

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

PIN	Project Title	Order #	High/Low Voltage	OD	Project Total (ISO & non-ISO)				ISO Portion			
					Prior	2014	2015	Total	Prior	2014	2015	Total
<b>Non-Incentive Transmission Projects includes Direct Installation and Removal Expenditures</b>												
<b>Other Transmission</b>												
07390	Antelope-Plainview ---- Antelope(NU):Equip 66kV pos for gen-tie.		Low	Aug-14	649	600	-	1,249	649	600	-	1,249
07420	Antelope Sub (NU): 2 ---- Antelope Sub (NU): 2 66kV CBs for GenTie		Low	Jun-14	418	600	-	1,018	418	600	-	1,018
07439	Julian Hinds: Install (3) 220kV VTs		High	Jun-14	78	100	-	178	78	100	-	178
07559	Colorado Riv(NU) install 220kV CBs & Remote Terminal Unit (RTU)		High	May-15	2	1,000	1,000	2,002	2	1,000	1,000	2,002
06694	Devers: Upgrade the Devers RTU		High	Sep-14	8,824	-	-	8,824	8,824	-	-	8,824
06694	Vista Sub: Upgrade line protection at the Devers #1 220kV T/L position.		High	Sep-14	551	100	-	651	551	100	-	651
06694	El Casco Sub: Install one SEL-2407 satellite synchronized clock and two N60 relays		High	Sep-14	172	150	-	322	172	150	-	322
06694	Etiwanda Sub: Install one SEL-2407 satellite synchronized clock and two N60 relays		High	Sep-14	307	150	-	457	307	150	-	457
06694	Valley Sub: Install one SEL-2407 satellite synchronized clock and two N60 relays		High	Sep-14	199	200	-	399	199	200	-	399
06694	San Bernardino Sub: Install one SEL-2407 satellite synchronized clock and four N60 relays		High	Sep-14	324	150	-	474	324	150	-	474
06694	<b>Total CPV Sentinel Project - Sentinel-Devers 220kV</b>				<b>10,375</b>	<b>750</b>	<b>-</b>	<b>11,125</b>	<b>10,375</b>	<b>750</b>	<b>-</b>	<b>11,125</b>
<b>Total Other Transmission</b>					<b>11,523</b>	<b>3,050</b>	<b>1,000</b>	<b>15,573</b>	<b>11,523</b>	<b>3,050</b>	<b>1,000</b>	<b>15,573</b>
<b>TSP Projects</b>												
06107	Pardee Sub: Install new double breaker 220 kV CB's in position 11 to terminate bank leads		High	Dec-15	1,333	1,071	161	2,566	1,333	1,071	161	2,566
06263	Vestal: Equip 230kV A-Bank positions (no.1 and 2) with circuit breakers		High	Jun-15	3,849	2,000	500	6,349	3,580	1,860	465	5,905
06284	La Cienega: Phase 2- Upgrade remaining SCADA and protection systems to SA-2 standard		High	Jun-14	2,742	1,022	-	3,764	494	184	-	678
06824	La Fresa Sub (Phase 2 ): Install new MEER building and cut over existing protection and upgrade CTs on existing banks.		High	Dec-15	8,321	5,249	2,598	16,168	2,496	1,575	779	4,851
06824	La Fresa Sub (Phase 1 Scope): Add a 280MVA TRANSFORMER BANK 220/66kV		High	Aug-13	23,731	1,000	500	25,231	6,882	290	145	7,317
06824	<b>Total La Fresa 'A' 220/66 - Increase Transformer Capacity</b>				<b>32,052</b>	<b>6,249</b>	<b>3,098</b>	<b>41,399</b>	<b>9,378</b>	<b>1,865</b>	<b>924</b>	<b>12,167</b>
<b>Total TSP Projects</b>					<b>39,976</b>	<b>10,342</b>	<b>3,759</b>	<b>54,078</b>	<b>14,785</b>	<b>4,980</b>	<b>1,551</b>	<b>21,316</b>
<b>Transmission Project Reliability</b>												
04928	TRTP Seg 1 Vegetation Remediation		High	Jul-14	1,942	-	-	1,942	1,942	-	-	1,942
