



April 7, 2009

VIA OVERNIGHT MAIL

Claudine Dutil-Berry, Secretary of the Board
National Energy Board
444 Seventh Avenue SW
Calgary, Alberta
T2P 0X8

Re: *North American Electric Reliability Corporation*

Dear Ms. Dutil-Berry:

The North American Electric Reliability Corporation (“NERC”) hereby submits this petition seeking approval of one NERC Reliability Standard and two new definitions, that are contained in **Exhibit A** to this petition:

- MOD-004-1 — Capacity Benefit Margin (“CBM”)

Concurrent with the request for approval for this reliability standard, NERC:

- a) requests that the following Reliability Standards be retired and that their retirement take effect when the new standards become effective:

- MOD-006-0 — Procedures for Use of Capacity Benefit Margin Values
- MOD-007-0 — Documentation of the Use of Capacity Benefit Margin

- b) withdraws its request for approval of the following Reliability Standards, because these standards are wholly superseded by MOD-004-1:

- MOD-004-0 — Documentation of Regional Reliability Organization
Capacity Benefit Margin Methodologies

Ms. Claudine Dutil-Berry
April 7, 2009
Page 2

– MOD-005-0 — Procedure for Verifying Capacity Benefit Margin Values

The proposed reliability standard and associated definitions were approved by the NERC Board of Trustees on November 13, 2008. The standard significantly increases the rigor and structure of CBM determination and usage and helps FERC address one of its top priorities, Open Access Transmission Tariff (“OATT”) reform through increased transparency, standardization and consistency in CBM calculations. NERC requests this reliability standard be made effective in accordance with the implementation plan accompanying the proposed standard.

NERC’s petition consists of the following:

- This transmittal letter;
- A table of contents for the entire petition;
- A narrative description justifying the proposed reliability standard;
- Reliability Standard MOD-004-1 submitted for approval (**Exhibit A**);
- Standard Drafting Team Roster (**Exhibit B**); and
- The complete development record of the proposed Reliability Standard (**Exhibit C**).

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Rebecca J. Michael

Rebecca J. Michael

*Attorney for North American Electric
Reliability Corporation*

**BEFORE THE
NATIONAL ENERGY BOARD**

NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION)

**PETITION FOR APPROVAL OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
OF MOD-004-1**

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability
Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

April 7, 2009

TABLE OF CONTENTS

I.	Introduction	1
II.	Notices and Communications	2
III.	Background:	4
	a. Reliability Standards Development Procedure	4
	b. Progress in Improving Proposed Reliability Standards	4
	c. Key Objectives of Order No. 890	5
IV.	Justification for Approval of the Proposed Reliability Standards	6
V.	Discussion on how Proposed Reliability Standard Meets the Directives of Order Nos. 693 and 890	18
VI.	Summary of the Reliability Standard Development Proceedings	34
VII.	NERC/NAESB Coordination	44
VIII.	Conclusion	46
	Exhibit A – Reliability Standards Proposed for Approval	
	Exhibit B – Standard Drafting Team Roster	
	Exhibit C – Record of Development of Proposed Reliability Standard	

I. INTRODUCTION

The North American Electric Reliability Corporation (“NERC”), hereby requests approval of one proposed Reliability Standard:

- MOD-004-1 — Capacity Benefit Margin (“CBM”)

Concurrent with the request for approval for this reliability standard, NERC requests that the following Reliability Standards be retired and that their retirement take effect when the new standards become effective:

- MOD-006-0 — Procedures for Use of Capacity Benefit Margin Values
- MOD-007-0 — Documentation of the Use of Capacity Benefit Margin

In addition, NERC withdraws its request for approval of the following Reliability Standards, because these standards are wholly superseded by MOD-004-1:

- MOD-004-0 — Documentation of Regional Reliability Organization Capacity Benefit Margin Methodologies
- MOD-005-0 — Procedure for Verifying Capacity Benefit Margin Values

In addition, NERC requests approval of the following two definitions that are used in the proposed standard for inclusion in the NERC Glossary of Terms:

Generation Capability Import Requirement (“GCIR”): The amount of generation capability from external sources identified by a Load-Serving Entity (“LSE”) or Resource Planner (“RP”) to meet its generation reliability or resource adequacy requirements as an alternative to internal resources.

Capacity Benefit Margin Implementation Document (“CBMID”): A document that describes the implementation of a Capacity Benefit Margin methodology.

NERC’s filing for approval of this standard marks a significant milestone toward achieving one of FERC’s top priorities - Open Access Transmission Tariff (“OATT”) reform. This proposed standard results from a tremendous effort by the NERC standard

drafting team, working collaboratively with the North American Energy Standards Board (“NAESB”), and the industry over several years to address a series of very complex and challenging issues. The resulting standard proposed in this filing adds a significant amount of rigor and structure to the determination and usage of CBM and requires a much higher level of consistency and transparency than required currently - all key objectives of FERC’s Order No. 890.

The NERC Board of Trustees approved this Reliability Standard and associated definitions on November 13, 2008. NERC requests approval of this proposed Reliability Standard and two new definitions and make them effective in accordance with the implementation plan accompanying the proposed standard. **Exhibit A** to this filing sets forth the proposed Reliability Standard and definitions. **Exhibit B** contains the drafting team roster that developed the proposed Reliability Standard. **Exhibit C** contains the complete development record of the proposed Reliability Standard.

NERC filed this proposed Reliability Standard with the Federal Energy Regulatory Commission (“FERC”) on November 21, 2008, and is also filing this standard with the other applicable governmental authorities in Canada.

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

III. BACKGROUND

a. Reliability Standards Development Procedure

NERC develops reliability standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards Development Procedure*, which is incorporated into the Rules of Procedure as Appendix 3A.

The development process is open to any person or entity with a legitimate interest in the reliability of the bulk power system. NERC considers the comments of all stakeholders and a vote of stakeholders and the NERC Board of Trustees is required to approve a reliability standard for submission to the applicable governmental authorities.

The proposed reliability standard set out in **Exhibit A** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure*, and it was approved by the NERC Board of Trustees on November 13, 2008 for filing with the applicable governmental authorities.

b. Progress in Improving Proposed Reliability Standards

NERC continues to develop new and revised reliability standards that address the issues NERC identified in its initial filing of proposed reliability standards in April 2006, the concerns noted in the FERC Staff Report issued on May 11, 2006, and the directives FERC included in several orders pertaining to NERC's reliability standards.¹ NERC has incorporated these activities into its *Reliability Standards Development Plan: 2008-2010* that was submitted on October 11, 2007. The reliability standard proposed for approval is a modified version of an existing reliability standard.

¹ See Order Nos. 693 and 693-A.

c. Key Objectives of Order No. 890

On February 16, 2007, FERC issued Order No. 890 – Preventing Undue

Discrimination and Preference in Transmission Service. Order No. 890:

- strengthens the *pro forma* OATT to ensure it achieves its original purpose of remedying undue discrimination;
- provides greater specificity in the *pro forma* OATT, in order to reduce opportunities for the exercise of undue discrimination and to make it easier to detect and enforce undue discrimination; and
- increases the transparency in the rules that apply to planning and the use of the transmission system.

A significant reform in Order No. 890 calls for greater consistency and transparency in the calculation of Available Transfer Capability (“ATC”). CBM is an amount of transmission capacity withheld through the ATC equations that can be used to meet generation reliability requirements through the use of imports to replace lost generation. In Order No. 890, FERC indicated that a CBM standard should incorporate several key components:

- It should allow Load Serving Entities to make requests for CBM to meet their generation reliability criteria;
- It should specify the manner in which CBM is determined, allocated across transmission paths and utilized;
- It should specify the generation deficiency conditions under which a Load Serving Entity may schedule CBM; and
- The amount of CBM withheld should be evaluated on a yearly basis.

Additionally, FERC indicated that CBM should not be considered in the determination of Non-Firm ATC or Available Flowgate Capability (“AFC”).² That directive is addressed in the ATC methodology standards filed with FERC on August 29, 2008 (MOD-028-1 and MOD-029-1) and on March 6, 2009 (MOD-030-2), rather than in the standard included in this filing.

² Order No. 890 at P 262.

IV. JUSTIFICATION FOR APPROVAL OF PROPOSED RELIABILITY STANDARD

This section summarizes the development of the proposed reliability standard and provides evidence that the proposed standard meets the criteria for approval set by FERC, that is, the proposed reliability standard is just, reasonable, not unduly discriminatory or preferential and in the public interest. This section describes the reliability objectives to be achieved by approving the standard and how the reliability standard meets FERC's objectives in Order Nos. 693, 890, 890-A and 890-B.

The standard drafting team roster is provided in **Exhibit B**. The complete development record for the proposed reliability standard is available in **Exhibit C**. This record includes the successive drafts of the reliability standard, the implementation plan, the ballot pool, and the final ballot results by registered ballot body members, stakeholder comments received during the development of the reliability standard, and how those comments were considered in developing the reliability standard.

NERC's response to Order No. 890 directives required a joint effort between NERC and NAESB. To that end, NERC and NAESB have worked closely and collaboratively, conducting over sixteen joint meetings and conference calls, to develop, in part, the NERC reliability standard proposed here and the related NAESB business-practice standards that will be submitted in accordance with FERC's Order. In general, NERC and NAESB have agreed that any item that is directly related to the Open-Access Same-time Information System ("OASIS") or other commercial interactions between Transmission Customers and Transmission Providers are within the scope of NAESB activities. This includes the posting of information on the OASIS, addressing customer data requests, and the purchase and sale of services. Items within NERC's scope include

activities pertaining to planning or operations of the bulk power system. The NERC reliability standards have generally been drafted with the intent that NAESB can easily reference and build upon the work within the NERC standards, a result that is possible through the close coordination between the parties.

The proposed MOD-004-1 standard is superior to the existing set of “fill-in-the-blank” CBM standards in that the proposed standard requires adherence by the applicable entities to a specific methodology that is both explicitly documented and available to reliability entities who request it. Required documentation includes detailed explanations regarding how CBM is requested, determined and used. Applicable entities also are required to determine CBM on a consistent schedule and for specific timeframes, and the circumstances under which CBM may be used have been explicitly specified. These actions make the processes related to CBM identification and usage much more transparent and will help ensure consistency in application. These significant improvements help FERC achieve many of its primary objectives of Order No. 890 regarding transparency, standardization and consistency in ATC calculations.

