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DYNEGY

October 11, 2007

Maureen E. Long
Standards Process Manager
North American Electric Reliability Council
Princeton Forrestal Village
116-390 Village Boulevard
Princeton, New Jersey 08540-5721

Subject: Request for Interpretation of NERC Reliability Standard VAR-001-1

Dear Ms. Long:

Dynegy Inc. (Dynegy) is requesting an interpretation of Requirement 4 of North American Electric Reliability Corporation (NERC) Reliability Standard VAR-001-1. As a registered Generator Operator, Dynegy is directly impacted by this requirement. Dynegy is submitting this request for interpretation under the guidelines set out in "Interpretations of Standards" under the "Special Procedures" Section of Version 6.1 of the NERC Reliability Standards Development Procedure.

Background

Requirement 4 of NERC Reliability Standard VAR-001-1 provides as follows:

R4. Each Transmission Operator shall specify a voltage or Reactive Power schedule¹ at the interconnection between the generator facility and the Transmission Owner's facilities to be maintained by each generator. The Transmission Operator shall provide the voltage or Reactive Power schedule to the associated Generator Operator and direct the Generator Operator to comply with the schedule in automatic voltage control mode (AVR in service and controlling voltage).

¹The voltage schedule is a target voltage to be maintained within a tolerance band during a specified period.

NERC Reliability Standard VAR-002-1 is the companion standard to NERC Reliability Standard VAR-001-1. Requirement R2 and Measure M2 of Standard VAR-002-1 require the Generator Operator to control its voltage or reactive output to meet the voltage or Reactive Power schedule provided by its Transmission Operator. Section D.2.1.2 of the “Levels of Non-Compliance for Generator Operator” section of Standard VAR-002-1 defines one incident of failing to maintain a voltage or reactive power schedule as a non-compliance with R2 of Standard VAR-002-1.

Therefore, to be in compliance with R2 of NERC Reliability Standard VAR-002-1, Generator Operators must maintain the voltage or Reactive Power output within the tolerance band specified by the Transmission Operator (in accordance with R4 of Standard VAR-001-1) at *all* times.

Request for Interpretation Questions

The current wording of Requirement 4 of NERC Reliability Standard VAR-001-1 does not impose any explicit obligations on the Transmission Operator other than to provide the Generator Operator with a voltage or reactive power output schedule and an associated tolerance band.

Dynegy believes that Requirement R4 of NERC Reliability Standard VAR-001-1 requires interpretation. The specific questions that need to be answered are the following:

1. Is the Transmission Operator implicitly required to have a technical basis for specifying the voltage or reactive power schedule and associated tolerance band?
2. Is the Transmission Operator implicitly required to issue a voltage or reactive power schedule and associated tolerance band that is reasonable and practical for the Generator Operator to maintain?
3. What measure should be used to determine if the Transmission Operator has issued a technically based, reasonable and practical to maintain voltage or reactive power schedule and associated tolerance band?

Possible Interpretation and Material Impact of Misinterpretation

Question 1

The NERC Reliability Standards are intended to provide for the reliable operation of the bulk power system. Section 301 of the NERC Rules of Procedure states that reliability standards shall be “technically excellent.” In addition, Section 302.5 of the NERC Rules of Procedure also requires that each reliability standard shall be based on “sound engineering and operating judgment, analysis, or experience...” For a Standard to comply with these characteristics, it must not only be drafted to reflect the requirements

of Sections 301 and 302.5, it must also be implemented on that basis. Therefore, for a Transmission Operator to be in compliance with NERC Rules of Procedure, it must be required to have a technical basis for the specified voltage or reactive power schedule and associated tolerance band. In addition, Generator Operator compliance with the specified schedule and reliable system operation will likely be improved if the Generator Operator understands the basis for the schedule. This understanding can be achieved by requiring the Transmission Operator to share, upon request, the technical basis for the specified voltage or reactive power schedule and associated tolerance band with Generator Operators directly impacted by the Transmission Operator's specified schedule.

If the Transmission Operator is not required to have a technical basis for the specified voltage or reactive power schedule and associated tolerance band, the implementation of Standard VAR-001-1 by the Transmission Operator would violate the above provisions of the NERC Rules of Procedure. In addition, without a technical basis for the voltage or reactive power schedule and associated tolerance band, arbitrary target voltage values and arbitrary and either overly narrow or overly wide tolerance bands could be issued.

