

# RIVERSIDE PUBLIC UTILITIES

## Board Memorandum

**BOARD OF PUBLIC UTILITIES**

**DATE:** AUGUST 24, 2020

**ITEM NO:** 7

**SUBJECT: RIVERSIDE TRANSMISSION RELIABILITY PROJECT, THE SECOND TRANSMISSION CONNECTION TO STATE GRID, INCREASE WORK ORDER NO. 642975 IN THE AMOUNT OF \$144,910,000, FOR A TOTAL AMOUNT OF \$216,515,521, AND A SUPPLEMENTAL APPROPRIATION IN THE AMOUNT OF \$125,000,000**

**ISSUES:**

Recommend that City Council approve a supplemental appropriation of \$125,000,000 for the Riverside Transmission Reliability Project, a critical second connection to the state electric transmission grid including the construction of the new 230/69kV Wilderness Substation, construction of six (6) new 69kV line terminations at Wilderness Substation, electric system bifurcation improvements to existing Riverside Public Utilities substations, related environmental matters, the Wilderness Substation, line work and associated components, and approve an increase of \$144,910,00, for a total amount of \$216,515,521, for Work Order No. 642975.

**RECOMMENDATIONS:**

That the Board of Public Utilities:

1. Recommend that the City Council approve a supplemental appropriation of \$125,000,000 in Account No. 6130000-470685 to be funded from the Electric Fund (Fund 510) for Riverside Transmission Reliability Project components including Wilderness Substation, line work and associated components as presented herein; and
2. Authorize the increase of Work Order No. 642975 by \$144,910,000 to continue funding construction of the Riverside Transmission Reliability Project, including Wilderness Substation, line work and associated components as presented herein, for a total work order amount of \$216,515,521.

**BACKGROUND:**

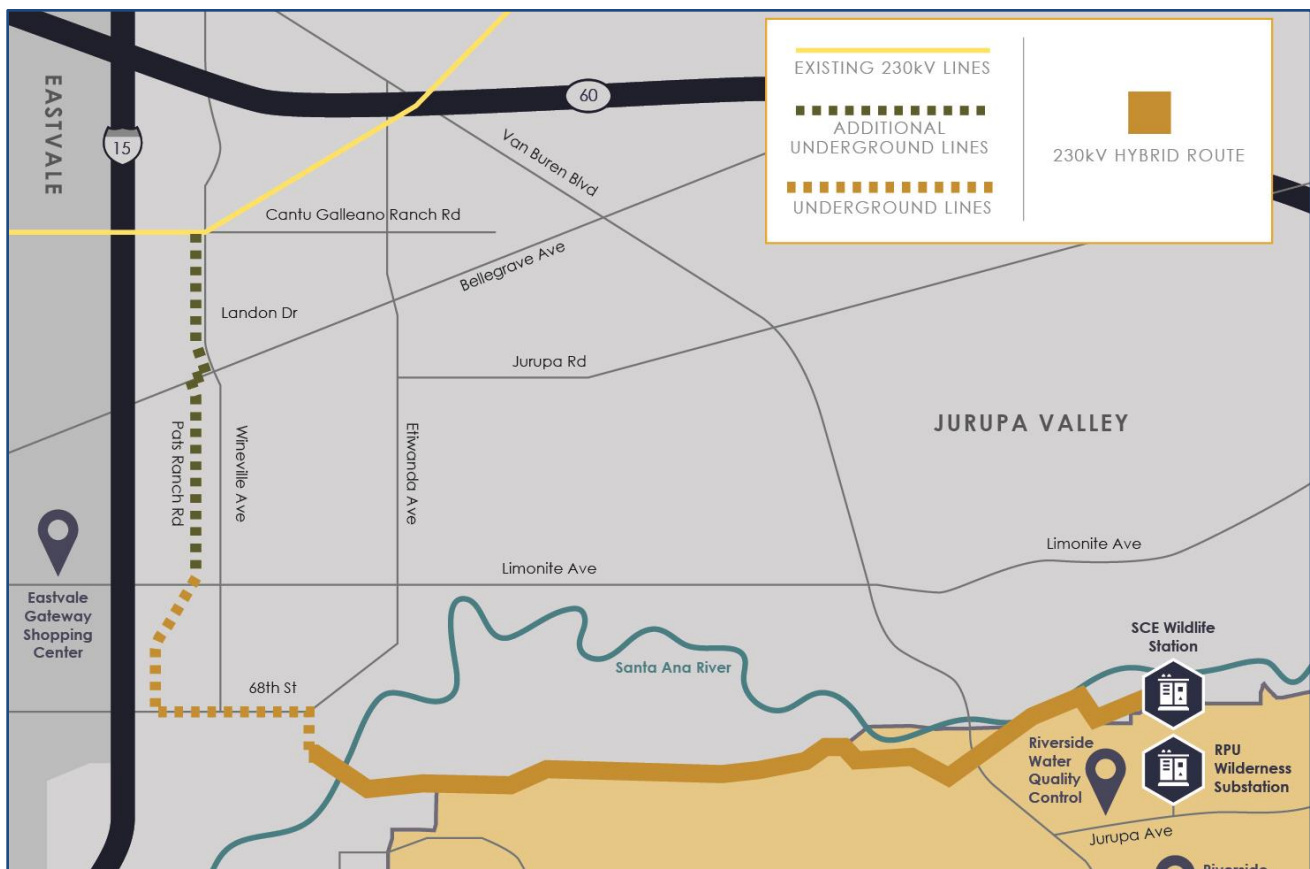
Riverside Transmission Reliability Project (RTRP) is a joint project with Southern California Edison (SCE) and will provide Riverside Public Utilities (RPU) with a critical second connection to the state electric transmission grid by connecting to the existing 230kV SCE Mira Loma – Vista line, to address long-term capacity and reliability needs of the City's electric utility system.

