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Attachment A

# MEMORANDUM

TO: NERC Board of Trustees

FROM: Roy Thilly, WPPI

DATE: April 17, 2002

SUBJECT: Issue From February 20, 2002 Board Meeting

At the conclusion of the Board of Trustees meeting on February 20, 2002, the Board asked for comments from observers. I did not comment at that time because of time constraints and the need to think through an appropriate response to the Board's actions at the meeting. I am providing my comments now.

I was very pleased by the actions the Board took at the meeting, particularly in asserting responsibility for development, compliance and enforcement of international reliability standards.

I was also pleased that the Board endorsed the concept that there should be uniform methodologies for the calculation of available transmission capacity (ATC), total transmission capacity (TTC), capacity benefit margin (CBM) and transmission reliability margin (TRM), at least within those regions in which the Midwest Independent System Operator does business. I believe it is unfortunate, however, that the Board adopted, as formal NERC planning standards, criteria for these calculations that specifically do not require uniformity among the regions where there are not sound engineering reasons for differences. The standards approved can be, and in fact, have already been, read by some as formally legitimizing adoption of different methodologies by each region, as long as the general criteria in the new standards are met. I assume, however, that the Board's direction to the regions in which the MISO operates indicates an intention to address this issue more broadly.

On reflection, I also believe that before adopting the planning standards at issue, the Board should have explicitly addressed the threshold issue of whether or not a NERC reliability standard on CBM is appropriate at all; that is, should a standard not only define, but also mandate the reservation of CBM as necessary for the reliability of the bulk electric system or is CBM more properly dealt with as a tariff or commercial practices issue. It appears that the answer to this threshold issue was assumed because a standard was proposed. I, and others who have been involved with this issue for years, should have flagged this key premise for the Board's consideration.

It is very important for NERC staff and the Board to focus quickly and carefully on the issue of what constitutes a core reliability standard, as opposed to a business or commercial practice. In the past, NERC has not had to make this distinction and as a result, commercial matters are addressed in NERC standards. This fact is causing confusion among stakeholders and, in my judgment, has resulted in some of the distrust of the NERC process that is apparent.

I question whether the planning standards adopted by the Board on February 20 for CBM and for ATC should be characterized as core reliability requirements. It is clear that to safeguard reliability there must be a way to determine the total transfer capacity of the transmission system and limits must be set on how much the system can be safely loaded up in emergency and non-emergency conditions in order to avoid a risk of major outages. For this reason, a standard that requires calculation of TTC and defines how that calculation should be made on a consistent basis by the entities that control the grid seems to me to be the proper subject of a reliability standard.

TRM is the amount of transfer capability that should be reserved and not sold to account for uncertainties in actual, real-time flows. According to the NERC definition, TRM is the amount of "transfer capability necessary to provide reasonable assurance that the interconnected transmission network will be secure. TRM accounts for the inherent uncertainty in system conditions and the need for operating flexibility to ensure reliable operation as system conditions change." Based on this definition, it is appropriate that a NERC standard require that TRM be maintained by transmission providers and define how to calculate it. Thus, I believe that NERC standards should provide for uniform determinations of TTC and TRM, subject to a demonstration that there are engineering differences in certain areas that justify adjustments to the standard calculation methodology. The regions should have the burden to come forward with justifications for any calculation variances when the uniform standard is considered.

CBM is another matter entirely. Capacity benefit margin is an amount of transmission interface capacity held back from the market for the benefit of the utilities with generation on a given transmission system, so that those utilities can use the reserved interface transmission capacity during generation and transmission outages to bring in replacement energy. CBM thus allows a utility to save money by maintaining lower generation reserves than would be necessary absent the transmission set aside.[1] Today there is no charge for reserving CBM, but that issue is squarely before FERC in its standard market design proceeding where staff is proposing that CBM be reserved and paid for by an entity that wants it. CBM has been very controversial because some vertically-

[1] The NERC definition for CBM in the planning standard adopted indicates that CBM is a matter of economics, not transmission system reliability: CBM is "that amount of transmission transfer capability reserved by load serving entities (LSEs), whose loads are located on the transmission provider's system, to enable access by LSEs to generation from interconnected systems to meet reliability requirements. Preservation for an LSE of CBM allows that entity to reduce its installed generating capacity below that which may otherwise have been necessary without interconnections to meet its generation reliability requirements. The transmission transfer capability preserved as CBM is intended to be used by the LSE only in times of emergency generation deficiencies." The "reliability requirements" referred to are generation adequacy or reserve requirements that may exist in the regions, under state regulation or in internal utility planning protocols, but are not NERC reliability requirements. These requirements can be met in two ways: by building or contracting for additional generation or by reserving transmission capacity to get back-up from neighbors.

integrated utilities reserve CBM for the benefit of their generating systems and others do not. There also has been considerable variation in how CBM is calculated and utilities can exercise discretion not to reserve CBM if they themselves want to use the capacity to make a firm purchase from the outside. Transmission owner CBM reservations effectively deny competitors access to the reserving entity's system.[2]

For these reasons, the issue of CBM reservations has been before FERC for a number of years. In an Order issued in Docket No. EL99-46 on July 28, 1999,[3] FERC sought to address the issue of the inconsistent and highly discretionary CBM methodologies employed by different utilities by asking NERC to come up with a uniform methodology for calculating CBM by the end of 1999. In issuing this Order, I believe that FERC assumed CBM is a "reliability requirement" approved or imposed by NERC.

