



Mr. Timothy R. Gallagher
Director-Standards
North American Electric Reliability Council
116-390 Village Boulevard
Princeton, New Jersey 08540

Re: Comments by the Independent Electricity Market Operator (IMO) to Posted NERC Standards:

Dear Mr. Gallagher,

The Independent Electricity Market Operator (IMO) respectfully submits the following comments, to the following posted Standards.

1. **NERC Standard 200, “Monitor and Assess Short Term Transmission Reliability-Operate Within Limits”**
2. **NERC Standard 300, “Balance Resources and Demand”**
3. **NERC Standard 600, “Determine Facility Ratings, System Operating Limits and Transfer Capabilities”**

General comments to all standards posted to date:

The first concerns the repeated insertion of the monetary “Sanctions Table.” Sanctions in whatever form have no direct relevance to the reliability standard being developed. They belong in a stand-alone document, endorsed by NERC and the Regions, that specifically address the enforcement process of the standards. Furthermore monetary sanctions have not been broadly endorsed, and this continues to be an outstanding issue with all posted standards to date. It is the IMO's opinion that these references must be removed

The second deals with the need for supporting documentation, such as provided for the Balancing Resources and Demand standard, that clearly articulates the "principles" and/or "objective" that each drafting team used in developing each specific standard and measure. This would greatly aid, particularly during the standard development stages, in understanding the "intent" of the DRAFT standard, which tends to be written in generic terms.

Other comments to specific language in the Standards follow:

1. NERC Standard 200, “Monitor and Assess Short Term Transmission Reliability-Operate Within Limits”

Definitions:

T_v : The violation time associated with a limit.

This definition seems to reflect the compliance violation time frame, but the usage of the T_v term in the draft standard is the "maximum acceptable response time" as determined by the RA/PA.

BPS (Bulk Power System) - Definition for BPS is required.

Sections 201 IROL Identification, requirements and measures read as follows:

1. Requirements

- 1.1. The reliability authority and planning authority shall identify and document which facilities (or groups of facilities) in the reliability authority's reliability area are subject to interconnection reliability operating limits.
- 1.2. The reliability authority and planning authority shall identify each interconnection reliability operating limit within the reliability authority's reliability area.
 - 1.2.1. The reliability authority or planning authority shall identify a maximum response time (Tv) for any interconnection reliability operating limit that does not already have a Tv.

2. Measures

- 2.1. The entity responsible shall establish a list of interconnection reliability operating limits for the reliability authority's reliability area.
 - 2.1.1. The entity responsible shall establish a maximum response time (Tv) for any interconnection reliability operating limit that does not already have a Tv.
- 2.2. The entity responsible shall establish a list of facilities (or groups of facilities) in the reliability authority's reliability area that are subject to interconnection reliability operating limits

IMO believes that the present definition of Tv, which is "self-defined, as so broad that the re-preparation time of thirty minutes has been lost. It is unclear if this was indeed the intent based on Section 203 requirements 1.1 and 1.2 and measure 2.1.2.

In Section 201 (1.2.1):

- the reliability authority or planning authority identifying Tv must establish and present the process through which Tv is derived, or the re-preparation time of thirty minutes should become the standard default absent such a process.
- the reliability authority or planning authority identifying Tv in one region/area must have a peer review and dispute resolution process with its' neighboring region(s)/area(s) to ensure a mutually acceptable Tv. Additionally, Section 1.1 suggests the need for a demonstrated process to "... identify and document which facilities (or groups of facilities) in the reliability authority's reliability area are subject to interconnection reliability operating limits." The mechanism to determine this critical element of the definition cannot be left open-ended. Without a recognized and accepted process, significant inconsistencies will result throughout the Interconnections.

A further concern with the draft is the continuing difficulty of defining wide area impact versus local impact. As the Standard defines "Cascading Outages":

Cascading Outages: The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption, which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

There is no guidance on how the parameters are to be defined which would permit the identification of the local area and the widespread area. It also fails to recognize that a local area problem may evolve into a wider area problem depending on the load, time of day, recent contingencies and other factors. A well defined process for determining what is (and what is not) a reportable event is essential.

