

To: Studies Subcommittee (StS), Tom Carr (StS Chair), and Doug Tucker Subject: Southern California Edison's 2024 Annual Progress Report

Southern California Edison (SCE) has provided a list of projects (refer to Table 1 below) in accordance with the WECC Progress Report Policies and Procedures to: (1) help capture all generation projects, transmission projects and any other facilities that may have a significant impact on the reliability of the WECC interconnected electric system; and (2) inform neighboring systems in a timely manner regarding new facility additions to our system and associated system operation.

Please contact me if you have any questions.

Hayk Zargaryan Phone: 909-274-1630 Email: Hayk.Zargaryan@sce.com

Cc: Allison Auld-Hill, Siyuan (Shawn) Wang, and Jon-Michael Brown



Table 1: Transmission and Generation Projects	
Transmission Projects	Expected In-Service Date
Mesa 500/220 kV Substation Description: Expand existing Mesa Substation to 500 kV by looping in the Mira Loma – Vincent 500 kV Transmission Line.	In-Service
Delaney – Colorado River 500 kV Transmission Line Project Description: Install 114 miles of a new 500 kV transmission line and associated series compensation between Arizona Public Service Company- owned Delaney 500 kV Substation and SCE-owned Colorado River 500 kV Substation.	May 2024
Eldorado – Lugo – Mohave Series Cap Upgrade Description: Upgrade series capacitors on the Lugo – Mohave 500 kV Transmission Line from 35% to 70% compensation and the Eldorado – Lugo 500 kV Transmission Line from 35% to 65% compensation.	December 2024
Devers 220 kV Reconfiguration Project Description: Modify the Devers Substation Bus configuration, by changing the Devers-Mirage No. 1 and No. 2 220 kV lines positions	June 2025
Victor 220 kV Switchrack Reconfiguration Description: Convert the existing Victor 220 kV bus from a double breaker double bus (DBDB) scheme to a breaker- and-a-half (BAAH) configuration.	June 2025
Antelope-Whirlwind 500 kV Line Upgrade Description: Increase the existing Antelope-Whirlwind 500 kV line rating by fixing the ground clearance for nine (9) towers.	December 2025
Barre 220 kV Switchrack Conversion to Breaker-and-a-Half Description: Convert Barre 220 kV switchrack to breaker-and-a-half configuration, add sectionalizing circuit brakers to split the bus, and relocation of 220 kV lines, towers, and other facilities within the substation.	June 2026
Cool Water 220/115 kV Transformer Project Description: Add a Cool Water 220/115 280 MVA Transformer Bank	December 2026
Inyo 220 kV Shunt Reactor Description: Install a new 25 MVAR shunt reactor at Inyo 220 kV Substation.	December 2026
Mira Loma-Mesa 500 kV Underground Third Cable Description: Add 3rd set of 5000 kcmil cable to underground section to increase the rating of the most limiting section of the existing Mira Loma- Mesa 500 kV circuit.	December 2026
Sylmar Bank F Upgrade Description: Replace the existing 220 kV three-phase transformer bank F, its associated protection, four disconnect switches, twelve surge arresters, and associated equipment based on a 1290 MVA Normal and 1610 MVA Emergency ratings.	December 2026



