

Summary of ISO Capital Expenditure Forecast - Non-Incentive Projects
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TO2024 Draft Annual Update
Attachment 4
WP-Schedule 16-Summary of ISO Cap Exp Forecast Non-Inc Projects
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PIN	Project Title	C-WBS	Order #	High/ Low Voltage	OD	Project Total (ISO & non-ISO)				ISO Portion			
						Prior	2023	2024	Total	Prior	2023	2024	Total
Non-Incentive Transmission Projects include Direct Installation and Removal Expenditures, but exclude any C-WBS or Order # with 0% ISO.													
Other Transmission													
07861	Colorado River 500/220kV Substation (NU): Terminate the Centipede-Colorado River	CET-ET-TP-RN-786100	901713069	High	Aug-22	-	1	-	1	-	1	-	1
08308	Install 4 N60 lgc processing relay Red Bluff Substation	CET-ET-CR-WC-830802	903162574	High	Dec-23	289	166	-	455	289	166	-	455
08338	Windhub Substation: (IF):	CET-ET-CR-WC-833800	903222903	High	Jul-22	-	153	33	186	-	92	20	112
08389	Hinson Sub (RNU) Install one (1) 220 kV line position	CET-ET-CR-WC-838906	903714980	High	Jun-24	5	1,325	443	1,773	5	1,325	443	1,773
08394	Vincent Substation.	CET-ET-CR-WC-839401	903516981	High	Sep-24	49	1,778	639	2,466	49	1,778	639	2,466
08090	Eldorado Substation (NU): install the following equipment on a dedicated 220kV double	CET-ET-LG-AF-809000	902249125	High	Dec-19	-	105	-	105	-	105	-	105
08322	Whirlwind Substation: 4. Expand Tehachapi CRAS a. Whirlwind Substation Install two	CET-ET-CR-WC-832203	903471106	High	Aug-24	35	58	167	261	35	58	167	261
08322	Total Rosamond South East					35	58	167	261	35	58	167	261
08393	Walnut Substation Interconnection (RNU): 1. Generation Tie-Line to Existing Pos. 2. Utili	CET-ET-CR-WC-839301	903549492	High	May-24	757	675	372	1,804	757	675	372	1,804
08393	Transmission: Interconnection (RNU) Relocate existing 220 kV Mesa-Walnut Line to new	CET-ET-CR-WC-839306	903555087	High	May-24	0	150	1,215	1,365	0	150	1,215	1,365
08393	Transmission: Interconnection (RNU) 1. Install an appropriate number of 220 kV transmi	CET-ET-CR-WC-839307	903555223	High	May-24	9	225	1,136	1,370	9	225	1,136	1,370
08393	Total Kestrel Storage Project					766	1,050	2,723	4,539	766	1,050	2,723	4,539
08398	Pardee Substation (RNU): Moorpark CRAS – monitoring infrastructure.	CET-ET-CR-WC-839801	903724397	High	Sep-24	0	624	1,084	1,708	0	624	1,084	1,708
08398	Moorpark Substation (RNU): Moorpark centralized RAS ("CRAS") – tripping	CET-ET-CR-WC-839802	903724398	High	Sep-24	1	373	533	907	1	373	533	907
08398	Sylmar Substation (RNU): Moorpark CRAS – monitoring infrastructure.	CET-ET-CR-WC-839807	903724708	High	Sep-24	1	891	817	1,709	1	891	817	1,709
08398	Moorpark Substation (RNU).	CET-ET-CR-WC-839808	903724709	High	Sep-24	23	810	1,691	2,524	23	810	1,691	2,524
08398	Goldback Solar Center					25	2,698	4,125	6,849	25	2,698	4,125	6,849
Total Other Transmission						1,170	7,335	8,130	16,635	1,170	7,274	8,117	16,561
TSP Projects													
06824	La Fresa: Install new MEER building and cut over existing protection and upgrade CTs o	CET-ET-LG-TS-682400	900522611	High	Dec-19	-	46	-	46	-	17	-	17
Total TSP Projects						-	46	-	46	-	17	-	17
Transmission Project Reliability													
07727	Inyokern Substation: Expand existing MEER at Inyokern Substation.	CET-ET-TP-RL-772700	901394462	Low	Dec-23	306	2	-	308	113	1	-	114
07727	Control Substation: Install 12 N60 relays, one satellite clock, and two ethernet switches	CET-ET-TP-RL-772701	901394533	Low	Dec-23	1,047	2	-	1,049	901	2	-	903
07727	Total Digital 395 Project: North-of-Kramer Area Telecom Network and RAS Upgrades					1,353	4	-	1,358	1,014	3	-	1,017
