

**Summary of ISO Capital Expenditure Forecast - Non-Incentive Projects**  
(\$000)

PIN	Project Title	C-WBS	Order #	High/ Low	OD	Project Total (ISO & non-ISO)				ISO Portion			
				Prior		2019	2020	Total	Prior	2019	2020	Total	
Non-Incentive Transmission Projects includes Direct Installation and Removal Expenditures, but excludes any C-WBS or Order # with 0% ISO.													
Other Transmission													
07059	Red Bluff Substation (NU): Install a Breaker-and-a-Half Configuration to terminate the AICET-ET-TP-RN-705900		900346247	High	Aug-20	1,047	194	400	1,641	1,047	194	400	1,641
07227	Inyo Substation: Replace Inyo phase shifter and new hybrid circuit breaker.Inst	CET-ET-CR-WC-722702	902379073	Low	Aug-20	53	599	4,762	5,414	53	599	4,762	5,414
07227	Control: Install two (2) N60 relays	CET-ET-TP-RN-722700	902448105	Low	Jun-20	-	23	70	93	-	23	70	93
07227	Total Casa Diablo IV Interconnection Project					53	621	4,832	5,507	53	621	4,832	5,507
07756	Whirlwind Sub (POS): Equip one (1) 220 kV position to terminate the Rattlesnake-Whirlw	CET-ET-TP-RN-775602	901458993	High	Nov-18	-	42	-	42	-	42	-	42
07775	Whirlwind Substation (NU): Equip one (1) 220 kV position to terminate the Desert Flowe	CET-ET-TP-RN-777500	901515853	High	Jul-18	72	5	-	77	72	5	-	77
07903	Lugo Substation: Expand High Desert Power Plant (HDPP) SPS 1. Eight (8) G.E. N60 logic pr	CET-ET-CR-WC-790301	902236314	High	Jun-20	-	10	262	273	-	10	262	273
07903	Victor Substation: Expand High Desert Power Plant (HDPP) SPS 1. Eight (8) G.E. N60 logic p	CET-ET-CR-WC-790301	902236315	High	Jun-20	-	10	262	273	-	10	262	273
07903	Total Ord Mountain Project (TOT438/Q552) Project					-	21	524	545	-	21	524	545
08078	Antelope (RNU): Install (2) N60 relays	CET-ET-CR-WC-807802	902220556	High	Nov-19	13	22	24	58	13	22	24	58
08078	Antelope Sub (RNU) - Power System Control. i. Expand existing RTU at SCE Antelope Substat	CET-ET-CR-WC-807803	902220557	High	Sep-19	8	24	24	55	8	24	24	55
08078	Total Antelope 500/230 kV (T) Install Interconnection Facilities Project					21	45	47	114	21	45	47	114
08081	Colorado River Sub (RNU): Install one (1) 220kV line position which includes the following equ	CET-ET-TP-RN-808100	902286854	High	May-20	26	951	909	1,887	26	951	909	1,887
08081	Colorado River Sub (RNU) - Install two (2) GE N60 logic processing relays or equivalent succe	CET-ET-TP-RN-808101	902286855	High	Dec-20	0	28	114	143	0	28	114	143
08081	Colorado River (RNU) - ground grid study for interconnection	CET-ET-TP-RN-808102	902286856	High	Dec-20	-	-	41	41	-	-	41	41
08081	Total Arlington Solar Project (TOT781/Q1196) Project					26	980	1,065	2,071	26	980	1,065	2,071
08088	Eldorado: Install facil. for switchrack	CET-ET-LG-AF-808800	902245555	High	May-20	294	2,500	11,884	14,678	294	2,500	11,884	14,678
08088	Eldorado-Harry Allen (Cust):Install 1 span	CET-ET-AF-CF-808800	902245556	High	May-20	99	75	115	289	99	75	115	289
08088	Total Harry Allen - Eldorado 500kV Transmission Line Project					393	2,575	11,999	14,967	393	2,575	11,999	14,967
08090	Bob Switch - Eldorado T/L: Install one transmission structure with two (2) spans from the SCE	CET-ET-AF-CF-809000	902249126	High	Jul-19	240	1,832	-	2,072	240	1,832	-	2,072
08090	Eldorado Substation (NU): install the following equipment on a dedicated 220kV double break	CET-ET-LG-AF-809000	902249125	High	Jun-19	528	5,385	-	5,913	528	5,385	-	5,913