Transmission Projects (Continued)	Expected In-Service Date
Calcite 220 kV Substation Description: Construct new Calcite 220 kV Switching Station to interconnect renewable generation projects. Loop-in the existing Lugo-Pisgah No. 1 220 kV Transmission Line.	March 2027
Serrano 4AA 500/220 kV Transformer and 220 kV GIS Rebuild Project Description: Rebuild 220 kV GIS to 80 kA capability with option to sectionalize in the future and add a new 4th 500/220 kV transformer bank at Serrano Substation.	December 2027
Mira Loma 500 kV Circuit Breaker Upgrade Description: Circuit Breaker replacement project at Mira Loma 500 kV to address short circuit duty concerns.	August 2028
Colorado River-Red Bluff 500 kV 1 Line Upgrade Description: Increase the existing Colorado River-Red Bluff No.1 500 kV line by fixing ground clearance.	December 2028
Devers-Red Bluff 500 kV No. 1 and No. 2 Line Upgrade Description: Increase the existing Devers-Red Bluff No.1 and No.2 500 kV lines by fixing ground clearance and replacing the limited terminal equipment.	December 2028
Devers-Valley 500 kV No. 1 Line Upgrade Description: Increase the existing Devers-Valley No.1 500 kV line by fixing ground clearance and replacing the limited terminal equipment.	December 2028
Serrano-Alberhill-Valley 500 kV Line Upgrade Description: Increase the existing Serrano-Valley (future Serrano-Alberhill- Valley) 500 kV line by replacing the limited terminal equipment.	December 2028
San Bernardino-Vista 220 kV Line Upgrade Description: Re-conductor San Bernardino-Vista 220 kV line and replace line positions at San Bernardino and Vista substations.	December 2028
Wildlife 220 kV Substation Description: New 220 kV substation in Riverside County.	December 2028
Lugo – Victorville Transmission Line Upgrade Description: Increase rating of LADWP and SCE jointly owned line by upgrading terminal equipment at both substations and removing ground clearance limitations.	January 2029
Alberhill 500/115 kV Substation Description: Develop a new 500/115 kV Substation by looping in SCE's existing Serrano-Valley 500 kV Transmission Line.	June 2029
Eldorado Jointly Owned 220 kV Bus Split Description: Split of the Eldorado jointly owned 220 kV bus and transmission line reconfiguration for the purpose of lowering short circuit duty to within acceptable levels.	December 2029



Transmission Projects (Continued)	Expected In-Service Date
Pardee-Sylmar No. 1 and No. 2 220 kV Lines Upgrade Description: Upgrading terminal equipment at both ends of the Pardee – Sylmar No.1 and No.2 220 kV Lines to match rating of the conductor.	December 2029
Etiwanda-San Bernardino 220 kV Line Upgrade Description: Re-conductor Etiwanda-San Bernardino 220 kV line and replace line positions at Etiwanda and San Bernardino substations.	December 2031
Etiwanda-Vista 220 kV Line Upgrade Description: Increase the existing Etiwanda-Vista 220 kV line by fixing ground clearance and replacing the limited terminal equipment.	December 2031
Lugo-Victor-Kramer 220 kV Upgrade Description: Add 3rd Lugo 500/220 kV Transformer (2028). Reconductor Lugo–Victor 220 kV No. 1, 2, 3 & 4 lines (2028). Rebuild/build Kramer-Victor 115 kV lines to 220 kV and loop the old segment of Kramer-Victor 115 kV into Roadway (2033).	June 2033
Del Amo-Mesa-Serrano 500 kV Transmission Reinforcement Description: New Del Amo 500 kV Switchyard with three (3) 500/220 kV transformers, Loop Alamitos-Barre No.1 & No.2 220 kV lines into Del Amo Substation, Utilize existing conductor on the Mesa-Mira Loma 500 kV Line and construct new 500 kV transmission line facilities resulting in the new Del Amo-Mesa & Del Amo-Serrano 500 kV Transmission Lines.	December 2033
Generation Projects	Expected In-Service Date
Arlington – Q1196 Description: 400 MW hybrid PV and BESS project. Dedicated 220 kV gen-tie line. POI: 220 kV Colorado River Substation	In-Service Hybrid 400 MW
Baldy Mesa 1 – Q1413 Description: 225 MW (150 MW hybrid PV and 75 MW BESS) project. It will share a POI of 200 MW with Baldy Mesa 2.	In-Service Hybrid 225 MW
POI: 115 kV Roadway Substation	
POI: 115 kV Roadway Substation Crimson – Q1192 Description: 350 MW BESS generating facility. Dedicated 220 kV gen-tie line. POI: 220 kV Colorado River Substation	In-Service BESS 350 MW
<ul> <li>POI: 115 kV Roadway Substation</li> <li>Crimson – Q1192</li> <li>Description: 350 MW BESS generating facility. Dedicated 220 kV gen-tie line.</li> <li>POI: 220 kV Colorado River Substation</li> <li>Daggett Solar 2 &amp; 3 – Q1313 &amp; Q1314</li> <li>Description: 482 MW Daggett Solar 2 (182 MW) and Daggett Solar 3 (300 MW) hybrid PV and BESS generating facilities.</li> <li>POI: 220 kV Kramer Substation</li> </ul>	In-Service BESS 350 MW In-Service Hybrid 482 MW



