Southern California Edison Company
Transmission Project Review Process

CPUC Energy Division Staff Comments on SCE's December 2024 TPR Process Project Spreadsheet

April 30, 2025

As part of the Transmission Project Review (TPR) Process approved by the California Public Utilities Commission (CPUC) in Resolution E-5252, CPUC Energy Division Staff (CPUC Staff) provide these comments to Southern California Edison Company (SCE) on its December 2024 TPR Process Project Spreadsheet.

Background

On December 2, 2024, SCE provided the CPUC and Stakeholders with the most recent TPR Project Spreadsheet of transmission projects and programs. The TPR Process aims to provide the Commission and all Stakeholders semi-annually with current, specific, comprehensive, and system-wide transmission data for projects with capital additions to ratebase in the last five years and forecasted or actual capital expenditures in the current year and future four years[1].

Summary of Projects in Spreadsheet

There is a total of 451 projects listed in the December 2024 TPR Project Spreadsheet, up from 427 in the June 2024 TPR Project Spreadsheet, with a total incremental value increase of $703 million (a 7.5% change). Table 1 summarizes the annual historical (2020-2024) capital expenditures while Table 2 summarizes the projected (2025-2029) capital expenditures for the TPR cycle, grouped by "Functional Category" (using Data Field 6) such as Poles/Wires or Generator Interconnection and Deliverability Allocation/Work Requested by Others (GIDAP/WRO, Data Field 9). Poles/Wires projects alone represent approximately 67% of all SCE TPR-related actual and projected capital expenditures. Specifically, spending on these projects is projected to increase by 66% in total, rising from approximately $326 million in 2020 to $541 million in 2029. This significant and sustained increase reflects a focus on system hardening and reliability improvements, primarily involving pole replacements, conductor upgrades, and overhead line reconfigurations.

[1] CPUC Resolution E-5252, Summary Section, page 3.

Table 1 – Actual Capital Expenditure Spending by Year and Functional Category* ($000,000)

Functional Category	2020	2021	2022	2023	2024	Current Projected Total or Actual Final Cost
Poles/Wires	$390	239	$162	$107	$214	$1,112
Substation	$193	$140	$100	$77	$113	$623
GIDAP/WRO	$24	$53	$31	$35	$19	$162
Wildfire/Emergency/Seismic	$43	$15	$13	$7	$17	$95
Other	$73	$31	$19	$14	$47	$184
Total	**$724**	**$479**	**$324**	**$240**	**$411**	**$2,178**

**Data was re-issued on December 27, 2024, to include capital expenditures for all the years of 2020-2029.*

Table 2 – Projected Capital Expenditure Spending by Year and Functional Category* ($000,000)

Functional Category	2025	2026	2027	2028	2029	Current Projected Total or Actual Final Cost
Poles/Wires	$402	$532	$486	$571	$590	**$2,581**
Substation	$135	$219	$331	$174	$77	**$936**
GIDAP/WRO	$42	$41	$21	$15	$15	**$134**
Wildfire/Emergency/Seismic	$15	$15	$8	$8	$6	**$52**
Other	$73	$95	$53	$58	$31	**$310**
Total	**$667**	**$902**	**$899**	**$826**	**$720**	**$4,014**

**Data was re-issued on December 27, 2024, to include capital expenditures for all the years of 2020-2029.*

Comparison of Spending by Functional Category by Reporting Cycle

The total overall estimated spending between the June 2024 and December 2024 Project Spreadsheets reflects a 7.5% increase. However, the magnitude of this change varies by functional category. In particular, SCE projected an increase in the GIDAP/WRO category of

16%, 10.3% for Poles/Wires, 3.4% for Wildfire/Emergency/Seismic, with the Substation and "Other" categories remaining essentially flat. Table 3 includes the total project count and actual spending for Poles/Wires across the June 2024 and the December 2024 TPR project spreadsheets. This comparison highlights that although Poles/Wires project counts remained roughly the same (107 in the June 2024 TPR Project Spreadsheet vs. 108 in the December 2024 TPR Project Spreadsheet), total costs increased by over $600 million.