08090	Bob Switch to Eldorado 220 kV Interconnection					768	7,217	-	7,985	768	7,217	-	7,985
08107	Kramer Substation (RNU): a. Engineer and construct one (1) 220 kV line position, which	CET-ET-CR-WC-810701	902342409	High	Aug-20	12	0	670	683	12	0	670	683
08139	Colorado River Sub (RNU):1. Engineer and construct one (1) 220kV line position	CET-ET-TP-RN-813901	902409112	High	Jun-20	61	25	66	152	61	25	66	152
08139	Colorado River Sub (RNU) - Install two (2) GE N60 logic processing relays or equ	CET-ET-TP-RN-813902	902409115	High	Jun-20	0	1	68	69	0	1	68	69
08139	Total Quartz 3 Solar Project (TOT670/Q970) Project					62	26	134	222	62	26	134	222
Total Other Transmission						2,454	11,727	19,672	33,853	2,454	11,727	19,672	33,853
TSP Projects													
05383	Chino 220/66kV - Add a 4th 280MVA, 220/66kV Transformer Bank and Split the Chino 66	CET-ET-LG-TS-538303	901191112	High	Oct-19	3,513	2,439	563	6,515	1,230	854	197	2,280
06824	La Fresa Sub (Phase 2): Install new MEER and cut over existing protection and	CET-ET-LG-TS-682400	900522611	High	Nov-19	27,041	3,055	-	30,097	10,005	1,131	-	11,136
07113	El Nido: Install 230 kV (63 kA) double breakers on No. 1 A bank at position 3 and No. 3A	CET-ET-LG-TS-711300	901241164	High	Jun-18	-	10	-	10	-	10	-	10
07834	Bailey Sub: Install a 28.8 MVAR Cap	CET-ET-LG-TS-783400	901618623	Low	Jun-18	-	0	-	0	-	0	-	0
Total TSP Projects						30,555	5,505	563	36,622	11,235	1,995	197	13,427
Transmission Project Reliability													
07112	Devers: Equip the 230 KV A-Bank positions (3 & 4) with circuit breakers	CET-ET-TP-RL-711200	900305114	High	Dec-18	-	12	-	12	-	12	-	12
07518	Springville Sub: Redesign high side feed from bank on bus to double CB at 220kV posit	CET-ET-TP-RL-751800	901007168	High	Aug-19	7,523	1,902	-	9,424	6,018	1,521	-	7,539
07119	Walnut: Convert the Mesa 220 kV Line Position and 3A & 4A Bank High Side Positions	CET-ET-TP-RL-711900	900772538	High	May-19	10,802	1,278	-	12,080	4,429	524	-	4,953
07790	Eagle Mountain Substation: Install a 45 MVAR tertiary reactor (effective 34 MVAR @ 12	CET-ET-TP-RL-779000	901552346	High	Dec-18	-	24	-	24	-	24	-	24
07547	Eldorado: Engineer, remove and install equipment for changing the 500kV line pos for the	CET-ET-TP-RL-754700	901107340	High	Jun-18	-	26	-	26	-	26	-	26
07547	Eldorado-Mohave & Eldorado-Moenkopi lines.												
07547	Eldorado-Mohave 500kV: Remove two (2) existing transmission structures. Install three (3) ne	CET-ET-TP-RL-754701	901107560	High	Jun-18	7,169	37	-	7,206	7,169	37	-	7,206
07547	Eldorado-Moenkopi 500 kV: Remove one (1) existing transmission structure. Install one (1) ne	CET-ET-TP-RL-754702	901107562	High	Jun-18	4,223	37	-	4,260	4,223	37	-	4,260
07547	Total Eldorado-Mohave and Eldorado-Moenkopi 500kV Line Position Swap					11,391	100	-	11,491	11,391	100	-	11,491
07727	Inyokern Substation: Expand existing MEER at Inyokern Substation.	CET-ET-TP-RL-772700	901394462	Low	Aug-20	5	1,103	1,665	2,773	2	408	616	1,026
07727	Control Substation: Install 12 (12) N60 relays, one (1) satellite clock, and two (2) ethernet swit	CET-ET-TP-RL-772701	901394533	Low	Oct-20	40	358	930	1,328	34	308	800	1,142
07727	Kramer Substation Install six (6) N60 relays and one (1) satellite clock. Add points to existing	CET-ET-TP-RL-772704	901394536	High	Dec-20	8	89	351	447	6	69	274	349