Generation Projects (Continued)	Expected In-Service Date
Marvel – Q1295 Description: 400 MW BESS project. Dedicated 220 kV gen-tie line. POI: 220 kV Devers Substation	In-Service Hybrid 400 MW
Rosamond West Solar – Q506 Description: 300 MW PV generating facility (Q506). The Project is being phased in. 108 MW are already In Service (10/2016). POI: 220 kV Whirlwind Substation	In-Service PV 300 MW
Sagebrush Solar 2 – Q1325 Description: 179 MW BESS generating facility interconnecting on the existing Sagebrush line. This project has three phases: Phase 1: 80 MW BESS Phase 2: 59 MW BESS Phase 3: 40 MW BESS POI: 220 kV Vincent Substation	In-Service BESS 179 MW
Sanborn Solar 2 – Q1518 Description: 500 MW hybrid PV and BESS generating facility. POI: 220 kV Windhub Substation	In-Service Hybrid 500 MW
Sloth – Q421 Description: 49.5 MW hybrid PV and BESS generation facility. It will share the Q1200 Victory Pass Gen-tie Line. POI: 220 kV Red Bluff Substation	In-Service Hybrid 49.5 MW
Sol Catcher BESS – Q1302 Description: 213.5 MW hybrid PV and BESS generation facility. It will share the Q1200 Victory Pass Gen-tie Line. POI: 220 kV Red Bluff Substation	In-Service Hybrid 213.5 MW
Victory Pass – Q1200 Description: 200 MW hybrid PV and BESS generation facility. POI: 220 kV Red Bluff Substation	In-Service Hybrid 200 MW
Rexford Solar Farm – Q1516 Description: 300 MW hybrid PV and BESS generating facility. POI: 220 kV Vestal Substation	March 2024 Hybrid 300 MW
Quartzite Solar 11 – Q1526 Description: 150 MW hybrid PV and BESS generation facility. It will share the Q1198 Quartzite Solar 8 Gen-tie Line. POI: 220 kV Colorado River Substation	May 2024 Hybrid 150 MW
Quartzite Solar 8 – Q1198 Description: 150 MW hybrid PV and BESS generation facility. POI: 220 kV Colorado River Substation	May 2024 Hybrid 150 MW