07763	Eldorado-Lugo 500 kV line: CA side - Install 85 miles of new OPGW between CA/NV	CET-ET-TP-RN-776304	901665563	High	Dec-23	10,770	19,140	2,566	32,476	10,770	19,140	2,566	32,476
07763	Eldorado-Lugo 500 kV line: NV Side -Install 2 miles of new OPGW between CA/NV	CET-ET-TP-RN-776305	901665564	High	Dec-23	788	672	57	1,517	788	672	57	1,517
07763	Mohave 500 kV: Install two (2) N60 relays Install one (1) ethernet switch Install one (1)	CET-ET-TP-RN-776302	901484315	High	Dec-23	311	38	-	349	311	38	-	349
07763	Lugo Sub: Install new control cables, update station drawings, and modify settings on	CET-ET-TP-RN-776307	902249120	High	Dec-23	79	39	-	118	79	39	-	118
07763	Eldorado: Install equipment to support N-2 monitoring of Eldorado-Lugo 500kV and	CET-ET-TP-RN-776308	902249121	High	Dec-23	60	85	-	145	60	85	-	145
07763	CFF-Pisgah Sub: Install new telecommunication room	CET-ET-TP-RN-776300	901671834	High	Jan-18	-	1	-	1	-	1	-	1
07763	Real Properties - Land Acquisition	CET-RP-TP-RL-776308	47022	High	Dec-23	-	1,877	-	1,877	-	1,652	-	1,652
07763	Total Lugo-Victorville 500 kV SPS					12,008	21,852	2,623	36,483	12,008	21,627	2,623	36,258
08019	CONTROL-SILVER PEAK "A" 55KV Install 11 sets of Remote Fault Indicators (RFIs)	CET-ET-TP-RL-801900	TD1269146	Low	Aug-22	707	4	-	712	707	4	-	712
08019	CONTROL-SILVER PEAK "C" 55KV Install 11 sets of Remote Fault Indicators (RFIs)	CET-ET-TP-RL-801902	TD1269499	Low	May-22	233	4	-	236	233	4	-	236
08019	Total Control-Silver Peak "A" Transmission Project					940	8	-	948	940	8	-	948
07227	Inyo Substation: Replace Inyo phase shifter and new hybrid circuit breaker. Install 2	CET-ET-TP-RN-722701	902379073	High	Oct-21	-	19	-	19	-	19	-	19
07227	Control: Install two N60 relays	CET-ET-TP-RN-722700	902448105	Low	Jul-23	83	3	-	86	83	3	-	86
07227	Total Casa Diablo IV Project Interconnection					83	22	-	105	83	22	-	105
07911	Phase 2-5-CRAS-install new settings. Utilizing existing N60 relays assigned to Gaskell	CET-ET-TP-RN-791100	903500935	High	Jun-23	38	102	-	140	38	102	-	140
07911	Phase 2-5-Relay Coordination Study	CET-ET-TP-RN-791100	903500934	High	Jun-23	3	17	-	20	3	17	-	20
07911	Total Gaskell West Project					42	119	-	161	42	119	-	161
07546	(Removal/Expense) Lugo Sub: Upgrade Terminal Equipment and Series Capacitors on	CET-ET-TP-RL-754601	902287735	High	Dec-23	-	270	270	540	-	270	270	540
07546	(Removal/Expense) L-M (CA): Install OPGW, Splice Fiber, and clear Infractions on the	CET-ET-TP-RL-754608	902287738	High	Dec-23	-	1,388	-	1,388	-	1,388	-	1,388
07546	(Removal/Expense) L-M (NV): Install OPGW, Splice Fiber, and clear Infractions on the	CET-ET-TP-RL-754609	902288039	High	Dec-23	-	(2,266)	-	(2,266)	-	(2,266)	-	(2,266)
07546	Total Eldorado-Lugo-Mohave (ELM) Series Cap Upgrades Project					-	(608)	270	(338)	-	(608)	270	(338)
07555	Mesa: Remove 230/66/16kV switchracks & equipment, substructures, and foundations.	CET-ET-TP-RL-755505	901192482	High	Jan-23	-	(3,706)	-	(3,706)	-	(1,186)	-	(1,186)

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PIN	Project Title	C-WBS	Order #	High/ Low	OD	Project Total (ISO & non-ISO)				ISO Portion			
				Voltage		Prior	2023	2024	Total	Prior	2023	2024	Total
07555	Lighthipe-Mesa: Remove 8 structures, 2 shoofly ESPs, 1200 ckt ft of shoofly conductor,	CET-ET-TP-RL-755546	902124391	High	Dec-19	-	2	-	2	-	2	-	2
07555	Total Mesa Substation Project					-	(3,704)	-	(3,704)	-	(1,184)	-	(1,184)
07558	Magunden-Springville 230 kV No.1: Remove 14 existing 220kV lattice structures; Install	CET-ET-TP-RL-755800	901192344	High	Feb-22	-	150	575	725	-	150	575	725
07558	Magunden-Springville 230 kV No.2: Remove 14 existing 220kV lattice structures; Install	CET-ET-TP-RL-755801	901192345	High	Dec-21	-	150	575	725	-	150	575	725
07558	Magunden-Springville No.1 & No.2 Tower Replacement ("Lake Success Towers in Water")					-	300	1,150	1,450	-	300	1,150	1,450