07727	RTU. Program and test RAS.												
07727	Total Digital 395 Project: North-of-Kramer Area Telecom Network and RAS Upgrades					53	1,550	2,946	4,548	42	785	1,690	2,517

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PIN	Project Title	C-WBS	Order #	High/ Low	OD	Project Total (ISO & non-ISO)				ISO Portion			
				Voltage		Prior	2019	2020	Total	Prior	2019	2020	Total
07763	Lugo 500/220 kV: Install two N60 relays Install one ethernet switch Install one satellite switch PSC- RTU Point additions at Lugo PSC-Modify Lugo-Victorville SPS program and test	CET-ET-TP-RN-776301	901484303	High	Aug-16	-	1	-	1	-	0.5	-	1
07763	Eldorado-Lugo 500 kV line: CA side - Install 85 miles of new OPGW between CA/NV border and	CET-ET-TP-RN-776304	901665563	High	Oct-19	4,206	181	6,600	10,987	4,206	181	6,600	10,987
07763	Eldorado-Lugo 500 kV line: NV Side -Install 2 miles of new OPGW between CA/NV border and	CET-ET-TP-RN-776305	901665564	High	Dec-19	454	13	40	507	454	13	40	507
07763	Pisgah Sub: Install new telecommunication room.	CET-ET-TP-RL-776300	901671834	High	Dec-18	25	1	-	26	25	1	-	26
07763	Mohave: Instal(2)Relays and (2) Switches	CET-ET-TP-RN-776302	901484315	High	Oct-19	109	20	130	259	109	20	130	259
07763	Lugo Sub: Install new control cables	CET-ET-TP-RN-776307	902249120	High	Dec-19	17	30	60	107	17	30	60	107
07763	Eldorado Sub: Install N60 relays; ethernet switch; and satellite switch	CET-ET-TP-RN-776300	901483656	High	Dec-19	-	1	-	1	-	1	-	1
07763	Eldorado: Install necessary equipment to support N-2 monitoring of Eldorado-Lugo 500 kV and	CET-ET-TP-RN-776308	902249121	High	Dec-19	15	-	12	27	15	-	12	27
<b>Total Lugo-Victorville 500 kV SPS</b>						<b>4,826</b>	<b>246</b>	<b>6,842</b>	<b>11,914</b>	<b>4,826</b>	<b>246</b>	<b>6,842</b>	<b>11,914</b>
07645	Loop Kramer-Lugo 230 kV #1 & #2 lines into Victor substation	CET-ET-TP-RL-764500	901254013	High	Nov-17	-	4	-	4	-	4	-	4
07806	Kramer Substation: Install two (2) tertiary bank reactors, 45MVAR each (1A and 2A banks)	CET-ET-TP-RL-780600	901580758	High	Dec-17	-	3	-	3	-	3	-	3
07120	Chino Sub: equip the No.1A 220kV A-Bank positions with circuit breakers	CET-ET-TP-RL-712000	900713964	High	Dec-20	33,938	1,524	3,547	39,009	22,060	991	2,305	25,356
07120	Mira Loma Sub: Upgrade 220 kV line protection for compatibility with associated SAS protection upgrades at Chino Substation	CET-ET-TP-RL-712002	901573514	High	Feb-19	203	146	-	349	203	146	-	349
07120	Serrano Sub: Upgrade 220 kV line protection for compatibility with associated SAS protection upgrades at Chino Substation	CET-ET-TP-RL-712003	901192472	High	Aug-19	232	61	-	293	232	61	-	293
<b>Total Chino 220/66 kV Bank on Circuit Breaker Project</b>						<b>34,373</b>	<b>1,732</b>	<b>3,547</b>	<b>39,651</b>	<b>22,495</b>	<b>1,198</b>	<b>2,305</b>	<b>25,998</b>
07884	Tap the remainig Lighthipe 220kV line to Harborgen substation	CET-ET-TP-RL-788402	901822249	High	Nov-19	507	35	32	574	507	35	32	574
07884	Harborgen-Lng Bch 220kV: Remove 1 mile of line (REMOVAL ONLY)	CET-ET-TP-RL-788400	901822245	High	Jan-19	1,968	878	300	3,146	1,968	878	300	3,146
07884	Lighthipe-Lng Bch 220kV: Remove 1 mile of line (REMOVAL ONLY)	CET-ET-TP-RL-788401	901822246	High	Jan-19	2,422	3,043	13,345	18,810	2,422	3,043	13,345	18,810
07884	Long Beach Sub: Remove 220kV switchyard	CET-ET-TP-RL-788403	901822250	High	Sep-19	2,108	283	201	2,592	2,108	283	201	2,592
<b>Total Cerritos Channel Relocation Project</b>						<b>7,005</b>	<b>4,239</b>	<b>13,878</b>	<b>25,122</b>	<b>7,005</b>	<b>4,239</b>	<b>13,878</b>	<b>25,122</b>