MOD-004-1 – Capacity Benefit Margin

a. Basis and Purpose of MOD-004-1

The purpose of NERC MOD-004-1 is to promote the consistent and reliable calculation, verification, preservation and use of CBM to support analysis in the determination of ATC and AFC and system operations.

The proposed MOD-004-1 standard consists of twelve requirements, summarized as follows:

R1. A Transmission Service Provider that has elected to maintain CBM must create and keep current a “CBM Implementation Document

("CBMID")" that includes details on how to request CBM, how CBM is established, how CBM is used, and how conflicting needs for CBM are addressed.

R2. The Transmission Service Provider that has elected to maintain CBM must make its current CBMID available to Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider's area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider's area, and notify those entities of any changes to the CBMID prior to the effective date of the change.

R3. An LSE that is defining the need for CBM shall define that need using Loss of Load Expectation ("LOLE") studies and/or Loss of Load Probability ("LOLP") studies and/or deterministic risk-analysis and/or reserve margin or resource adequacy requirements established by other entities. The LSE must also identify any expected import paths or source regions.

R4. An RP that is defining the need for CBM shall define that need using LOLE studies and/or LOLP studies and/or deterministic risk-analysis and/or reserve margin or resource adequacy requirements established by other entities. The RP must also identify any expected import paths or source regions.

R5. Every 13 months, the Transmission Service Provider that maintains CBM is required to establish CBM for use in ATC calculations for the next 13 months, based on the analyses used by the LSEs or RPs to determine the amount of CBM needed, as well as the import paths or source regions specified by the LSEs or RPs.

R6. Every 13 months, the Transmission Planer is required to establish CBM for use in planning activities for the next 2-10 years, based on the analyses by the LSEs or RPs to determine the amount of CBM needed, as well as the import paths or source regions specified by the LSEs or RPs.

R7. Less than 31 calendar days after CBM has been established, the Transmission Service Provider that maintains CBM shall inform the LSE or RP how much CBM has been set aside.

R8. Less than 31 calendar days after CBM has been established, the Transmission Planner shall inform the LSE or RP how much CBM has been set aside.

R9. The Transmission Service Provider that maintains CBM and the Transmission Planner shall share data and models used to determine the CBM needed with its associated Transmission Operators and any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of the request for CBM data.

R10. LSEs or Balancing Authorities may only use CBM when in an Energy Emergency Alert Level 2 (“EEA2”) or higher based on NERC Reliability Standard EOP-002-2 – Capacity and Energy Emergencies.

R11. All Balancing Authorities and Transmission Service Providers shall waive any ramping or timing requirements when presented with a request to approve an Interchange transaction using CBM.

R12. Transmission Service Providers that maintain CBM must approve, within the bounds of reliable operation, Arranged Interchange using CBM that is submitted by an “energy deficient entity” under an EEA2 if the following conditions are met: the CBM is available, some or all of their area is in an EEA2, and the energy deficient entity load is within that area.

The implementation plan for this standard requires compliance on the first day of the first quarter no sooner than one calendar year after approval of this standard by appropriate regulatory authorities where approval is required or is otherwise effective in those jurisdictions where approval is not explicitly required. MOD-004-1 replaces the existing NERC reliability standard MOD-004-0. As such, it does not require coordinated implementation with other standards, as entities may rely on the previous version of the standard if any delay in implementing this proposed standard occurs.

b. Demonstration that the proposed reliability standard is just, reasonable, not unduly discriminatory or preferential and in the public interest

Proposed reliability standard is designed to achieve a specified reliability goal

Proposed reliability standard MOD-004-1 is designed to ensure that CBM is requested, established and used consistently. In the past, no such consistency was required, resulting in potential for conflicts, inappropriate amounts of transmission

capacity being withheld or released to the market, and uncertainty regarding how to use CBM when it was needed. The proposed standard will clarify significantly and help in eliminating the existing confusion and uncertainty regarding CBM.

Proposed reliability standard contains a technically sound method to achieve the goal

MOD-004-1 requires adherence to a specific documented and transparent methodology to ensure consistent and reliable calculation, verification, preservation and use of CBM. MOD-004-1 requires entities that wish to have CBM reserved for their use to perform certain types of studies (such as LOLP or LOLE studies), and Transmission Providers must reflect the consideration of those studies in their determination of CBM if those studies have been provided to them. It provides specific criteria for when CBM may be used in Requirement R10 (only during an Energy Emergency Alert level 2 or higher), and Requirement R11 ensures that hindrances to its use (such as ramping requirements or scheduling deadlines) have been minimized by direction Balancing Authorities and Transmission Service Providers waive such requirements and deadlines if they can reliably do so. It also ensures that any entity in need may utilize CBM, provided (i) the CBM is available, (ii) some or all of Transmission Service Provider's area is in an Energy Emergency Alert Level 2, and (iii) the energy deficient load is within that area.

Proposed reliability standard is applicable to users, owners, and operators of the bulk power system, and not others

Proposed reliability standard MOD-004-1 is applicable only to users, owners and operators of the bulk power system, and not others. All requirements in the reliability standard apply to Transmission Service Providers, Transmission Planners, Load Serving Entities, Resource Planners and Balancing Authorities.

The proposed reliability standard does not impose requirements on any entities other than Transmission Service Providers, Transmission Planners, Load Serving Entities, Resource Planners and Balancing Authorities as detailed above.

Proposed reliability standard is clear and unambiguous as to what is required and who is required to comply

Proposed reliability standard MOD-004-1 applies to Transmission Service Providers, Transmission Planners, Load Serving Entities, Resource Planners and Balancing Authorities. Each requirement in the standard explicitly identifies entities that have an obligation to comply with the requirement. Each applicable entity is clearly identified and the expected action is expressly stated as set forth above in the section discussing the basis and purpose of MOD-004-1. Additionally, there is a specific Measure and Violation Severity Level (“VSL”) for each requirement, and the entities responsible for compliance with the standard are clearly identified. The proposed reliability standard’s requirements are clear and unambiguous as to what is expected from applicable entities.

Proposed reliability standard and associated compliance elements must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation

Violation Risk Factor Assignments

The balloted reliability standard included a Violation Risk Factor (“VRF”) for each main requirement in the reliability standard. For the first ten Requirements in the balloted MOD-004-1 reliability standard, the applicable VRFs were “Lower” and the last two were “Medium.” In developing the VRF assignments, there were opposing viewpoints with respect to the appropriate assignments. One view offered that the determination of CBM does not directly affect the electrical state of the system or the

ability to monitor or control it as would be required under the “Medium” VRF assignment. An incorrect CBM calculation may lead to oversubscribing or undersubscribing the system. Undersubscribing, while affecting the potential for commercial activity, actually benefits reliability. Oversubscribing the system as a result of an incorrectly low CBM value, while somewhat beneficial to commercial activity, may lead to a reliability concern that if realized can be managed by the operator’s adherence to its limits, to the extent that it has options to implement some measure of transmission loading relief to reduce flows due to transactions. To become a reliability issue requires an incorrectly low ATC value, coupled with the sale of the ATC, and an operator not mindful to the limits, the last of which is governed by other Transmission Operator (“TOP”) and Interconnection Operating (“IRO”) standards. On this argument, a determination of VRFs at “Medium” due to the “direct” impact is questionable.

On this basis, the drafting team evaluated the scope of the remaining work to meet the FERC deadline and focused its attention to the technical issues, adjusting the VRFs to “Lower” for most of the requirements based on the industry comments and the arguments presented above. However, NERC’s Board of Trustees believes that a more thorough review of the VRFs is warranted given recent FERC actions in general and the development history of these VRFs in particular. Therefore, NERC’s Board of Trustees deferred action on the VRFs and asked that these VRFs be reviewed through an open stakeholder process, with a report back to the board, to ensure that they are consistent with the intent of the VRF definitions and previous FERC decisions on VRFs.

Accordingly, NERC is not filing the associated VRFs with this standard at this time. NERC will submit VRFs for this proposed standard in a future filing.

Violation Severity Level Assignment

The proposed standard includes VSLs that are specific to the individual Requirements. The ranges of penalties for violations are based on the applicable VRFs and VSLs and will be administered based on the sanctions table and supporting penalty determination process described in the NERC Sanction Guidelines, Appendix 4B in NERC's Rules of Procedure.

R1. This requirement has multiple VSLs, based on whether the document is current and if it includes all the required information. VSLs range from "Lower" to "Severe."

R2. This requirement has multiple VSLs, based on whether the document was provided to the appropriate entities in a timely fashion or if all the entities were provided the document when requested. VSLs range from "Lower" to "Severe."

R3. This requirement has two VSLs based on whether or not the methods to determine CBM were used or paths/regions providing CBM were identified. VSLs are "Moderate" and "Severe."

R4. This requirement has two VSLs based on whether or not the methods to determine CBM were used or paths/regions providing CBM were identified. VSLs are "Moderate" and "Severe."

R5. This requirement has multiple VLSs, based on whether the CBM was established in a timely fashion and if the appropriate studies and paths/regions were considered. VSLs range from "Lower" to "Severe."

R6. This requirement has multiple VLSs, based on whether the CBM was established in a timely fashion and if the appropriate studies and paths/regions were considered. VSLs range from "Lower" to "Severe."

R7. This requirement has multiple VSLs based on the timeliness and/or completeness of required notifications to the appropriate entities. VSLs range from "Lower" to "Severe."

R8. This requirement has multiple VSLs based on the timeliness and/or completeness of required notifications to the appropriate entities. VSLs range from "Lower" to "Severe."

R9. This requirement has multiple VSLs based on the timeliness of data being provided to the appropriate entities, or whether all entities that requested the data received the data. VSLs range from “Lower” to “Severe.”

R10. This requirement is a “pass/fail” requirement. If an LSE or BA attempts to use CBM without being in an EEA2 or higher, a “Severe” violation has occurred.

R11. This requirement is a “pass/fail” requirement. If a TSP or BA denies an Arranged Interchange using CBM due to ramping or timing violations without a reliability reason to do so, a “Severe” violation has occurred.

R12. This requirement is a “pass/fail” requirement. If a TSP denies an Arranged Interchange using CBM and the CBM was available, the EEA2 was in their area, and the energy deficient load was in their area, a “Severe” violation has occurred.