Table 3 – Comparison of Spending by Functional Category by Reporting Cycle ($000)

Functional Category	Number of Projects from June 2024 TPR Cycle	Capital Expenditures in June 2024 TPR Project Spreadsheet	Number of Projects from December 2024 TPR Cycle	Capital Expenditures in December 2024 TPR Project Spreadsheet	Percent Change
Poles/Wires	107	6,157,760	108	6,791,176	10.3%
Substation	167	2,216,831	181	2,234,853	0.8%
GIDAP/ WRO	38	315,397	58	366,940	16.3%
Wildfire/ Emergency/ Seismic	46	134,570	40	139,205	3.4%
Other	27	597,391	64	593,717	-0.6%
Total		**9,421,949**		**10,125,891**	**7.5%**

Data Quality

In the initial data submittal on December 2, 2024, SCE's Project Spreadsheet included annual spending data for years 2019-2028. Resolution E-5252 requires that "For the November through January issuances of the Project Spreadsheet, the 'current year' shall be considered the calendar year that begins during this November through January time period plus the four years that follow the calendar year that begins during this November through January time period."[2]

At CPUC Staff's request, SCE corrected the dataset and re-issued the Project Spreadsheet to include the years 2020-2029, with 2020-2024 as historic years and 2025-2029 as forecast years.

Otherwise, the data provided by SCE was largely consistent with the requirements of E-5252. SCE provided clear information and communicated timely with CPUC Staff.

[2] CPUC Resolution E-5252, Attachment A, section 2.1.3.

Additional Materials Provided

In addition to the Project Spreadsheet, SCE provided 190 additional authorization documents related to specific projects. These documents include presentation decks and meeting minutes for projects that were approved during meetings, as well as work initiation forms and project summaries.

Data Request Responses

CPUC Staff submitted three sets of data requests to SCE comprising 46 individual questions, the last being issued on April 11, 2025. CPUC Staff received all responses to the TPR data requests by April 23, 2025. While SCE's second set of data request responses was late, SCE's responses were generally complete and SCE did notify the CPUC and Stakeholders when delays occurred.

Stakeholder Meeting

SCE held a Stakeholder Meeting on February 28, 2025, to respond to questions from the CPUC and Stakeholders on the Project Spreadsheet. During this meeting there was extensive discussion of several overarching topics and of specific programs and projects including:

- Advanced Procurement,
- Transmission Planning Process (TPP)-Approved Policy Projects,
- Transmission Line Rating Remediation (TLRR) Program,
- Spare Transformer Equipment Program (STEP) ,
- Pardee-Pastoria (San Joaquin and North Coast) Reconductor,
- Calcite Substation Construction,
- Alberhill Substation Loop-In,
- Riverside Transmission Reliability Project,
- Scope, Cost & Schedule Management (Delays),
- RAS and CRAS Delays, and
- TPR Project Spreadsheet Data Field 59 – Construction Work in Progress.

Observations of SCE Projects and Processes

Based on the information presented by SCE in the Stakeholder Meeting, and in response to CPUC data requests, CPUC Staff has several observations on individual initiatives, detailed below.

CAISO-Approved Projects

Specific concerns include project delays and cost increases on a small number of CAISO TPP-approved reliability projects.

For example, CPUC Staff requested additional information during the June 2024 TPR Cycle on the Serrano 4AA 500/230 kV Transformer Bank Addition Project (See Table 4.). The Serrano project cost nearly doubled since its CAISO approval when an initial job walk identified a significant project rescope due to a building design change. SCE did not explain why this rescope was not identified at the beginning of the approval process.

Additionally, the Mira Loma 500 kV Circuit Break Upgrade Project is expecting an approximately 18-month delay due to "Material" issues and will need further updates to Stakeholders when available.

Table 4 provides the two SCE's TPP-approved projects included in the December 2024 TPR Project Spreadsheet that have experienced significant changes in cost and in-service dates since their approval:

Table 4 – TPP Reliability-Driven Projects from December 2024 TPR Experiencing Delays or Cost Increases ($000)

Row/ Line No	Project Name	TPP Year Approved	Original Planned In-Service Date	Current Projected or Actual In-Service Date	Original Projected Cost or Cost Range ($000)	Current Projected Total or Actual Final Cost ($000)
SP-150	Mira Loma 500 kV Circuit Breaker Upgrade	22-23	Dec 2026	Aug 2028	10,000	10,004
SP-154	Serrano 4AA 500/230 kV Transformer Bank Addition	22-23	Dec 2027	Dec 2027	120,000	212,034

CPUC Staff recommend that SCE make every effort to include all CAISO-approved projects that meet the requirements for inclusion in the TPR Project Spreadsheet. Stakeholders need the opportunity to track projects' costs and timeline changes using data that are as accurate as possible. A significant number of CAISO-approved projects show increasing delays and/or costs but without apparent controls or with insufficient justification.