05453	TRTP Seg 2 Vegetation Remediation		High	Jul-14	584	-	-	584	584	-	-	584
06434	TRTP Seg 3A Vegetation Remediation		High	Jul-14	543	672	-	1,215	543	672	-	1,215
<b>Total TRTP Seg 1-3A</b>					<b>3,069</b>	<b>672</b>	<b>-</b>	<b>3,741</b>	<b>3,069</b>	<b>672</b>	<b>-</b>	<b>3,741</b>
07511	TRTP Seg 1 Antelope-Pardee 500kV T/L: Install Marker Balls and Lighting		High	Dec-14	37	1,700	-	1,737	37	1,700	-	1,737
07511	TRTP Seg 2 Antelope-Vincent #1 500kV T/L: Install Marker Balls		High	Dec-14	129	400	-	529	129	400	-	529
07511	<b>TRTP 1&amp;2 FAA Costs</b>				<b>166</b>	<b>2,100</b>	<b>-</b>	<b>2,266</b>	<b>166</b>	<b>2,100</b>	<b>-</b>	<b>2,266</b>
04956	Big Creek #3-Springville 220-kV: Construct approx. 23 miles of new double-circuit 230kV T/L		High	Sep-14	47,155	48,487	10,000	105,643	47,155	48,487	10,000	105,643
04956	Big Creek 3-Springville 220kV: Licensing Phase - Site Selection, PEA /Application Preparation, Environmental Surveys and CPUC Licensing Review		High	Sep-14	7,051	17	-	7,068	7,051	17	-	7,068
04956	BIG CREEK #3: INSTALL NECESSARY PROTECTIVE RELAYS ON THE NEW BIG CREEK #3		High	Sep-14	600	191	-	791	600	191	-	791
04956	Rector: Equip Positions 1 & 2 220kV switchrack to terminate the new Rector-Springville T/L		High	Sep-14	9,483	985	-	10,468	9,483	985	-	10,468
04956	Springville: Install necessary protective relays on the new Rector-Springville 220kV T/L		High	Sep-14	1,240	350	-	1,590	1,240	350	-	1,590
04956	Vestal: Install necessary protective relays on Rector-Vestal No. 1 and Rector-Vestal No.2 Line		High	Sep-14	2,098	723	-	2,821	2,098	723	-	2,821
04956	Big Creek #3-Springville 220kV: Construct 18.5 miles of new double-circuit 220-kV with 1B-1033 ACSR conductor per circuit in order to loop the existing Big Creek 3-Springville 220-kV transmission line into Rector Substation		High	Sep-14	142	10	-	152	142	10	-	152
04956	BC1-Rector & BC3-Rector 220-kV: Construct approx. 12 miles of new double-circuit 220kV T/L		High	Jun-13	25,069	26	-	25,095	25,069	26	-	25,095
04956	SJXVL ---- ACQ / FERC San Joaquin Cross Valley Land Acquisition		High	Sep-14	5,787	1,700	-	7,487	5,787	1,700	-	7,487
04956	<b>Total SJXVL</b>				<b>98,626</b>	<b>52,488</b>	<b>10,000</b>	<b>161,114</b>	<b>98,626</b>	<b>52,488</b>	<b>10,000</b>	<b>161,114</b>

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PIN	Project Title	Order #	High/Low Voltage	OD	Project Total (ISO & non-ISO)				ISO Portion			
					Prior	2014	2015	Total	Prior	2014	2015	Total
05146	Various Substations: Fire Mitigation		High	Blanket Specifics		903	730	1,633	-	903	730	1,633
06154	N of Magunden : Install a 2nd set of Bushing Current Transformer's on 220kV CB #1 on position 1		High	Dec-15	392	-	250	642	392	-	250	642
06154	RECTOR: INSTALL BUSHING CURRENT TRANSFORMERS. (PHASE 2)		High	Dec-15	298	50	-	348	298	50	-	348
06154	Vestal - Install a second set of BCT's on 220kV CB's #1 and 2 on position 1		High	Dec-15	538	50	250	838	538	50	250	838
<b>06154</b>	<b>Total North of Magunden Redundant Bushing Current Transformer (BCT) Upgrades</b>				<b>1,229</b>	<b>100</b>	<b>500</b>	<b>1,829</b>	<b>1,229</b>	<b>100</b>	<b>500</b>	<b>1,829</b>