The RTRP Project includes construction of approximately nine (9) miles of double circuit 230kV transmission lines, installation of approximately 10 miles of 69kV sub-transmission lines within the

City of Riverside, construction of two new substations – Wildlife (SCE) and Wilderness (RPU), improvements to five existing RPU 69kV substations, reconfiguration of existing distribution lines and installation of new telecommunication lines.

On February 5, 2013, the City Council certified the Final Environmental Impact Report (FEIR) for the entire Project, in accordance with California Environmental Quality Act (CEQA) requirements. A Notice of Determination was filed with the County of Riverside following the certification by the City Council.

On March 12, 2020, SCE obtained California Public Utilities Commission (CPUC) approval of RTRP (Attachment 1) and was granted Certificate of Public Convenience and Necessity (CPCN). SCE will lead the scope of work related to construction of overhead and underground segments of the double circuit 230kV transmission lines, and the construction of the new 230kV SCE Wildlife Station. SCE's estimated costs for the project as allowed by CPUC is under \$521 million.



**Figure: RTRP – SCE Scope of Work**

RPU will support the 230kV project coordination in collaboration with SCE. RPU is leading the scope of work for the new 230/69kV RPU Wilderness Substation and expansion of RPU's 69kV sub-transmission system.

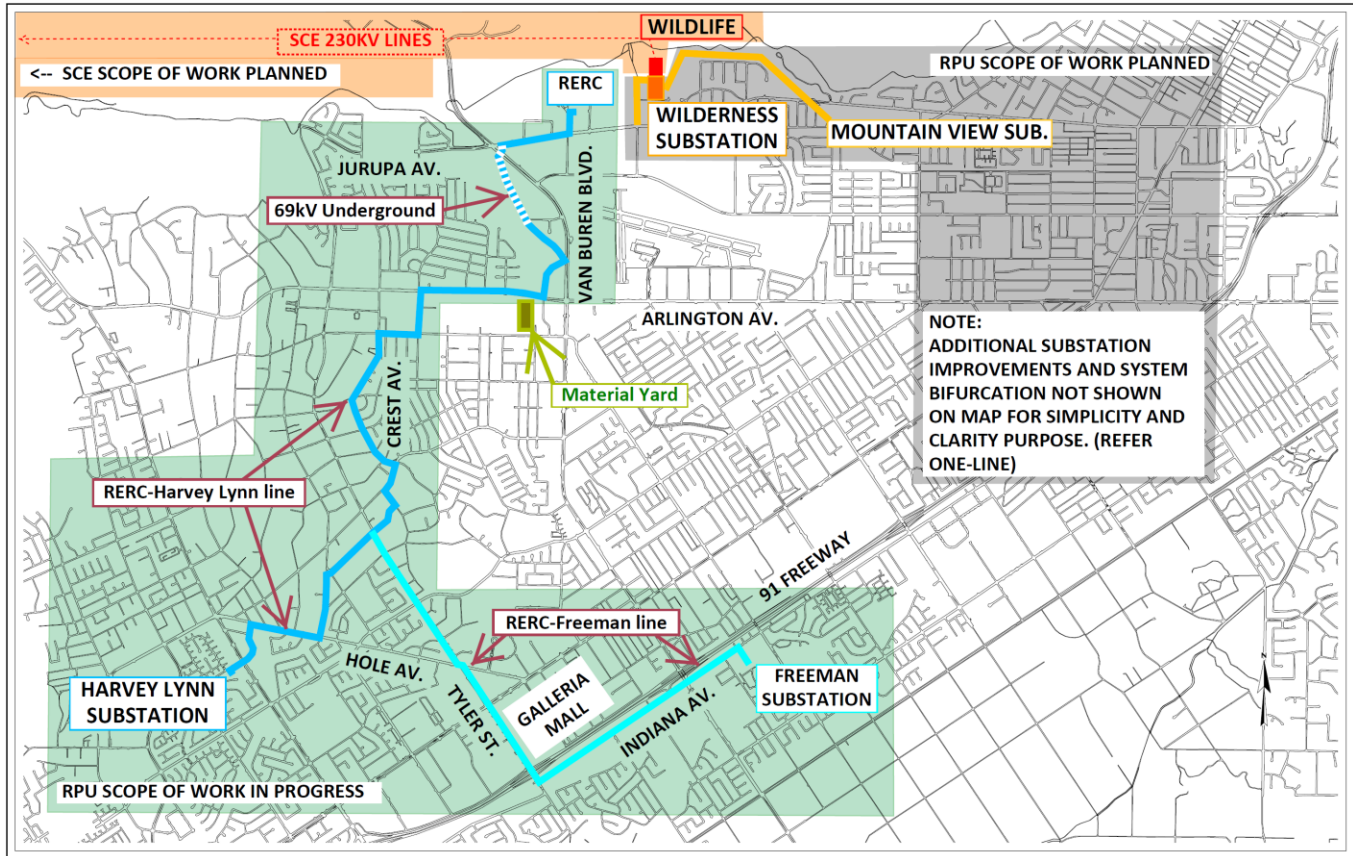


Figure: RTRP – RPU Scope of Work

RPU's 69kV sub-transmission scope of work that was not dependent upon CPUC project approval, involved the following components for which Design and Construction activities have been approved by the Board and are currently in progress:

1. Construction of two 69kV lines: 1) Riverside Energy Resource Center (RERC) to Harvey Lynn Substation; and 2) RERC to Freeman Substation, including approximately half-mile of underground work in the vicinity of the Riverside Municipal Airport.
2. Construction of Material Yard to support construction activities and material handling.
3. Substation upgrades at Harvey Lynn, Freeman, and RERC to connect the 69kV lines, including the reconfiguration of related 69kV sub-transmission lines and distribution circuits.
4. Support for SCE's CPCN application related matters as defined in the Interconnection Facilities Agreement (IFA), CEQA matters per the FEIR, and Preliminary design activities for remaining project components.

The table below list the most recent Board approval to date related to the 69kV sub-transmission system scope of work and related components:

<b>Board Meeting Date</b>	<b>Item Description</b>	<b>Project Component Status</b>
01/20/06	RTRP Approval and Work Order No. 642975	N/A
06/24/19	Board Approved Bid No. RPU-7659 Installation of conduit and structures 69kV RERC to Harvey Lynn Underground line segment	Complete
08/26/19	Board Approved Bid No. RPU-7680 Construction of 69kV Material Yard	Complete
11/25/19	Board Approved Bid No. RPU-7711 Drilled Pier Foundation work for steel poles RERC to Harvey Lynn 69kV line	90% Complete
11/25/19	Board Authorized an increase in funds for Work Order No. 642975; 69kV Scope of Work – RERC to Harvey Lynn & RERC to Freeman \$42,605,521 to \$71,605,521	N/A

Additional work for construction of RERC to Harvey Lynn and RERC to Freeman lines is in the design phase with estimated construction completion date of fall 2022. This component will return to the Board later in 2020 for bid award consideration.

