

## 2012/2013 ISO Reliability Assessment - Preliminary 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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**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