

## 2012/2013 ISO Reliability Assessment - Study Results

Study Area: **PG&E Greater Bay Area De Anza - Summer Peak**



### Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
DeAn-SP-T-01	Newark-Applied Materials 115 kV Line	Britton-Monta Vista 115 kV Line	B	N-1	94%	104%	108%	Re-rate or reconductor line.
DeAn-SP-T-02	Monta Vista-Wolfe 115 kV Line	Stelling-Monta Vista 115 kV Line	B	N-1	99%	104%	110%	Re-rate or reconductor line.
DeAn-SP-T-03	Lockheed No. 1 Tap	Newark-Applied Materials 115 kV Line	B	N-1	88%	101%	103%	Re-rate or reconductor line.
DeAn-SP-T-04	Lockheed No. 2-Lockheed Jct 2 115 kV Line	Newark-Lawrence 115 kV Line _Britton-Monta Vista 115 kV Line	C3	N-1-1	87%	100%	102%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
DeAn-SP-T-05	Lockheed No. 1 Tap	Newark-Applied Materials 115 kV Line _Lawrence - Monta Vista 115 kV	C3	N-1-1	86%	100%	102%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
DeAn-SP-T-06	Newark-Applied Materials 115 kV Line	Newark-Lawrence 115 kV Line _Britton-Monta Vista 115 kV Line	C3	N-1-1	104%	114%	119%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
DeAn-SP-T-07	Newark-Applied Materials 115 kV Line	Britton-Monta Vista & Lawrence-Monta Vista 115 kV Lines	C5	DCTL	94%	104%	109%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
DeAn-SP-T-08	Lockheed No. 1 Tap	Newark-Applied Materials & Lawrence-Monta Vista 115 kV Lines	C5	DCTL	90%	103%	105%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
DeAn-SP-T-09	Lockheed No. 1-Moffett Field Jct 115 kV Line	Newark-Applied Materials & Lawrence-Monta Vista 115 kV Lines	C5	DCTL	86%	100%	102%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate

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Study Area: **PG&E Greater Bay Area De Anza - Summer Light Load & Summer Off-Peak**



### Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
DeAn-OP-T-01	NEWARK F - LCKHD J2 115kV Line 1	CB FAULT AT 30705 MONTA VISTA SUB 230 CB202	C2	Breaker	N/A	102%		Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate



Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	

No voltage deviations identified.

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Study Area: **PG&E Greater Bay Area De Anza - Summer Light Load & Summer Off-Peak**



### Voltage Deviations

ID	Substation	Worst Contingency	Category	Category Description	Post Cont. Voltage Deviation %			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
DeAn-OP-DV-01	LOYOLA 60kV	Loyola-Monta Vista 60 kV Line	B	N-1	-5%	-3%		Add Reactive Support

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**High/Low Voltage**

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Peak	2017 Summer Peak	2022 Summer Peak	
DeAn-SP-V-01	Britton Area	CB FAULT AT 30705 MONTA VISTA SUB 230 CB202	C2	Breaker	Below 0.7 pu	Below 0.7 pu	Below 0.7 pu	Monta Vista Substation Upgrade

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## High/Low Voltage

ID	Substation	Worst Contingency	Category	Category Description	Voltage (PU)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	
DeAn-OP-V-01	AMES DST 115kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-02	AMES BS1 115kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-03	AMES BS2 115kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-04	LOS ALTS 60kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-05	LOYOLA 60kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-06	MNTA VSA 60kV	Normal	A	N-0	1.06	1.04		Add Reactive Support
DeAn-OP-V-07	PRMNT J3 60kV	Normal	A	N-0	1.06	1.04		Add Reactive Support
DeAn-OP-V-08	PRMNT J1 60kV	Normal	A	N-0	1.05	1.03		Add Reactive Support
DeAn-OP-V-09	LOS GATS 60kV	Normal	A	N-0	1.05	1.03		Add Reactive Support

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*Single Contingency Load Drop*

ID	Worst Contingency	Category	Category Description	Amount of Load Drop (MW)			Potential Mitigation Solutions
				2014	2017	2022	

No single contingency resulted in total load drop of more than 250 MW.

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*Single Source Substation with more than 100 MW Load*

ID	Substation	Load Served (MW)			Potential Mitigation Solutions
		2014	2017	2022	

No single source substation with more than 100 MW Load