08019	CONTROL-SILVER PEAK "A" 55kV Install 11 sets of Remote Fault Indicators (RFIs), including	CET-ET-TP-RL-801900	TD1269146	Low	Oct-18	196	151	-	347	196	151	-	347
08019	CONTROL-SILVER PEAK "C" 55kV Install 11 sets of Remote Fault Indicators (RFIs), including	CET-ET-TP-RL-801902	TD1269499	Low	Oct-18	122	1	-	122	122	1	-	122
<b>Total Control-Silver Peak "A" Transmission Project</b>						<b>318</b>	<b>152</b>	<b>-</b>	<b>469</b>	<b>318</b>	<b>152</b>	<b>-</b>	<b>469</b>
06791	Lugo 500 kV Substation breaker installation for No. 1AA & No. 2AA banks	CET-ET-TP-RL-679100	800308934	High	Jul-19	5,256	50	100	5,406	5,256	50	100	5,406
07115	Johanna:Install double breakers on 3A+4A	CET-ET-TP-RL-711500	902067053	High	May-20	2,230	243	1,571	4,043	1,828	199	1,288	3,315
07116	Villa Park: Equip the existing No. 2A bank currently connected to 220 kV position 4 South bus with double breaker configuration	CET-ET-TP-RL-711600	900645440	High	May-16	-	4	-	4	-	4	-	4
07241	Eldorado: Install (2) 500 kV CBs, (3) 500 kV gang operated disconnects and other associated equipment to terminate the 3 AA bank to the number 3 position on the	CET-ET-TP-RL-724100	900713966	High	Jun-16	-	4	-	4	-	4	-	4
07248	New 500/230 kV AA-Bank at Eldorado Connected to the New 220 kV SCE Owned Switchy	CET-ET-TP-RN-724800	900692364	High	Oct-15	-	25	-	25	-	25	-	25
07511	Antelope-Pardee 500kV: Install Marker Balls and Lighting per FAA requirements	CET-PD-OT-LM-751101	900719387	High	Dec-19	3,244	(0)	-	3,243	3,244	(0)	-	3,243
06420	Devers Sub: Remove 220 kV CBs and Disconnect Switches	CET-ET-TP-RN-642007	901455361	High	Jan-20	94	-	30	124	94	-	30	124
06420	Vista Sub: Remove 220 kV Disconnect Switches	CET-ET-TP-RN-642011	901455365	High	Dec-19	49	30	30	109	49	30	30	109
06420	Westof Devers 220 kV Trans Line Removals	CET-ET-TP-RN-642018	901460766	High	Dec-19	1,806	6,500	4,000	12,306	1,806	6,500	4,000	12,306
<b>Total West of Devers Upgrade Project (WODUP)</b>						<b>1,949</b>	<b>6,530</b>	<b>4,060</b>	<b>12,539</b>	<b>1,949</b>	<b>6,530</b>	<b>4,060</b>	<b>12,539</b>
06957	Coolwater 220/115 kV:A. 220 kV Switchrack, -1 L90, -1 SLE311C, -2 Racks (Bus)	CET-ET-TP-RN-695703		High	Dec-20	-	-	4,183	4,183	-	-	4,183	4,183
08091	Big Creek 4: Install two new N60 relays	CET-ET-TP-RL-809100	902260821	High	Dec-19	101	314	-	416	101	314	-	416
07555	Mira Loma-Vincent 500 kV new dbl circuit	CET-ET-TP-RL-755507	901192484	High	Dec-20	1,163	29	909	2,101	1,163	29	909	2,101
07555	Eagle Rock-Mesa 220kV: Remove 2100 ckt ft of conductor	CET-ET-TP-RL-755537	902124237	High	Dec-20	212	3	-	215	212	3	-	215
07555	Lighthipe-Mesa: Remove 8 strct+s+nd	CET-ET-TP-RL-755546	902124391	High	Dec-20	857	645	-	1,501	857	645	-	1,501
07555	Mesa-Rio Hondo 220kV: Remove 4structures and 2700 ckt ft of conductor.	CET-ET-TP-RL-755547	902124392	High	Dec-20	942	334	-	1,277	942	334	-	1,277
07555	Mesa-Rio Hondo 220kV: Remove 4structures and 2700 ckt ft of conductor.	CET-ET-TP-RL-755548	902124393	High	Dec-20	0	(0)	617	617	0	(0)	617	617
07555	Mesa-Vincent #1 220kV: Remove 3structures, 2 shoofly ESPs, 800 ckt ft ofshoofly conductor, and	CET-ET-TP-RL-755552	902124397	High	Dec-20	315	285	-	600	315	285	-	600
07555	Mesa-Vincent #2 220kV: Remove 3structures and 2000 ckt ft of conductor	CET-ET-TP-RL-755554	902124579	High	Dec-20	721	23	-	745	721	23	-	745
07555	Redondo-Vincent 220kV: Remove 1500 ckt ft of shoofly conductor. Shoofly will stay in place >12	CET-ET-TP-RL-755558	902124583	High	Dec-20	172	3	-	175	172	3	-	175
