



NORTH AMERICAN ENERGY STANDARDS BOARD

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April 28, 2010
Filed Electronically

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street N.E., Room 1A
Washington, D.C. 20585

RE: Time Error Correction Reliability Standard (Docket No. RM09-13-000)

Dear Ms. Bose:

The North American Energy Standards Board ("NAESB") herewith submits these comments in response to the Notice of Proposed Rulemaking on Time Error Correction Reliability Standard issued by the Federal Energy Regulatory Commission ("FERC" or "Commission") on March 18, 2010. The comments describe the related NAESB standards development for the NAESB standards for time error corrections (WEQ-006).

The report is being filed electronically in Microsoft® Word® 2003 and in Adobe Acrobat® Portable Document Format (.pdf). The report is also available on the NAESB web site (www.naesb.org). Please feel free to call me at (713) 356-0060 or refer to the NAESB website (www.naesb.org) should you have any questions or need additional information regarding NAESB work products.

Respectfully submitted,

Rae McQuade

Ms. Rae McQuade
President & COO, North American Energy Standards Board



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cc:

Chairman Jon Wellinghoff, Federal Energy Regulatory Commission
Commissioner Philip D. Moeller, Federal Energy Regulatory Commission
Commissioner John R. Norris, Federal Energy Regulatory Commission
Commissioner Marc Spitzer, Federal Energy Regulatory Commission

Mr. Thomas R. Sheets, General Counsel of the Commission, Federal Energy Regulatory Commission
Mr. Joseph McClelland, Director, Office of Electric Reliability, Federal Energy Regulatory Commission
Ms. Jamie L. Simler, Director, Office of Energy Policy and Innovation, Federal Energy Regulatory Commission

Mr. Michael Goldenberg, Senior Attorney, Office of General Counsel, Federal Energy Regulatory Commission
Mr. Mason Emmett, Senior Legal Advisor, Office of Energy Policy and Innovation, Federal Energy Regulatory Commission
Mr. William E. Murrell, Deputy Director, Division of Economic and Technical Analysis, Office of Energy Policy and Innovation, Federal Energy Regulatory Commission

Mr. Ralph Cleveland, Chairman and CEO, North American Energy Standards Board
Mr. William P. Boswell, General Counsel, North American Energy Standards Board

Mr. David Cook, General Counsel, North American Electric Reliability Corporation
Mr. Andrew Rodriguez, North American Electric Reliability Corporation

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Time Error Correction) **Docket No. RM09-13-000**
Reliability Standard)
)

COMMENTS OF THE NORTH AMERICAN ENERGY STANDARDS BOARD

The North American Energy Standards Board (“NAESB”) is pleased to provide these comments in response to the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) Notice of Proposed Rulemaking on Time Error Correction Reliability Standard (“NOPR”).¹ The North American Electric Reliability Corporation (“NERC”) time error correction reliability standard has a complementary set of NAESB business practices. The sets of standards were developed and coordinated across NERC and NAESB, both American National Standards Institute accredited standards development organizations, and these comments describe our efforts.

NAESB has developed standards (NAESB WEQ-006 standards) complementary to the NERC time error correction standards (BAL-004). The Version 001.0 WEQ-006 standards were incorporated by reference on July 21, 2008 in FERC Order No. 676-C, Docket No. RM05-5-005.² The Version 002.1 standards were incorporated by reference on November 24, 2009 in FERC Order No. 676-E, Docket No. RM05-5-013,³ omitting the incorporation of WEQ-006. For Version 001.0 and Version 002.1 of the NAESB time error correction standards, the development was fully coordinated to ensure that the business practices developed were supportive and complementary to the NERC reliability time error correction standards. For Version 002.1 of the NAESB standards, the Commission excluded action on WEQ-006 noting,

¹ The Time Error Correction Reliability Standard Notice of Proposed Rulemaking, 130 FERC ¶61,201 (March 18, 2010).

² FERC Order No. 676, 18 C.F.R. §38.2 (2008), *can be accessed from* <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=11754625>.

³ FERC Order No. 676, 18 C.F.R. §38.2 (2009), *can be accessed from* <http://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=12205059>.

“The Version 002.1 Standards also revise the Manual Time Error Correction Standards (WEQ-006) to maintain consistency with revised NERC Standard BAL-004, but we are not incorporating this standard by reference because the Commission’s consideration of the revised BAL-004 is still pending. Thus, the earlier version of WEQ-006 will remain in force.” Appendix A shows the NAESB development for Version 002.1 of the NAESB standard WEQ-006, and is redlined against Version 001.0 to highlight the differences.