The RPU project components that were awaiting CPUC approval of RTRP are listed below, and require Board approval:

1. Construction of a new 230/69kV RPU Wilderness Substation.
2. Construction of six (6) 69kV overhead line connections to integrate the new RPU Wilderness Substation to RPU's electric system.
3. Upgrades to existing RPU substations at Mountain View, Freeman, Riverside and RERC to connect the 69kV lines.
4. 69kV system improvements to support the new system configuration and system bifurcation as determined by sub-transmission and distribution system studies.
5. Project Management support and coordination related to SCE's 230kV scope of work.
6. Regulatory and Compliance matters.

Since the 1970s, RPU has owned the Wilderness Substation site near the northeasterly corner of Wilderness Avenue and Ed Perkic Street for this very purpose. SCE's 230kV interconnection switchyard will be constructed adjacent to RPU's 230/69kV station at that site. The current tenant at the site has been notified that their lease will need to be terminated due to the proposed substation construction. The overall RTRP project is currently scheduled to be completed in 2026.

The City of Riverside has started the construction for some of the 69kV scope of work related to the RERC to Harvey Lynn and RERC to Freeman sub-transmission lines. The remaining balance funds of the approved work order, will cover ongoing construction activities of these components, including, but not limited to project management, pre-construction environmental surveys, easements, detailed engineering plans and specifications for the line work and substation work, procurement of construction contract services, materials and equipment, and Joint Pole Agreement transfers with 3rd party pole attachment telecommunication companies.

The RTRP project will divide RPU's electric system in two sections – East (Vista) and West (Mira Loma/Wildlife) subsystems. The east system will be served from the existing SCE Vista station and the west system will be served from the new SCE Wildlife Station. Both systems can be operated in parallel under emergency conditions to meet the reliability goals when there is a loss of one of the SCE sources (SCE and RPU Grid Control coordination required). Cost estimates were provided for system improvement requirements as part of the new system reconfiguration scope of work, which is subject to ongoing and future planning study results.