08077	Inyokern 115 kV Relay Upgrades for ATRA	CET-ET-TP-RL-807709	902739835	Low	Aug-23	242	81	-	323	242	81	-	323
08077	Control 115 kV CBs and MEER for ATRA	CET-ET-TP-RL-807706	902739832	Low	May-23	7,441	960	-	8,401	7,441	960	-	8,401
08077	Kramer 115 kV Relay Upgrades for ATRA	CET-ET-TP-RL-807710	902739836	Low	Mar-24	1,157	911	-	2,068	578	456	-	1,034
08077	Tortilla 115 kV CBs and MEER for ATRA	CET-ET-TP-RL-807713	902739979	Low	Jul-23	1,510	675	-	2,185	1,510	675	-	2,185
08077	Pastoria 220 kV: Install four (4) new Bus Differential Relay Racks.* Install a second set	CET-ET-TP-RL-807702	902459932	High	Apr-21	-	3	-	3	-	3	-	3
08077	Eldorado 220 kV (Option 2): Cima-Pisgah #1 220kV (Pos 9N) and Cima-Pisgah #2	CET-ET-TP-RL-807703	902739829	High	Jul-24	197	165	182	544	197	165	182	544
08077	Lugo 220 kV Relay Upgrades for ATRA	CET-ET-TP-RL-807704	902739830	High	Feb-24	941	285	-	1,226	941	285	-	1,226
08077	Coolwater 220/115 kV: A. 220 kV Switchrack -1 L90 -1 SLE311C -2 Racks (Bus) -2	CET-ET-TP-RL-807707	902739833	High	Dec-24	92	4,725	7,949	12,766	92	4,725	7,949	12,766
08077	Pisgah 220 kV (Option 2): A. 220 kV Switchrack -8 BCT Upgrades B. Relays -8 Racks -	CET-ET-TP-RL-807711	902739837	High	Apr-24	405	454	1,086	1,945	405	454	1,086	1,945
08077	Total Annual Transmission Reliability Assessment 2016 - Protection Upgrades (ATRA)					11,986	8,260	9,217	29,462	11,407	7,804	9,217	28,428
08078	Antelope Sub (RNU) - Install two (2) G.E N60 Logic Processing Relays or equivalent	CET-ET-TP-RN-807800	902220556	High	Dec-22	-	6	-	6	-	6	-	6
08078	Antelope Sub (RNU) - Power System Control. i. Expand existing RTU at SCE Antelope	CET-ET-TP-RN-807801	902220557	High	Jul-23	14	4	-	18	14	4	-	18
08078	Antelope 2 Solar Project Reliability Network Upgrades at Antelope Substation					14	10	-	24	14	10	-	24
08104	Moorpark 230 kV Switchrack: Relocate the Ormond Beach No. 3 & 4 lines into positions	CET-ET-TP-RL-810400	902315805	High	May-22	-	8	-	8	-	2	-	2
08104	Pardee 230 kV: Equip vacant Position 16E with two CBs rated at 4000A/63kA and four	CET-ET-TP-RL-810401	902315808	High	Apr-21	-	2	-	2	-	2	-	2
08104	New Moorpark-Pardee #4 230 kV line: String roughly 25.5 mile section on vacant side	CET-ET-TP-RL-810402	902315828	High	Jan-22	-	19	-	19	-	19	-	19
08104	Total Moorpark-Pardee 230 kV No. 4 Circuit Project					-	29	-	29	-	23	-	23
08204	Tehachapi C-RAS. i. Whirlwind Substation. Install two GE N60 logic processing relays	CET-ET-TP-RN-820401	902722024	High	Nov-22	-	34	-	34	-	34	-	34
08204	Rabbitbrush Solar Project Reliability Network Upgrades					-	34	-	34	-	34	-	34
08223	Whirlwind AA Bank Centralized RAS. i. Whirlwind Substation. Utilize two GE N60 logic	CET-ET-TP-RN-822300	902705074	High	Apr-23	80	250	115	445	80	250	115	445
08223	Tehachapi CRAS: i. Whirlwind Substation. Install two GE N60 logic processing relays or	CET-ET-TP-RN-822301	902705075	High	Apr-23	7	322	115	445	7	322	115	445
08223	Willy Interconnection at Whirlwind Substation					87	572	231	889	87	572	231	889
08238	San Bernardino Substation: West of Colorado River CRAS – Devers Extension –	CET-ET-TP-RN-823804	902760267	High	Jun-23	390	50	-	440	390	50	-	440
08238	Total Mountainview Generating Station Pmax Increase Project					390	50	-	440	390	50	-	440
08246	Victor Substation- North of Lugo CRAS –Monitoring infrastructure i. Install four (4) GE	CET-ET-TP-RN-824600	902768480	High	Dec-23	2	-	-	2	2	-	-	2
08246	Lugo Substation- North of Lugo CRAS –Monitoring infrastructure i. Install four (4) GE	CET-ET-TP-RN-824601	902768481	High	Dec-23	11	-	-	11	11	-	-	11
08246	Kramer Substation- North of Lugo CRAS –Monitoring infrastructure Install two (2) GE	CET-ET-TP-RN-824602	902768482	High	Dec-23	8	-	-	8	8	-	-	8