The effort to develop both the NERC and NAESB time error correction standards were coordinated and indeed, the two development groups shared many of the same participants. Should additional modifications to the standards be needed, NAESB will work with NERC to ensure that the NAESB work products are complementary and supportive of the NERC reliability standards. Regarding filing of the standards and to reinforce the coordination between both groups, NAESB will work with NERC to either prepare coordinated filings for the time error correction standards, or if filed on separate schedules, NAESB will clearly identify the time error correction standards affected and the work undertaken by NERC.

We appreciate the opportunity to provide these comments, to support the Commission’s directives, to collaborate with NERC, and to develop standards for time error corrections.

Respectfully submitted,

Rae McQuade

Rae McQuade
President, North American Energy Standard Board

Version 001.0 WEQ-006 Standards, October 31, 2007 with redlines applied for Version 002.1

Below is an extract from the final action⁴ that modified Version 001.0 WEQ-006 Manual Time Error Correction Standards and is now present in Version 002.1.

Summary:

Revisions to the NERC the BAL-004 Standard remove inappropriate requirements on reliability coordinators who voluntarily agree to serve as Interconnection Time Monitors. NERC was concerned that if these changes are not made that “it is likely that one or more reliability coordinators may no longer voluntarily agree to perform the service.”

The NAESB Standards Review Subcommittee requested that the NAESB Business Practice WEQ-006 (Manual Time Error Correction) be reviewed/revise so that the NAESB standard is in lock step with the NERC standard. Under the current NAESB requirements, a Reliability Coordinator voluntarily acting as the Interconnection Time Monitor is required to meet the NAESB requirements and is subject to FERC sanctions if found to be in violation of their tariff for not meeting the NAESB requirements. A similar case can be made for the NAESB Interconnection Time Monitor requirements as was made on the NERC side. It is likely that one or more Reliability Coordinators still will not voluntarily agree to act as the Interconnection Time Monitor if they are subject to financial penalties for performing a voluntary function.

In reviewing the Business Practice we also identified references to National Bureau of Standards which should be changed to National Institute of Standards and Technology (NIST). The National Bureau of Standards name was changed to NIST in 1988 as a part of the Omnibus Trade and Competitiveness Act.

Below is the NAESB Version 001.0 WEQ-006 Manual Time Error Correction standards with redlines to show the modifications that resulted in Version 002.1. If there are no redlines, then Version 001.0 and Version 002.1 text is identical.

WEQ-006 Manual Time Error Correction

~~Purpose-Introduction~~

Interconnection frequency is normally scheduled at 60.00 Hz and controlled to that value. The control is imperfect and over time the frequency will average slightly above or below 60.00 Hz resulting in mechanical electric clocks developing an error relative to true time. This Standard specifies the procedure to be used for reducing the error to within acceptable limits of true time.

Applicability

Balancing Authorities, Interconnection Time Monitor

Definition of Terms

- 006-0.1 Balancing Authority (BA) – The entity responsible for integrating resource plans ahead of time, maintaining load-interchange-generation balance within a Balancing Authority Area, and supporting Interconnection frequency in real time.
- 006-0.2 Balancing Authority Area (BAA) - An electrical system bounded by interconnection (tie-line) metering and telemetry, where the Balancing Authority controls (either directly or by contract) generation to maintain its Interchange Schedule with other Balancing Authority Areas and contributes to frequency regulation of the Interconnection.
- 006-0.3 Frequency Bias Setting - A value, in MW/0.1 Hz, set into a Balancing Authority’s AGC equipment to represent a Balancing Authority’s response to a frequency deviation.

⁴ The complete final action can be accessed from:
http://naesb.org/member_login_form.asp?doc=fa_2008_weq_api_6a_r07019.doc.

- 006-0.4 Interchange Schedule - The planned energy exchange between two adjacent Balancing Authorities.
- 006-0.5 Interconnection – Any one of the three major electric system networks in North America: Eastern, Western, and ERCOT.
- 006-0.6 Interconnection Time Monitor – An entity that monitors Time Error and initiates and terminates Time Error Corrections.
- 006-0.7 Leap Second - A Leap Second is a second of time added to Coordinated Universal Time to make it agree with astronomical time to within 0.9 seconds. Historically, Leap Seconds are implemented as needed on June 30th or December 31st. (National Institute of Standards and Technology)
- 006-0.8 Time Error – Accumulated time difference between time based on Interconnection frequency and the National Bureau of Standards ~~time~~ and Technology Time.
- 006-0.9 Time Error Correction - An offset to the Interconnection’s scheduled frequency to correct for accumulated Time Error.
- 006-0.10 WECCNet – A messaging system used by the Western Electric Coordinating Council (WECC) for use by participating utility’s dispatchers and network administrators.