06415	Devers Sub: PHASE 2 - Disconnect upgrades for Mirage No. 1 terminating at position 2N		High	Dec-14	606	325	-	931	606	325	-	931
06415	Mirage Sub: PHASE 2 - Replace two (2) 2000A 220kV CB's at positions 2S and 3S		High	Dec-14	2,119	1,104	-	3,223	2,119	1,104	-	3,223
06415	Devers-Mirage #1 230kV T/L: Build 15 mil (Path 42) Double Circuit 220kV T/L		High	Dec-14	8,975	16,967	-	25,942	8,975	16,967	-	25,942
06415	Devers Sub: PHASE 1 - Install relays, meters and logic controllers as necessary for IID's new SPS		High	Dec-14	148	197	-	345	148	197	-	345
06415	Mirage Sub: PHASE 1 - Install relays, meters and logic controllers as necessary for IID's new SPS		High	Dec-14	220	69	-	289	220	69	-	289
06415	Coachella Valley-Mirage 220kV: PHASE 2 -Reconductor SCE-owned portion of the Coachella Valley-Mirage 220kV T/L (from Towers 19-2, 19-3 and 19-4 into Mirage Substation)		High	Dec-14	253	1,000	-	1,253	253	1,000	-	1,253
<b>06415</b>	<b>Total Path 42 and Devers-Mirage 230kV Upgrades</b>				<b>12,320</b>	<b>19,662</b>	<b>-</b>	<b>31,982</b>	<b>12,320</b>	<b>19,662</b>	<b>-</b>	<b>31,982</b>
06477	Victor: Reconstruct 115KV switchrack and terminate existing 115KV lines to new rack positions		Low	Dec-13	20,752	354	-	21,106	18,884	322	-	19,206
06714	Rio Hondo: Equip the 230kV A-Banks at positions 2, 3, 9 & 10 with double breaker configuration		High	Apr-14	15,153	248	-	15,401	6,061	99	-	6,160
06714	Vincent: Replace/upgrade L90 relays on Rio Hondo #1 and #2 220kV lines		High	Mar-14	33	30	-	63	33	30	-	63
<b>06714</b>	<b>Total Rio Hondo Sub: 230kV Double Breakers for A Banks</b>				<b>15,186</b>	<b>278</b>	<b>-</b>	<b>15,464</b>	<b>6,094</b>	<b>129</b>	<b>-</b>	<b>6,223</b>
06791	Lugo 500kV Sub breaker installation for No. 1AA & No. 2AA banks		High	Dec-15	6,467	200	200	6,867	6,467	200	200	6,867
06791	Lugo-Rancho Vista 500kV Line: Relocate Rancho Vista 500kV line from Pos 5 E to Pos 4 W Bus		High	Dec-15	-	200	1,500	1,700	-	200	1,500	1,700
<b>06791</b>	<b>Total Lugo 500kV Substation Breaker Installation</b>				<b>6,467</b>	<b>400</b>	<b>1,700</b>	<b>8,567</b>	<b>6,467</b>	<b>400</b>	<b>1,700</b>	<b>8,567</b>
07248	Eldorado: Install (1) 500 kV Switchyard Operating Bus extension, (8) bus dead-end structures, (48) bus dead-end insulator assemblies.		High	Dec-15	2,878	43,034	45,503	91,415	2,878	43,034	45,503	91,415
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 Eldorado 500 kV bus		High	Dec-15	240	5,420	5,859	11,519	240	5,420	5,859	11,519
	<b>Total Eldorado AA Bank</b>				<b>3,118</b>	<b>48,454</b>	<b>51,362</b>	<b>102,934</b>	<b>3,118</b>	<b>48,454</b>	<b>51,362</b>	<b>102,934</b>
07376	Eldorado-Install Fire Mitigation 3AA		High	Dec-15	2	1,089	1,180	2,271	2	1,089	1,180	2,271
07426	Primm (POS NU): New 220kV Sub		High	Oct-15	1,300	12,273	4,466	18,039	1,300	12,273	4,466	18,039
07426	Eldorado-Ivanpah #1(NU): Loop into Primm		High	Oct-15	0	3,359	1,282	4,641	0	3,359	1,282	4,641