Proposed reliability standard identifies clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner

Each Requirement in the proposed reliability standard is supported by a measure that clearly identifies what is required and how the requirement will be enforced. These twelve Measures will ensure the Requirements are clearly administered for enforcement in a consistent manner and without prejudice to any party. These twelve Measures are included in Section C of the proposed reliability standard.

Proposed reliability standard achieves a reliability goal effectively and efficiently - but does not necessarily have to reflect “best practices” without regard to implementation cost

The proposed reliability standard helps the industry achieve the stated reliability goal effectively and efficiently. While NERC believes that some entities will be required to change their current implementations to comply with the standard, NERC does not believe that the implementation costs will be unduly burdensome. NERC believes the potential benefit of having more consistent access to and use of CBM, and the associated potential improvement in generation’s availability to meet load expectations, will outweigh the implementation costs.

Proposed reliability standard is not “lowest common denominator,” *i.e.*, does not reflect a compromise that does not adequately protect bulk power system reliability

MOD-004-1 does not reflect a “lowest common denominator” approach. This standard represents a significant improvement to the previous version of the standard, and increases reliability. The original standard was “fill-in-the-blank” in nature, only requiring that a regional CBM methodology be developed. This proposed version of the MOD-004-1 standard provides very specific requirements requiring structure and process details beyond those specified in the current version, explicitly requires that CBM be established based on specific data, and that it be used in a specific way.

Proposed reliability standard considers costs to implement for smaller entities but not at a consequence of less than excellence in operating system reliability

The proposed reliability standard will apply equally to all applicable entities in a consistent manner. While the standard likely will result in some entities being required to modify their current CBM processes and computer systems to ensure compliance, the standard does not impose requirements that are completely new or unfamiliar to the industry. By standardizing the use of CBM and providing more clarity and transparency regarding its acquisition, the ability of generation to meet load will be enhanced, increasing reliability.

Proposed reliability standard is designed to apply throughout North America to the maximum extent achievable with a single reliability standard while not favoring one area or approach

NERC has developed MOD-004-1 reliability standard to apply to all of North America. It does not favor any one approach, and allows appropriate levels of flexibility in meeting the goals for effective CBM implementation.

Proposed reliability standard causes no undue negative effect on competition or restriction of the grid

The proposed reliability standard, MOD-004-1 has no undue negative effect on competition. It also does not unreasonably restrict available transmission capability on the bulk power system beyond any restriction necessary for reliability and does not limit use of the bulk power system in an unduly preferential manner. It does not create an undue advantage for one competitor over another. In fact, the increased rigor and transparency introduced in the determination and use of CBM serve to mitigate the potential for undue advantages of one competitor over another. The focus of the proposed reliability standard is to address only the reliability aspects of CBM and not to address the commercial aspects of available transmission system capability. The associated NAESB business practice standards are intended to focus on the competitive aspects of these processes. Through implementation of the proposed standard the grid may indirectly be restricted, but NAESB business practices and FERC Orders related to those business practices will ensure that any limitation is applied in a manner that ensures open access and promotes competition.

The implementation time for the proposed reliability standard is reasonable.

The implementation plan for MOD-004-1 requires compliance on the first day of the calendar quarter no sooner than one calendar year after approval of this standard by appropriate regulatory authorities where approval is required or is otherwise effective in those jurisdictions where approval is not explicitly required. Although many entities already use CBM, compliance with the standard may require software changes, regression testing, and possible tariff changes. To accommodate these needs, NERC believes a one-year implementation period is appropriate.

The reliability standard development process was open and fair

NERC develops reliability standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards Development Procedure*, which was incorporated into the Rules of Procedure as Appendix 3A. NERC's proposed rules provide for reasonable notice and opportunity for public comment, due process, openness and a balance of interests in developing reliability standards. The development process is open to any person or entity with a legitimate interest in the reliability of the bulk power system. NERC considers the comments of all stakeholders, and a vote of stakeholders and the NERC Board of Trustees is required to approve a reliability standard for submission to the applicable governmental authorities.

The proposed reliability standard set out in **Exhibit A** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure*, and was approved by the NERC Board of Trustees on November 13, 2008 for filing with the applicable governmental authorities. NERC has utilized its standard development process in good faith and in a manner that is open and fair.

Proposed reliability standard balances with other vital public interests

NERC does not believe there are competing public interests with respect to the request for approval of this proposed standard except for those noted that foster a consistent and fair approach to identifying CBM that will then allow appropriate subscription of transmission without prejudice to one or more parties.

Proposed reliability standard considers any other relevant factors

NERC is not proposing any additional factors for consideration to support adoption of the proposed standard.

V. DISCUSSION ON HOW PROPOSED RELIABILITY STANDARD MEETS THE DIRECTIVES OF ORDER NOS. 693 AND 890.

The following discussion describes how the proposed reliability standard addresses the directives contained in Order Nos. 890 and 693. In cases where the approach in the proposed standard has deviated from the FERC directive, justification is offered to support the approach that is equally effective to achieve FERC's stated objective.

Load Serving Entity's Right to Request CBM

In Order No. 890, FERC concluded:

“...that it is appropriate to allow LSEs to retain the option of setting aside transfer capability in the form of CBM to maintain their generation reliability requirement.”³

In Order No. 693, FERC clarified that:

“...in accordance with the OATT Reform Final Rule and the ERO CBM definition, each LSE has the right to request CBM be set aside and use it to meet its verifiable historical, state, RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, *etc.* As such, the LSEs that request CBM be set aside must be identified as applicable entities with identified Requirements, including Requirements on

³ Order No. 890 at P 256.

generation studies to verify the set aside, Measures and Levels of Non-Compliance....”⁴

FERC directed:

“...the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process to... clarify that CBM shall be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO or regional generation reliability criteria....”⁵

MOD-004-1 addresses these directives in Requirements R3 and R4, which specify that Load Serving Entities and Resource Planners are to identify the amount of capacity needed to be reserved. Requirement R4 allows the Resource Planner to undertake this task, as it was determined that in some regions, the Resource Planner performs this function.

Coordinate with NAESB

In Order No. 693, FERC stated:

“We agree with TAPS that there is a need for clearer requirements in the standard regarding to whom and how to submit a request for CBM set-aside... We direct the ERO to address the reliability aspects in the Reliability Standards development process and explore with NAESB whether business practices would be required.”⁶

Accordingly, FERC stated:

⁴ Order No. 693 at P 1080.

⁵ Order No. 693 at P 1082.

⁶ Order No. 693 at P 1081.

“...Therefore, we direct the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process to... coordinate with NAESB business practice standards.”⁷

As NERC describes later in this filing, NERC and NAESB have worked closely to ensure that both organizations are aware of each other’s concurrent work in this area.

Meeting Generation Reliability Criteria with CBM

In Order No. 890, FERC stated:

“To ensure CBM is used for its intended purpose, CBM shall only be used to allow an LSE to meet its generation reliability criteria. Consistent with Duke's statement, we clarify that each LSE within a transmission provider's control area has the right to request the transmission provider to set aside transfer capability as CBM for the LSE to meet its historical, state, RTO, or regional generation reliability criteria requirement such as reserve margin, loss of load probability (LOLP), the loss of largest units, etc.”⁸

In Order No. 693, FERC stated:

“We agree with FirstEnergy that CBM is important for system reliability by allowing the LSEs to meet their historical, state, RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, etc... We also clarify that CBM should only be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state,

⁷ Order No. 693 at P 1082.

⁸ Order No. 890 at P 259.

RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, *etc.*”⁹

“...Therefore, we direct the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process to: (1) clarify that CBM shall be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO or regional generation reliability criteria....”¹⁰

Requirement R3 specifically addresses the ability of the Load Serving Entity to use LOLE, LOLP or deterministic risk-analysis studies, as well as reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations or Regional Entities, to determine its need for CBM. Requirement R4 also allows the Resource Planner to undertake this task, as it was determined that in some regions, the Resource Planner performs this function. Requirements R5 and R6 require that the Transmission Service Provider and Transmission Planner utilize this information if it has been provided to them when establishing CBM values.

Determination of CBM

In Order No. 890, FERC required:

⁹ Order No. 693 at P 1077.

¹⁰ Order No. 693 at P 1082.

“... the development of standards for how CBM is determined, allocated across transmission paths, and used in order to limit misuse of transfer capability set aside as CBM...”¹¹

Moreover, FERC stated:

“...public utilities, working through NERC and NAESB, to develop clear standards for how the CBM value shall be determined ...”¹²

In Order 693, FERC directed NERC:

“... to provide more specific requirements for how CBM should be determined ... we do not mandate a particular methodology for allocating CBM to paths or flowgates... we agree with EEI that flexible rules should be allowed to prevent unnecessary increase of the generation reserve requirement within the transmission provider’s system. Therefore, we support flexibility, but expect that the ERO, using its Reliability Standards development process, will adequately approach these complex technical issues and propose a new version of MOD-004-0 that addresses the methods for CBM determination ... that will reduce reliability and discrimination concerns.”¹³

NERC has provided in MOD-004-1 an approach for determining CBM that is flexible and does not mandate a particular methodology. Because various parts of the country have already developed robust methodologies for determining CBM, the drafting team felt it was appropriate to focus on the core principles needed to determine CBM: appropriate studies performed by Load Serving Entities or Resource Planners, the incorporation of those studies into the process used to determine CBM and

¹¹ Order No. 890 at P 256.

¹² Order No. 890 at P 257.

¹³ Order No. 693 at P 1078.

communication back to the requester informing them of how much CBM has been held. Rather than explicitly standardize a specific methodology, the team elected to allow entities to determine how best to address the needs of their system, provided they adhered to these core principles.

Allocation of CBM to Paths or Flowgates

In Order No. 890, FERC required:

“...the development of standards for how CBM is ... allocated across transmission paths...”¹⁴

and

“... public utilities, working through NERC and NAESB, to develop clear standards for how the CBM value shall be ... allocated across transmission paths...”¹⁵

FERC also directed:

“...public utilities, working through NERC, to develop clear requirements for allocating CBM over transmission paths and flowgates...”¹⁶

In Order No. 693, FERC directed NERC:

“...to provide more specific requirements for how CBM should be ... allocated across transmission paths or flowgates we do not mandate a particular methodology for allocating CBM to paths or flowgates... we agree with EEI that flexible rules should be allowed to prevent unnecessary increase of the generation reserve requirement within the transmission provider’s system. Therefore, we support flexibility, but expect that the ERO, using its Reliability Standards

¹⁴ Order No. 890 at P 256.

