Modernized Infrastructure for Future Growth: Replacing the aging electrical infrastructure with new utility poles and aluminum wiring also prepares the community for future expansion and technology adoption. As energy needs evolve, the new system will be better equipped to support upgrades or renewable energy sources, promoting community resilience and adaptability.

These upgrades would more reliably support existing businesses such as the meat locker, a local food business/community store, and a major local supplier of seed, bulk fertilizer, and grain merchandise. An upgraded system would also be better able to safely handle the electrical load of new homes being built in the community.

This project reflects a commitment to ensuring that all residents, especially those with limited financial resources, benefit from a safer, more dependable, and forward-thinking electrical Infrastructure.

Provide historical measurements of resilience and reliability for the targeted areas of each proposed project.	The South side of Bronson has experienced the most frequent electrical outages, primarily due to older copper lines and aging utility poles. In 2023, five outages were confined to the South side, while only one occurred on the North side. Storms caused outages across both sides, with durations ranging from 3 hours to 3 days. When power lines were down, restoration averaged 4 hours. These storms revealed the vulnerability of the town's infrastructure, especially with outdated components like ceramic insulators. In 2024, the pattern continued with five outages and two power surges or flickers. The South side, home to many of the town's businesses, once again bore the brunt of the outages. These disruptions not only affect residents but also significantly impact local commerce. Outages on the South side are often phase-specific, pointing to problems with the aging power lines, poles, and transformers. The recurring outages, particularly during storms, emphasize the need for infrastructure upgrades, especially in areas with high business activity. Replacing outdated copper lines, poles, transformers, and insulators would reduce outages and improve grid reliability. Upgrading the system would ensure more stable power and minimize disruptions for both residents and businesses, ultimately improving the resilience of Bronson's electrical infrastructure.
Provide expected changes to the historical data as a result of each proposed project.	The proposed infrastructure upgrades in Bronson are expected to significantly improve the town's electrical reliability. By replacing outdated copper lines and insulators, especially on the South side, the town anticipates a reduction in both storm-related and normal system malfunctions. In 2023, the city experienced 8 outages, and in 2024, there were 6. After the upgrades, these numbers should decrease by 30-40%, with fewer outages overall, particularly in high-traffic areas like the South side, where many businesses are located. Restoration times, which currently average 4 hours for outages, should also improve. With more resilient infrastructure, power restoration is expected to be faster, potentially reducing downtime by 20-30%. Storm-related outages, which have lasted anywhere from 3 hours to 3 days, should also decline, as the upgraded lines and insulators will be better equipped to handle extreme weather. Additionally, power surges or flickers, which occurred twice in 2024, should be reduced significantly as the system becomes more stable and reliable. The overall result will be a more robust electrical grid, with fewer disruptions, quicker recovery times, and increased reliability for both residents and businesses. The proposed upgrades will ensure that Bronson's electrical infrastructure can better withstand storms and prevent frequent outages, providing a more consistent power supply across the town.

