STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

August 21, 2009

Kimberly D. Bose, Secretary
Office of the Secretary
Docket Room
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A, East
Washington, D.C. 20426

Re: **Transmission Relay Loadability Reliability Standard**
Docket No. RM08-13-000

Dear Ms. Bose:

On August 17, 2009, the date on which comments on the NOPR in the above-docketed case were due, the California Public Utilities Commission filed its Notice of Intervention in this proceeding together with a Motion for Additional Time to File Comments. In that Motion, for good cause shown, the CPUC requested a 4-day extension, until today, August 21, 2009, to file its Comments in this proceeding.

Pursuant to that Motion, enclosed for filing in the above-docketed case, please find an original electronic filing of the attached document entitled "**COMMENTS OF THE CALIFORNIA PUBLIC UTILITIES COMMISSION**." Thank you for your cooperation in this matter.

Sincerely,

/s/ Laurence G. Chaset

Laurence G. Chaset
Staff Counsel

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Transmission Relay Loadability Reliability Standard	**)** **)**	**Docket No. RM08-13-000**

COMMENTS OF THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I. INTRODUCTION

In this Notice of Proposed Rulemaking ("NOPR"), the Federal Energy Regulatory Commission ("FERC") proposes to approve Reliability Standard PRC-023-1, developed by the North American Electric Reliability Corporation ("NERC"). The proposed Reliability Standard would require certain transmission owners, generator owners, and distribution providers to set protective relays according to specific criteria in order to ensure that the relays reliably detect and protect the electric network from all fault conditions, but do not limit transmission loadability or interfere with system operators' ability to protect system reliability.

On August 17, 2009, the date on which comments on the NOPR were due, the California Public Utilities Commission ("CPUC") filed its Notice of Intervention in this proceeding together with a Motion for Additional Time to File Comments. In that Motion, for good cause shown, the CPUC requested a 4-day

extension, until today, August 21, 2009, to file its Comments in this proceeding. Assuming that the CPUC's Motion has been or will be granted, the CPUC's Comments on the NOPR are as follows.

II. COMMENTS

The CPUC is specifically concerned with only one aspect of this proposed Reliability Standard, namely, that fact that the proposed standard would apply to nearly all facilities at the 100kV level and above. See, ¶¶ 39 –to- 45 of the NOPR. These proposed applicability criteria would greatly expand the reach of this standard far beyond a level needed to assure the reliable operation of that system, at significant potential additional cost to ratepayers.

In previous comments submitted to FERC in connection with the proposed adoption of Mandatory Reliability Standards, the CPUC has consistently stated its strong support for mandatory reliability standards in order to avoid cascading outages (and other similar problems) that can affect millions of customers. Similarly, the CPUC has repeatedly gone on record stating its strong support for spending money to upgrade transmission systems when such expenditures offer real benefits, and over the past several years, the CPUC has authorized the construction of new transmission projects costing, in the aggregate, nearly two billion dollars. However, this does not mean that the wide-spread applicability of a particular reliability standard is automatically cost-effective.

In this rulemaking, FERC has proposed to extend NERC's proposed Transmission Relay Loadability standard to nearly all breakers between 100 kV and 200 kV, even though NERC had not advocated that extension. The overly broad application of such a "deterministic" criterion is problematic. In the case of large balancing areas, such as the California Independent System Operator ("CAISO"), this criterion is likely to result in a requirement that utilities will have to upgrade far more protective relays than is necessary to assure the reliability of the interconnection, which will, in turn, result in the expenditure of very large sums of money.

In years past, both NERC and the nation's various regional electric system reliability councils (in the Western Interconnection, the Western Electricity Coordinating Council, or "WECC") recognized that an ideal "probabilistic" standard would consider: 1) the cost to prevent a failure; 2) the probability of the failure; and 3) how much customers would pay to avoid the failure (which can be generally correlated with, although it is not necessary the same as, the actual costs of the failure to consumers). The expected cost of such a failure is the product of the latter two factors: the probability of the failure and the commensurate value of avoiding it. Spending more than this expected value on prevention would result in a net loss to consumers and, accordingly, would not be cost-effective.

In the 1990's, WECC's predecessor, the Western States Coordinating Council ("WSCC"), set up a task force to develop ideal standards, but progress in

coming up with such standards was slow, in part because calculating risks requires huge amounts of data. Further, it is hard to account for all of the possible failure modes of a transmission system. Leaving any number of possible failure modes out of the analysis has the effect of reducing the effective value to ratepayers of improvements to the system.

Because it is difficult to develop ideal "probabilistic standards," the standards NERC and the regional councils use continue to be "deterministic." Computer modelers simulate the behavior of the system under worst case scenarios and after large contingencies. If the system fails in the modeling runs, the utilities must adjust or build additional equipment or limit flows on existing equipment.

