WATER | ENERGY | LIFE

RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES **DATE: OCTOBER 27, 2025**

SUBJECT: CIRCUITS 1204, 1281, 1289, AND 1313 FUSE COORDINATION PROJECTS – WORK ORDER NOS. 2602138, 2601169, 2601151, AND 2601181, FOR A TOTAL CAPITAL EXPENDITURE OF $229,088

ISSUE:

Consider approval of Work Order No. 2602138 for $51,314, Work Order No. 2601169 for $62,245, Work Order No. 2601151 for $65,239, and Work Order No. 2601181 for $50,290, for a total capital expenditure of $229,088 for circuits 1204, 1281, 1289, and 1313 (respectively) fuse coordination projects.

RECOMMENDATION:

That the Board of Public Utilities approve Work Order No. 2602138 for $51,314, Work Order No. 2601169 for $62,245, Work Order No. 2601151 for $65,239, and Work Order No. 2601181 for $50,290, for a total capital expenditure of $229,088 for circuits 1204, 1281, 1289, and 1313 (respectively) fuse coordination projects.

BACKGROUND:

Riverside Public Utilities (RPU) Electric System Planning staff performed a reliability study to improve the performance of the entire electric distribution system, with the purpose of reducing the number of customers impacted and outage times, per industry standard indices: System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI). The study recommends the replacement of oversized fuses through a five-year program.

The Fuse Replacement Program (FRP) is a reliability initiative focused on improving protection coordination across RPU's distribution circuits. Currently, many overhead and underground fuses are oversized and do not coordinate properly with substation relays. This discrepancy can cause nuisance circuit tripping and lead to unnecessary large-scale outages for our customers.

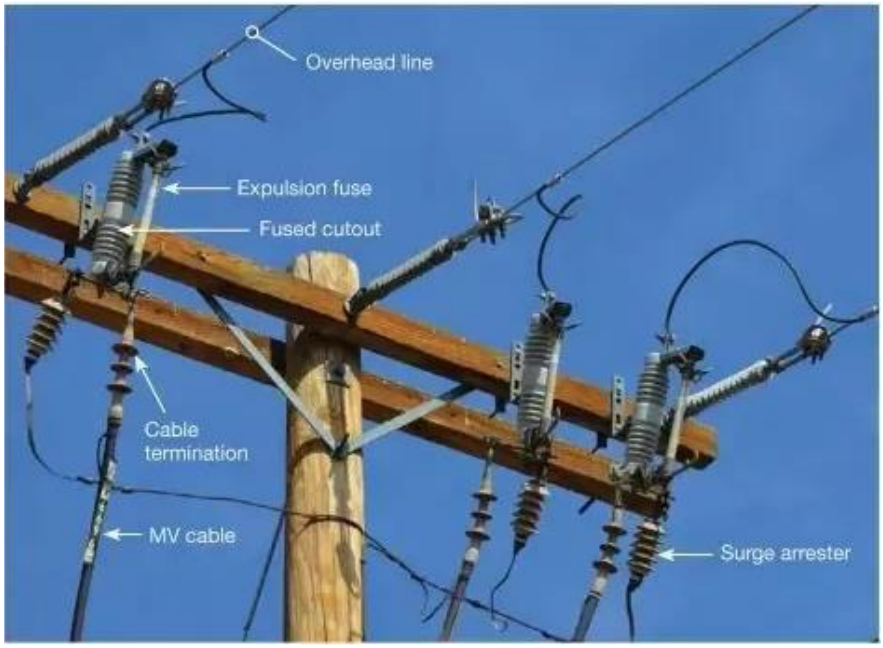
The FRP targets to replace the fuses on ten (10) critical circuits per year, totaling fifty (50) circuits over five years. Electric System Planning staff will identify and prioritize the fifty (50) critical circuits for fuse replacement based on a combination of risk and performance factors. Priority will be given to circuits located in High Fire Threat Districts (HFTDs), circuits with a high number of historical fault events, and circuits known to have persistent protection coordination issues. This approach ensures resources are focused on circuits where fuse replacement will provide the most operational benefit.