¹⁵ Order No. 890 at P 257.

¹⁶ Order No. 890 at P 260.

development process, will adequately approach these complex technical issues and propose a new version of MOD-004-0 that addresses the methods for CBM determination and allocation on paths that will reduce reliability and discrimination concerns.”¹⁷

In summary, FERC directed the ERO:

“...to develop modifications to the Reliability Standard through the Reliability Standards development process to ... modify the current Requirements to make clear the process for how CBM is allocated across transmission paths or flowgates...”¹⁸

Proposed MOD-004-1 specifically requires allocation of CBM in requirements R5.2 and R6.2, based on the ATC methodology chosen under MOD-001-1.

Use of CBM

In Order No. 890, FERC required:

“...the development of standards for how CBM is ... used in order to limit misuse of transfer capability set aside as CBM...”¹⁹

as well as

“...public utilities, working through NERC and NAESB, to develop clear standards for how the CBM value shall be ...used...”²⁰

Proposed MOD-004-1 specifies the manner in which CBM is to be used in Requirements R10, R11 and R12. Any additional requirements specified by the Transmission Service Provide must be identified in the CBMID, as mandated in Requirement R1.3.

¹⁷ Order No. 693 at P 1078.

¹⁸ Order No. 693 at P 1082.

¹⁹ Order No. 890 at P 256.

²⁰ Order No. 890 at P 257.

Yearly Re-evaluation of CBM

In Order No. 890, FERC stated:

“The Commission incorporates into its regulations the requirement in the CBM Order for a transmission provider to periodically reevaluate its transfer capability setaside for CBM... we will require CBM studies to be performed at least every year.”²¹

Requirements R5 and R6 mandate the re-evaluation of CBM at least once every thirteen months. Thirteen months was chosen (rather than a calendar year, or 12 months) to ensure enough flexibility was in place to allow for a yearly update without being so prescriptive as to require it on a specific day.

Transparency of CBM Studies

FERC directed NERC in Order No. 693:

“...to develop Requirements regarding transparency of the generation planning studies used to determine CBM values...”²²

Requirement R9 ensures that these studies are made available to the appropriate reliability entities for their review and analysis. With regard to public disclosure, NERC and NAESB have agreed that requirements for posting information are more appropriately addressed through the NAESB process. Accordingly, NAESB will be addressing the requirements associated with posting this information, rather than NERC.

Verification of CBM

In Order No. 693, FERC stated:

²¹ Order No. 890 at P 358.

²² Order No. 693 at P 1077.

“...We expect verification of the CBM values to be part of the Requirements with appropriate Measures and Levels of Non-Compliance.”²³

Proposed MOD-004-1 provides the opportunity for CBM values to be verified (through Requirements R5, R6 and R9), by ensuring that the studies used to establish the CBM are made available to any of the reliability entities specified in R9 that request them.

However, it does not explicitly mandate the verification of CBM as an independent requirement. During the development of the standard, the Standard Drafting Team discussed this at length. Ultimately, it was determined that “verification” was something that could not be addressed as a requirement, because it would place a functional entity (either the Transmission Service Provider or Transmission Planner) in the position of having to judge the quality of a request for CBM, which could create conflicts of interest or potentially result in liability for that entity. For example, if a Load Serving Entity has been mandated by statute to carry a certain amount of reserve capacity, and they choose to do so partially through the use of CBM, the determination of the Transmission Service Provider with regard to the validity of studies performed by the LSE can have significant implications. If such validation results in less than the mandated amount of capacity reserves are carried, and an event occurs that results in those reserves being needed and undeliverable, the legal question of determining which entity is to be held liable for any penalties or damages becomes somewhat ambiguous. Rather than mandate any particular approach for validation, the standard addresses this need in Requirements R3 and R4 by mandating of specific kinds of studies to be performed and supporting information that is to be maintained when determining the need for CBM. To the extent that entities do not use these methods or maintain this supporting information, they will be in violation of the

²³ Order No. 693 at P 1077.

standard. To the extent they have met the requirements of the standard, then the decision on how to validate the request becomes one to be addressed between the Transmission Provider, the Load Serving Entity, and any state or local regulators as appropriate.

No Double Counting

In Order No. 693, FERC stated:

“...we find that clear specification of the permitted purposes for which entities may reserve CBM and TRM will virtually eliminate double-counting of TRM and CBM. Therefore, we direct the ERO to modify its standard in order to prevent setting aside transfer capability for the same purposes.”²⁴

as well as

“...Therefore, we direct the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process to... modify its standard in order to prevent setting aside CBM and TRM for the same purposes....”²⁵

FERC further went on to state:

“...we adopt the NOPR proposal that requires a provision that will ensure that CBM and TRM are not used for the same purpose. ... Therefore, we direct the ERO to modify its standard to prevent use of CBM and TRM for the same purposes. We agree with APPA that the ERO should use its Reliability Standards development process to address the double-counting problem.”²⁶

and finally

²⁴ Order No. 693 at P 1079.

²⁵ Order No. 693 at P 1082.

²⁶ Order No. 693 at P 1098.

“In addition, the Commission directs the ERO to develop a modification to (the CBM standards) through the Reliability Standards development process that ... includes a provision that will ensure that CBM and TRM are not used for the same purpose....”²⁷

The proposed MOD-004-1 reliability standard has addressed this by describing the appropriate studies and requirements to be used in determining CBM. By using other methods to determine CBM, the entity would be in violation of the proposed standard. Additionally, MOD-008-1 contains similar language to ensure that TRM cannot be established using any components of uncertainty contained in CBM. Together, these standards as designed prevent entities from double counting similar risks in both CBM and TRM.

How to Request CBM

In Order No. 693, FERC stated:

“We agree with TAPS that there is a need for clearer requirements in the standard regarding to whom and how to submit a request for CBM set-aside... We direct the ERO to address the reliability aspects in the Reliability Standards development process....”²⁸

Requirements R3 and R4 of MOD-004-1 define “who” can request CBM. Requirement R1.1 mandates that the Transmission Service Provider explain “how” it can be requested. In the development of this standard, the drafting team learned that there are many different processes for how CBM is requested. Rather than mandate any particular method be used (which could create a cost burden on entities that did not happen to use

²⁷ Order No. 693 at P 1105.

²⁸ Order No. 693 at P 1081.

that particular method), the drafting team believed it appropriate to allow the various methods for making the request to continue, provided they are clearly documented (as required in Requirement R1.1) and disclosed to those entities with a reliability need for CBM (as required in Requirement R2). In summary, the team did not believe the different processes utilized to request CBM was a reliability issue, but required their documentation and disclosure to comport with FERC's Order No. 890 objectives.

How to Respond to CBM Requests in Excess of Supply

In Order No. 693, FERC stated:

“We agree with TAPS that there is a need for clearer requirements in the standard regarding ... what the transmission service provider should do if the sum of all CBM requirements exceeds the amount of available transfer capability. We direct the ERO to address the reliability aspects in the Reliability Standards development process....”²⁹

When developing the proposed MOD-004-1 reliability standard, the drafting team considered this issue at length. In the end, the team determined that the primary reliability issue to address was informing the requester if the CBM they requested had been withheld or not. Implementation details, such as whether all requests were considered independently or concurrently, would have significant implications upon this, and the drafting team felt it was inappropriate to mandate a particular approach to accomplish this. Similarly, the drafting team believed it inappropriate to mandate any particular remedies for unavailability of sufficient ATC to meet all CBM requirements. Such resolutions are strictly between the Transmission Service Provider and the requester, and in many cases will need to be specified in the entities' OATT. As such,

²⁹ Order No. 693 at P 1081.

MOD-004-1 requires that a description of how entities address such shortfalls be included in the CBMID (Requirement R1.3). Additionally, Requirements R7 and R8 mandate the requester be informed of the amount of CBM withheld, so that they may make informed decisions about how to proceed if their full request for CBM could not be accommodated.

Consolidation of Standards

In Order No. 693, FERC stated:

“We direct the ERO to consider APPA’s suggestion that MOD-004-0 may be redundant and should be eliminated if the ERO develops a modification to the MOD-002-0 Reliability Standard that includes reporting requirements.”³⁰

and

“As to APPA’s comment on incorporating MOD-004 and MOD-005 into MOD-006, we direct the ERO to consider those comments through the Reliability Standards development process.”³¹

The drafting team elected to combine all key elements related to CBM into the one proposed MOD-004-1 standard. MOD-002-0 has been eliminated as part of the efforts associated with the other ATC-related standards filed with FERC for approval on August 29, 2008 and March 6, 2009.

Emergency Generation Deficiencies

In Order No. 890, FERC directed:

“...public utilities working through NERC to modify the CBM-related standards to specify the generation deficiency conditions during which an LSE will be allowed to use the transfer capability reserved as CBM...”³²

³⁰ Order No. 693 at P 1083.

³¹ Order No. 693 at P 1088.

In Order No. 693, FERC stated:

“We adopt the NOPR’s proposal and direct the ERO to modify Requirement R1.2 so that a transmission constraint is not a required condition for CBM usage. The glossary definition and the use as defined in Order No. 890 is that CBM ‘is intended to be used by the LSE only in time of emergency generation deficiencies.’[] Therefore we direct the ERO to modify the standard in the manner proposed in the NOPR.”³³

as well as

“We adopt the NOPR proposal that requires modification of Requirement R1.2 to define ‘generation deficiency’ based on a specific energy emergency alert level. This approach will provide clarity as to when the use of CBM may be permitted. We therefore direct the ERO to modify the Reliability Standard to include a specific energy emergency alert level that will trigger CBM usage.”³⁴

In Order No. 693, FERC also stated:

“...We determine that each LSE should be permitted to call for use of CBM, provided all of the other Requirements of R1.1 are met. We direct that CBM may be implemented up to the reserved value when a LSE is facing firm load curtailments.”³⁵

and

“...the Commission directs the ERO to develop a modification to (the CBM standards) through the Reliability Standards development process that...provides

³² Order No. 890 at P 262.

³³ Order No. 693 at P 1099.

³⁴ Order No. 693 at P 1100.