Section 202 Monitoring read as follows

1. Requirements

- 1.1. The reliability authority shall monitor real-time system operating parameters to
- 1.2. Determine if it is operating its reliability area within its interconnection reliability operating limits.

2. Measures

- 2.1. The reliability authority shall have interconnection reliability operating limits available for its operations personnel's real-time use.
- 2.2. The reliability authority shall have real-time data available in a form that system operators can compare to the interconnection reliability operating limits.
- 2.3. The reliability authority shall monitor system operating parameters and compare these against its interconnection reliability operating limits.

The term "real-time" as used in the above lacks clarity in defining how well the RA monitors data (ie how often - every 2 sec; 10 seconds, etc). As an example a RA may sample data instantly (real time), but only monitor once every 30 minutes. It is IMO's view, such sampling frequency satisfies the above measures, however, its adequacy for maintaining system reliability must be questioned.

Section 203 Analysis and Assessment

1. Requirements

- 1.1. The reliability authority shall perform operational planning analyses to verify that its planned bulk electric system operations will not exceed any of its interconnection reliability operating limits.
- 1.2. The reliability authority shall perform real-time assessments to verify that it is not exceeding any interconnection reliability operating limits.

2. Measures

- 2.1. The reliability authority shall identify operating situations or events that impact its ability to operate its reliability area without exceeding any identified interconnection reliability operating limits.
 - 2.1.1. The reliability authority shall conduct an operational planning analysis at least once each day, evaluating the next day's projected system operating conditions
 - 2.1.2. The reliability authority shall conduct a real-time assessment periodically, but at least once every 30 minutes.

The standard must provide a clear distinction between i) how often IROL's, are assessed, whether in real time or for operational planning analyses and ii) how quickly an IROL violation must be resolved. Requirement 1.2 "..... **to verify** that it is not exceeding any interconnection reliability operating limits" can be, in IMO's opinion, interrupted as to how quickly an IROL violation must be resolved...ie: each time it is detected in real-time, which shall be within 30 minutes or less in accordance with measure 2.1.2. This requirement belongs in section 201.

Section 204 Actions

1. Requirements

- 1.3. The reliability authority shall act1 or direct others to act to:
 - 1.3.1. Prevent instances where interconnection reliability operating limits may be exceeded
 - 1.3.2. 1.1.2. Mitigate the magnitude and duration of instances where interconnection reliability operating limits have been exceeded

- 1.4. The reliability authority shall document instances of exceeding interconnection reliability operating limits and shall document and complete an Interconnection Reliability Operating Limit Violation Report for instances of exceeding interconnection reliability operating limits for time 2 greater than or equal to Tv.

A further concern with the draft is the continuing difficulty of defining wide area impact versus local impact and the actions that are to be taken in such situations. As the Standard defines “Cascading Outages”:

Cascading Outages: The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption, which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

In Section 201 there is no guidance on how the parameters are to be defined which would permit the identification of the local area and the widespread area. Further, fails to recognize that a local area problem or an "out of scope coverage" may evolve into a wider area problem depending on the load, time of day, recent contingencies and other factors. A well-defined process for determining what is (and what is not) a reportable event is essential. While, Section 204 fails to identify what actions are to be taken in such "out of scope coverage" situations.

2. NERC Standard 300, “Balance Resources and Demand”

The IMO fully supports the comments put forth by NPCC - entitled “NPCC Comments On The NERC Balancing Standard,” which details numerous concerns with the methodology of the proposed new standard for frequency control.