Energy for What's Ahead<sup>®</sup>

Generation Projects (Continued)	Expected In-Service Date
Tahoe – Q1339 Description: 300 MW BESS located in Boulder City, NV. POI: 220 kV SCE Eldorado Substation	May 2024 BESS 300 MW
Poleta Spring – Q1339 Description: 300 MW hybrid PV and BESS. POI: 220 kV SCE Eldorado Substation	June 2024 Hybrid 300 MW
Antelope Solar 2 – Q1208 Description: 650 MW hybrid PV and BESS generating facility (Q1208). This project is being phased in. POI: 220 kV Antelope Substation	September 2024 Hybrid 650 MW
Antelope Valley Complex – Q1215/Q1319 Description: Combined projects Q1215 and Q1319. Multiple phase project consisting of: Phase 1: 130 MW PV/BESS Phase 2: 250 MW PV/BESS Phase 3: 125 MW BESS It will share the existing generation tie-line with (Q653R). POI: 220 kV Whirlwind Substation	September 2024 Hybrid 505 MW
Bellefield Solar Farm – Q1510 Description: 500 MW hybrid PV and BESS generating facility. POI: 220 kV Windhub Substation	September 2024 Hybrid 500 MW
Oberon – Q1642 Description: 500 MW hybrid PV and BESS generation facility. Dedicated 500 kV Gen-tie line. POI: 500 kV Red Bluff Substation	September 2024 Hybrid 500 MW
Daggett Solar 1 – Q1312 Description: 144 MW hybrid PV and BESS generation plant located in Daggett, CA. POI: 115 kV Coolwater Substation	December 2024 Hybrid 144 MW
Silver State Solar South – Q467 Description: 200 MW BESS located in Jean, NV. BESS to be included as part of the existing 250 MW solar PV facility. POI MW Injection to not exceed 250 MW from the combined hybrid facility. POI: 220 kV Primm Substation	December 2024 BESS 200 MW
Humidor Storage – Q1629 Description: 300 MW BESS generating facility. Dedicated 500 kV gen-tie line. POI: 500 kV Vincent Substation	March 2025 BESS 300 MW



Generation Projects (Continued)	Expected In-Service Date
Lockhart Solar, Lockhart Solar 2, & SEGS Expansion Hybrid 2 – TOT697QFC/TOT914/TOT909 Description: 330 MW hybrid PV and BESS generation facility. It will share the existing Kramer-LSP 220 kV gen-tie Line. Phase 1 (85 MW) & 2 PV (75 MW) are In-Service POI: 220 kV Kramer Substation	March 2025 Hybrid 330 MW
Commerce Energy Storage – Q1611 Description: 250 MW BESS located in Commerce. Dedicated 220 kV gen-tie line. POI: 220 kV Laguna Bell Substation	April 2025 BESS 250 MW
Baldy Mesa Solar 2 – Q1519 Description: 125 MW (50 MW hybrid PV and 75 MW BESS) project is split into two phases. This project shares a POI MW with Baldy Mesa 1 (200 MW). POI: 115 kV Roadway Substation	May 2025 Hybrid 125 MW
Kestrel – Q1615 Description: 200 MW BESS generating facility. Dedicated 220 kV gen-tie line. POI: 220 kV Walnut Substation	May 2025 BESS 200 MW
Sanborn Hybrid 3 – Q1632 Description: 1,400 MW hybrid PV and BESS generating facility. Dedicated 500kV gen-tie lines. POI: 500 kV Windhub Substation	May 2025 Hybrid 1,400 MW
Aratina Solar Center – Q1204 Description: 200 MW hybrid PV and BESS generating facility. POI: 220 kV Kramer Substation	June 2025 Hybrid 200 MW
Aratina Solar Center 2 – Q1604 Description: 200 MW hybrid PV and BESS generation plant located in Boron, CA. It will share a gen-tie with Aratina Solar Center 1. POI: 220 kV Kramer Substation	June 2025 Hybrid 200 MW
Athos Power Plant – Q1405 Description: 450 MW hybrid PV and BESS generating facility. Dedicated 220 kV gen-tie line. This project is being phased in. POI: 220 kV Red Bluff Substation	June 2025 Hybrid 450 MW
Angeleno – Q1625 Description: 1,100 MW hybrid PV and BESS generating facility. Dedicated 500kV gen-tie lines. POI: 500 kV Vincent Substation	October 2025 Hybrid 1,100 MW
Goldback Solar Center – Q1619 Description: 500 MW BESS generating facility. Dedicated 220 kV gen-tie line. POI: 220 kV Moorpark Substation	October 2025 Hybrid 500 MW



