

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 2, 2015

SA2014-005/TA2014-003

Kelly Toulouse
Supervisor, Skills Training
NV Energy
One Ohm Place
Reno, NV 89502

SUBJECT: Transmission and Substation Audit of NV Energy

Dear Mr. Toulouse:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Yusef Collins and Ivan Garcia of my staff conducted an electric transmission and substation audit of NV Energy from May 12 to May 16, 2014. The audit included a review of NV Energy's records and field inspections of NV Energy's facilities.

During the audit, we identified violations of one or more General Orders. A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than January 4, 2016 by electronic or hard copy, of all corrective measures taken by NV energy to remedy and prevent such violations.

If you have any questions concerning this audit please contact, Ivan Garcia at (916) 928-5875 or ivan.garcia@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

Fadi Daye, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Enclosure: Audit findings

Cc: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Charlotte TerKeurst, Program Manager, ESRB
Ivan Garcia, Utilities Engineer, CPUC
Alok Kumar, Senior Utilities Engineer, Supervisor, CPUC

Audit Findings

Company: NV Energy
Electric Transmission and Substation Audit
Date: May 12 to May 16, 2014

Violations

The following are violations that ESRB engineers discovered during the field audit:

A.	Location(s):	Pole # 95345
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<u>Missing High Voltage Sign</u>	
	GO 95, Rule 51.6A, High Voltage Marking, states, in part: <i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i>	
	This pole had a missing high voltage sign.	

B.	Location(s):	Pole # 95344
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<u>Missing High Voltage Sign</u>	
	<p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>	

C.	Location(s):	Pole # 95343
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<u>Missing High Voltage Sign</u>	
	<p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>	

D.	Location(s):	Line # 106, first pole outside California Substation
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p><u>Missing High Voltage Sign</u></p> <p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>	

E.	Location(s):	Line # 102, first pole outside California Substation
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p><u>Missing High Voltage Sign</u></p> <p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>	

F.	Location(s):	Line # 102, second pole outside California Substation
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="250 432 651 468"><u>Missing High Voltage Sign</u></p> <p data-bbox="250 506 1062 541">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="344 579 1328 831"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="250 869 841 905">This pole had a missing high voltage sign.</p>	

G.	Location(s):	Pole # 203801
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="251 430 649 472"><u>Missing High Voltage Sign</u></p> <p data-bbox="251 504 1055 546">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="341 577 1331 829"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="251 871 844 913">This pole had a missing high voltage sign.</p> <p data-bbox="251 945 568 987"><u>Missing Guy Guards</u></p> <p data-bbox="251 1018 974 1060">GO 95, Rule 56.9, Guy Marker (Guy Guard), states:</p> <p data-bbox="341 1092 1323 1239"><i>A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.</i></p> <p data-bbox="251 1270 893 1312">The anchor guy on this pole was a guy guard.</p> <p data-bbox="251 1344 592 1386"><u>Exposed Ground Wire</u></p> <p data-bbox="251 1417 1347 1491">GO 95, Rule 22.8A, Ground Wire, Bond Wire and Communication Conductor, states, in part:</p> <p data-bbox="341 1522 1299 1680"><i>Ground Wire, Bond Wire, and Communication Conductor shall be covered by a minimum of: [(1) Hardwood Moulding, (2) Flexible and Rigid Conduit, and Rigid U-Shaped Moulding, (3) Plastic or Other Non-Conductive Material]</i></p> <p data-bbox="251 1711 860 1753">This ground wire on this pole was exposed.</p>	

H.	Location(s):	Line # 619 second pole east of North Truckee Substation
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="250 466 651 499"><u>Missing High Voltage Sign</u></p> <p data-bbox="250 539 1062 573">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="344 613 1330 865"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="250 905 842 938">This pole had a missing high voltage sign.</p> <p data-bbox="250 978 561 1012"><u>Missing Guy Guards</u></p> <p data-bbox="250 1052 980 1085">GO 95, Rule 56.9, Guy Marker (Guy Guard), states:</p> <p data-bbox="344 1125 1321 1268"><i>A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.</i></p> <p data-bbox="250 1308 1008 1341">The anchor guy on this pole had missing a guy guard.</p>	

I.	Location(s):	Pole # 259307
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="251 430 649 472"><u>Missing High Voltage Sign</u></p> <p data-bbox="251 504 1055 546">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="341 577 1331 829"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="251 871 844 913">This pole had a missing high voltage sign.</p> <p data-bbox="251 945 568 987"><u>Missing Guy Guards</u></p> <p data-bbox="251 1018 974 1060">GO 95, Rule 56.9, Guy Marker (Guy Guard), states:</p> <p data-bbox="341 1092 1323 1239"><i>A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.</i></p> <p data-bbox="251 1270 1039 1312">The anchor guy on this pole had a missing a guy guard.</p>	

J.	Location(s):	Pole # 53162
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="251 430 649 472"><u>Missing High Voltage Sign</u></p> <p data-bbox="251 504 1055 546">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="341 577 1331 829"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="251 871 844 905">This pole had a missing high voltage sign.</p>	

K.	Location(s):	Pole # 53163
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="251 1215 649 1257"><u>Missing High Voltage Sign</u></p> <p data-bbox="251 1289 1055 1331">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="341 1362 1331 1614"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="251 1656 844 1688">This pole had a missing high voltage sign.</p>	

L.	Location(s):	Pole # HA-70-686M
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
Explanation of Violation(s):		
<u>Missing High Voltage Sign</u>		
<p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>		

M.	Location(s):	Pole # DT-75-66R
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
Explanation of Violation(s):		
<u>Missing High Voltage Sign</u>		
<p>GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p>This pole had a missing high voltage sign.</p>		

N.	Location(s):	Pole # DT-90-581L
	Date Visited by CPUC:	05/12/2014 - 05/16/2014
	Explanation of Violation(s):	
	<p data-bbox="250 432 651 464"><u>Missing High Voltage Sign</u></p> <p data-bbox="250 506 1062 537">GO 95, Rule 51.6A, High Voltage Marking, states, in part:</p> <p data-bbox="344 579 1333 831"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or a pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.</i></p> <p data-bbox="250 873 841 905">This pole had a missing high voltage sign.</p>	