08246	Baldy Mesa Project Reliability Network Upgrades					21	-	-	21	21	-	-	21
08298	Windhub Substation. i. Install one (1) 220 kV line position which includes the following	CET-ET-TP-RN-829803	903123443	High	Jun-24	868	865	50	1,783	868	865	50	1,783
08298	Tehachapi centralized RAS – generator addition i. Windhub Substation. Install two (2)	CET-ET-TP-RN-829800	903123440	High	Jun-24	76	188	-	264	76	188	-	264
08298	Windhub AA Bank centralized RAS – monitoring infrastructure i. Windhub Substation. 1.	CET-ET-TP-RN-829801	903123441	High	Jun-24	720	312	60	1,091	720	312	60	1,091
08298	Windhub AA Bank centralized RAS – generation addition i. Windhub Substation. Install	CET-ET-TP-RN-829802	903123442	High	Jun-24	50	91	30	171	50	91	30	171
08298	Bellefield Solar Farm Reliability Network Upgrades					1,714	1,455	140	3,309	1,714	1,455	140	3,309
08294	Pardee Substation	CET-ET-TP-RL-829400	903135849	High	Dec-24	3,063	3,785	-	6,848	3,063	3,785	-	6,848
08294	Pardee-Sylmar 220kV Transmission Line [North Coast Grid ET-00664-04601]:	CET-ET-TP-RL-829401	903135850	High	Dec-24	1,386	878	-	2,264	1,386	878	-	2,264
08294	Pardee-Sylmar 220kV Transmission Line [Metro West Grid ET-00664-04645]:	CET-ET-TP-RL-829402	903135851	High	Dec-24	672	24	-	696	672	24	-	696
08294	Sylmar Substation (Work to be paid for by SCE but performed by LADWP): Upgrade	CET-ET-TP-RL-829400	903769370	High	Dec-24	-	1,223	7,856	9,079	-	1,223	7,856	9,079
08294	Pardee-Sylmar No. 1 and No. 2 230kV Line Rating Increase Project					5,121	5,910	7,856	18,886	5,121	5,910	7,856	18,886
08355	Tehachapi CRAS – Monitoring infrastructure Whirlwind Substation.	CET-ET-TP-RN-835500	903429710	High	May-24	117	89	90	296	117	89	90	296
08355	Tehachapi CRAS – Monitoring Infrastructure Vincent Substation.	CET-ET-TP-RN-835502	903429712	High	May-24	2	204	90	296	2	204	90	296
08355	Tehachapi CRAS – Monitoring infrastructure Midway Substation	CET-ET-TP-RN-835503	903429713	High	May-24	1	205	90	296	1	205	90	296
08355	Tehachapi CRAS – Monitoring infrastructure Windhub Substation	CET-ET-TP-RN-835504	903429714	High	May-24	121	86	90	297	121	86	90	297
08355	Whirlwind Substation Tehachapi CRAS – Tripping infrastructure i. Whirlwind Substation.	CET-ET-TP-RN-835500	903548050	High	May-24	98	386	263	747	98	386	263	747
08355	TOT909-Q1631 - Glenfeliz Solar Farm					339	970	623	1,931	339	970	623	1,931
08358	Eldorado Substation IF (RNU) Participate and modify the planned Lugo-Victorville	CET-ET-TP-RN-835800	903427639	High	Sep-23	65	62	295	422	65	62	295	422
08358	Eldorado RNU (IF) Participate in and modify the existing Lugo-Victorville RAS	CET-ET-TP-RN-835801	903427640	High	Sep-23	202	147	-	349	202	147	-	349
08358	TOT796/Q1341, Yellow Pine 2, LLC, Install Reliability Network Upgrades Eldorado 500/220kV (T)7588					266	209	295	770	266	209	295	770
07115	Johanna: Install double breakers on 3A+4A.	CET-ET-TP-RL-711500	902067053	High	Dec-21	-	1	-	1	-	1	-	1
08107	Kramer Substation (RNU): a. Engineer and construct one 220 kV line position, which	CET-ET-TP-RN-810701	902342409	High	Nov-23	2,771	421	108	3,300	2,771	421	108	3,300
08171	Eldorado Substation (Reliability Network Upgrades):	CET-ET-TP-RN-817100	902460358	High	Jul-24	864	1,811	851	3,526	864	1,811	851	3,526

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				Voltage		Prior	2023	2024	Total	Prior	2023	2024	Total
08205	Whirlwind Substation (NU) Install one GE N60 logic processing relay or equivalent	CET-ET-TP-RN-820501	903437595	High	Aug-22	-	125	-	125	-	125	-	125
08207	Colorado River Substation (RNU)	CET-ET-TP-RN-820700	902598927	High	Jun-24	60	400	1,806	2,266	60	400	1,806	2,266
08214	Red Bluff Substation (RNU):	CET-ET-TP-RN-821401	902630576	High	May-24	600	650	2,923	4,172	600	650	2,923	4,172