Generation Projects (Continued)	Expected In-Service Date
Menifee Power Bank – Q1645 Description: 680 MW BESS generation facility. It will share the existing SCE owned generation tie-line known previously as the Inland Empire-Valley 500 kV Line. POI: 500 kV Valley Substation	October 2025 BESS 680 MW
Roadhouse – Q1768 Description: 300 MW BESS located in Commerce, CA. Dedicated 220 kV gen- tie line. POI: 220 kV Mira Loma 'A' Substation	December 2025 BESS 300 MW
Glenfeliz Solar Farm – Q1631 Description: 500 MW hybrid PV and BESS generating facility. POI: 220 kV Windhub Substation	March 2026 Hybrid 500 MW
Avocet – Q1608 Description: 200 MW BESS generating facility. Dedicated 220 kV gen-tie line. POI: 220 kV Hinson Substation	April 2026 BESS 200 MW
Delamar Energy Storage – Q1796 Description: 250 MW BESS located in Boulder City, NV. POI: 220 kV SCE Eldorado Substation	April 2026 BESS 250 MW
Atlas Solar – Q1402 Description: 3,200 MW hybrid PV and BESS generating facility. The Atlas Solar project has an executed UFA with SCE who is the affected PTO. POI: 500 kV Cielo Azul (Delaney Colorado River Transmission LLC owned, future new substation loop into Colorado River- Delaney)	July 2026 Hybrid 3,200 MW
Commerce Energy Storage 2 – Q1677 Description: 250 MW BESS located in Commerce, CA. It will share the Q1611 gen-tie. POI: 220 kV Laguna Bell Substation	July 2026 BESS 250 MW
Easley – Q2042 Description: 650 MW hybrid PV and BESS generating facility. It will share the existing Oberon-Red Bluff 500 kV gen-tie line. POI: 500 kV Red Bluff Substation	July 2026 Hybrid 650 MW
Centennial Flats – Q1529 Description: 500 MW hybrid PV and BESS generating facility. Dedicated 500 kV gen-tie line. SCE is affected PTO. POI: 500 kV DCRT's Cielo Azul Substation	August 2026 Hybrid 500 MW
Grace Energy Center – Q1761 Description: 500 MW hybrid PV and BESS generating facility. Dedicated 220 kV gen-tie line. POI: 220 kV Colorado River Substation	September 2026 Hybrid 500 MW



Generation Projects (Continued)	Expected In-Service Date
Cobalt – Q1757	
Description: 250 MW hybrid PV and BESS generating facility. Dedicated	October 2026
220kV gen-tie line.	Hybrid 250 MW
POI: 220 kV Colorado River Substation	
Sanborn 5 Hybrid – Q1791	
Description: 600 MW DC-Coupled hybrid PV and BESS generating facility.	April 2027
Dedicated 220 kV gen-tie line.	Hybrid 600 MW
POI: 220 kV Windhub Substation	
Lycan Solar – Q1643	
Description: 400 MW hybrid PV and BESS generating facility. Dedicated 500	July 2027
kV gen-tie line.	Hybrid 400 MW
POI: 500 kV Red Bluff Substation	
Overnight Solar – Q1774	
Description: 150 MW hybrid PV and BESS generation plant located in	August 2027
Hinkley, CA. It will share a gen-tie with the Mojave Solar Project.	Hybrid 150 MW
POI: 220 kV Sandlot Substation	
Ventoso – Q1776	
Description: 200 MW three resource PV, BESS, and Wind generation plant	December 2027
located in Daggett, CA.	Hybrid 200 MW
POI: 115 kV Coolwater Substation	
Sienna Solar Farm – Q1207	
Description: 200 MW PV generating facility. The Calcite-Sienna 220kV	January 2028
generation tie-line will terminate in a new 220kV position at Calcite	PV 200 MW
Substation.	
POI: 220 kV Calcite Substation	
Stage Coach Solar – Q897 (Formerly Sorrel I Solar Farm)	January 2028
Description: 200 MW hybrid PV and BESS generating facility.	Hybrid 200 MW
POI: 220 kV Calcite Substation	
Calypso Solar – Q1636	
Description: 400 MW hybrid PV and BESS generating facility. Dedicated 500	July 2028
kV gen-tie line.	Hybrid 400 MW
POI: 500 kV Colorado River Substation	