Proposed Project Details, Schedule, and Route Maps

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Table 1 Total Land Disturbance for Proposed Project with Revised Components Compared to 2013 RTRP EIR

Project Feature	Site Quantity		Work Area Disturbance Calculation (L x W in feet)		Permanent Disturbance Calculation (L x W in feet)		Work Area Disturbance (acres)		Temporary Disturbance (acres)		Permanent Disturbance (acres)	
	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed	2013 EIR	Currently Proposed
Overhead 230-kV Transmission Line												
Guard Structures	16	14	150 x 100	100 x 50			5.5	1.6	5.5	1.6		
Construct New LST	16	12	200 x 200	200 x 200	84 x 84 a	95 x 95 a	14.7	11.0	11.5	8.6	3.2	2.5
Construct New TSP	59	47	200 x 100	200 x 100	30-ft radius ^b	30-ft radius ^b	27.1	21.6	23.5	18.5	3.5	3.1
Modify Existing LST	1	1	200 x 200	200 x 200		d	0.7	0.9	0.7	0.9		
230-kV Conductor & optical ground wire (OPGW) Stringing Setup Area – Puller ^e	17	11	300 x 100	300 x 100			11.7	7.6	11.7	7.6		
230-kV Conductor & OPGW Stringing Setup Area – Tensioner e	17	11	400 x 100	400 x 100			15.6	10.1	15.6	10.1		
230-kV Conductor Field Splice Area ^f	2	2	50 x 50	50 x 50			0.1	0.1	0.1	0.1		
New Roads (Downline, Access, and Spur)	7.5 miles	4.1 miles	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	Linear <u>feet</u> x 18 ^g	16.4	8.9	0	0	16.4	8.9
Underground 230-kV Transmission Line												
Construct New Riser Pole		4		200 x 100		30-ft radius ^c		1.8		1.5		0.3
Vault Installation		32		150 x 100		8 x 5 paved 14 x 11 unpaved		11.0		10.96		0.04 j
Conduit Duct Bank Installation		20,400 feet		Linear <u>feet</u> x 30				14.0		14.0		
Distribution Lines												
Distribution Pole Removal	23	27	30 x 150	30 x 150	14	14	2.4	2.8	2.3	2.7	0.08	0.1
TSP Riser Pole or Distribution Pole Installation	14	11	30 x 150	30 x 150	15	15	1.4	1.1	1.3	1.1 '	0.06	0.04
Vault Installation	7	6	30 x 150	30 x 150	4 x 4	4 x 4	0.7	0.9	0.7	0.9	0.003	0.002 ^j
Conduit Duct Bank Installation	4,000 feet	5,850 feet	Linear <u>feet</u> x 30 or 32	Linear <u>feet</u> x 30			2.7	4.5	2.7	4.5		

Project Feature	Site Q	uantity	Work Area I Calcu (L x W i		Calc	Disturbance ulation in feet)		Disturbance res)	Temporary I (aci			Disturbance res)
Telecommunication Fiber Optic Cables												
Vault Installation	6	22	6 x 6	100 x 50 ^h		4 x 4	0.002	0.001 ^h		h	0.002	0.001 ^j
Conduit Duct Bank Installation	3,900 feet	17,700 feet	Linear <u>feet</u> x 1.5	Linear <u>feet</u> x 30 ^h				h		h		
Fiber Optic Cable Pulling Site	6	6	40 x 60	40 x 60			0.3	0.3	0.3	0.3		
Substation												
Wildlife Substation	1 (3 acres)	1 (3 acres)					3	3			3	3
Marshalling Yards												
Yard-1 - Material and Equipment Marshalling Yard ^k	1 (15 acres)	1 (15 acres)										
Yard-2 - Material and Equipment Marshalling Yard ^k	1 (4 acres)	1 (5.5 acres)										
Sum of Estimated Disturbance Acre	Sum of Estimated Disturbance Acreage 1								0.3	0.3	3.002	3.001

Notes:

- a Assumes permanent disturbance is comprised of the 45-foot-wide by 45-foot-long footprint for each LST and clearance of vegetation within 25 feet of the tower footprint inside the ROW (approximately 0.2 acre per LST). As each tower's actual permanent footprint varies with tower height and strength level, these values will adjust with final engineering.
- Assumes permanent disturbance is comprised of the 10-foot diameter footprint for each TSP and clearance of vegetation within 25 feet of the TSP inside the ROW (approximately 0.06 acre per TSP). As each TSP's actual permanent footprint varies with TSP height and strength level, these values will adjust with final engineering.
- ^c A riser pole is assumed to have the same permanent disturbance as a TSP.
- ^d This structure has pre-existing permanently disturbed area for ongoing operations and maintenance access by SCE
- e Based on 9,000 feet conductor reel lengths, number of circuits, and route design.
- function includes anchoring and dead-end hardware and/or equipment needed to temporarily secure conductor wire to the correct tension.
- g Based on length of road in miles x road width of 14 feet with 2 feet of shoulder on each side of road.
- h The telecommunications fiber optic cables would be installed at the same time as and within the same duct banks the underground 230-kV transmission lines and the distribution lines. The telecommunication vaults would be installed at the as the vaults for the underground 230-kV transmission lines and the distribution lines. As such, the temporary disturbance would not increase.
- TSP riser poles for distribution line locations 7 and 8 would be placed in locations where existing distribution poles are removed; therefore, there would be no new permanent impact areas. Temporary impact areas for riser pole installation are accounted for in the pole removal disturbance acreage.
- Permanent impacts would only occur in unpaved areas.
- ^k Material and Equipment Marshalling Yards to be located in previously disturbed areas.
- The disturbed acreage calculations are estimates based upon SCE's preferred area of use for the described project feature, the width of the existing ROW, or the width of the proposed ROW; they are subject to revision based upon final engineering and review of the project by SCE's Construction Manager and/or contractor awarded project.

Footing Volume and Area Calculations:

LST depth +/- 60 ft. deep, 4-ft. diameter, qty 4 per LST: earth removed for footing = +/- 28 cu. yds. x 4 = 112 cu. yds.; surface area = 12.57 sq. ft. x 4 = 50.28 sq. ft.

TSP depth +/- 60 ft. deep, 10-ft. diameter, qty 1 per TSP: earth removed for footing = +/- 175 cu. yds.; surface area = 78.54 sq. ft.

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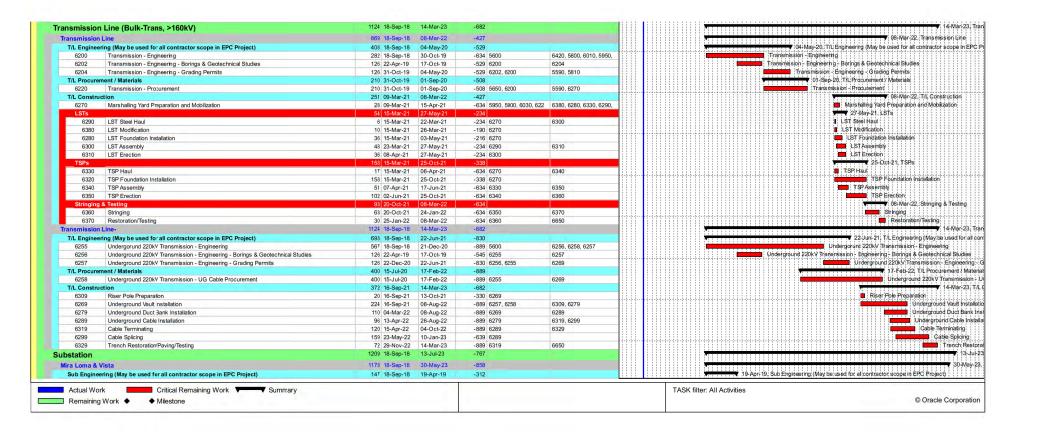
Proposed Project Route Maps

Project Name: Riverside Transmission Reliability Project - DR#7 Data Date: 01-Jul-17 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP)

Project Schedule As of 07/25/17 **DRAFT**

Activity ID	Activity Name	Original Start	Finish	Total Float Predecessors	Successors	2017	2018	2019	2020	2021	2022	2023 4
		Duration				Q1 Q2 Q3 Q4 1						



Project Name: Riverside Transmission Reliability Project - DR#7 Data Date: 01-Jul-17 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP) Project Schedule As of 07/25/17