06791	Lugo 500kV Sub breaker installation for No. 1AA & No. 2AA banks	CET-ET-TP-RL-679100	800308934	High	Dec-24	5,256	84	971	6,311	5,256	84	971	6,311
08376	Vista Substation Power System Controls (RNU)	CET-ET-TP-RN-837603	903495657	High	Jun-24	1	-	255	256	1	-	255	256
08392	Red Bluff Sub (RNU)-West of Colorado River centralized RAS.	CET-ET-CR-WC-839202	903531605	High	Mar-24	1	1	465	467	1	1	465	467
08418	Laguna Bell Substation Interconnection Reliability Network Upgrades	CET-ET-TP-RN-841802	903627525	High	Nov-24	14	1,249	253	1,516	14	1,249	253	1,516
08454	Antelope 230kV-Replace circuit breakers. Replace circuit breakers 4072 and 6032	CET-ET-TP-RL-845400	903720208	High	Dec-23	62	1	-	63	62	1	-	63
07003	Red Bluff RNU: Install 220kV line position.	CET-ET-TP-RN-707300	902494149	High	May-24	6	7	593	607	6	7	593	607
08100	Whirlwind Substation (NU): a. Utilize the shared 230 kV position at Whirlwind Substation	CET-ET-TP-RN-810000	902326568	High	Oct-23	-	526	185	711	-	526	185	711
08195	Devers Substation (RNU): Engineer and construct one (1) 220 kV line position which	CET-ET-TP-RN-819500	902748920	High	Nov-24	1,338	1,950	-	3,288	1,338	1,950	-	3,288
08199	Windhub Substation (RNU) a. Install one (1) 220 kV transmission line position which	CET-ET-TP-RL-819901	902663178	High	Aug-21	-	125	-	125	-	125	-	125
08163	Red Bluff 2nd 500/230 kV AA Bank (Deliverability Network Upgrade).	CET-ET-TP-RL-816300	902494090	High	Apr-22	-	200	-	200	-	200	-	200
08220	Red Bluff Sub:Install line/relays/add points.	CET-ET-TP-RN-822004	902699211	High	Dec-21	-	858	-	858	-	858	-	858
08201	Whirlwind Substation (RNU): Whirlwind AA-Bank RAS:	CET-ET-TP-RN-820100	902668204	High	Jul-23	26	672	244	942	26	672	244	942
08285	Whirlwind Substation: a. Install one (1) 230 kV line position which includes the following	CET-ET-TP-RN-828500	903099017	High	Aug-24	9	1,606	969	2,584	9	1,606	969	2,584
08380	Kramer Substation (RNU)-Perform one local relay coordination study and re-set/test prote	CET-ET-TP-RN-838002	903505987	High	Aug-24	1	44	16	61	1	44	16	61
08380	Mojave Desert RAS – tripping infrastructure (GRNU)a. Kramer Substation.i. Install two (2)	CET-ET-TP-RN-838000	903505985	High	Aug-24	11	164	116	292	11	164	116	292
08380	North of Lugo ("NOL") cRAS – tripping infrastructure (GRNU)	CET-ET-TP-RN-838001	903505986	High	Aug-24	6	267	180	452	6	267	180	452
08380	Aratina Solar Center 2 Project					18	475	312	805	18	475	312	805
08448	Laguna Bell Sub	CET-ET-TP-RL-844800	903728254	High	Jun-24	36	4,018	-	4,053	36	4,018	-	4,053
08448	Reconductor approximately 5 miles of existing Laguna Bell - Mesa No.1 230 kV Line	CET-ET-TP-RL-844801	903728255	High	Jun-24	51	5,093	-	5,144	51	5,093	-	5,144
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 2 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795047	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 3 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795050	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 4 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795052	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 5 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795054	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 6 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795055	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 8 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795373	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 Reconductor - Section 7 (CAISO TPP Project)	CET-ET-TP-RL-844801	903795403	High	Jun-24	1	100	-	101	1	100	-	101
08448	Laguna Bell-Mesa No. 1 230 kV Line Rating Increase Project					95	9,810	-	9,905	95	9,810	-	9,905
