



CIRCUIT 1205 AND CIRCUIT 1287 RELIABILITY IMPROVEMENT AND FUSE COORDINATION PROJECT

Energy Delivery

Board of Public Utilities
January 13, 2025

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BACKGROUND

1. Electric System Planning staff performed a study to improve the reliability performance of Circuits 1205 and 1287
2. Reduction of fuse sizes and coordination with the substation breaker on the circuits will reduce outages and the number of customers impacted
3. Maintain healthy reliability indices such as System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI)



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DISCUSSION

1. RPU has experienced numerous circuit outages where the substation breaker trips resulting in disruptions to the entire circuit and affecting more customers than necessary
2. During an outage, the SAIDI clock count stops when the circuit is completely restored
3. To minimize the SAIFI and SAIDI index, outages must be contained downstream from the substation breaker



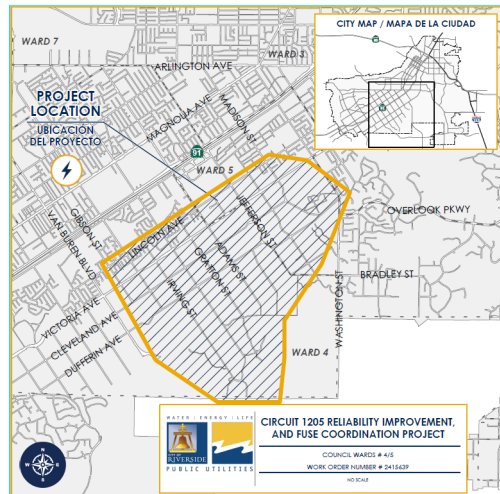
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PROJECT LOCATION – CIRCUIT 1205

1. The project area is in the Arlington Heights neighborhood, south of Victoria Avenue, between Gibson Street and Madison Street
2. Electric service disruptions will be coordinated to minimize impact to customers



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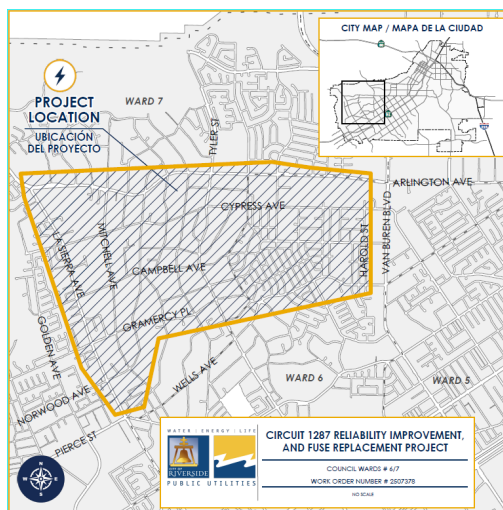


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PROJECT LOCATION – CIRCUIT 1287

1. The project area is in the Arlanza and La Sierra Acres Neighborhoods, south of Arlington Avenue, north of Wells Avenue between Golden Avenue and Harold Street
2. Electric service disruptions will be coordinated to minimize impact to customers



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SCOPE OF WORK

Fuse replacement removal and installation of two-hundred twenty-five (225) cutouts with fuses on existing and new locations.



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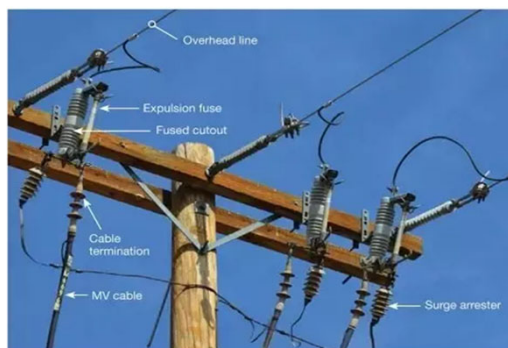


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BENEFITS

The purpose for lower amperage fuses and substation coordination is to:

1. Isolate faults downstream from the fused cutout
2. Keep customers energized upstream
3. Protect overhead lines from wire damage
4. Reduce outage duration and number of customers affected



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PROJECT AND FISCAL BREAKDOWN – WO No. 2415639 (Circuit 1205)

Work Type	Performed By:			Amount (\$)	% of Total:
Design and Inspection	RPU Engineering and Operations			\$69,538	44%
Electrical Work	RPU Field Forces	Labor	\$67,622	\$89,309	56%
		Equipment	\$11,134		
		Materials	\$10,553		
Work Order Total:				\$158,847	100%
Anticipated Start Date:		February 2025			
Anticipated Duration:		4 weeks			




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PROJECT AND FISCAL BREAKDOWN – WO No. 2507378 (Circuit 1287)					
Work Type	Performed By:			Amount (\$)	% of Total:
Design and Inspection	RPU Engineering and Operations			\$54,601	36%
Electrical Work	RPU Field Forces	Labor	\$46,136	\$96,799	64%
		Equipment	\$11,751		
		Materials	\$38,912		
Work Order Total:				\$151,400	100%
Anticipated Start Date:					March 2025
Anticipated Duration:					4 weeks


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STRATEGIC PLAN ALIGNMENT



Strategic Priority 6 - Infrastructure, Mobility and Connectivity

Goal 6.2 – Maintain, protect, and improve assets and infrastructure within the City’s built environment to ensure and enhance reliability, resiliency, sustainability, and facilitate connectivity.

Cross-Cutting Threads



Community Trust



Equity



Fiscal Responsibility



Innovation



Sustainability & Resiliency


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RECOMMENDATIONS

That the Board of Public Utilities approve Work Order No. 2415639 in the amount of \$158,847 and Work Order No. 2507378 in the amount of \$151,400, for a total capital expenditure of \$310,247 for Circuits 1205 and 1287 Reliability Improvement and Fuse Coordination Project.



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