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	Activity Name	Original Start Duration	Finish	Total Float Predecessors	Successors	2	J17	2018 2019 2020 2021 2022
		17.0000000				Q1 Q	Q3 Q4	Q1 Q2 Q3 Q4 Q1 Q
7000	Ancillary Substation (Mira Loma & Vista) - Engineering	147 18-Sep-18	19-Apr-19	-312 5600	7020	IIII.		Ancillary Substation (Mira Loma & Vista) - Engineering
	curement / Materials	63 22-Apr-19	19-Jul-19	-312	and the state of t	1111		19-Jul-19, Sub Procurement /: Materials:
7020	Ancillary Substation (Mira Loma & Vista) - Procurement	63 22-Apr-19	19-Jul-19	-312 7000	5500, 5590, 7050	HIII		Andillary Substation (Mira Loma & Vista):- Procurement:
Sub Con		42 05-Aug-20	02-Oct-20	-204		11111	1111111	▼→▼ :02+Oct-20, Sub Construction
7050	Ancillary Substation (Mira Loma & Vista) - Construction & Testing	42 05-Aug-20	02-Oct-20	-204 5900, 7020	7060	1111	1111111	📥 Ancillary Şubstation (Mira Loma & Vista) - Constructi
Sub Com	nmissioning	10 16-May-23	30-May-23	-858		1111	1111111	
7060	Ancillary Substation (Mira Loma & Vista) - In-Service Testing	10 16-May-23	30-May-23	-858 6900, 7050	9100	11111		
Wildlife		1209 18-Sep-18	13-Jul-23	-767		11111	1111111	
Sub Engi	ineering (May be used for all contractor scope in EPC Project)	251 18-Sep-18	17-Sep-19	-486		11111		17-Sep-19; Sub Engineering (May be used for all contractor scope in EPC
7500	Wildlife Substation - Engineering	251 18-Sep-18	17-Sep-19	-486 5600	7520, 5590, 7522, 5500,	1111		Wildlife:Substation - Engineering
	curement / Materials	439 19-Dec-18	16-Sep-20	-391	7020, 0000, 7022, 0000,	11111		16-Sep-20, Sub-Procurement/ Materials
7520	Wildlife Substation - Procurement - Major Material (excl. MEER)	251 19-Dec-18	18-Dec-19	-224 7500, 5650	7550, 7560	1-1-1-1		Wildlife Substation - Producement - Major Material (excl. MEER)
7522	Wildlife Substation - Procurement - MEER	251 17-Sep-19	16-Sep-20	-391 7500	7550, 7560	11111		Wildlife Substation - Procurement - MEER
Sub Con			08-Dec-21	-367	7550, 5590, 7560	11111		Violate Substation - Protection in Fine Construction
		228 13-Jan-21				11111		Wildlife Substation: Constru
7550	Wildlife Substation - Construction & Testing	210 05-Feb-21	06-Dec-21	-528 7520, 7522, 5900, 595	7590	11111		who life Substation:- Constru
	ite Prep/Below Grade	96 13-Jan-21	28-May-21	-235		4-1-1-1		
760		15 13-Jan-21*	03-Feb-21	-212	7560	11111		☐ Install Permeter Chain Link Fence
756		5 05-Feb-21	11-Feb-21	-213 7520, 7600, 5950, 590	7610, 7570			II. Move Gn Layout - Install Temp Power (Gene
757		1 12-Feb-21	12-Feb-21	-213 7560	7580	Hill		I SWPPP/WEAP Training
761	Excavate and Set Forms for MEER Foundation (1 Ea.)	15 12-Feb-21	05-Mar-21	-205 7560	7620	Hill		■ Excavate;and Set Forms for MEER:Founda
758	Install BMPs, Erosion Waddles	2 16-Feb-21	17-Feb-21	-213 7570	7640, 7630	11111		Install BMPs, Erosion Waddles
764	0 Excavate and Set Forms for 220kV Buses (2 Ea.)	10 18-Feb-21	03-Mar-21	-173 7580		111111		■ Excavate and Set Forms for 220kV Buses (
763	0 Excavate and Set Forms Line, B.T. & Bank Positions (5 Ea.)	50 18-Feb-21	28-Apr-21	-213 7580		11111		Excavate and Set Forms Line, B/T. & Bar
762		30 08-Mar-21	16-Apr-21	-205 7610				■ Erect Pre-Fab MEER
769		20 29-Mar-21*	23-Apr-21	-331	7700	11111		■ Conduit & Grounding
766		5 05-Apr-21	09-Apr-21	-200 7650	1700	11111	111111	1 Install Telecom Vaults & Conduits