Total Transmission Project Reliability						45,485	56,464	32,339	134,288	44,567	58,296	32,339	135,201
Infrastructure Replacement													
03138	Sylmar Converter Station: Misc Cap	CET-OT-OT-ME-313800		High	Blanket Specifics	-	4,470	3,664	8,133	-	4,470	3,664	8,133
04651	Palo Verde Switchrack: Misc Cap	CET-OT-OT-ME-465100		High	Blanket Specifics	-	1,188	6,277	7,465	-	1,188	6,277	7,465
	Total LADWP/Palo Verde - WORK PERFORMED BY OPERATING AGENT					-	5,657	9,941	15,598	-	5,657	9,941	15,598
04211	Replace Bulk Power Circuit Breakers (220kV and Above)	CET-ET-IR-CB-421100		High	Blanket Specifics	-	4,738	3,411	8,149	-	4,738	3,411	8,149
04343	Non-Bulk Relay Replacement Program ("SRRP")	CET-ET-IR-RP-434301		Low	Blanket Specifics	-	47	-	47	-	47	-	47
04756	Substation Miscellaneous Equipment Additions & Betterment	CET-ET-IR-ME-475600		High	Blanket Specifics	-	8,070	12,368	20,438	-	8,070	12,368	20,438
04837	Replace SAS Infrastructure (FERC)	CET-ET-IR-RP-483701		High	Blanket Specifics	-	1,228	-	1,228	-	1,228	-	1,228
05089	Bulk Power 500kV & 220kV Line Relay Replacement	CET-ET-IR-RP-508900		High	Blanket Specifics	-	5,522	2,930	8,452	-	5,522	2,930	8,452
08399	Bulk Capital Relay Replacement Program	CET-ET-IR-RP-839900		High	Blanket Specifics	-	184	-	184	-	184	-	184
05210	Substation Transformer Bank Replacement Program (AA-Bank & A-Bank)	CET-ET-IR-TB-521001		High	Blanket Specifics	-	1,709	328	2,038	-	1,709	328	2,038
06197	On-line Dissolved Gas Analysis of Bulk Power Transformer Banks	CET-ET-IR-ME-619700		High	Blanket Specifics	-	1,050	700	1,750	-	1,050	700	1,750
07713	Substation Switchrack Rebuilds (FERC)	CET-ET-IR-RB-771301		High	Blanket Specifics	-	4,935	440	5,375	-	4,935	440	5,375
07716	Substation Batteries & Chargers (FERC)	CET-ET-IR-ME-771601		High	Blanket Specifics	-	334	650	984	-	334	650	984
07637	Substation Facility Capital Maintenance	COS-00-RE-MA-NE7637		High	Blanket Specifics	-	11,600	11,996	23,596	-	4,060	4,199	8,259
07957	Devers: Substation Maintenance and Test Building Improvements program	COS-00-RE-AD-SR0004	801432305	High	Aug-23	9,111	1,048	-	10,159	6,979	802	-	7,782
07957	Total Substation Maintenance and Test Building Improvements Program					9,111	1,048	-	10,159	6,979	802	-	7,782
07392	Seismic Program - Bus Rel (FERC)	COS-00-SP-BR-000000		High	Blanket Specifics	-	175	125	300	-	142	101	243
07392	Seismic Program - Trans Subs (FERC)	COS-00-SP-TD-000000		High	Blanket Specifics	-	13,000	11,500	24,500	-	8,109	7,173	15,282
07392	Seismic Program - Trans Lines	COS-00-SP-TD-000002		High	Blanket Specifics	-	3,300	3,300	6,600	-	2,501	2,501	5,002
07392	Seismic Assessment and Mitigation Program for Transmission Assets					-	16,475	14,925	31,400	-	10,752	9,775	20,527
Physical Security Enhancement Programs:													
07949	Protection of Grid Infrastructure Assets (formerly, Physical Security Systems - Electric	COS-00-CS-CS-745400		High	Blanket Specifics	-	13,991	20,419	34,410	-	8,373	12,219	20,591
07573	Substation Fence/Gate (Cu Theft) (aka, Security Fence and Lights Upgrade) (FERC)	CET-ET-IR-ME-757301		High	Blanket Specifics	-	342	722	1,064	-	342	722	1,064
08042	500/230 kV (ES-5067): Physical Security Tier 2	CET-ET-IR-ME-804200	902210275	High	Dec-23	4,726	549	-	5,275	3,970	461	-	4,431
08042	500/230 kV (ES-5047): Physical Security Tier 2	CET-ET-IR-ME-804202	902210277	High	Sep-23	2,716	1,273	-	3,988	2,716	1,273	-	3,988

Summary of ISO Capital Expenditure Forecast - Non-Incentive Projects

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PIN	Project Title	C-WBS	Order #	High/ Low	OD	Project Total (ISO & non-ISO)				ISO Portion			
				Voltage		Prior	2023	2024	Total	Prior	2023	2024	Total
08042	500/230 kV (ES-8060): Physical Security Tier 2	CET-ET-IR-ME-804203	902210452	High	Jul-23	425	3,618	608	4,650	425	3,618	608	4,650