07555	Center-Mesa 220kV: Remove 4 structuresand 2800 ckt ft of conductor	CET-ET-TP-RL-755535	902132962	High	Dec-20	-	-	600	600	-	-	600	600
07555	Goodrich-Laguna Bell 220kV: Remove 2structures, remove 1500 ckt ft of shooflyconductor, and	CET-ET-TP-RL-755538	902132963	High	Dec-20	790	38	-	828	790	38	-	828
07555	Laguna Bell-Rio Hondo 220kV: Remove 2structures, remove 1 shoofly ESP and 500ckt ft of sh	CET-ET-TP-RL-755543	902132966	High	Dec-20	171	3	-	174	171	3	-	174
<b>Total Mesa Substation Project</b>						<b>5,344</b>	<b>1,363</b>	<b>2,125</b>	<b>8,832</b>	<b>5,344</b>	<b>1,363</b>	<b>2,125</b>	<b>8,832</b>
07866	Magunden Substation: Upgrade (6) 1200amp disconnects to match rating of the upgraded line	CET-ET-TP-RN-786601	902175272	High	Jul-19	39	1,049	-	1,088	39	1,049	-	1,088
07866	Vestal Substation: Upgrade (6) 1200amp disconnects to match rating of the upgraded line. (4h	CET-ET-TP-RN-786602	902175273	High	Apr-19	377	1,649	-	2,027	377	1,649	-	2,027
<b>Total Big Creek Corridor Rating Increase Project</b>						<b>417</b>	<b>2,698</b>	<b>-</b>	<b>3,114</b>	<b>417</b>	<b>2,698</b>	<b>-</b>	<b>3,114</b>
08029	Lugo Substation:Replace (3) 500kV CBs (CB#762, 862, 962), (6) 500kV disconnects (#761, 76	CET-ET-TP-RL-802900	902148910	High	May-20	20	100	2,995	3,115	20	100	2,995	3,115
08029	Lugo-Victorville 500kV Transmission Line (SCE-owned):Fix the appropriate number of spans to	CET-ET-TP-RL-802901	902148911	High	Dec-19	170	1,500	-	1,670	170	1,500	-	1,670

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				Voltage		Prior	2019	2020	Total	Prior	2019	2020	Total
<b>08029</b>	<b>Total Lugo - Victorville 500kV Transmission Line Thermal Overloads Project</b>					<b>189</b>	<b>1,600</b>	<b>2,995</b>	<b>4,784</b>	<b>189</b>	<b>1,600</b>	<b>2,995</b>	<b>4,784</b>
08104	Moorpark 220 kV Switchrack: Relocate the Ormond Beach No. 3 & 4 lines into positions 10N & 10E	CET-ET-TP-RL-810400	902315805	High	Nov-20	4	2,533	676	3,213	1	583	155	739
08104	Pardee 230 kV: Equip vacant Position 16E with two (2) CBs rated at 4000A/63kA and four (4) CBs rated at 4000A/63kA	CET-ET-TP-RL-810401	902315808	High	Dec-20	0	1,960	299	2,260	0	1,960	299	2,260
08104	New Moorpark-Pardee #4 230 kV line: String roughly 25.5 mile section on vacant side of exist	CET-ET-TP-RL-810402	902315828	High	Dec-20	174	8,200	12,294	20,668	174	8,200	12,294	20,668
08104	Moorpark-Santa Clara #2: String 2B-1590 one mile section on vacant side of existing structure	CET-ET-TP-RL-810403	902315960	High	Dec-20	2	403	551	956	2	403	551	956
08104	Relocate Moorpark-Ormond Beach No. 3 230 kV transmission line to position 10N at Moorpark	CET-ET-TP-RL-810404	902578084	High	Oct-19	-	196	-	196	-	196	-	196
08104	Relocate Moorpark-Ormond Beach No. 4 230 kV transmission line to position 11N at Moorpark	CET-ET-TP-RL-810405	902578085	High	Apr-20	-	196	-	196	-	196	-	196
08104	Relocate Moorpark-Santa Clara No. 1 230 kV transmission line to position 12N at Moorpark	CET-ET-TP-RL-810403	902578086	High	Dec-20	-	-	201	201	-	-	201	201
08104	Relocate Moorpark-Pardee No. 1 230 kV transmission line to position 16E at Pardee	CET-ET-TP-RL-810404	902578087	High	Oct-19	-	293	57	350	-	293	57	350
08104	Santa Clara: Replace Line Relays for Moorpark No.1 230 kV line with one GE 190 relay and one GE 190 relay	CET-ET-TP-RL-810405	902578088	High	Apr-20	-	101	216	317	-	101	216	317
08104	Environmental for Moorpark-Pardee	CET-ET-TP-RL-810402	916718	High	Dec-20	-	349	329	677	-	349	329	677
<b>08104</b>	<b>Total Moorpark-Pardee 230 kV No. 4 Circuit Project</b>					<b>179</b>	<b>14,230</b>	<b>14,623</b>	<b>29,032</b>	<b>176</b>	<b>12,279</b>	<b>14,103</b>	<b>26,558</b>