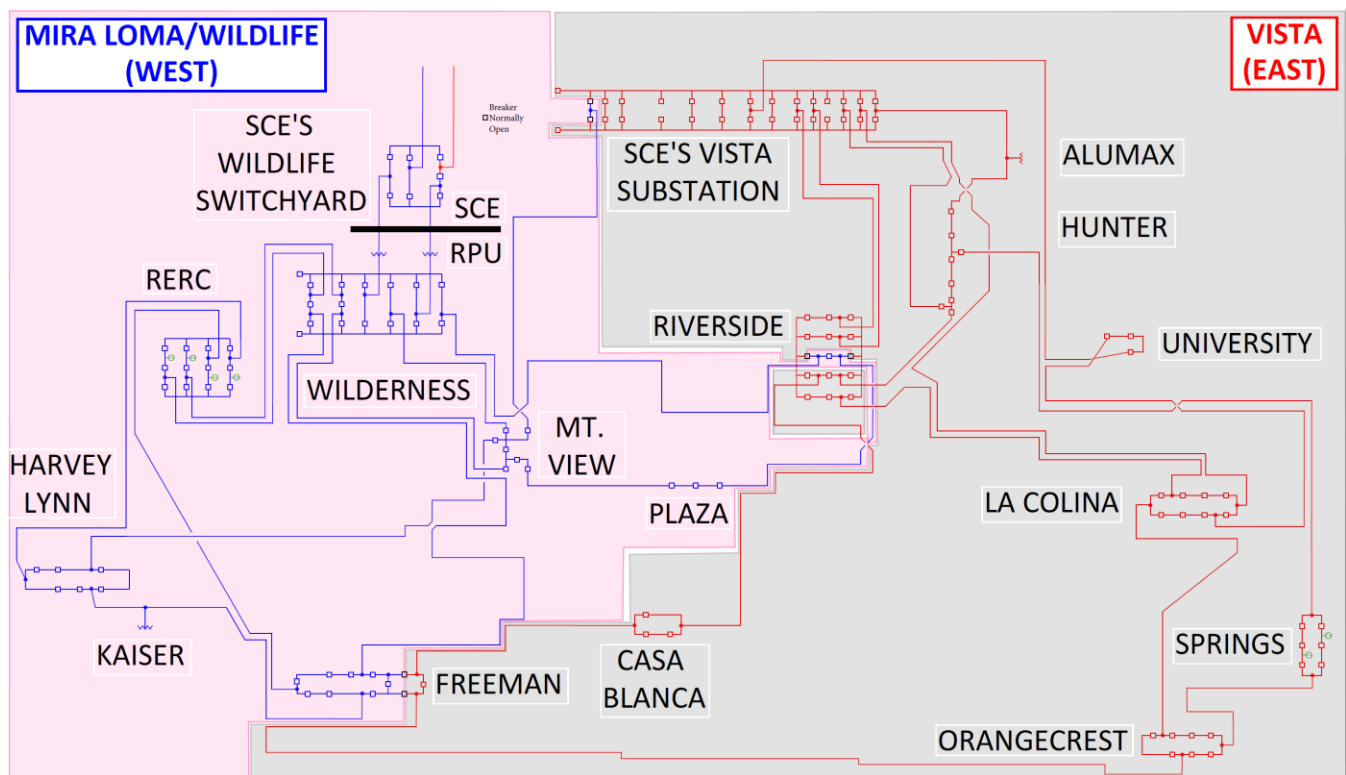


Figure: RTRP System One-line showing Two Transmission Sources and System Bifurcation

## **DISCUSSION:**

RPU's cost estimation as approved by City Council in 2006 have significantly changed over time as the project was pending the recently CPUC decision for approval. On February 3, 2012, the Board received a revised estimate for RPU's scope of work in the estimated amount of \$137,000,000. RPU staff revised the cost estimates based on current estimated cost and determined that additional funding is needed to complete the remaining RPU scope of work.

On March 12, 2020, the CPUC granted SCE a Certificate of Public Convenience and Necessity (CPCN), which cleared the way for the 230KV portion of the RTRP Project. To keep the Project moving forward, additional funding is required for right-of-way acquisition, design, material procurement, and construction activities of remaining project components including the new

230/69kV RPU Wilderness Substation, 69kV line connections to integrate Wilderness Substation in RPU's electric system, and 69kV system improvements to support the revised split system configuration..

### *Increase Work Order No. 642975*

The total approved funding for RTRP Work Order No. 642975 is \$71,605,521 and the required estimated funding for the Project has increased by \$144,910,00 for a total cost of \$216,515,521.

Board approval is requested for an additional \$144,910,000 to fund these remaining project components that were dependent upon CPUC approval. These components include: cost of management/engineering services, RPU internal labor, consultant services, land acquisition, utility relocations, substation materials (including large transformers, control house and major equipment) and construction, sub-transmission & communication line materials, construction, and payments to SCE for Interconnection Facility charges.

Consistent with the Third Amendment to the Interconnection Facilities Agreement (IFA) between SCE and RPU (Attachment 2) as approved by Board and City Council in December 2010, RPU is obligated to pay the remaining contractual payments in the amount of \$15,935,411. Due to the extension of the Project schedule, the IFA will likely be revised, and additional expenditures not yet determined will likely be required later. Any subsequent revisions to the IFA will be presented to the Board for consideration.

The requested increase will cover the following project components and estimated costs:

<b>RTRP Project Components</b>	<b>Estimate Total</b>
New Wilderness Substation	\$ 57,711,000
Mountain View Substation upgrades	\$ 1,433,238
Freeman Substation upgrades	\$ 944,638
Riverside Substation upgrades	\$ 685,763
RERC Substation upgrades	\$ 440,000
Telecommunications work	\$ 1,000,000
System Integration of Wilderness Substation (66kV Overhead connections)	\$ 16,900,000
Equipment and Material Yard	\$ 1,470,000
Internal System Improvements to support modified system configuration:	
System Bifurcation and Compliance Matters	\$ 6,000,000
Casa Blanca Substation upgrades	\$ 6,079,613
Orangecrest Substation upgrades	\$ 854,638
Plaza Substation upgrades	\$ 440,000
Kaiser Substation upgrades	\$ 240,000
Project Contract/Consultant staff - Labor	\$ 7,500,000
Customer/Community Outreach, General Project Communications	\$ 500,000
Additional legal support	\$ 600,000
IFA - Interconnection Facilities Agreement Payments	\$ 15,935,411
<b>Subtotal</b>	<b>\$ 118,734,301</b>
Contingency (20% of subtotal)	\$ 23,746,860