TLRR Progress and Project Delays

The Transmission Line Rating Remediation (TLRR) program is one of SCE's largest programs and includes approximately 54 individual active projects. CPUC Staff continues to be concerned that SCE will not achieve its 2025 or 2030 goals, resulting in higher future costs and reduced reliability until these clearance violations are addressed.

In a data request response[3] and in the February 28, 2025, Stakeholder Meeting, as of December 31, 2024, SCE had cleared 5,600 spans with 5,564 spans remaining. SCE has also stated that it "anticipates meeting the 2030 goal for program completion; however, SCE anticipates that several bulk electric system projects that require CPUC licensing will not meet the 2025 completion date."[4] CPUC Staff seeks further understanding from SCE on how it will meet its 2030 program goal, as the current rate of remediation may not meet these goals. SCE's current forecast for completing the following discrepancies, by year, is provided below.

Table 5 – TLRR Discrepancy Remediation by Year, Actual and Forecast (Count of Spans)

	2023	2024	2025	2026	2027	2028	2029	2030
Discrepancies	345	506	602	472	537	1,720	2,233	0

Advanced Procurement and Delay Mitigation Strategies

Given long lead times for delivery of transmission equipment, along with anticipated supply chain shortages and industry demand, CPUC Staff asked SCE about its plans for advanced procurement of transformers, circuit breakers, and circuit switches for planned projects.

During the February 28, 2025, Stakeholder Meeting, SCE acknowledged that it has seen increases in lead time and challenges in the supply chain. For example, the lead time for higher voltage transformers has generally increased from 18-24 months to over 48 months, and circuit breakers' lead time has increased from 18 months to over 36 months. To mitigate this, SCE has worked with preferred manufacturers, negotiating contracts to reserve production slots and to ensure there is supply for upcoming needs. SCE can then use these production slot reservations to better align priorities of projects, and can adjust project designs prior to production, thereby providing additional flexibility and reduced risks of individual project delays.

In addition to these contracts with manufacturers, SCE mentioned that it is also exploring other potential delay mitigation strategies, including a pilot program to streamline approval processes and reduce lead time. Further, SCE is implementing a comprehensive five-year sourcing plan, designed to continuously and regularly assess sourcing needs and timing.

CPUC Staff is encouraged that SCE is actively managing its equipment procurement given the potential delays and cost increases. CPUC Staff will continue to monitor this topic, with a particular interest in understanding what, if any, cost guarantees SCE has from manufacturers.

[3] See SCE Response to CPUC Data Request 01-03_ED-SCE-TPR-Cycle 2-2024-001 Q. 01-03 Answer

[4] See SCE Response to CPUC Data Request 01-03_ED-SCE-TPR-Cycle 2-2024-001 Q. 01-03 Part B Answer

Process for Placing Projects on Hold/Excessive AFUDC Accruals

A longstanding concern of CPUC Staff is that SCE has maintained projects as "active" that likely should be placed on hold. The problem for ratepayers is that projects not formally placed "on hold" continue to accrue AFUDC and other overhead costs, resulting in higher costs for projects that are charged to transmission customers. This was also discussed in detail in SCE's previous Stakeholder Review Process (SRP).

CPUC Staff seeks additional detail on the magnitude of accruals vs. the costs incurred that keep a project "active." There are also joint projects where SCE is not responsible for project management but bears some project cost responsibility and therefore has accrued AFUDC despite not having control of the project or insight into its delays.

Ongoing Concern with Calcite

The Calcite substation (formerly Jasper Switching Substation) project, located in San Bernardino County, has been under development for over 13 years. The Jasper Switching Substation received incentive ratemaking treatment as part of the "South of Kramer" project that was included in a 2011 FERC Declaratory Order (134 FERC ¶61,181). In that decision, the Jasper project was part of a larger set of upgrades in Southeastern California designed to increase access to the transmission grid for renewable generation in the area. FERC approved a 100% abandoned plant incentive, as well as construction-work-in-progress (CWIP) recovery, which allows SCE to include the costs of the project in rate base before becoming used and useful.

In 2013, SCE submitted an application for a Certificate of Public Convenience and Necessity (CPCN) to the CPUC for the South of Kramer project (a.k.a. the Coolwater-Lugo project) in A.13-08-023. The CPCN for that project was dismissed without prejudice by the CPUC in Decision 15-05-040.