³⁵ Order No. 693 at P 1101.

that CBM should be used for emergency generation deficiencies (and) modifies Requirement R1.2 to define ‘generation deficiency’ based on a specific energy emergency alert level....”³⁶

Proposed reliability standard MOD-004-1 states explicitly in Requirement R10 that an entity requesting to use CBM must be experiencing an Energy Emergency Alert Level 2 or higher. The circumstances under which an Emergency Energy Alert Level 2 can be invoked are when a Balancing Authority, Reserve Sharing Group or Load Serving Entity is no longer able to provide its customers’ expected energy requirements.³⁷ MOD-004-1 also states in Requirement R12 that a Transmission Service Provider may not refuse a request to utilize CBM when the following conditions are met: (1) the utilization is not unreliable, (2) the amount of CBM requested is available, (3) an EEA2 is declared within the Balancing Authority Area of the “energy deficient entity,” and (4) the Load of the “energy deficient entity” is located within the Transmission Service Provider’s area.

Load Serving Entities and Balancing Authorities as Users of CBM

In Order No. 693, FERC directed NERC:

“... to develop a modification to (the CBM Standards) through the Reliability Standards development process that...expands the applicability section to include the entities that actually use CBM, such as LSEs.”³⁸

Additionally, FERC stated:

³⁶ Order No. 693 at P 1105.

³⁷ NERC Attachment 1-EOP-002-0 “Energy Emergency Alerts” Alert 2 — Load management procedures in effect. Circumstances: - Balancing Authority, Reserve Sharing Group, or Load Serving Entity is no longer able to provide its customers’ expected energy requirements, and is designated an Energy Deficient Entity. - Energy Deficient Entity foresees or has implemented procedures up to, but excluding, interruption of firm load commitments.

³⁸ Order No. 693 at P 1105.

“We also adopt the NOPR’s proposal to require the applicability section to include the entities that actually use CBM and report on their CBM use, such as LSEs. The current CBM definition in the NERC glossary determines when a LSE is a CBM user. The LSE determines how much CBM will be set aside, when CBM use will start and when it will end. The LSE must therefore comply with the standard requirements that require reporting and posting of CBM use. We direct the ERO to modify the standard to include the entities that actually use CBM, such as LSEs. In addition, we agree with APPA that the Reliability Standard should apply to balancing authorities and direct the ERO to include balancing authorities within the entities to which this standard is applicable.”³⁹

and

“...the Commission directs the ERO to develop a modification through its Reliability Standards development process that expands the applicability (the CBM standards) to include the entities that actually use CBM, such as LSEs and balancing authorities.”⁴⁰

Requirement R3 specifies that Load Serving Entities are responsible for determining the amount of CBM they need to meet their generation availability requirements.

Requirement R10 provides that Load Serving Entities and Balancing Authorities may request the usage of CBM, provided they are experiencing an Energy Emergency Alert Level 2 or higher. Both the Load Serving Entity and the Balancing Authority have been specified as applicable entities within the proposed MOD-004-1 Reliability Standard.

³⁹ Order No. 693 at P 1110.

⁴⁰ Order No. 693 at P 1111.

VI. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

a. Development History

Initial SAR Development and Creation of the Standards Drafting Team. On June 16, 2005, the NERC Long Term ATC Task Force (“LTATF”) submitted two Standards Authorization Requests (“SARs”) to require more specificity with regard to the determination of ATC, TRM, and potentially CBM. On March 17, 2006, the Standards Committee authorized advancing the original SARs to standards development. The standard drafting team initially consisted of 15 members representing entities in the Eastern and Western Interconnections from the following segments: Transmission Owners; Regional Transmission Organizations and Independent System Operators; Load Serving Entities; Transmission Dependent Utilities; Electric Generators; and Electricity Brokers, Aggregators and Marketers.

The First Industry Comment Period. The drafting team at first believed it could include sufficient detail in a single MOD-001-1 reliability standard to accomplish the objectives identified in the SAR. NERC posted the initial draft of the proposed standard for a 30-day comment period from February 15, 2007 through March 16, 2007. NERC received 35 sets of comments from 91 people representing 52 companies from 8 of 10 industry segments. The numerous industry comments submitted in response to the posting, coupled with the newly-issued directives from Order No. 890, caused the standard drafting team to reconsider its singular approach and implement a modified approach with a suite of ATC standards. The team developed an “umbrella” standard, MOD-001-1, that contains the generic requirements for all three methods of calculating ATC, a separate standard for each of three methodologies (MOD-028-1 for Area Interchange,

MOD-029-1 for Rated System Path, and MOD-030-1 for Flowgate) as permitted by Order No. 890, and separate standards for calculating the Transmission Reliability Margin (MOD-008-1) and Capacity Benefit Margin (MOD-004-1). The team posted its Consideration of Comments report⁴¹ on May 25, 2007.

The Second Industry Comment Period. NERC posted the first draft of MOD-004-1 for a 30-day comment period from May 25, 2007 through June 24, 2007. NERC received numerous and extensive comments on the standard, resulting in many changes for the next draft of the standard.

Comments on proposed MOD-004-1 included 20 sets of comments from 97 people representing 45 companies from 9 of the 10 segments. There were several significant modifications that were included in the subsequent draft of the standard based on these comments:

- The standard was modified to ensure that all Load Serving Entities were eligible to use CBM, rather than only those that requested it;
- References to “public posting” of data were transferred to NAESB;
- Annual requests for CBM were required from entities that desired to have CBM available for their use, with mandatory updates every 31-days if the need for CBM changed (such as might occur with a firm energy purchase that allowed the Load Serving Entity to use their own generation as reserve capacity);
- Details mandating “how” certain studies were to be performed were removed;

⁴¹ This is item # 13 in the Record of Development.

- Balancing Authorities were mandated to waive timing and ramping requirements when an entity was requesting to use CBM if such waiver does not compromise reliability; and
- Measures and compliance elements were added to the standards.

The team posted its Consideration of Comments reports on October 25, 2007.

However, some typographical errors in the document were discovered and the Consideration of Comments was corrected and reposted on November 2, 2007.⁴²

At this point in the development process, the team determined that, due to the extensive re-write and the need for stakeholder review and comment on the revised standards, the team could not meet the original December 10, 2007 deadline directed by FERC in Order No. 890. After reviewing the status of the project with FERC staff and explaining the technical challenges and complexities remaining with the ATC standards, NERC filed and received an approval from FERC for an extension to deliver the ATC-related standards until May 9, 2008.

The Third Industry Comment Period. NERC posted the second draft of proposed MOD-004-1 for a 45-day comment period from October 31, 2007 through December 14, 2007. NERC also provided implementation plans for stakeholder review for the first time. NERC solicited comments on all six ATC-related standards simultaneously on a single comment form. NERC received 51 sets of comments from 181 people representing 95 companies from each of the 10 segments.

- Several entities expressed concern with the drafting team's approach that ensured the request for CBM was given preferential treatment over requests

⁴² This is item # 27 in the Record of Development.

for firm transmission service. After considerable discussion, the drafting team agreed that, provided the approach used to determine queue priority was documented, it would be left to the discretion of the Transmission Service Provider to decide.

- Some entities expressed disagreement with the approach to set CBM equal to the sum of all requests, rather than equal to the largest request. The drafting team explained this was to ensure adherence to certain state or local regulations that required specific identification and reservation of CBM.
- Many entities expressed a belief that requiring monthly updates to CBM was excessive. The drafting team explained that the intent of this requirement was to ensure capacity for CBM was made available, and that the implementation of this requirement should not be onerous.
- To address concerns related to regional determination of CBM, the drafting team modified the standard to include the term “Planned Resource Sharing Group (PRSG)” and created a definition for that term.

The team thus modified the standards and posted its Consideration of Comments report⁴³ on February 4, 2008. Although the team made substantive revisions to the suite of standards in response to the extensive comments received to this posting, and in recognition of the May 9, 2008 deadline for delivery, the drafting team requested, and the Standards Committee approved, moving the standards to the ballot stage and further authorized the team to make edits to any standard that did not pass the initial ballot, and then present again for ballot. If the standards had passed ballot, this would have allowed

⁴³ This is item # 35 in the Record of Development

the standards to be filed with the applicable governmental authorities on or before the delivery date previously provided to the applicable governmental authorities. However, this approach is counter to the process requirements in NERC’s *Reliability Standards Development Procedure* that requires when standards are changed substantively as a result of industry comments, the standards are required to be posted for industry review and comment again. Additionally, when the standards are changed as a result of comments received during the initial ballot process, the standards are withdrawn from the ballot process and processed through the industry comment process before returning to the ballot phase. The Standards Committee carefully weighed the desire to deliver the standards in a timely manner against the deviation from the *Reliability Standards Development Procedure*, and ultimately decided that it would be appropriate to move the standards forward to ballot.

The First Ballot Attempt. The proposed MOD-004-1 standard was posted for a 30-day pre-ballot window from February 1, 2008 through March 3, 2008 with the initial ballot taking place from March 3, 2008 through March 12, 2008. The standard presented for ballot did not achieve the required two-thirds weighted segment approval, although it did achieve the 75 percent quorum of ballot pool participants. The following presents the initial ballot results.

	Weighted Segment Approval Percentage	Quorum Percentage
MOD-004-1	38.80%	93.01%

The main issues identified in the comments associated with the failed standards ballot included:

- NERC failed to adhere to its standards development process to meet the FERC deadline by not allowing another industry comment period following the substantive changes made to the standards from the previous comment period;
- The explicit definition of the “Planned Resource Sharing Group” was unnecessary, and should be eliminated;
- The standard is too prescriptive, and needed to allow for different approaches to achieve the reliability objective sought;
- The requirement for a Transmission Service Provider to approve transactions using CBM if the CBM was available, needed to be modified to add conditions to ensure appropriate use of CBM;
- The VSLs should be developed to include more levels of partial compliance.

After considering these results and the comments associated with the ballot, the drafting team proposed that it could achieve the required consensus on MOD-004-1 by utilizing one additional comment period in full accordance with the standard development procedure and submit this proposed standard for filing with the applicable governmental authorities by November 21, 2008. As a result, the drafting team requested, and the Standards Committee accepted, the recommendation to withdraw the standard from the ballot process and return it for industry comment. NERC staff and key members of the ATC drafting team met with FERC staff and discussed the results of the failed ballot and proposed an action plan as described above to deliver the ATC standards in accordance to the drafting team proposal. NERC filed and received an approval for an additional extension to deliver the MOD-004-1 – Capacity Benefit Margin Reliability Standard by November 21, 2008.