<b>Adjustments</b>	
Interconnection Facilities Agreement costs up to CPUC approval date of March 12, 2020	\$ 900,000
Adjustment to cover additional contingency for Steel Poles for the RERC - Harvey Lynn line PO#153271	\$ 315,303
Labor costs to support RERC - HL, RERC-FRMN line Construction	\$ 600,000
Adjustment to cover additional 10% contingency for overhead Construction contract and materials for RERC-FRMN	\$ 613,000
<b>Total</b>	<b>\$ 144,909,464</b>

### Cash Flow for RTRP

The total RTRP spending to date (preliminary June 30, 2020) is \$48.7 million.

Description	Major Expenses (\$)
SCE costs related to CPCN and IFA Activities	\$15.4 Million
Engineering and Consulting services (Legal, Real Estate)	\$17.1 Million
Construction Contracts and related activities	\$ 8.8 Million
RPU Engineering, Labor, Overhead, & Miscellaneous Costs	\$ 7.4 Million
<b>TOTAL</b>	<b>\$48.7 Million</b>

The table below demonstrates the annual project funding expectations until the scheduled project completion date of 2026.

Estimated Cash Flow Needs by Fiscal Year	
Fiscal Year	Funding for Planned Expenses
FY 2020-2021	\$ 43,363,827
FY 2021-2022	\$ 45,043,883
FY 2022-2023	\$ 30,607,687
FY 2023-2024	\$ 13,619,587
FY 2024-2025	\$ 11,207,112
FY 2025-2026	\$ 1,067,368
<b>Total</b>	<b>\$144,909,464</b>

The current available balance of RTRP accounts 470685 and 470686 as of June 30, 2020 is \$20,274,417.

The costs of the California Independent System Operator controlled facilities and costs incurred in support of CPCN and CEQA related activities are subject to reimbursement from SCE per the Interconnection Facilities Agreement and are at a total reimbursable cost of \$21,785,355. RPU has received reimbursement of these costs from SCE.

The financial plan to fund the required \$144,910,000 is as follows:

1. Deposit the reimbursement from SCE in the amount of \$21,785,355 into the Unrestricted, Undesignated Cash Reserve;

2. Fund RTRP with the Electric Reliability Reserve or with bond proceeds; and
3. Use the Electric Reliability Reserve to fund any debt service payments associated with the use of bond proceeds.

This funding plan provides the most flexibility for RPU to monitor cash balances, maintain liquidity, and meet any unplanned cash flow impacts as a result of the COVID 19 pandemic.

### *Supplemental Appropriation*

A supplemental budget appropriation in the amount of \$125,000,000 to Account No. 6130000-470685 is needed to fund the \$144,910,000 increase for Work Order No. 642975 to meet the project costs. These funds are available in the Electric Fund (510 Fund). The City's FY 2020/2021 Emergency Budget was a direct result of the COVID-19 pandemic and did not allow for the regularly scheduled budget conversations and approval requests to increase the Capital Improvement Budget. When the City's Capital Improvement Budget is next reviewed, this supplemental appropriation will be included for the Project.

### **FISCAL IMPACT:**

The amount requested for Work Order No. 642975 is an increase of \$144,910,000 for the work related to RPU's scope of work for the remaining RTRP project components. A supplemental appropriation in the amount of \$125,000,000 from the Electric Fund (510 Fund) will be recorded in Public Utilities Electrical Capital Account No. 6130000-470685.

Prepared by:	George R. Hanson, Utilities Assistant General Manager/Energy Delivery
Approved by:	Todd M. Corbin, Utilities General Manager
Approved by:	Al Zelinka, FAICP, City Manager
Approved as to form:	Gary G. Geuss, City Attorney

Certifies availability of funds:	Edward Enriquez, Chief Financial Officer/City Treasurer
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### Attachments:

1. CPUC Final Decision
2. Interconnection Facilities Agreement with SCE – Third Amendment
3. Presentation