	<b>Total Transmission Project Reliability</b>					<b>87,019</b>	<b>11,567</b>	<b>28,884</b>	<b>127,470</b>	<b>66,851</b>	<b>9,091</b>	<b>26,103</b>	<b>102,045</b>
<b>Infrastructure Replacement</b>													
<b>04211</b>	<b>Replace Bulk Power Circuit Breakers</b>	CET-ET-IR-CB-421100		High	Blanket	-	353	5,581	5,934	-	353	5,581	5,934
<b>04329</b>	<b>Non-Bulk Circuit Breaker Replacement Program (115kV and Below)</b>	CET-ET-IR-CB-432900		Low	Blanket	-	402	938	1,340	-	402	938	1,340
03138	LADWP DC electrode replacement (LAND Segment)	CET-OT-OT-ME-313802	900250937	High	Nov-18	-	134	-	134	-	134	-	134
03138	LADWP DC electrode replacement (OCEAN Segment)	CET-OT-OT-ME-313802	901653468	High	Dec-19	23,015	9,291	-	32,306	23,015	9,291	-	32,306
<b>03138</b>	<b>Total LADWP DC Electrode Replacements</b>					<b>23,015</b>	<b>9,425</b>	<b>-</b>	<b>32,441</b>	<b>23,015</b>	<b>9,425</b>	<b>-</b>	<b>32,441</b>
<b>03138</b>	<b>LADWP AC/DC Filter Replacement</b>	CET-OT-OT-ME-313803	900713761		Dec-20	<b>56,409</b>	<b>19,346</b>	<b>13,883</b>	<b>89,637</b>	<b>56,409</b>	<b>19,346</b>	<b>13,883</b>	<b>89,637</b>
<b>03138</b>	<b>LADWP/Sylmar: Misc Capital</b>	CET-OT-OT-ME-313800		High	Blanket	-	1,488	1,832	3,320	-	1,488	1,832	3,320
<b>04651</b>	<b>Palo Verde 500 kV Switch Yard Disconnect Switch Repl</b>	CET-OT-OT-ME-465100		High	Blanket	-	355	325	680	-	355	325	680
<b>04343</b>	<b>Non-Bulk Relay Replacement Program ("SRRP")</b>	CET-ET-IR-RP-434301		Low	Blanket	-	649	590	1,239	-	649	590	1,239
<b>05089</b>	<b>Bulk Power 500kV &amp; 220kV Line Relay Replacement</b>	CET-ET-IR-RP-508900		High	Blanket	-	5,129	9,202	14,331	-	5,129	9,202	14,331
<b>04756</b>	<b>Substation Miscellaneous Equipment Additions &amp; Betterment</b>	CET-ET-IR-ME-475600		High	Blanket	-	20,355	21,197	41,551	-	20,355	21,197	41,551
<b>05210</b>	<b>Substation Transformer Bank Replacement Program (AA-Bank &amp; A-Bank)</b>	CET-ET-IR-TB-521001		High	Blanket	-	19,848	5,943	25,791	-	19,848	5,943	25,791
<b>07957</b>	<b>Devers: Substation Maintenance and Test Building Improvements program</b>	COS-00-RE-AD-SR0004	801432305	High	Jul-19	357	3,824	-	4,180	300	3,210	-	3,509
<b>07959</b>	<b>Rector: Substation Maintenance and Test Building Improvements program</b>	COS-00-RE-AD-SR0006	801432582	High	Jun-19	644	8,861	1,000	10,505	344	4,734	534	5,612
	<b>Total Substation Maintenance and Test Building Improvements Program</b>					<b>1,001</b>	<b>12,684</b>	<b>1,000</b>	<b>14,686</b>	<b>644</b>	<b>7,944</b>	<b>534</b>	<b>9,122</b>
<b>07637</b>	<b>Substation Facility Capital Maintenance</b>	COS-00-RE-MA-NE7637		High	Blanket	-	15,920	16,209	32,129	-	5,340	5,437	10,777
07392	Seismic Program - Trans Subs (FERC)	COS-00-SP-TD-000000		High	Blanket	-	1,940	2,000	3,940	-	1,238	1,277	2,515
07392	Seismic Program - Trans Lines	COS-00-SP-TD-000002		High	Blanket	-	3,940	3,333	7,273	-	3,940	3,333	7,273
<b>07392</b>	<b>Seismic Assessment and Mitigation Program for Transmission Assets</b>					-	<b>5,880</b>	<b>5,333</b>	<b>11,213</b>	-	<b>5,178</b>	<b>4,610</b>	<b>9,788</b>
<b>07454</b>	<b>Physical Security Systems - Electric Facilities</b>	COS-00-CS-CS-745400		High	Blanket	-	9,341	9,886	19,227	-	5,418	5,734	11,153
<b>07573</b>	<b>Substation Fence/Gate (Cu Theft) (FERC)</b>	CET-ET-IR-ME-757301		High	Blanket	-	-	109	109	-	-	109	109
07820	NERC CIP-14 Physical Security Enhancements	COS-00-CS-CS-782000		High	Blanket	-	6,290	3,807	10,097	-	4,954	2,999	7,953