Business Practice Requirements

- 006-1 Each Balancing Authority shall participate in Time Error Correction unless it is operating asynchronously to its Interconnection.
- 006-1.1 Balancing Authorities operating asynchronously who establish their own time error control bands, shall notify the Interconnection Time Monitor of the bands being utilized, and shall also provide notification if they are changed.
- 006-2 An Interconnection Time Monitor shall exist for each Interconnection.
- 006-3 The Interconnection Time Monitor shall calibrate its time error device at least annually against the ~~National Bureau of Standards time~~ National Institute of Standards and Technology Time.

006-4 TIME ERROR INITIATION

Time error corrections ~~shall~~ should start and end on the hour or half-hour, and notice ~~shall~~ should be given at least one hour before the time error correction is to start or stop. Time Error corrections shall last at least one hour, unless terminated by a Reliability Coordinator. Time Error corrections for fast time shall not be initiated between 0400-1100 Central Time except for in the Western Interconnection. All Balancing Authorities within an Interconnection shall make all Time Error corrections directed by the Interconnection Time Monitor for its Interconnection. All Balancing Authorities within an Interconnection shall make Time Error Corrections at the same rate.

006-5 INTERCONNECTION TIME MONITORING

Each Interconnection Time Monitor shall monitor time error and ~~shall~~ make a reasonable effort to initiate or terminate corrective action orders according to the following table:

Time Seconds	Initiation		Termination	
	East	West	East	West
Slow	-10	-5	-6	±0.5
Fast	+10	+5	+6	±0.5

006-6 TIME ERROR CORRECTION LABELING

Time error correction notifications shall be labeled alphabetically on a monthly basis (A-Z, AA-AZ, BA-BZ,...).

- 006-7 **TIME CORRECTION OFFSET**
- Each Balancing Authority, when requested, shall participate in a Time Error Correction by one of the following two methods:
- 006-7.1 **FREQUENCY OFFSET**
- The Balancing Authority may offset its frequency schedule in accordance to the directives of the Interconnection Time Monitor, leaving the Frequency Bias Setting normal.
- 006-7.2 **SCHEDULE OFFSET**
- If the frequency schedule cannot be offset as directed by the Interconnection Time Monitor, the Balancing Authority may offset its net Interchange Schedule (MW) by an amount equal to the computed bias contribution during an equivalent frequency deviation`.
- 006-8 **INTERCONNECTION TIME ERROR NOTIFICATION**
- On the first day of each month, the Interconnection Time Monitor shall issue a notification of time error accurate to within 0.01 second to all Reliability Coordinators within the Interconnection to assure uniform calibration of time standards.
- 006-9 **WESTERN INTERCONNECTION TIME ERROR NOTIFICATION**
- Within the Western Interconnection, the Interconnection Time Monitor shall provide the accumulated time error (accurate to within 0.001 second) to all Balancing Authorities on a daily basis at 1400 PDT/PST using the WECCNet. The alphabetic designator shall accompany time error notification if a time error correction is in progress.
- 006-10 After the premature termination of a manual time correction, a slow time correction can be reinstated after the frequency has returned to 60.00 Hz or above for a period of ten minutes. A fast time correction can be reinitiated after the frequency has returned to 60.00 Hz or lower for a period of ten minutes. At least one hour shall elapse between the termination and re-initiation notices.
- 006-11 **TIME CORRECTION ON RECONNECTION**
- When one or more Balancing Authorities have been separated from the Interconnection, upon reconnection, they shall adjust their time error devices to coincide with the time error of the Interconnection Time Monitor. The Balancing Authorities shall notify the Interconnection Time Monitor they are ready to receive the necessary adjustment to time error as soon as possible after reconnection.
- 006-12 **LEAP SECONDS**
- Balancing Authorities using time error devices that are not capable of automatically adjusting for Leap Seconds shall arrange to receive advance notice of the Leap Second and make the necessary manual adjustment in a manner that will not introduce an improper Interchange Schedule into their control system.