

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

PIN		Project Title	Order #	High/ Low Voltage	OD	Project Total (ISO & non-ISO)				ISO Portion			
						Prior	2017	2018	Total	Prior	2017	2018	Total
Incentive Transmission Projects includes only Direct Installation Expenditures													
04847	Devers-Colorado River (DCR)												
04847	Devers: Replace Eleven 230kV CB'S	800062846	High	May-13		-	(80)	-	(80)	-	(80)	-	(80)
04847	Total DCR					-	(80)	-	(80)	-	(80)	-	(80)
Various	Tehachapi - Segments 3B & 3C												
07183	230 kV Transmission Line Between Highwind and Windhub Substations	800062547	High	Dec-12		-	5	-	5	-	5	-	5
07183	Highwind Substation: Visual Mitigation Measures	901374880	High	Aug-15		5	(1)		4	5	(1)	-	4
07183	Total Segment 3B					5	4	-	9	5	4	-	9
Total Tehachapi Segments 3B & 3C													
Total Tehachapi Segments 1-3 - Incentive Qualified													
Various	Tehachapi - Segments 4-11												
06435	Antelope-Whirlwind 500kV T/L: Construct new 14-mile single-circuit 500kV T/L.	800217116	High	Apr-12		-	332	-	332	-	332	-	332
06435	TRTP Segment 4 Land & Easements	800217116	High	Jan-13		-	500	-	500	-	500	-	500
06435	Total Segment 4					-	832	-	832	-	832	-	832
05472	Antelope Vincent #2 500kV T/L	800217232	High	Jan-13		-	8	-	8	-	8	-	8
05472	Total Segment 5					-	8	-	8	-	8	-	8
05243	New Vincent-Duarte 500kV T/L	800217316	High	Nov-14		-	1,600	-	1,600	-	1,600	-	1,600
05243	Total Segment 6					-	1,600	-	1,600	-	1,600	-	1,600
06438	New Vincent-Rio Hondo #2 500kV T/L	800218130	High	Dec-14		-	3	-	3	-	3	-	3
06438	New Antelope-Mesa 500kV T/L	800218138	High	Jan-15		-	2,000	-	2,000	-	2,000	-	2,000
06438	Total Segment 7					-	2,003	-	2,003	-	2,003	-	2,003
06439	New 33 mile Vincent-Mira Loma 500kV T/L	800218645	High	Mar-15		-	3,200	-	3,200	-	3,200	-	3,200
06439	Total Segment 8					-	3,200	-	3,200	-	3,200	-	3,200
07553	Mira Loma-Vincent 500 kV T/L (UG): Civil & Cable Portion	900610533	High	Aug-16		-	6,979	-	6,979	-	6,979	-	6,979
07553	Mira Loma Substation	901094247	High	Dec-16		-	234	-	234	-	234	-	234
07553	Vincent Substation	901094249	High	Oct-16		-	43	-	43	-	43	-	43
07553	Acquire Easements for TRTP Segment 8A	801025887	High	Jan-16		-	15	-	15	-	15	-	15
07553	TRTP-Segment 8A CHUG: Land/ Easements Acquisition/ Condemnation	801479004	High	Jun-17		148	2,000	-	2,148	148	2,000	-	2,148
07553	East Transition Station	901109252	High	Jun-17		12,661	750	-	13,411	12,661	750	-	13,411
07553	West Transition Station	901109253	High	Dec-16		-	750	-	750	-	750	-	750
07553	Chino Hills Related OH Line Work	901486465	High	Aug-16		-	37	-	37	-	37	-	37
07553	Total Segment 8A (TRTP 500 kV Underground)					12,809	10,808	-	23,616	12,809	10,808	-	23,616
06440	WHIRLWIND - CONSTRUCT NEW SUBSTATION	800216839	High	Dec-12		-	59	-	59	-	59	-	59
06440	Vincent Substation - Upgrade 500kV & 220kV positions (scope includes Cap Banks).	800216929	High	Dec-13		(41)	0	-	(41)	(41)	0	-	(41)
06440	Total Segment 9					(41)	59	-	18	(41)	59	-	18