In response to the comments on the failed standards, the team significantly restructured the standards, making them much less prescriptive. Changes to the standard included:

- Removal of the detailed steps required of the Load Serving Entity to request CBM. Due to the various implementations of CBM and ATC in place, such rules would be overly restrictive. Instead, the Load Serving Entity was provided options for how to determine its need for CBM, and the Transmission Provider is required to use the LSE's studies in its determination of CBM.
- Removal of the "procedural" elements that described how a Transmission Service Provider should approve or deny requests for CBM. Due to the various implementations of CBM and ATC already in place, such rules would be overly restrictive. Instead, the Load Serving Entity was provided options for how to determine its need for CBM, and the Transmission Provider is required to use the LSE's studies in its determination of CBM.
- Elimination of the required monthly Load Serving Entity updates of CBM. The standard was modified to align with the yearly request process suggested in Order No. 890.
- The term "Planned Resource Sharing Group" was eliminated from the standards. Entities may pursue Joint Registration Organizations if such groups are desired. Resource Planners were added to the standard to help address areas where regional studies are undertaken.
- One of the VRFs was modified to be "Medium" rather than "Lower."

- Additional criteria were applied to the rules regarding mandatory approval of requests to use CBM in order to ensure it only be used when appropriate.
- The VSLs were expanded to include more depth.

The team modified the standard as described and posted its Consideration of Ballot Comments report⁴⁴ on May 22, 2008.

The Fourth Industry Comment Period. NERC posted the fourth draft of MOD-004-1 for a 30-day comment period from May 23, 2008 through June 23, 2008.

NERC received 15 sets of comments on MOD-004-1 from 51 people representing 30 companies from 8 of 10 industry segments. The comments included:

- One commenter pointed out that the Load Serving Entity should be given access to the CBMID as part of the reliability standard, since the LSE used CBM to maintain reliability.
- One entity stated that it appeared NERC was advocating a “first come, first served” approach to using CBM.
- Several entities expressed concern that their particular planning methodology did not appear to be allowed for in the standard.

Some further changes were made to MOD-004-1 to address these concerns, as well as other minor corrections and clarifications. The Load Serving Entity and Balancing Authority were given access to the CBMID; the drafting team clarified that while “first come, first served” was an acceptable approach, it expected tariffs and/or business practices to identify how conflicting uses would be addressed; and the planning methodology in question was explicitly identified in the measure as being an acceptable

⁴⁴ This is item # 43 in the Record of Development

approach to meeting the requirement. The team posted its Consideration of Comments reports⁴⁵ on July 28, 2008.

In total, the drafting team considered the modifications to the standards that resulted from this comment period as clarifying the intent of the requirements and not changes that were substantive. As such, the drafting team requested that the Standards Committee approve the CBM standard for the ballot phase of the development process.

The Second Initial Ballot Attempt. After the drafting team considered and responded to the comments received during the fourth public comment period, NERC posted the fifth draft of the proposed standard for a 30-day pre-ballot review period from August 12, 2008 through September 11, 2008, followed by a second initial ballot from September 11, 2008 through September 22, 2008. The second initial ballot results were as follows:

	Weighted Segment Approval Percentage	Quorum Percentage
MOD-004-1	66.29%	79.26%

Proposed MOD-004-1 did not achieve the required two-thirds weighted segment vote, although it did have in excess of 75 percent of the ballot pool participating in the ballot. Because each ballot included negative votes with associated comments, the standards required a recirculation ballot. The key issues identified in the ballot comments to the initial ballot included:

- Some entities were confused by the use of the word “current” in the definition of timeframes for which CBM should be established. Commenters expressed a desire to have more explicitly stated exactly what period they were expected to address.

⁴⁵ This is item # 55 in the Record of Development

- Some entities did not believe the capitalization of the term “Energy Deficient Entity” was appropriate without a formal definition in the NERC Glossary.
- Some entities identified a typographical error in the “Time Horizon” specified for one of the requirements.
- Several additional minor punctuation and usage suggestions were made for clarity.

The drafting team believed that with limited minor clarifications and corrections, a majority of the commenter’s concerns could be addressed. The drafting team made these modifications, and received the support from the Executive Committee of the Standards Committee to move the modified standard forward to recirculation ballot as modified.

The team posted its Consideration of Comments reports⁴⁶ to the second initial ballot comments on October 24, 2008, and posted the modified version of MOD-004-1.

The recirculation ballot for MOD-004-1 commenced on October 28, 2008 and concluded November 6, 2008 with the following results:

	Weighted Segment Approval Percentage	Quorum Percentage
MOD-004-1	83.71%	91.49%

The proposed MOD-004-1 Reliability Standard achieved the required two-thirds weighted segment vote and at least a 75 percent quorum of the ballot pool. The NERC Board of Trustees approved the MOD-004-1 – Capacity Benefit Margin standard and two new definitions during a November 13, 2008 conference call.

⁴⁶ This is item # 69 in the Record of Development.

VII. NERC/NAESB COORDINATION

NERC and NAESB have continued to work together to ensure that their efforts remain coordinated and supportive of each other. Below is a brief summary of the ATC-related meetings and discussions that have occurred to support the coordination between NERC and NAESB. Note that this summary does not include informal meetings and discussions that have occurred as well.

April 5-6, 2006 – A joint meeting with NAESB is held in Houston, and the Standards Drafting Team begins considering the changes that will be needed to the MOD standards, what the posting strategy for the standards will consist of, and how NERC and NAESB will coordinate their efforts.

May 15-17, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the Georgia Transmission offices in Atlanta, to discuss the posting of the standards and how to re-structure them based on industry comments.

June 12-13, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, in San Francisco, to discuss the names of the methodologies; begin developing the data exchange requirements; discuss multiple reservations from a single POR to multiple PODs that exceed the generating capability at the POR; source-to-sink analysis; the use of third party limits in the ATC calculation; the retirement of FAC-012 and -013; compliance; the applicability of the standards to ERCOT; and questions for the FERC.

Jul 11-13, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the Southern Company offices in Atlanta, to develop responses to the comments on MOD-001 and MOD-004.

July 16-19, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, in Vancouver, to develop responses to the comments on MOD-008; review the functional model and apply it consistently to the MODs; and assign members of the team respond to comments and solve the problems identified in the June 12th meeting.

August 7-9, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the Bonneville Power Administration offices in Portland, to work on the responses to the MOD-028 and MOD-029 comments, as well as work to on standardizing the TTC calculation.

August 27-29, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the American Public Power Association offices in Washington,

D.C., and begins working in sub-teams on consistent formatting and language between the standards. The team proposes and agrees to a schedule with a delivery in late August, 2008.

September 12-14, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the NAESB offices in Houston, and discusses an alternate schedule with delivery in April, 2008. The Drafting Team finishes the majority of the work on MOD-028, -029, and -030; adds Violation Risk Factors and Time Horizons to the standards, and discusses (without resolution) the situation where there are multiple reservations from a single POR to multiple PODs that exceed the generating capability at the POR.

November 7, 2007 – The Standards Drafting Team holds a joint meeting with NAESB, at the NAESB offices in Houston, to review the NERC standards currently posted for ballot and to solicit NAESB feedback.

January 18, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss comments received during the NERC 45-day posting and review the proposed responses, as well as review the NAESB work products.

January 28, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss comments received during the NERC 45-day posting and review the proposed responses, as well as review the current status of the NAESB work effort.

March 5, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss the NERC balloting process and to review the status of the NAESB work effort.

April 7, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss the results of the NERC ballot process, as well as NERC's strategy for moving forward, and to review the status of the NAESB work effort.

May 29, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss the comments received during the NERC 30-day posting period, and to review the status of the NAESB work effort.

July 17, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss the comments received during the NERC 30-day posting period, and to review the status of the NAESB work effort.

August 7, 2008 – The Standards Drafting Team holds a joint conference call with NAESB to discuss the responses to the comments received during the NERC ballot process, and to review the status of the NAESB work effort.

VIII CONCLUSION

The North American Electric Reliability Corporation respectfully approval of the proposed reliability standard, MOD-004-1, and definitions.

Respectfully submitted,

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

/s/ Rebecca J. Michael
Rebecca J. Michael
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W.
Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

Exhibit A

Reliability Standard MOD-004-1 submitted for approval

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. SAC authorized posting TTC/ATC/AFC SAR development June 20, 2005.
2. SAC authorized the SAR to be development as a standard on February 14, 2006.
3. SC appointed a Standard Drafting Team on March 17, 2006.
4. SDT posted first draft for comment from May 25–June 25, 2007
5. SDT posted second draft for comment from October 31–December 15, 2007.
6. SC conducted an Initial Ballot of the standard from March 3–2, 2008.
7. SDT posted a third draft for comment from May 23–June 23, 2008.
8. SDT conducted an Initial Ballot of the standard from September 11–21, 2008.

Description of Current Draft:

This is the fifth draft of the proposed standard posted for stakeholder comments. This draft includes the modifications identified in the SAR with consideration of stakeholder comments and applicable FERC directives from FERC Order 693, Oder 890, and Order 890-A.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Recirculation ballot.	October 27, 2008
2. Board adoption.	November 10, 2008

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

Generation Capability Import Requirement (GCIR): The amount of generation capability from external sources identified by a Load-Serving Entity (LSE) or Resource Planner (RP) to meet its generation reliability or resource adequacy requirements as an alternative to internal resources.

Capacity Benefit Margin Implementation Document (CBMID): A document that describes the implementation of a Capacity Benefit Margin methodology.

A. Introduction

1. **Title:** Capacity Benefit Margin
2. **Number:** MOD-004-1
3. **Purpose:** To promote the consistent and reliable calculation, verification, preservation, and use of Capacity Benefit Margin (CBM) to support analysis and system operations.
4. **Applicability:**
 - 4.1. Load-Serving Entities.
 - 4.2. Resource Planners.
 - 4.3. Transmission Service Providers.
 - 4.4. Balancing Authorities.
 - 4.5. Transmission Planners, when their associated Transmission Service Provider has elected to maintain CBM.
5. **Effective Date:** First day of the first calendar quarter that is twelve months beyond the date that this standard is approved by applicable regulatory authorities, or in those jurisdictions where regulatory approval is not required, the standard becomes effective on the first day of the first calendar quarter that is twelve months beyond the date this standard is approved by the NERC Board of Trustees.