The CPUC is not opposed to deterministic standards in principle. They are the best standards that are practically available now, and it is absolutely necessary to apply such standards when the events being considered can cause uncontrolled outages that spread between systems, perhaps affecting the entire interconnection. We in California have lived through at least two west-wide outages, each of which had serious, adverse economic effects.

However, NERC and WSCC, and more recently WECC, have always applied such deterministic standards with considerable judgment, thereby avoiding the imposition of major costs on the Bulk Electric System with minor concomitant benefits. Along these lines, in its proposal to FERC, NERC made the very reasonable judgment that relays operating at 200 kV are of concern. NERC

recognized that some relays between 100 and 200 kV are significant, and proposed a reasonable consultation process in order to identify such relays. In its subsequent comments to FERC, NERC pointed out that many smaller relays were involved in the 2003 disturbance, but did not cause that disturbance, and thus, on the whole, should not be subjected to the proposed standard.

However, FERC's proposal to extend the applicability of the standard to nearly all relays between 100 and 200 kV will impose major compliance costs with minor corresponding benefits in terms of reliability. The States of Oregon, Washington, Idaho and Montana have estimated the cost in the Western Interconnection of complying with this more stringent applicability requirement at $6 billion. The CPUC is concerned that such an expenditure will not result in a corresponding $6 billion worth of enhanced system reliability. Even with this added expenditure, customers are still likely to experience almost as many total outage hours as they do now. Typically, 90 percent of the outage hours stem from problems in the distribution system; not from problems in the transmission system. Reports by Pacific Gas and Electric Company ("PG&E") to the CPUC attribute only 10-20 percent of outages to problems at the transmission level. The CPUC understands that for PG&E, this figure exceeds 10 percent in some years only because, for reporting purposes, PG&E classifies anything above 60 kV (not 100 or 200 kV) as transmission.[1]

[1] See, http://www.cpuc.ca.gov/PUC/energy/ElectricSR/Reliability/annualreports/2008.htm

The CPUC agrees with NERC that money that would be spent to assure compliance with FERC's proposed applicability standard could be better spent on other parts of the transmission system. The CPUC further believes that customers may benefit more from reliability-related expenditures at the distribution level. Certain system enhancements, whether at the distribution or the transmission level, are not likely not to be cost effective from a consumer's point of view, particularly when the relationship of those enhancements to the prevention of cascading outages is remote. However, at the distribution level, state regulatory commissions and utilities generally exercise considerable discretion and judgment as to which enhancements should actually be made.

Moreover, the CPUC staff is concerned that extension of NERC's rule to relatively low-voltage transmission lines may have serious unintended consequences. In particular, the standard under consideration would delay or prevent the operation of some breaker equipment. By extending this standard to more units, FERC intends to prevent cascading outages. However, if such an outage were to occur, the failure of breakers to operate could cause widespread damage to nearby equipment. Such widespread damage could, in fact, significantly delay recovery from a cascading outage, in addition to imposing major repair costs on utilities and customers.

Finally, the CPUC would like to state its concurrence with, and hereby associates itself with, the Comments of the National Association of Regulatory

Commissioners, which were filed in this matter on August 17, 2009. The CPUC would also like to associate itself with the substance of the Joint Comments of the Washington Utilities and Transportation Commission, the Idaho Public Utilities Commission, the Public Utility Commission of Oregon and the Montana Public Service Commission ("Joint Comments"), which were filed in this matter on August 14, 2009. The CPUC notes that on page 2, the Joint Comments recommend, apparently without condition, that FERC request WECC to perform a benefit-cost analysis. By way of clarification, the CPUC would also recommend that FERC should ask WECC to perform a benefit-cost analysis, but to do so before it adopts the proposed rule for facilities below 200 kV. However, in the event that FERC adopts the standard as proposed in the NOPR -- without first asking WECC to perform such a benefit-cost analysis -- FERC should, alternatively, amend the proposed rule to allow for case-by-case exemptions based on cost-benefit criteria.

III. CONCLUSION

For all the foregoing reasons, the CPUC urges FERC to reconsider its proposal in the NOPR to extend NERC's proposed Transmission Relay Loadability standard to nearly all breakers between 100 kV and 200 kV. However, if FERC wishes to adopt the proposal set forth in the NOPR, it should do so only if it establishes an exemption process allowing for case-by-case exemptions based on cost-benefit criteria.

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Dated: August 21, 2009

Respectfully submitted,

FRANK LINDH
HARVEY Y. MORRIS
LAURENCE G. CHASET

By: /s/ ***Laurence G. Chaset***

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CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing document to be served upon all known parties in this proceeding by e-mail upon each party identified in the official service list compiled by the Secretary in this proceeding.

Dated at San Francisco, California, this 21st day of August, 2009.

/s/ Laurence G. Chaset

Laurence G. Chaset

Document Content(s)