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			Voltage		Prior	2017	2018	Total	Prior	2017	2018	Total
06441	Whirlwind - Windhub 500kV T/L	800217239	High	Apr-12	-	1,965	-	1,965	-	1,965	-	1,965
06441	Total Segment 10				-	1,965	-	1,965	-	1,965	-	1,965
06442	Mesa-Vincent #1 500kV T/L	800217339	High	May-15	-	6,630	-	6,630	-	6,630	-	6,630
06442	Mesa-Gould 220kV T/L	800217366	High	May-15	-	792	-	792	-	792	-	792
06442	Eagle Rock-Pardee 230kV: Construct 2 miles of single-circuit T/L to terminate Eagle Rock-Pardee 230kV T/L into \	800217381	High	May-15	-	(3,321)	-	(3,321)	-	(3,321)	-	(3,321)
06442	Total Segment 11				-	4,101	-	4,101	-	4,101	-	4,101
Total Tehachapi Segments 4-11 - Incentive Qualified					12,768	23,743	-	36,511	12,768	23,743	-	36,511
Total Tehachapi - Segments 1-11 Incentive Qualified					12,772	24,579	-	37,352	12,772	24,579	-	37,352
06929	Red Bluff											
06929	Remaining Red Bluff Substation Work (Minor Additions)	901363478	High	Jan-16	-	5	-	5	-	5	-	5
06929	Total Red Bluff				-	5	-	5	-	5	-	5
7076/7061	Colorado River Substation Expansion (CRSE)											
07061	Devers: Relays for Devers-Red Bluff 500kV N-2 Special Protection System (SPS)	900603420	High	May-15	-	400	-	400	-	400	-	400
07076	Colorado River Substation: Install Equipment to support Large Generation Interconnections.	800404139	High	Jul-13	-	(378)	-	(378)	-	(378)	-	(378)
	Total CRSE				-	22	-	22	-	22	-	22
7650/7695	Whirlwind Substation Expansion Project (Whirlwind)											
07695	Install N60 relays to add generation to Whirlwind AA Bank SPS	901368041	High	Jun-17	422	129	-	552	422	129	-	552
07650	Whirlwind 3rd AA bank and SPS	901307713	High	Apr-17	24,631	6,000	-	30,632	24,631	6,000	-	30,632
	Total Whirlwind				25,054	6,129	-	31,183	25,054	6,129	-	31,183
06902	Calcite Substation (formerly Jasper; part of South of Kramer)											
06902	Jasper: LGIA Engineer and construct a new interconnection facility	900295954	High	Dec-20	3,087	550	2,900	6,537	3,087	550	2,900	6,537
	Total South of Kramer				3,087	550	2,900	6,537	3,087	550	2,900	6,537
06420	West of Devers											
06420	West of Devers Upgrade Project: Preliminary Engineering & Licensing	800062511	High	Aug-21	52,543	367	55	52,964	52,543	367	55	52,964
06420	Devers Sub: Install 220kV CBs & DSs	901453922	High	Aug-21	97	950	500	1,547	97	950	500	1,547
06420	El Casco Sub: Install 220kV Terminal Equipment	901453923	High	Aug-21	41	1,410	500	1,951	41	1,410	500	1,951
06420	Etiwanda Sub: Install 220kV Relay Equipment	901453924	High	Aug-21	44	480	267	790	44	480	267	790
06420	San Bernardino Sub: Install Disconnects	901453925	High	Aug-21	65	900	1,100	2,065	65	900	1,100	2,065
06420	Rebuild Devers-El Casco & El Casco-San Bernardino 220 kV lines with 2B-1590 ACSR on double circuit towers	901460764	High	Aug-21	4,342	24,399	230,350	259,091	4,342	24,399	230,350	259,091
06420	Vista Sub: Install Disconnects	901453926	High	Aug-21	93	1,032	698	1,824	93	1,032	698	1,824
06420	Acquire Easements for West of Devers	801275175	High	Aug-21	646	8,223	6,344	15,214	646	8,223	6,344	15,214
06420	Total West of Devers				57,871	37,761	239,814	335,446	57,871	37,761	239,814	335,446
Total Incentive Transmission Projects					98,784	68,967	242,714	410,465	98,784	68,967	242,714	410,465
Total Incentive Transmission Projects (Closing by Dec 2018)					37,826	30,656	-	68,482	37,826	30,656	-	68,482