<b>07426</b>	<b>Total New 220kV Primm Substation - Network Upgrade</b>				<b>1,301</b>	<b>15,632</b>	<b>5,748</b>	<b>22,681</b>	<b>1,301</b>	<b>15,632</b>	<b>5,748</b>	<b>22,681</b>
07111	La Cienega: Equip the 230 KV A-Bank positions (no.3 & 4) with circuit breakers		High	Dec-14	3,552	2,217	-	5,769	3,197	1,996	-	5,192
07116	Villa Park: Equip the 230 KV A-Bank positions (no. 1 & 2) with circuit breakers		High	Dec-15	2,140	4,280	200	6,620	2,055	4,109	192	6,355
07117	Kramer Sub: Equip 1A & 2A with CBs ---- Kramer: Equip 1A & 2A with CBs		High	Dec-14	1,676	1,003	-	2,679	1,676	1,003	-	2,679
07121	Padua: Equip 2A & 3A with CBs		High	Dec-14	1,631	2,095	-	3,726	979	1,257	-	2,236
07237	Tortilla: Install two (2) 115 kV 14.4 M		Low	Dec-13	2,790	50	-	2,840	2,790	50	-	2,840
06792	Rector 220/66kV Sub: Install 2X79.2 MVAR switching shunt cap		High	Oct-14	8,995	1,155	-	10,150	8,995	1,155	-	10,150
07252	Antelope 220 Sub: Replace/Upgrade 10 CBs		High	Jun-13	3,103	100	-	3,203	3,103	100	-	3,203
07374	Serrano: 1AA, 2AA & 3AA Fire Mitigation		High	May-14	303	2,000	-	2,303	303	2,000	-	2,303
07375	Vincent 3AA Transformer Bank Fire Mitigation Project		High	Dec-14	283	1,500	-	1,783	283	1,500	-	1,783
07406	Viejo Sub:Install one 79.2 MVAR Cap Bank		High	Jul-13	3,157	50	-	3,207	3,157	50	-	3,207
07407	Santiago: Install one 79.2 MVAR Cap Bank (SONGS Mitigation)		High	Jun-13	2,510	100	-	2,610	2,510	100	-	2,610
07410	Ellis Sub:Extend 220kV buses 2 positions (Barre-Ellis Loop-in)		High	Aug-13	5,712	200	-	5,912	5,712	200	-	5,912
<b>Total Transmission Project Reliability</b>					<b>198,088</b>	<b>156,881</b>	<b>71,420</b>	<b>426,390</b>	<b>186,035</b>	<b>155,470</b>	<b>71,412</b>	<b>412,917</b>

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					Prior	2014	2015	Total	Prior	2014	2015	Total
<b>Infrastructure Replacement</b>												
04211	Replace Bulk Power Circuit Breakers		High	Blanket Specifics	-	1,655	328	1,983	-	1,655	328	1,983
04329	Non-Bulk Circuit Breaker Replacement		Low	Blanket Specifics	-	50,749	25,010	75,759	-	165	-	165
03138	Sylmar Converter Station & HVDC T/L: Capital Additions & Betterment		High	Blanket Specifics	-	563	-	563	-	563	-	563
04484	Coupling Capacitor Voltage Transformers		High	Blanket Specifics	-	839	678	1,517	-	440	-	440
04651	Palo Verde Switchrack		High	Blanket Specifics	-	2,000	2,250	4,250	-	2,000	2,250	4,250
06197	On-line Dissolved Gas Analysis of Bulk Power Transformer Banks		High	Blanket Specifics	-	3,020	5,911	8,931	-	570	2,486	3,056
04343	Substation Relay Replacement Program (SRRP)		High	Blanket Specifics	-	3,590	8,160	11,750	-	3,590	8,160	11,750
05089	Bulk Power 500kV Line Relay Replacement		High	Blanket Specifics	-	1,338	1,397	2,735	-	1,338	1,397	2,735
04756	Substation Equipment, Additions & Betterment		High	Blanket Specifics	-	24,288	19,376	43,664	-	3,153	3,549	6,702
05210	Substation Transformer Bank Replacement Program (AA-Bank & A-Bank)		High	Blanket Specifics	-	42,938	66,101	109,039	-	14,446	18,301	32,747
	<b>Total Infrastructure Replacement</b>				-	<b>130,980</b>	<b>129,211</b>	<b>260,191</b>	-	<b>27,921</b>	<b>36,471</b>	<b>64,391</b>