3. NERC Standard 600, “Determine Facility Ratings, System Operating Limits and Transfer Capabilities”

Refer to the attached STD Comment form for "**Determine Facility Ratings, System Operating Limits and Transfer Capabilities**"



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Comment Form – 1st Posting of the draft ‘Determine Facility Ratings, System Operating Limits, and Transfer Capabilities’ Standard

Note – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

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Key to Industry Segment #'s:

- 1 – Trans. Owners
- 2 – RTO's, ISO's, RRC's
- 3 – LSE's
- 4 – TDU's
- 5 - Generators
- 6 - Brokers, Aggregators, and Marketers
- 7 - Large Electricity End Users
- 8 - Small Electricity Users
- 9 - Federal, State, and Provincial Regulatory or other Govt. Entities

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each of these pairs, the draft standard requires the development and availability of a “methodology” to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three ‘methodologies’ sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three ‘communication’ sections (602, 603, 605), the levels of noncompliance are based on the availability of the values requested by the users of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three ‘methodologies’ sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not directly impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three ‘communication’ sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of ‘per MW’ variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of ‘completeness’ of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon ‘percentage of requested data received’ (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with “Operate Within Limits” Standard:

The SDT suggests that this draft standard be reviewed in concert with the “Operate Within Limits” draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?

Yes

No

Comments

2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?

Yes

No

Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC’s Regional difference should be included in this standard?

Yes

No

Comments The NPCC criteria is more stringent than the NERC standard.

4. Are you aware of any other Regional differences that should be included in this standard?

Yes

No

Comments Possibly ERCOT and WSCC will have differences.

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5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).

Yes

No

Comments Financial penalties should not be applied. This would open the gate to financial penalties for the many, much more severe violations addressed in other standards. The IMO feels that non-monetary sanctions are sufficient.

6. Do you agree with the proposed requirements and measurements in section 601?

Yes

No

Comments

7. Do you agree with the proposed compliance monitoring process in section 601?

Yes

No

Comments

8. Do you agree with the proposed levels of non-compliance in section 601?

Yes

No

Comments See general comment below

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9. Do you agree with the proposed requirements and measurements in section 602?

Yes

No

Comments

10. Do you agree with the proposed compliance monitoring process in section 602?

Yes

No

Comments

11. Do you agree with the proposed levels of non-compliance in section 602?

Yes

No

Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not.

12. Do you agree with the proposed requirements and measurements in section 603?

Yes

No

Comments

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13. Do you agree with the proposed compliance monitoring process in section 603?

Yes

No

Comments

14. Do you agree with the proposed levels of non-compliance in section 603?

Yes

No

Comments See general comment below

15. Do you agree with the proposed requirements and measurements in section 604?

Yes

No

Comments

16. Do you agree with the proposed compliance monitoring process in section 604?

Yes

No

Comments

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17. Do you agree with the proposed levels of non-compliance in section 604?

Yes

No

Comments See general comment below

18. Do you agree with the proposed requirements and measurements in section 605?

Yes

No

Comments

19. Do you agree with the proposed compliance monitoring process in section 605?

Yes

No

Comments

20. Do you agree with the proposed levels of non-compliance in section 605?

Yes

No

Comments The level 2 and 3 violations seem more severe than the violation addressed in level 4.

21. Do you agree with the proposed requirements and measurements in section 606?

Yes

No

Comments

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22. Do you agree with the proposed compliance monitoring process in section 606?

Yes

No

Comments

23. Do you agree with the proposed levels of non-compliance in section 606?

Yes

No

Comments See general comment below

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments All the sanctions text should be removed, as they are dealt with elsewhere.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

The proposed non-compliance levels for all these standards do not follow a natural progression. They seem to be somewhat contrived and slotted into the 4 levels.

601.4.2.2 - 10 years seems rather infrequent. Should provide opportunity for some verification when ratings change.

601.4.3, 602.4.4, 604.4.4, 606.4.4 - 3 years may not be long enough, given the typical timelines required to resolve differences.

603 Table I Note a) – reference is made to NERC Planning Standards – Will these still exist after the new family of standards are in place.

603 Table IA

– The NERC standard permits this table to be included here, but is it really necessary to have it here, other than for information purposes. At the NERC level, would it be sufficient to just note

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that NPCC has more stringent criteria and refer the reader to the NPCC standards.

- In the 2nd row, for “Cascading outages”, superscript “f” should be “c”. Under category C, for “Double Circuit Tower” (item #3) superscript “e” should be “f”
- Note “e” text requires reformatting to remove blank line.