B. Requirements

- R1. The Transmission Service Provider that maintains CBM shall prepare and keep current a “Capacity Benefit Margin Implementation Document” (CBMID) that includes, at a minimum, the following information: [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning, Long-term Planning*]
 - R1.1. The process through which a Load-Serving Entity within a Balancing Authority Area associated with the Transmission Service Provider, or the Resource Planner associated with that Balancing Authority Area, may ensure that its need for Transmission capacity to be set aside as CBM will be reviewed and accommodated by the Transmission Service Provider to the extent Transmission capacity is available.
 - R1.2. The procedure and assumptions for establishing CBM for each Available Transfer Capability (ATC) Path or Flowgate.
 - R1.3. The procedure for a Load-Serving Entity or Balancing Authority to use Transmission capacity set aside as CBM, including the manner in which the Transmission Service Provider will manage situations where the requested use of CBM exceeds the amount of CBM available.
- R2. The Transmission Service Provider that maintains CBM shall make available its current CBMID to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, Resource Planners, and Planning Coordinators that are within or adjacent to the Transmission Service Provider’s area, and to the Load Serving Entities and Balancing Authorities within the Transmission Service Provider’s

area, and notify those entities of any changes to the CBMID prior to the effective date of the change. [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]

- R3.** Each Load-Serving Entity determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by: [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]

R3.1. Using one or more of the following to determine the GCIR:

- Loss of Load Expectation (LOLE) studies
- Loss of Load Probability (LOLP) studies
- Deterministic risk-analysis studies
- Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities

R3.2. Identifying expected import path(s) or source region(s).

- R4.** Each Resource Planner determining the need for Transmission capacity to be set aside as CBM for imports into a Balancing Authority Area shall determine that need by: [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]

R4.1. Using one or more of the following to determine the GCIR:

- Loss of Load Expectation (LOLE) studies
- Loss of Load Probability (LOLP) studies
- Deterministic risk-analysis studies
- Reserve margin or resource adequacy requirements established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities

R4.2. Identifying expected import path(s) or source region(s).

- R5.** At least every 13 months, the Transmission Service Provider that maintains CBM shall establish a CBM value for each ATC Path or Flowgate to be used for ATC or Available Flowgate Capability (AFC) calculations during the 13 full calendar months (months 2-14) following the current month (the month in which the Transmission Service Provider is establishing the CBM values). This value shall: [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]

R5.1. Reflect consideration of each of the following if available:

- Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Service Provider's area
- Any studies (as described in R4.1) performed by Resource Planners for loads within the Transmission Service Provider's area

- Any reserve margin or resource adequacy requirements for loads within the Transmission Service Provider's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities
- R5.2.** Be allocated as follows:
- For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners
 - For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Service Provider
- R6.** At least every 13 months, the Transmission Planner shall establish a CBM value for each ATC Path or Flowgate to be used in planning during each of the full calendar years two through ten following the current year (the year in which the Transmission Planner is establishing the CBM values). This value shall: [*Violation Risk Factor: TBD*] [*Time Horizon: Long-term Planning*]
- R6.1.** Reflect consideration of each of the following if available:
- Any studies (as described in R3.1) performed by Load-Serving Entities for loads within the Transmission Planner's area
 - Any studies (as described in R4.1) performed by Resource Planners for loads within the Transmission Planner's area
 - Any reserve margin or resource adequacy requirements for loads within the Transmission Planner's area established by other entities, such as municipalities, state commissions, regional transmission organizations, independent system operators, Regional Reliability Organizations, or regional entities
- R6.2.** Be allocated as follows:
- For ATC Paths, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners
 - For Flowgates, based on the expected import paths or source regions provided by Load-Serving Entities or Resource Planners and the distribution factors associated with those paths or regions, as determined by the Transmission Planner.
- R7.** Less than 31 calendar days after the establishment of CBM, the Transmission Service Provider that maintains CBM shall notify all the Load-Serving Entities and Resource Planners that determined they had a need for CBM on the Transmission Service Provider's system of the amount of CBM set aside. [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]
- R8.** Less than 31 calendar days after the establishment of CBM, the Transmission Planner shall notify all the Load-Serving Entities and Resource Planners that determined they

had a need for CBM on the system being planned by the Transmission Planner of the amount of CBM set aside. [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning*]

- R9.** The Transmission Service Provider that maintains CBM and the Transmission Planner shall each provide (subject to confidentiality and security requirements) copies of the applicable supporting data, including any models, used for determining CBM or allocating CBM over each ATC Path or Flowgate to the following: [*Violation Risk Factor: TBD*] [*Time Horizon: Operations Planning, Long-term Planning*]
- R9.1.** Each of its associated Transmission Operators within 30 calendar days of their making a request for the data.
- R9.2.** To any Transmission Service Provider, Reliability Coordinator, Transmission Planner, Resource Planner, or Planning Coordinator within 30 calendar days of their making a request for the data.
- R10.** The Load-Serving Entity or Balancing Authority shall request to import energy over firm Transfer Capability set aside as CBM only when experiencing a declared NERC Energy Emergency Alert (EEA) 2 or higher. [*Violation Risk Factor: TBD*] [*Time Horizon: Same-day Operations*]
- R11.** When reviewing an Arranged Interchange using CBM, all Balancing Authorities and Transmission Service Providers shall waive, within the bounds of reliable operation, any Real-time timing and ramping requirements. [*Violation Risk Factor: TBD*] [*Time Horizon: Same-day Operations*]
- R12.** The Transmission Service Provider that maintains CBM shall approve, within the bounds of reliable operation, any Arranged Interchange using CBM that is submitted by an “energy deficient entity¹” under an EEA 2 if: [*Violation Risk Factor: TBD*] [*Time Horizon: Same-day Operations*]
- R12.1.** The CBM is available
- R12.2.** The EEA 2 is declared within the Balancing Authority Area of the “energy deficient entity,” and
- R12.3.** The Load of the “energy deficient entity” is located within the Transmission Service Provider’s area.

C. Measures

- M1.** Each Transmission Service Provider that maintains CBM shall produce its CBMID evidencing inclusion of all information specified in R1. (R1)
- M2.** Each Transmission Service Provider that maintains CBM shall have evidence (such as dated logs and data, copies of dated electronic messages, or other equivalent evidence) to show that it made the current CBMID available to the Transmission Operators, Transmission Service Providers, Reliability Coordinators, Transmission Planners, and Planning Coordinators specified in R2, and that prior to any change to the CBMID, it notified those entities of the change. (R2)

¹ See Attachment 1-EOP-002-0 for explanation.

- M3.** Each Load-Serving Entity that determined a need for Transmission capacity to be set aside as CBM shall provide evidence (including studies and/or requirements) that it met the criteria in R3. (R3)
- M4.** Each Resource Planner that determined a need for Transmission capacity to be set aside as CBM shall provide evidence (including studies and/or requirements) that it met the criteria in R4. (R4)
- M5.** Each Transmission Service Provider that maintains CBM shall provide evidence (such as studies, requirements, and dated CBM values) that it established 13 months of CBM values consistent with the requirements in R5.1 and allocated the values consistent with the requirements in R5.2. (Note that CBM values may legitimately be zero.) (R5)
- M6.** Each Transmission Planner with an associated Transmission Service Provider that maintains CBM shall provide evidence (such as studies, requirements, and dated CBM values) that it established CBM values for years two through ten consistent with the requirements in R6.1 and allocated the values consistent with the requirements in R6.2. Inclusion of GCIR based on R6.1 and R6.2 within the transmission base case meets this requirement. (Note that CBM values may legitimately be zero.) (R6)
- M7.** Each Transmission Service Provider that maintains CBM shall provide evidence (such as dated e-mail, data, or other records) that it notified the entities described in R7 of the amount of CBM set aside. (R7)
- M8.** Each Transmission Planner with an associated Transmission Service Provider that maintains CBM shall provide evidence (such as e-mail, data, or other records) that it notified the entities described in R8 of the amount of CBM set aside. (R8)
- M9.** Each Transmission Service Provider that maintains CBM and each Transmission Planner shall provide evidence including copies of dated requests for data supporting the calculation of CBM along with other evidences such as copies of electronic messages or other evidence to show that it provided the required entities with copies of the supporting data, including any models, used for allocating CBM as specified in R9. (R9)
- M10.** Each Load-Serving Entity and Balancing Authority shall provide evidence (such as logs, copies of tag data, or other data from its Reliability Coordinator) that at the time it requested to import energy using firm Transfer Capability set aside as CBM, it was in an EEA 2 or higher. (R10)
- M11.** Each Balancing Authority and Transmission Service Provider shall provide evidence (such as operating logs and tag data) that it waived Real-time timing and ramping requirements when approving an Arranged Interchange using CBM (R11)
- M12.** Each Transmission Service Provider that maintains CBM shall provide evidence including copies of CBM values along with other evidence (such as tags, reports, and supporting data) to show that it approved any Arranged Interchange meeting the criteria in R12. (R12)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority (CEA)

Regional Entity.

1.2. Compliance Monitoring Period and Reset Time Frame

Not applicable.

1.3. Data Retention

- The Transmission Service Provider that maintains CBM shall maintain its current, in force CBMID and any prior versions of the CBMID that were in force during the past three calendar years plus the current year to show compliance with R1.
- The Transmission Service Provider that maintains CBM shall maintain evidence to show compliance with R2, R5, R7, R9, and R12 for the most recent three calendar years plus the current year.
- The Load-Serving Entity shall each maintain evidence to show compliance with R3 and R10 for the most recent three calendar years plus the current year.
- The Resource Planner shall each maintain evidence to show compliance with R4 for the most recent three calendar years plus the current year.
- The Transmission Planner shall maintain evidence to show compliance with R6, R8, and R9 for the most recent three calendar years plus the current year.
- The Balancing Authority shall maintain evidence to show compliance with R10 and R11 for the most recent three calendar years plus the current year.
- The Transmission Service Provider shall maintain evidence to show compliance with R11 for the most recent three calendar years plus the current year.
- If an entity is found non-compliant, it shall keep information related to the non-compliance until found compliant.
- The Compliance Enforcement Authority shall keep the last audit records and all requested and subsequently submitted audit records.

1.4. Compliance Monitoring and Enforcement Processes:

The following processes may be used:

- Compliance Audits
- Self-Certifications
- Spot Checking
- Compliance Violation Investigations
- Self-Reporting

- Complaints

1.5. Additional Compliance Information

None.

