

2012/2013 ISO Reliability Assessment - Study Results

Study Area: **PG&E Greater Bay Area East Bay - 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	
Ebay-SP-T-01	San Leandro - Oakland J 115 kV Line	Moraga-Oakland J 115kV Line	B	N-1	100%	81%	86%	East Shore - Oakland J 115 kV Reconductor Project
Ebay-SP-T-02	Oakland C-L 115 kV Cable	CB FAULT AT 32780 CLARMNT 115 CB122	C2	Breaker	108%	112%	118%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
Ebay-SP-T-03	San Leandro - Oakland J 115 kV Line	Sobrante-Grizzly-Claremont #1 115kV Li_Moraga-Oakland J 115kV Line	C3	N-1-1	101%	80%	85%	East Shore - Oakland J 115 kV Reconductor Project
Ebay-SP-T-04	San Leandro - Oakland J 115 kV Line	Grant-Oakland J 115 kV Line _Moraga-Oakland J 115kV Line	C3	N-1-1	N/A	104%	110%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
Ebay-SP-T-05	Moraga - Oakland J 115 kV Line	Grant-Oakland J 115 kV Line _San Leandro - Oakland J #1 115kV Line	C3	N-1-1	N/A	102%	107%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
Ebay-SP-T-06	Oakland C-L 115 kV Cable	Claremont K - Oakland D #1 115kV Cable_Claremont K - Oakland D #2 115kV Cable	C3	N-1-1	108%	112%	118%	Re-rate or reconductor line. Drop load either manually or thru SPS as appropriate
Ebay-SP-T-07	Oleum - North Tower - Christie 115 kV Line	Sobrante-G Nos. 1 & 2 115 kV lines	C5	DCTL	101%	N/A	80%	North Tower 115 kV Looping Project
Ebay-SP-T-08	Christie - Sobrante 115 kV Line	Sobrante-G Nos. 1 & 2 115 kV lines	C5	DCTL	112%	89%	96%	North Tower 115 kV Looping Project
Ebay-SP-T-09	Oleum - Martinez 115 kV Line	Sobrante-G Nos. 1 & 2 115 kV lines	C5	DCTL	112%	94%	99%	North Tower 115 kV Looping Project

Thermal Overloads

ID	Overloaded Facility	Worst Contingency	Category	Category Description	Loading (%)			Potential Mitigation Solutions
					2014 Summer Light Load	2017 Summer Off-Peak	N/A	

No thermal overloads identified.

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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	
Ebay-SP-DV-01	EDES 115kV	San Leandro - Oakland J #1 115kV Line	B	N-1	7%	1%	1%	Add reactive support



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	

No voltage deviations identified.

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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	
Ebay-SP-V-01	STD. OIL 115kV	Normal	A	N-0	0.95	0.95	0.95	Add reactive support
Ebay-SP-V-02	PP STEEL 115kV	Sobranite-Standard Oil #2 115kV Line _ChevGen2 13.80 Unit ID 1	C3	N-1-1	0.90	0.90	0.90	Add reactive support
Ebay-SP-V-03	SAN PBLO 115kV	Sobratne-Standard Oil #1 115kV Line _ChevGen2 13.80 Unit ID 1	C3	N-1-1	0.90	0.91	0.90	Add reactive support
Ebay-SP-V-04	PT PINLE 115kV	Sobranite-Standard Oil #2 115kV Line _ChevGen2 13.80 Unit ID 1	C3	N-1-1	0.90	0.90	0.90	Add reactive support
Ebay-SP-V-05	STD. OIL 115kV	Sobratne-Standard Oil #1 115kV Line _Standard Oil STA - Standard Oil #1 115kV	C3	N-1-1	0.90	0.90	0.90	Add reactive support

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

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	
EBay-OP-V-01	UNIN CHM 60kV	Normal	A	N-0	1.06	1.06		Add reactive support
EBay-OP-V-02	CHRISTIE 60kV	Normal	A	N-0	1.06	1.07		Add reactive support
EBay-OP-V-03	PRT CSTA 60kV	Normal	A	N-0	1.06	1.06		Add reactive support
EBay-OP-V-04	FRANKLIN 60kV	Normal	A	N-0	1.06	1.06		Add reactive support
EBay-OP-V-05	SEQUOIA 60kV	Normal	A	N-0	1.06	1.06		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
				Select..	Select..	Select..	

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
		Select..	Select..	Select..	

No single source substation with more than 100 MW Load