<b>Grid Applications</b>												
06446	Phasor Measurement System Installations		High	Blanket Specifics	-	2,383	2,737	5,120	-	2,383	2,737	5,120
06428	Centralized Remedial Action Scheme (C-RAS) Project Phase		High	Dec-14	3,047	1,731	-	4,778	3,047	1,731	-	4,778
06428	Centralized Remedial Action Scheme (C-RAS) Program Phase		High	Blanket Specifics	-	-	12,933	12,933	-	-	12,933	12,933
	<b>Total Grid Apps</b>				<b>3,047</b>	<b>4,114</b>	<b>15,670</b>	<b>22,832</b>	<b>3,047</b>	<b>4,114</b>	<b>15,670</b>	<b>22,832</b>
<b>PWRD Blankets</b>												
03363	Substation Breakdown Maintenance Replacements - Northwest		High	Blanket Specifics	-	13,500	11,311	24,811	-	2,513	2,106	4,619
03363	Substation Planned Maintenance Replacements - Northwest		High	Blanket Specifics	-	11,570	8,026	19,596	-	1,529	1,061	2,590
03363	Facilities - Operational		High	Blanket Specifics	-	13,600	5,749	19,349	-	1,429	604	2,033
03363	Control Room Upgrades		High	Dec-14	3,773	68,328	15,197	87,298	1,813	34,024	10,291	46,128
03363	Control Room Upgrades - Energy Management System (EMS) Control		High	Dec-15	-	-	6,000	6,000	-	-	4,058	4,058
	<b>03363 Substation Equipment Additions &amp; Replacements</b>				<b>3,773</b>	<b>106,998</b>	<b>46,283</b>	<b>157,053</b>	<b>1,813</b>	<b>39,495</b>	<b>18,120</b>	<b>59,428</b>
03364	Transmission Breakdown Maintenance Planned		High	Blanket Specifics	-	6,058	6,222	12,280	-	2,360	2,425	4,785
03364	Transmission Breakdown Maintenance Unplanned		High	Blanket Specifics	-	4,526	4,646	9,173	-	1,572	1,614	3,186
03364	Transmission Maintenance Planned		High	Blanket Specifics	-	1,173	800	1,973	-	1,173	800	1,973
	<b>03364 Transmission Equipment Additions &amp; Replacements</b>				-	<b>11,757</b>	<b>11,669</b>	<b>23,426</b>	-	<b>5,105</b>	<b>4,839</b>	<b>9,944</b>
07298	Transmission Line Rating Remediation		High	Blanket Specifics	-	12,632	33,081	45,712	-	12,632	33,081	45,712
03362	Critical Infrastructure Spare		High	Blanket Specifics	-	-	800	800	-	-	800	800
03367	Substation Claim - Northwest		High	Blanket Specifics	-	486	494	980	-	26	26	52
03367	Transmission Claim		High	Blanket Specifics	-	2,305	2,366	4,672	-	202	207	410
03367	Transmission Storm - Eastern		High	Blanket Specifics	-	4,562	4,683	9,245	-	1,576	1,618	3,194
	<b>03367 Transmission Storm &amp; Claims</b>				-	<b>7,353</b>	<b>7,543</b>	<b>14,896</b>	-	<b>1,804</b>	<b>1,851</b>	<b>3,655</b>
	<b>Total PWRD Blankets</b>				<b>3,773</b>	<b>138,739</b>	<b>99,376</b>	<b>241,888</b>	<b>1,813</b>	<b>59,036</b>	<b>58,690</b>	<b>119,539</b>
<b>Total Non-Incentive Transmission Projects</b>					<b>256,408</b>	<b>444,107</b>	<b>320,436</b>	<b>1,020,951</b>	<b>217,204</b>	<b>254,571</b>	<b>184,794</b>	<b>656,568</b>
<b>Total Forecast Expenditures (Closing by December 2015)</b>					<b>256,408</b>	<b>239,430</b>	<b>96,646</b>	<b>592,483</b>	<b>217,204</b>	<b>198,352</b>	<b>87,581</b>	<b>503,137</b>
<b>Total Forecast Blanket Expenditures (Closing by December 2015)</b>					-	<b>204,677</b>	<b>223,790</b>	<b>428,467</b>	-	<b>56,219</b>	<b>97,212</b>	<b>153,431</b>