Either of these situations would potentially reduce system reliability. If the tolerance band is too narrow, the Generator Operator would be forced to spend an inordinate amount of time monitoring and reacting to numerous short term variations in voltage that do not present a threat to system reliability. This type of monitoring to simply avoid "non-compliances" with Standard VAR-002-1 would harm system reliability because plant personnel would be distracted from monitoring more critical plant operational parameters that have a much greater impact on system reliability. Furthermore, the Generator Operator's real time obligation to respond to any voltage or reactive directives from the Transmission Operator mitigates the need for this type of extraordinary monitoring by plant personnel to try to make sure the voltage is maintained within an overly narrow tolerance band. On the other hand, if the tolerance band is too wide, voltage levels on the system could jeopardize system reliability during system disturbances.

Question 2

Section 301 of the NERC Rules of Procedure states that reliability standards shall be "reasonable." In addition, Section 302.9 of the NERC Rules of Procedure states that "[e]ach reliability standard shall establish requirements that can be practically implemented by the assigned responsible entities...." For a Standard to comply with these characteristics, it must not only be drafted to reflect these obligations, it must also be implemented in that same manner. Therefore, the Transmission Operator should be required to issue a voltage schedule (target voltage and associated tolerance band) or reactive power schedule that is reasonable and practical to maintain and allows the Generator Operator to operate in compliance with Requirement R2 of Standard VAR-002-1. For example, the tolerance band specified must take into account the inherent inaccuracy of the equipment that measures and converts voltage. In addition, because Requirement R2 of Standard VAR-002-1 essentially requires the Generator Operator to

maintain the voltage within the specified tolerance band at all times, the tolerance band needs to be wide enough to allow the Generator Operator to practically operate within the tolerance band.

If the Transmission Operator is not required to issue a voltage schedule (target voltage and tolerance band) or reactive power schedule that is reasonable and practical for the Generator Operator to maintain, the implementation of Standard VAR-001-1 by the Transmission Operator would violate the above cited provisions of the NERC Rules of Procedure. For example, overly narrow tolerance bands could be partially or totally “eaten up” by the “instrument repeatability” error of the equipment used to measure voltage (*i.e.*, potential transformers, capacitor coupling voltage transformers, transducers), leaving little or no margin within the tolerance band to respond to system voltage variations. Unreasonable or impractical voltage or reactive power schedules would essentially force Generator Operators to incur artificially imposed violations of Requirement R2 of Standard VAR-002-1 and any associated penalties. This result would be in violation of Section 303 of the NERC Rules of Procedure which requires that standards be “developed with due consideration of impacts on competition, to ensure standards are not unduly discriminatory or preferential, and recognizing that reliability is an essential requirement of a robust North American economy....” In the absence of a voltage or reactive power schedule and associated tolerance band that is reasonable and practical, Transmission Operators will effectively impose on Generator Operators the cost of violations, thereby establishing an “unduly discriminatory” practice and material impacts on Generator Operators and competition.

Question 3

If a Transmission Operator is required to issue a technically based, reasonable and practical to maintain voltage or reactive power schedule and associated tolerance band, Section 302.4 of the NERC Rules of Procedure states that “[e]ach performance requirement shall have one or more associated measures used to objectively evaluate compliance with the requirement.” Therefore, a measure needs to be developed to establish the basis for an objective evaluation to determine if a technically based, reasonable and practical voltage or reactive power schedule was issued by the Transmission Operator.

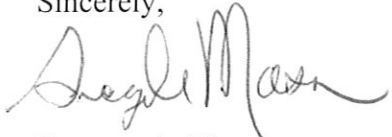
This measure should state that the voltage or reactive power schedule and associated tolerance band issued by the Transmission Operator must either be (1) consistent with the historical variation of system voltage normalized to eliminate abnormal voltage fluctuations such as those caused by system disturbances or (2) consistent with the variation of system voltage when the plant/unit is not operating normalized to eliminate abnormal voltage fluctuations such as those caused by system disturbances. If the specified voltage or reactive power schedule and associated tolerance band is not consistent with either of these provisions, the measure should require the Transmission Operator to have a technical study or analysis that justifies a different voltage or reactive power schedule and associated tolerance band.

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If this type of measure is not explicitly stated, the Regional Entity will not have any objective method for judging if the Transmission Operator issued a technically based, reasonable and practical voltage or reactive power schedule and associated tolerance band in accordance with Requirement R4 of Standard VAR-001-1.

Dynegy appreciates the prompt attention of NERC to this standard interpretation request. If you have any questions regarding this request for interpretation, please let me know.

Sincerely,

A handwritten signature in cursive script that reads "Gregory A. Mason". The signature is written in black ink and is positioned to the left of the typed name.

Gregory A. Mason
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