Violation Severity Levels

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1.	<p>The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made within the last three months.</p>	<p>The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than three, but not more than six, months ago.</p> <p style="text-align: center;">OR</p> <p>The CBM maintaining Transmission Service Provider’s CBMID does not address one of the sub requirements.</p>	<p>The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than six, but not more than twelve, months ago.</p> <p style="text-align: center;">OR</p> <p>The CBM maintaining Transmission Service Provider’s CBMID does not address two of the sub requirements.</p>	<p>The Transmission Service Provider that maintains CBM has a CBMID that does not incorporate changes that have been made more than twelve months ago.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM does not have a CBMID;</p> <p style="text-align: center;">OR</p> <p>The CBM maintaining Transmission Service Provider’s CBMID does not address three of the sub requirements.</p>
R2.	<p>The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID after the effective date of the change, but not more than 30 calendar days after the effective date of the change.</p>	<p>The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 30 or more calendar days but not more than 60 calendar days after the effective date of the change.</p>	<p>The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID 60 or more calendar days but not more than 90 calendar days after the effective date of the change.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM made available the CBMID to at least one, but not all, of the entities specified in R2.</p>	<p>The Transmission Service Provider that maintains CBM notifies one or more of the entities specified in R2 of a change in the CBM ID more than 90 calendar days after the effective date of the change.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM made available the CBMID to none of the entities specified in R2.</p>

Standard MOD-004-1 — Capacity Benefit Margin

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R3.		<p>The Load-Serving Entity did not use one of the methods described in R3.1</p> <p style="text-align: center;">OR</p> <p>The Load-Serving Entity did not identify paths or regions as described in R3.2</p>		<p>The Load-Serving Entity did not use one of the methods described in R3.1</p> <p style="text-align: center;">AND</p> <p>The Load-Serving Entity did not identify paths or regions as described in R3.2</p>
R4		<p>The Resource Planner did not use one of the methods described in R4.1</p> <p style="text-align: center;">OR</p> <p>The Resource Planner did not identify paths or regions as described in R4.2</p>		<p>The Resource Planner did not use one of the methods described in R4.1</p> <p style="text-align: center;">AND</p> <p>The Resource Planner did not identify paths or regions as described in R4.2</p>
R5.	<p>The Transmission Service Provider that maintains CBM established CBM more than 13 months, but not more than 16 months, after the last time the values were established.</p>	<p>The Transmission Service Provider that maintains CBM established CBM more than 16 months, but not more than 19 months, after the last time the values were established.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM did not base the allocation on one or more paths or regions as</p>	<p>The Transmission Service Provider that maintains CBM established CBM more than 19 months, but not more than 22 months, after the last time the values were established.</p>	<p>The Transmission Service Provider that maintains CBM established CBM more than 22 months after the last time the values were established.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM failed to establish an initial value for CBM.</p> <p style="text-align: center;">OR</p> <p>The Transmission Service Provider that maintains CBM did not consider one or more of the items described in R5.1 that was available, and did not base the allocation on one or more</p>

Standard MOD-004-1 — Capacity Benefit Margin

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
		described in R5.2.		paths or regions as described in R5.2
R6.	<p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 13 months, but not more than 16 months, after the last time the values were established.</p>	<p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 16 months, but not more than 19 months, after the last time the values were established.</p> <p style="text-align: center;">OR</p> <p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not consider one or more of the items described in R6.1 that was available.</p> <p style="text-align: center;">OR</p> <p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not base the allocation</p>	<p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 19 months, but not more than 22 months, after the last time the values were established.</p>	<p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM established CBM for each of the years 2 through 10 more than 22 months after the last time the values were established.</p> <p style="text-align: center;">OR</p> <p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM failed to establish an initial value for CBM for each of the years 2 through 10.</p> <p style="text-align: center;">OR</p> <p>The Transmission Planner with an associated Transmission Service Provider that maintains CBM did not consider one or more of the items described in</p>

Standard MOD-004-1 — Capacity Benefit Margin

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
		on one or more paths or regions as described in R6.2		R6.1 that was available, and did not base the allocation on one or more paths or regions as described in R6.2
R7.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	The Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission Service Provider that maintains CBM notified none of the entities as required.
R8.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 31 or more days, but less than 45 days.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 45 or more days, but less than 60 days.	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 60 or more days, but less than 75 days. OR The Transmission Planner with	The Transmission Planner with an associated Transmission Service Provider that maintains CBM notified all the entities as required, but did so in 75 or more days, OR The Transmission Planner with an associated Transmission

Standard MOD-004-1 — Capacity Benefit Margin

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
			an associated Transmission Service Provider that maintains CBM notified at least one, but not all, of the entities as required.	Service Provider that maintains CBM notified none of the entities as required.
R9.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 30, but not more than 45, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 45, but not more than 60, days after the submission of the request.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 60, but not more than 75, days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided at least one, but not all, of the requesters specified in R9 with the supporting data, including models, used to allocate CBM.	The Transmission Service Provider or Transmission Planner provided a requester specified in R9 with the supporting data, including models, used to allocate CBM more than 75 days after the submission of the request. OR The Transmission Service Provider or Transmission Planner provided none of the requesters specified in R9 with the supporting data, including models, used to allocate CBM.
R10.	N/A	N/A	N/A	A Load-Serving Entity or Balancing Authority requested to schedule energy over CBM while not in an EEA 2 or higher.
R11.	N/A	N/A	N/A	A Balancing Authority or Transmission Service Provider denied an Arranged Interchange using CBM based on timing or ramping requirements without a reliability reason to do so.

Standard MOD-004-1 — Capacity Benefit Margin

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R12.	N/A	N/A	N/A	The Transmission Service Provider failed to approve an Arranged Interchange for CBM that met the criteria described in R12 without a reliability reason to do so.

Exhibit B

Standard Drafting Team Roster

ATC-TTC-AFC-CBM-TRM Standards Drafting Team (Project 2006-07) Roster

Laura Lee – Chair	Duke Energy 526 South Church Street Charlotte, North Carolina 28202	(704) 382-3625 llee@duke-energy.com
Matthew T. Ansley Term Trader	Southern Company Services, Inc. 600 N. 18th Street BIN GS-8260 Birmingham, Alabama 35291	(205) 257-7673 mansley@southernco.com
Robert A. Birch Staff Engineer	Florida Power & Light Co. P.O. Box 029311 Miami, Florida 33102-9311	(305) 442-5231 bob_birch@fpl.com
Shannon Black	Sacramento Municipal Utility District 6301 S Street Sacramento, California 95817	(916) 732-5734 sblack@smud.org
William D. Blevins	Electric Reliability Council of Texas, Inc. 2705 West Lake Drive Taylor, Texas 76574	bblevins@ercot.com
John Burnett	Los Angeles Department of Water & Power 101 North Hope Street Room 1246 Los Angeles, California 90012	(213) 367-1744 john.burnett@ladwp.com
DuShaune Carter	Southern Company 600 North 18th St PCC Corp-Hq Birmingham, Alabama 35291	(205) 257-3657 ddcarter@southernco.com
Charles Falls	Salt River Project Mail Station POB 100 P.O. Box 52025 Phoenix, Arizona 85072-2025	(602) 236-0965 chuck.falls@srpnet.com
John Harmon	Midwest ISO, Inc. P.O. Box 4202 Carmel, Indiana 46082-4202	(317) 249-5201 jharmon@midwestiso.org
Raymond K. Kershaw Senior Staff Engineer	ITC Transmission 39500 Orchard Hill Place Suite 205 Novi, Michigan 48375	(248) 444-1209 rkershaw@itctransco.com
Dennis Kimm, Jr. Senior Transmission Engineer	MidAmerican Energy Co. 4299 NW Urbandale Drive Urbandale, Iowa 50322	(515) 252-6737 ddkimm@midamerican.com
Ross Kovacs Trans. Strategic Coordinator	Georgia Transmission Corporation 2100 East Exchange Place Tucker, Georgia 30084	(770) 270-7857 ross.kovacs@gatrans.com
Cheryl Mendrala Principal Engineer	ISO New England, Inc. One Sullivan Road Holyoke, Massachusetts 01040	(413) 535-4184 cmendrala@iso-ne.com
Abbey Nulph Policy and Strategy Assessment	Bonneville Power Administration P.O. Box 61409 Vancouver, Washington 98666	(360) 852-0981 ajnulph@bpa.gov

Narinder K. Saini Policy Consultant	Entergy Services, Inc. 5201 W. Barraque Pine Bluff, Arkansas 71602	(870) 543-5420 nsaini@entergy.com
Matthew Schull	North Carolina Municipal Power Agency #1 1427 Meadow Wood Blvd. Raleigh, North Carolina 27604	(919) 760-6312 mschull@electricities.org
Nathan A. Schweighart	Tennessee Valley Authority 1101 Market Street PCC 2A Chattanooga, Tennessee 37402-2801	(423) 697-4189 naschweighart@tva.gov
Jerry W. Smith	Arizona Public Service Co. Mail Station 2260 PO Box 53999 Phoenix, Arizona 85072-3999	(602) 250-1155 jerry.smith@aps.com
Aaron Staley	Orlando Utilities Commission 6003 Pershing Avenue P.O. Box 3093 Orlando, Florida 32802	(407) 832-0779 astaley@ouc.com
Brent Torgrimson	Texas Regional Entity	(512) 225-7059 btorgrimson@texasre.org
Donald Williams Senior Engineer	PJM Interconnection, L.L.C. 955 Jefferson Avenue Valley Forge Corporate Center Norristown, Pennsylvania 19403-2497	(610) 666-4644 willid@pjm.com
Gerard Adamski NERC Vice President and Director of Standards	North American Electric Reliability Corporation 116-390 Village Boulevard Princeton, New Jersey 08540-5721	(609) 452-8060 gerry.adamski@nerc.net
Maureen E. Long NERC Standards Process Manager	North American Electric Reliability Corporation 116-390 Village Boulevard Princeton, New Jersey 08540-5721	(609) 452-8060 maureen.long@nerc.net
Andrew J. Rodriguez NERC Manager of Business Practice Coordination	North American Electric Reliability Corporation 1120 G Street, N.W. Suite 990 Washington, D.C. 20005-3801	(202) 393-3998 andy.rodriquez@nerc.net
Edward H. Ruck NERC Compliance Investigator	North American Electric Reliability Corporation 1120 G Street, N.W. Suite 990 Washington, D.C. 20005-3801	(609) 452-8060 ed.ruck@nerc.net

Exhibit C

The complete development record of the proposed
Reliability Standard
(Available Upon Request)