08042	500/230 kV (ES-5079): Physical Security Tier 2	CET-ET-IR-ME-804204	902210453	High	Nov-23	351	3,664	608	4,623	312	3,261	541	4,114
08042	500/230 kV (ES-5070): Physical Security Tier 2	CET-ET-IR-ME-804201	903511341	High	Aug-24	449	2,632	2,360	5,441	180	1,053	944	2,176
08042	500/230 kV (ES-5031): Physical Security Tier 2	CET-ET-IR-ME-804206	903897059	High	May-24	2	450	-	452	2	423	-	425
08042	500/230 kV (ES-8369): Physical Security Tier 2	CET-ET-IR-ME-804206	903897060	High	Oct-24	2	237	-	239	2	237	-	239
08042	500/230 kV (ES-5042): Physical Security Tier 2	CET-ET-IR-ME-804206	903994629	High	Dec-23	-	236	-	236	-	197	-	197
08042	500/230 kV (ES-8076): Physical Security Tier 2	CET-ET-IR-ME-804206	903853720	High	Dec-23	5	236	-	241	2	94	-	96
08042	500/230 kV (ES-5064): Physical Security Tier 2	CET-ET-IR-ME-804205	902210454	High	Jan-23	65	(0)	-	69	14	(0)	-	15
08042	500/230 kV (ES-5071): Physical Security Tier 2	CET-ET-IR-ME-804206	903864281	High	Feb-24	2	1,373	3,273	4,648	1	321	765	1,087
08042	500/230 kV (ES-8367): Physical Security Tier 2	CET-ET-IR-ME-804200	903897669	High	Sep-24	2	438	3,464	3,903	2	438	3,464	3,903
08042	500/230 kV (ES-5023): Physical Security Tier 2	CET-ET-IR-ME-804206	903907357	High	Jun-24	-	363	938	1,301	-	113	291	403
08042	500/230 kV (ES-5084): Physical Security Tier 2	CET-ET-IR-ME-804206	903978044	High	Apr-24	-	355	898	1,253	-	43	108	150
08042	Physical Security Projects (Tiers 2 & 3)					8,745	15,424	12,147	36,319	7,625	11,531	6,720	25,876
Total Physical Security Enhancement Programs						-	-	-	-	-	-	-	-
Total Infrastructure Replacement						8,745	29,757	33,288	71,793	7,625	20,245	19,661	47,532
						-	-	-	-	-	-	-	-
						17,856	92,354	90,977	201,190	14,604	69,334	64,402	148,341

Grid Applications

08284	Colorado River Substation (Removal CRC RAS)	CET-ET-CR-WC-828400	903109578	High	Sep-24	87	817	-	904	87	817	-	904
08284	Vista Sub: Install relays/Add points.	CET-ET-GA-CR-828401	902699207	High	Sep-24	2,369	(5)	-	2,364	2,369	(5)	-	2,364
08284	San Bernardino Sub:Install relays/add points	CET-ET-GA-CR-828407	902699210	High	Sep-24	973	22	-	996	973	22	-	996
08284	Mira Loma Sub:Add relays/add points	CET-ET-GA-CR-828402	902699212	High	Sep-24	776	3	-	780	776	3	-	780
08284	Serrano Sub (RNU): Install relays/add points.	CET-ET-GA-CR-828401	902699209	High	Sep-24	828	10	-	838	828	10	-	838
08284	Valley Sub (RNU):Add relays/points.	CET-ET-GA-CR-828400	902699208	High	Sep-24	1,165	12	-	1,177	1,165	12	-	1,177
08284	Etiwanda Sub:Install relays/Add points.	CET-ET-GA-CR-828403	902699213	High	Sep-24	863	1	-	864	863	1	-	864
08284	Devers Sub:Install relays/add points	CET-ET-GA-CR-828403	902699214	High	Sep-24	1,513	20	-	1,533	1,513	20	-	1,533
08284	West of Colorado River CRAS Inland/Devers Extension					8,576	880	-	9,456	8,576	880	-	9,456
08345	Install corporate security equipment to support CRAS Mohave, Eldorado and Lugo	CET-ET-GA-CR-834500	1070716	High	Jul-24	-	-	2,082	2,082	-	-	2,082	2,082
08345	Power system controls (PSC) software application updates	CET-ET-GA-CR-834500	8345-PCS	High	Jul-24	-	1,524	2,124	3,648	-	1,524	2,124	3,648
08345	Mohave -Install 150 linear -ft of 4' x 4' cable tray -Install one (1) pair of monitoring relays	CET-ET-GA-CR-834500	903333163	High	Jul-24	111	852	834	1,797	111	852	834	1,797
08345	Eldorado -Install 150 linear -ft of 4' x 4' cable tray -Install four (4) Ethernet Switches -	CET-ET-GA-CR-834501	903333164	High	Jul-24	54	583	551	1,188	54	583	551	1,188
08345	Lugo -Install 150 linear -ft of 4' x 4' cable tray -Install two (2) Ethernet Switches -Install	CET-ET-GA-CR-834501	903333165	High	Jul-24	19	198	189	406	19	198	189	406
08345	Total Lugo-Victorville Centralized RAS					184	3,157	5,780	9,121	184	3,157	5,780	9,121