After completing this initial scope, RPU will evaluate the program's effectiveness by reviewing improvements in reliability, protection coordination, and customer impact. The results will guide decisions on whether to expand the program to remaining circuits and refine future implementation strategies.

DISCUSSION:

Electric System Planning staff identified circuits 1204,1281,1289, and 1313 as part of the fuse replacement program (FRP). The scope of work for these projects includes the removal and installation of two hundred eighty-two (282) cutouts with fuses on existing and new locations. A cutout is a device that holds the fuse. The pole locations on circuit 1204 are within the Arlington, Ramona, and Presidential Park neighborhoods, on circuit 1281 within the La Sierra Neighborhoods, on circuit 1289 within the La Sierra and Arlanza Neighborhoods, and on circuit 1313 within the Eastside and Hunter Industrial Park neighborhoods. RPU electric field crews will perform the construction of this project, and no contracted civil underground electric work is planned.

Fuse Cutout



Fuse Cutouts on Crossarm

Separate work orders are used for the work to be performed on each circuit. The project and fiscal breakdown for each circuit is shown on the following four tables:

Project and Fiscal Breakdown – Work Order No. 2602138 (Circuit 1204)

Work Type	Performed By:	Amount ($):			% of Total:
Design and Inspection	RPU Engineering and Operations			$6,858.42	13%
Electrical Work	RPU Field Forces	Labor	$20,249.12	$44,455.74	87%
		Equipment	$4,913.08		
		Materials	$19,293.54		
Work Order Total:				**$51,314**	**100%**
Anticipated Start Date:					**October 2025**
Anticipated Duration:					**4 weeks**

Project and Fiscal Breakdown – Work Order No. 2601169 (Circuit 1281)

Work Type	Performed By:	Amount ($):			% of Total:
Design and Inspection	RPU Engineering and Operations			$7,552.26	12%
Electrical Work	RPU Field Forces	Labor	$13,355.20	$54,692.52	88%
		Equipment	$3,719.76		
		Materials	$37,617.56		
Work Order Total:				**$62,245**	**100%**
Anticipated Start Date:					**November 2025**
Anticipated Duration:					**4 weeks**

Project and Fiscal Breakdown – Work Order No. 2601151 (Circuit 1289)

Work Type	Performed By:	Amount ($):			% of Total:
Design and Inspection	RPU Engineering and Operations			$7,612.60	12%
Electrical Work	RPU Field Forces	Labor	$27048.98	$57,626.14	88%
		Equipment	$4,748.13		
		Materials	$25,829.03		
Work Order Total:				**$65,239**	**100%**
Anticipated Start Date:					**December 2025**
Anticipated Duration:					**4 weeks**

Project and Fiscal Breakdown – Work Order No. 2601181 (Circuit 1313)

Work Type	Performed By:	Amount ($):			% of Total:
Design and Inspection	RPU Engineering and Operations			$7,099.11	14%
Electrical Work	RPU Field Forces	Labor	$19,741.24	$43,190.98	77%
		Equipment	$4,825.52		
		Materials	$18,624.57		
Work Order Total:				**$50,290**	**100%**
Anticipated Start Date:					**January 2026**
Anticipated Duration:					**4 weeks**

The Work Order Totals above are, in effect, the Engineer's Estimate for this project since it is an in-house project being designed and constructed by Public Utility staff.

FISCAL IMPACT:

The total fiscal impact is $229,088. Sufficient funds are available in Public Utilities Electric Capital Account No. 6130000-470655.

Prepared by: Daniel Honeyfield, Utilities Assistant General Manager/Energy Delivery
Approved by: David A. Garcia, Utilities General Manager
Certified as to availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer
Approved by: Rafael Guzman, Assistant City Manager
Approved as to form: Rebecca McKee-Reimbold, Interim City Attorney

Attachments:
1. Project Site Map Circuit 1204
2. Project Site Map Circuit 1281
3. Project Site Map Circuit 1289
4. Project Site Map Circuit 1313
5. Presentation