Despite the dismissal of the larger project, there was still a need for a substation to interconnect generation at the Jasper substation location. According to data request responses, SCE identifies this as the "second primary component of South of Kramer," and it is now called Calcite. According to SCE's presentation at the February 28, 2025, Stakeholder Meeting, Sienna Solar 1, a 200 MW solar PV project, and Sienna Solar 2, a 55 MW solar PV/BESS project, have requested interconnection into the substation through the CAISO's Generation Interconnection Process. SCE stated that California Environmental Quality Act (CEQA) approval and permitting review of the solar projects are in the final stages with San Bernardino County, and the substation's final Environmental Impact Report (EIR) should be released in mid-2025. The Permit to Construct (PTC) filing for the substation at the CPUC is anticipated in June or July

2025, with substation construction anticipated to start in Q1 2027. The forecasted operative date is May 2028.[5]

The CPUC Staff will continue to monitor this project, as we continue to have concerns with the cost of the project, the lack of cancellation for the South of Kramer project, and the appropriateness of applying the South of Kramer incentive ratemaking to the Calcite project.

Riverside Transmission Reliability Project

Per the December 2024 Project Spreadsheet and the February 28, 2025, TPR Stakeholder meeting, the Riverside Transmission Reliability Project (RTRP) is currently active. The project, designed to provide additional reliability to Riverside Public Utilities, was approved by the CAISO in 2007, with CEQA approval by the CPUC in 2020. The project had an original expected operative date of 2009, which has now been pushed to late 2029. Per SCE staff during the February 28, 2025, Stakeholder Meeting, the project will likely exceed the $587 million cost included in the TPR data. It is our understanding that SCE is currently preparing the updated cost estimate and may submit a Petition for Modification of its CPCN at the CPUC.

After the most recent delays, which were outside of SCE's control, SCE is expecting to mobilize the primary construction contractor in late June 2025. Overhead construction work is forecasted to start in Q2 2026, and substation work is planned to start in late 2027.[6]

Despite recent progress, CPUC Staff continue to be concerned by the schedule and cost of delays on this project. The project is delayed by at least 20 years from its original expected operative date, and the projected costs are more than ten times higher than the initial cost estimates. SCE now estimates that these costs are likely to increase further due to delays, even if there is no change to the project design. Delays to projects of this magnitude result not only in increased capital costs, but also in additional planning, engineering, re-permitting, and return on CWIP costs if the project is not formally on hold. The CPUC Staff is troubled that transmission ratepayers are expected to bear the substantial cost increases from these delays. Further, reliability was identified 20 years ago as the driver for the project, and reliability concerns have only increased as Riverside has grown in the years since the issue was identified.

Conclusion

CPUC Staff have appreciated the efforts made by SCE to provide accurate data and engage with Stakeholders. However, CPUC Staff observed a number of issues during this December 2024 TPR Cycle:

- "Poles/Wires" project costs have continued increasing at a steady but significant rate. Between the June 2024 and December 2024 TPR cycles, there was a 10% increase and

[5] See SCE TPR Stakeholder Meeting - 02-28-2025
[6] Ibid

they make up 67% of SCE's total project spend. SCE should provide additional information to fully justify what the drivers are to these cost increases and what efforts are being made to minimize them.

- CAISO TPP-approved projects have shown a pattern of cost increases and delays that are not sufficiently justified. For example, the Serrano 4AA 500/230 kV Transformer Bank Addition project initiated a scope change after an initial job walk[7] but did not provide explanation for why the scope change was not accounted for during the project approval stage.
- Similarly, TLRR work has experienced delays with SCE yet to provide an explanation for how it will meet the 2030 goal.
- Long lead times (particularly for breakers and transformer components) remain a global issue and while it is encouraging that SCE has reserved production slots with manufacturers, it is important for SCE to keep Stakeholders up-to-date on how project timelines might be impacted or improved.
- CPUC Staff continues to be concerned that SCE is improperly categorizing "on-hold" projects as "active," accruing unreasonable amounts of AFUDC.

RTRP is delayed by at least 20 years, and although the most recent delays were outside of SCE's control, the projected costs are likely to be more than ten times higher than the initial cost estimates. It is troubling that transmission ratepayers are expected to bear the substantial cost increases from these delays.

The TPR Process is ever-improving and we look forward to SCE's continued engagement in the upcoming June 2025 TPR Cycle.

[7] See SCE Response (June 2024 TPR Cycle) to CPUC Data Request 01-01_ED-SCE-Public-Cycle 1-001 Q. 22 Answer