767		10 05-Apr-21	16-Apr-21	-215 7650	7680	11-1-1-1		Install Security Conduit
					7660, 7670	1111	1111111	Install Trenches
765		15 05-Apr-21*	23-Apr-21	-215	7660, 7670	11111	1111111	
768		10 19-Apr-21	30-Apr-21	-215 7670		11111	1111111	■ Instal Drainage (Swales, Rip Rap)
770		10 03-May-21	14-May-21	-331 7690	7710	11111		■ Install Rock Dust
771		10 17-May-21	28-May-21	-331 7700	7720	Lill.		■ Install Páving
Electri		132 01-Jun-21	08-Dec-21	-367		1111	1 1 1 1 1 1 1	V 08-Dec-21, Electrical
773	0 SWPPP/WEAP Traning	1 01-Jun-21	01-Jun-21	-331 7720	7740	1111	1111111	I SWPPP/WEAP Training
772	Move On Receive Materials	5 01-Jun-21	07-Jun-21	-331 7710	7730	11111	1111111	Move On Receive Materials
774	0 Install Relay Panels, A/C, D/C Panels	15 02-Jun-21	22-Jun-21	-331 7730	7750	11111	1111111	■ Install Relay Panels, A/C, D/C Panels
776	0 Set OICs and Pull Eoxes	10 14-Jun-21*	25-Jun-21	-324	7770, 7780	11111	1111111	■ Set OICs and Pull Boxes
778	0 Set Deadend Steel	10 14-Jun-21	25-Jun-21	-324 7760	7790	11111		■ Set Deadend Steel
775	O Continuous Wiring (Relay Racks, ATS, CBs, OTCs, CCVTs)	80 23-Jun-21	14-Oct-21	-331 7740		11111		Continuous Wiring (Relay Rack
779		10 28-Jun-21	12-Jul-21	-324 7780	7800	11111		Set All Support Steel (Conductor, PT:
777		15 28-Jun-21	19-Jul-21	-269 7760	1000	11111	1111111	Pull:Control Cables: From All Equipm
781		60 06-Jul-21*	28-Sep-21	-319		11111		Build: 220kV. Disconnects and Si
780			05-Oct-21	-324 7790		4-1-1-4-	++++++	Install and Ground Equipment
780		60 13-Jul-21		-324 7790 -740	7830	HIII		Install and Ground Equipment Conductor Line Position
		40 02-Aug-21*	27-Sep-21		1.000	1111		
783		15 28-Sep-21	18-Oct-21	-740 7820	7840	1111	1111111	■ Conductor Buses;
784		34 19-Oct-21	08-Dec-21	-740 7830	7590, 6450	1111		. Testing/Final Disconnect Ad
	nmissioning	41 16-May-23	13-Jul-23	-889		1111		
7590	Wildlife Substation - Commissioning & In-Service Testing	41 16-May-23	13-Jul-23	-889 6900, 7550, 7840, 646	9100	1111		
T/Telecom		1163 18-Sep-18	15-May-23	-889		1111	1111111	
		1168 18-Sep-18	15-May-23	-889		1111		
IT/Telecom			The second second			1311		
	m Engineering	168 18-Sep-18	20-May-19	-445		1111		▼ 20-May-19, tT/Telecom Engineering
6800	Telecom - Engineering	168 18-Sep-18	20-May-19	-445 5600	5500, 6810, 5800, 6600	11111		Telecom - Engineering:
	om Procurement	63 21-May-19	19-Aug-19	-19		1111		. 19-Aug⊦19, lT/Telecom, Procurement
6810	Telecom - Procurement	63 21-May-19	19-Aug-19	-19 5650, 6800	6860, 5590	1111		Télécom - Procurement
IT/Teleco	om Construction	88 10-Jan-23	15-May-23	-889		11111		
6860	Fiber Optic Transport to Communicate with Adjacebt SCE Subs (Mira Loma & Vista)	84 10-Jan-23	09-May-23	-889 6650, 6810, 5900, 665	6870	11111		
6870	Multiplex Equipment to Deliver Line Protection Ckts (L90, 311L, SCADA (EMS)	1 10-May-23	10-May-23	-889 6860	6880	11111		
6880	DATA ckts for Admin, and GRID2 for Operation Networks (DFR/PMU)	1 11-May-23	11-May-23	-889 6870	6890	THE	trittiit	
0000	(a)	,					• • • • • • •	
CXCCCC / d	Nork Critical Remaining Work Summary							
Actual V	Work Critical Remaining Work Summary							TASK filter: All Activities

Project Name: Riverside Transmission Reliability Project - DR#7 Data Date: 01-Jul-17 Project Finish: 05-Jan-24

RIVERSIDE TRANSMISSION RELIABILITY HYBRID PROJECT (RTRP)

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