07820	Mira Loma: NERC CIP-14 Physical Security Enhancements	CET-ET-IR-ME-782001	901656354	High	Dec-18	-	732	466	1,198	-	624	396	1,020
07820	Pardee: NERC CIP-14 Physical Security Enhancements	CET-ET-IR-ME-782002	901656355	High	Dec-18	-	139	466	605	-	121	405	527
07820	Vincent: NERC CIP-14 Physical Security Enhancements	CET-ET-IR-ME-782005	901656358	High	Jan-20	4,009	13,595	2,642	20,247	4,009	13,595	2,642	20,247
07820	Eldorado: NERC CIP-14 Physical Security Enhancements	CET-ET-IR-ME-782008	901657121	High	Jan-20	524	11,463	5,778	17,766	524	11,463	5,778	17,766
07820	Lugo: PHY-Physical Security Project	CET-ET-IR-ME-782009	902072001	High	Apr-18	-	570	152	722	-	570	152	722
<b>07820</b>	<b>Total Substation Physical Security Enhancements Project</b>					<b>4,534</b>	<b>32,790</b>	<b>13,311</b>	<b>50,634</b>	<b>4,534</b>	<b>31,327</b>	<b>12,373</b>	<b>48,234</b>
08042	Serrano 500/220 (T) Perimeter Security Upgrade	CET-ET-IR-ME-804207	902158683	High	Apr-20	-	149	356	505	-	149	356	505
08042	Devers Physical Security Tier 2	CET-ET-IR-ME-804200	902210275	High	Jun-20	77	243	940	1,260	64	204	790	1,058
08042	Antelope Physical Security Tier 2	CET-ET-IR-ME-804201	902210276	High	Apr-20	25	147	4,613	4,785	25	147	4,613	4,785
08042	Rancho Vista Physical Security Tier 2	CET-ET-IR-ME-804202	902210277	High	Jun-20	8	143	3,733	3,884	8	143	3,733	3,884
08042	Whirlwind Physical Security Tier 2	CET-ET-IR-ME-804203	902210452	High	Jun-20	13	143	3,895	4,051	13	143	3,895	4,051
08042	Windhub Physical Security Tier 2	CET-ET-IR-ME-804204	902210453	High	Apr-20	11	143	3,907	4,061	10	127	3,473	3,611
08042	Vista Physical Security Tier 3	CET-ET-IR-ME-804205	902210454	High	Jul-19	70	1	-	71	15	0	-	15
08042	Moorpark Physical Security Tier 3	CET-ET-IR-ME-804206	902210455	High	Dec-19	0	0	-	0	0	0	-	0
<b>08042</b>	<b>Total Substation Physical Security Enhancements Project (Tiers 2-4)</b>					<b>204</b>	<b>968</b>	<b>17,445</b>	<b>18,617</b>	<b>135</b>	<b>913</b>	<b>16,861</b>	<b>17,908</b>
	<b>Total Infrastructure Replacement</b>					<b>85,162</b>	<b>154,934</b>	<b>122,783</b>	<b>362,880</b>	<b>84,736</b>	<b>133,472</b>	<b>105,149</b>	<b>323,356</b>
<b>Grid Applications</b>													
06446	Devers: install necessary phasor measurement	CET-ET-GA-EM-644603		High	Blanket Specifics	-	1,215	801	2,016	-	1,215	801	2,016
06446	Vestal: install necessary phasor measurement	CET-ET-GA-EM-644610		High	Blanket Specifics	-	397	2,669	3,066	-	318	2,135	2,453

**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	2019	2020	Total	Prior	2019	2020	Total
<b>06446</b>	<b>Total Phasor Measurement Unit (PMU)</b>					-	1,613	3,470	5,082	-	1,533	2,936	4,469
07666	Colorado River Sub: C-RAS Project Phase 1	CET-ET-GA-CR-766600	901292691	High	May-19	1,941	706	-	2,647	1,941	706	-	2,647
07666	Devers Sub: C-RAS Project Phase 1	CET-ET-GA-CR-766601	901292692	High	May-19	1,052	221	-	1,273	1,052	221	-	1,273
07666	Red Bluff Sub: C-RAS Project Phase 1	CET-ET-GA-CR-766602	901292693	High	May-19	1,802	140	-	1,942	1,802	140	-	1,942
<b>07666</b>	<b>Total C-RAS Program Phase 1: Colorado River Corridor RAS</b>					<b>4,794</b>	<b>1,068</b>	<b>-</b>	<b>5,862</b>	<b>4,794</b>	<b>1,068</b>	<b>-</b>	<b>5,862</b>
08009	Antelope -Install relays, CRAS, SEL-2407 satellite synchronized clock	CET-ET-GA-CR-800900	902129654	High	Aug-19	531	1,100	-	1,631	531	1,100	-	1,631
08009	Vincent-Install relays, CRAS, SEL-2407 satellite synchronized clock	CET-ET-GA-CR-800901	902129742	High	Jun-19	371	426	-	797	371	426	-	797
08009	Whirlwind-Install relays, CRAS, SEL-2407 satellite synchronized clock	CET-ET-GA-CR-800902	902129743	High	Nov-19	953	2,320	343	3,615	953	2,320	343	3,615