06446	VARIOUS: INSTALL PHASOR MEASUREMENT SYSTEM	CET-ET-GA-EM-644600		High	Blanket Specifics	-	3,132	2,315	5,447	-	3,132	2,315	5,447
06446	Total Grid Apps					8,760	7,169	8,095	24,024	8,760	7,169	8,095	24,024

PWRD Blankets

03363	Substation Planned Maintenance Replacements	CET-PD-IR-SP-SUBSNW		High	Blanket Specifics	-	13,625	11,828	25,452	-	5,743	4,985	10,728
03363	Substation Unplanned Maintenance Replacements	CET-PD-BM-SU-SUBSNW		High	Blanket Specifics	-	26,753	29,866	56,619	-	6,787	7,577	14,365
03363	Substation - Storm	CET-PD-ST-SS-SUBSNW		High	Blanket Specifics	-	541	846	1,387	-	4	7	11
03363	Substation Maintenance, Breakdown, & Storm					-	40,918	42,540	83,458	-	12,535	12,570	25,104
03364	Transmission Maintenance Planned - Overhead Conductor	CET-PD-IR-TP-789000		High	Blanket Specifics	-	401	-	401	-	401	-	401
03364	Transmission Breakdown Maintenance Unplanned	CET-PD-BM-TU-TRSJAC		High	Blanket Specifics	-	3,004	3,055	6,059	-	715	727	1,442
03364	Transmission Tower Corrosion Program	CET-PD-IR-TS-TRSJAC		High	Blanket Specifics	-	6,913	5,705	12,618	-	4,839	3,993	8,833
03364	Transmission Small Civil	CET-PD-IR-TC-TRSJAC		Low	Blanket Specifics	-	15,145	18,932	34,077	-	5,981	7,477	13,458
03364	Transmission Grid-Based Maintenance	CET-PD-IR-TG-TRSJAC		High	Blanket Specifics	-	19,957	20,354	40,311	-	4,768	4,863	9,630
03364	Transmission Maintenance & Breakdown Maintenance					-	45,419	48,046	93,466	-	16,704	17,060	33,764
03364	Transmission Deteriorated Pole Repl & Restoration	CET-PD-IR-TR-TRSJAC		Low	Blanket Specifics	-	88,585	102,941	191,526	-	6,507	7,561	14,068
04057	Pole Loading Transmission Pole Replacements	CET-PD-IR-PT-TRSJAC		Low	Blanket Specifics	-	26,980	14,825	41,805	-	218	120	338
04056	Steel Stub Pole Remediation (Trans)	CET-PD-OT-SF-TRORAN		Low	Blanket Specifics	-	104	106	210	-	2	2	4
04056	Transmission Poles (Pole Loading & Deteriorated Pole Programs)					-	115,670	117,872	233,542	-	6,726	7,683	14,409
07298	Transmission Line Rating Remediation (Exempt from Licensing)	CET-PD-OT-PJ-729801		High	Blanket Specifics	-	48,487	60,184	108,671	-	48,487	60,184	108,671
03362	Critical Infrastructure Spares - FERC Spare Transformer Equipment Program	CET-PD-CI-CI-CRINSP		High	Blanket Specifics	-	5,034	-	5,034	-	5,034	-	5,034
03367	Substation - Claim	CET-PD-CL-SC-SUBSNW		High	Blanket Specifics	-	292	346	638	-	6	7	12
03367	Transmission - Claim	CET-PD-CL-TC-TRSJAC		High	Blanket Specifics	-	3,572	3,652	7,224	-	252	258	509
03367	Transmission - Storm	CET-PD-ST-TS-TRSJAC		High	Blanket Specifics	-	8,448	8,304	16,752	-	4,010	3,942	7,952
03367	Transmission Storm & Claims					-	12,312	12,302	24,614	-	4,267	4,206	8,473

Summary of ISO Capital Expenditure Forecast - Non-Incentive Projects
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PIN	Project Title	C-WBS	Order #	High/ Low	OD	Project Total (ISO & non-ISO)				ISO Portion			
				Voltage		Prior	2023	2024	Total	Prior	2023	2024	Total
08224	Trans Emerg Dry Fuels Remediation FERC	CET-PD-FR-TF-822601		Low	Blanket Specifics		4	4	9		4	4	9
08224	EOI Replacements - T (FERC)	CET-PD-WM-TP-822401		Low	Blanket Specifics		262	268	530		262	268	530
08224	Transmission Splice FERC	CET-PD-WM-TS-822401		Low	Blanket Specifics		7	7	13		7	7	13
08224						-	273	279	552	-	273	279	552
	Total PWRD Blankets					-	268.113	281.223	549.335	-	94.026	101.981	196.007
Total Non-Incentive Transmission Projects						73.270	431.481	420.764	925.518	69.100	236.116	214.935	520.151
Total Forecast Specific Project Expenditures (Closing by December 2024)						73.270	84.354	58.396	216.023	69.100	81.957	52.956	204.013
Total Forecast Blanket Expenditures (Closing by December 2024)						-	347.127	362.367	709.495	-	154.159	161.979	316.138