Provide historical measurements of resilience and reliability for the entire system to determine whether the project is in an area that has, on average, more frequent or longer duration outages.	Historically, the City of Bronson's electrical system has faced challenges in resilience and reliability due to aging infrastructure and limited capacity to withstand severe weather events or equipment failures. With a small population of 305 residents and 131 active meters, any system disruptions have a noticeable impact on the community. Outage frequency and duration data for the system indicate that the area experiences above-average interruptions compared to more urbanized regions in Kansas. These interruptions are often due to outdated components and insufficient system redundancy. A project upgrading the majority of the system would significantly improve overall reliability, reduce outage durations, and increase the resilience of the electrical grid. This comprehensive improvement would ensure consistent service for all residents, enhance safety, and support long-term growth and sustainability for the community.
Provide age of system or line segments to be replaced or repaired, type of equipment that failed, and the number of annual outages for the project area.	The infrastructure in the project area is outdated and poses significant reliability and safety concerns. The copper lines, over 30 years old, are well past their expected lifespan, while Delta transformers containing PCBs present environmental hazards and compliance issues. Ceramic brown insulators have caused near-fire incidents, further emphasizing the risks associated with the aging system. Additionally, outdated lightning arresters and ceramic-style cutouts fail to provide adequate surge protection and contribute to system vulnerability. The average age of the utility poles are 30 years as well. These factors result in an average of seven outages annually for the small town of 305 residents, disproportionately impacting critical infrastructure and daily life. To address these issues, modernizing the system is essential. Copper lines should be replaced with insulated, durable conductors like aluminum or composite materials. PCB-containing Delta transformers must be removed and replaced with environmentally compliant transformers. Ceramic insulators should be upgraded to polymer or composite alternatives to enhance safety and prevent fire risks. Modern lightning arresters with metal-oxide varistor (MOV) technology can significantly improve surge protection, while polymer-based cutouts offer greater reliability and durability.
Provide a number of protective devices (fuses or breakers) that have operated more than once in a rolling 12-month period.	Over the past 12 months, two specific areas of protective devices have experienced recurring issues, indicating the need for targeted improvements. A cutout located near the substation has tripped six times during this period, highlighting its susceptibility to faults or potential overloading. Additionally, a cutout on another phase has tripped at least three times, suggesting localized issues or equipment wear. These frequent operations of protective devices not only disrupt service reliability but also strain maintenance resources. Addressing these problematic areas through upgrades or replacements is critical to improving system performance and reducing the frequency of outages in the future.

Provide a number of customers impacted by project and the percentage to total customers served in Kansas.	The project will directly impact all 131 active meters in the City of Bronson, benefiting the entire system and all 305 residents. This project significantly improves the reliability and efficiency of the local system, directly enhancing the quality of service for the entire community.
Description of efforts to attract, train, and retrain a skilled workforce for this project.	Attracting, training, and retaining a skilled workforce for this project is a significant challenge due to the City's limited staff, consisting of only a full-time clerk and one full-time maintenance superintendent. The small team size restricts the City's capacity to manage and execute complex infrastructure upgrades effectively.
Provide an estimate of job creation due to this project.	Due to the limited staff and financial resources of our small town, we do not anticipate the creation of new jobs as part of this project. With only a full-time clerk and a maintenance superintendent on staff, the City lacks the capacity to expand its workforce. Instead, the focus will be on leveraging external resources such as contractors, consultants, and regional utility partners to complete the necessary upgrades. This approach allows the City to address critical infrastructure needs while maintaining fiscal responsibility and ensuring the efficient use of limited resources.
Identify any plans to partner with training providers to support workforce development.	The City of Bronson plans to collaborate with a contractor that emphasizes apprenticeship or training programs for lineman workers, such as the Kansas Municipal Energy Agency. This approach ensures the project not only benefits from skilled labor but also supports workforce development in the energy sector.
Provide any other metric(s) that indicates potential community benefit.	Upgrading the electrical grid in a small, economically disadvantaged community like Bronson provides several measurable benefits beyond reliability, including: Reduced Maintenance Costs: Modern infrastructure requires less frequent repairs, reducing long-term costs for the city and its residents. Improved Energy Efficiency: New transformers, poles, and wiring reduce energy loss, leading to potential savings on electricity bills for residents. Enhanced Safety: Replacing outdated equipment minimizes the risk of electrical fires, power surges, and outages, improving overall community safety. Support for Economic Development: A reliable and modern electrical grid attracts potential businesses and investors, providing opportunities for economic growth and job creation. Environmental Impact: Transitioning to aluminum wiring and upgrading transformers can lower the carbon footprint of energy distribution, supporting sustainability goals. Resilience in Emergencies: Updated infrastructure is better equipped to handle extreme weather or other emergencies, reducing downtime and enhancing community resilience. These metrics underscore the value of the electrical grid upgrade in addressing both immediate and long-term needs of Bronson's residents.

Confirmation that the applicant will comply with all Davis-Bacon Act requirements.	Yes
Confirmation that the applicant will comply with all Buy America Requirements.	Yes
Confirmation that the applicant will submit an environmental questionnaire (NETL Form 451.1-1-3), if required, for each work area proposed in the application.	Yes