<b>08009</b>	<b>Total Northern Area CRAS to Tehachapi CRAS</b>					<b>1,856</b>	<b>3,845</b>	<b>343</b>	<b>6,044</b>	<b>1,856</b>	<b>3,845</b>	<b>343</b>	<b>6,044</b>
<b>Total Grid Applications</b>						<b>6,650</b>	<b>6,525</b>	<b>3,812</b>	<b>16,988</b>	<b>6,650</b>	<b>6,446</b>	<b>3,278</b>	<b>16,375</b>
<b>PWRD Blankets</b>													
03363	Substation Unplanned Maintenance Replacements	CET-PD-BM-SU-SUBSNW		High	Blanket	-	11,353	11,644	22,997	-	1,037	1,063	2,100
03363	Substation - Storm	CET-PD-ST-SS-SUBSNW		High	Blanket	-	1,738	1,781	3,519	-	398	407	805
<b>03363</b>	<b>Substation Maintenance, Breakdown, &amp; Storm</b>					<b>-</b>	<b>13,091</b>	<b>13,425</b>	<b>26,516</b>	<b>-</b>	<b>1,434</b>	<b>1,471</b>	<b>2,905</b>
<b>07888</b>	<b>Transmission Maintenance Planned</b>	CET-PD-IR-TP-788800		High	Blanket	-	1,223	-	1,223	-	1,223	-	1,223
03364	Transmission Breakdown Maintenance Unplanned	CET-PD-BM-TU-TRSJAC		High	Blanket	-	1,364	1,398	2,762	-	534	547	1,081
03364	Transmission Grid-Based Maintenance (Tower Corrosion)	CET-PD-IR-TG-TRSJAC		High	Blanket	-	23,006	52,232	75,238	-	6,819	15,481	22,300
<b>03364</b>	<b>Transmission Maintenance &amp; Breakdown Maintenance</b>					<b>-</b>	<b>24,371</b>	<b>53,629</b>	<b>78,000</b>	<b>-</b>	<b>7,353</b>	<b>16,028</b>	<b>23,381</b>
03364	Transmission Deteriorated Pole Repl & Restoration	CET-PD-IR-TR-TRMETW		Low	Blanket	-	80,104	81,898	162,002	-	1,513	1,547	3,059
03364	Pole Loading Transmission Pole Replacements	CET-PD-IR-PT-TRMETW		Low	Blanket	-	28,774	15,019	43,794	-	543	284	827
<b>03364</b>	<b>Transmission Poles (Pole Loading &amp; Deteriorated Pole Programs)</b>					<b>-</b>	<b>108,879</b>	<b>96,917</b>	<b>205,796</b>	<b>-</b>	<b>2,056</b>	<b>1,830</b>	<b>3,886</b>
<b>04056</b>	<b>Steel Stub Remediation (Trans)</b>	CET-PD-OT-SF-TRORAN		Low	Blanket Specifics	-	76	109	186	-	1	2	4
<b>07298</b>	<b>Transmission Line Rating Remediation (TLRR)</b>	CET-PD-OT-PJ-729801		High	Blanket	-	101,709	67,228	168,937	-	101,709	67,228	168,937
<b>03362</b>	<b>Critical Infra Spare - FERC Spare Transformer Equipment Program (STEP)/Emergency</b>	CET-PD-CI-CI-CRINSP		High	Blanket	-	15,357	4,931	20,288	-	15,357	4,931	20,288
03367	Substation - Claim	CET-PD-CL-SC-SUBSNW		High	Blanket	-	110	113	223	-	9	9	18
03367	Transmission - Claim	CET-PD-CL-TC-TREAST		High	Blanket	-	864	885	1,748	-	78	80	158
03367	Transmission - Storm	CET-PD-ST-TS-TREAST		High	Blanket	-	4,308	4,413	8,721	-	1,399	1,433	2,832
<b>03367</b>	<b>Transmission Storm &amp; Claims</b>					<b>-</b>	<b>5,282</b>	<b>5,411</b>	<b>10,693</b>	<b>-</b>	<b>1,486</b>	<b>1,523</b>	<b>3,009</b>
<b>08224</b>	<b>Enhanced Overhead Inspections (EOI) &amp; Remediations - Transmission</b>	CET-PD-WM-TP-822400		High	Blanket Specifics	-	11,211	4,597	15,807	-	2,983	1,223	4,207
<b>Total PWRD Blankets</b>						<b>-</b>	<b>269,989</b>	<b>241,650</b>	<b>511,639</b>	<b>-</b>	<b>130,621</b>	<b>93,013</b>	<b>223,633</b>
<b>Total Non-Incentive Transmission Projects</b>						<b>220,020</b>	<b>498,193</b>	<b>449,947</b>	<b>1,168,160</b>	<b>180,103</b>	<b>321,120</b>	<b>276,101</b>	<b>777,323</b>
<b>Total Forecast Specific Project Expenditures (Closing by December 2020)</b>						<b>220,020</b>	<b>129,371</b>	<b>119,279</b>	<b>468,669</b>	<b>180,103</b>	<b>116,511</b>	<b>114,432</b>	<b>411,047</b>
<b>Total Forecast Blanket Expenditures (Closing by December 2020)</b>						<b>-</b>	<b>368,822</b>	<b>330,668</b>	<b>699,490</b>	<b>-</b>	<b>204,608</b>	<b>161,668</b>	<b>366,277</b>