In response to this Order, NERC has not been able to persuade the regions, and the transmission providers within the regions who ultimately decide whether to reserve CBM, to agree on a methodology. Given the economic value of CBM reservations and the significant competitive implications of these reservations, this should not be a surprise. Instead, after more than three years, NERC has finally come up with the criteria approved as "standards" at the February 20 meeting, which are designed to circumscribe utility and regional discretion and thereby eliminate some of the egregious problems with discretionary CBM calculations. The criteria themselves are good, but continue to allow each region to have its own methodology,[4] and do not require utilities within a region to reserve CBM at all. Discretion remains in the vertically-integrated transmission providers as to whether they want to reserve CBM or not. Some of the regional methodologies also include substantial discretion in the calculations themselves.

The fundamental question then is whether the criteria adopted by NERC should constitute an international core reliability requirement or standard, or instead amount to an attempt to impose regulatory conditions on a commercial practice. To my knowledge, NERC itself has never determined that reserving CBM is necessary for the reliable operation of the integrated bulk power system[5]. This is the key threshold issue that should be addressed before any standard is adopted. I would argue that since (i) some regions do not calculate or reserve CBM at all, and (ii) in other regions where CBM is permissible, individual utilities can choose not to reserve it, the reservation of CBM is not a

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[2] Since CBM reservations do not reserve transmission capacity on the system on the other side of the interface at issue, there is real question as to whether a CBM reservation will actually provide a generation reliability benefit since it may not be possible to get the replacement energy to the interface when it is needed.

[3] *Capacity Benefit Margin in Computing Available Transmission Capacity*, 88 FERC ¶ 61,099 (1999).

[4] The fact that there are different CBM methodologies in the regions in the eastern interconnect today is not the result of engineering or physical differences in the system. It is the result of the fact that there are regions. Engineers in the various regions have approached the question from different perspectives and have come up with different methodologies. No particular methodology is "correct." Everyone is in favor of standardization, provided that his or her standard is used.

[5] The approved standard requires every region to have a CBM methodology, but does not require that anyone use it.

fundamental requirement for reliable operation of the bulk system. Instead, it is a use of transmission that allows a generating system to maintain lower reserves than it otherwise would and thereby improve the reliability of its generation system. While a CBM reservation may increase the reliability of that system, so would adding another generator.

My analysis does not mean that CBM will go away. FERC, in its tariff, allows, and may continue to allow, CBM to be subtracted from TTC-TRM in the calculating of available transmission capacity (ATC) on the ground that the utilities have built transmission and planned for generation back-up in this way. Alternatively, FERC may require CBM to be "paid for by the entity requiring the service, whether it be for additional reliability or access to other resources," as it has proposed in its March 15 Working Paper on Standardized Transmission Service and Wholesale Electric Market Design (at 20). FERC, however, should not labor under the assumption that NERC requires that CBM be reserved and has found that such reservations constitute a core reliability requirement. If FERC continues to permit CBM, the issues undoubtedly will be who pays the cost of CBM and what is a fair process for reservation and use of CBM. These are commercial and tariff issues, not NERC reliability issues. Unfortunately, by punting the issue to NERC in its July, 1999 Order, FERC itself blurred this issue. NERC has failed to clarify the matter by addressing the threshold issue head on. Instead, NERC ostensibly accepted FERC's direction to come up with a uniform methodology even though it does not require reservation of CBM by anyone, but then failed to do so.

It also is questionable that a NERC ATC standard is appropriate. Systems that use LMP pricing must calculate what capacity is available for the sale of financial transmission rights or flowgate rights from time to time, but they may not post ATC continuously or calculate what they offer for sale in the same way that non-LMP systems do, since complexities like "obligation" or "option" rights will need to be dealt with. ATC is simply the number that results from calculating TTC and then subtracting TRM and CBM (where used), as well as capacity that has already been reserved, to find the amount of additional capacity that may be offered commercially. Like CBM, ATC is a commercial or tariff matter. Whether and how ATC is used depends upon market design and should not be a concern of NERC as long as TTC and TRM are properly and consistently determined. In other words, I would argue that NERC does not have to set a standard for ATC once it has covered TTC and TRM.

I believe the confusion over the CBM issue, and the long delay that has occurred in resolving it, demonstrates the need for clear Board and staff leadership in setting the agenda for standards development, rather than leaving key policy issues to stakeholder expert committees like the planning committee. There needs to be a change in culture and approach. Staff's role in the past has been to facilitate committee processes rather than provide recommendations to the Board and the Board has not provided clear policy direction defining what needs to be looked at on a technical basis by groups like the planning committee. Policy direction needs to come from the top down, not be left to committees, if NERC is to act with reasonable dispatch and achieve credibility at FERC. The planning committee's apparent decision not to deal with the threshold issue of whether there should be ATC and CBM NERC standards at all, and its inability to address the uniformity issue after more than three years, have not advanced the objective of achieving mandatory, international, core reliability standards.

Many stakeholders have been very frustrated by the very slow pace of NERC to deal with CBM and similar issues, and its inability to come to conclusion where consensus is not achieved. Clearly, given the evolution of competitive wholesale and retail markets and the move to a standard wholesale market design in the U.S., reliability standards need to be as uniform as possible. NERC loses important credibility at FERC when it adopts "standards" that do not recognize this need. Unfortunately, such actions tend to confirm the preconceptions of some that NERC is controlled by those who wish to slow change or protect incumbent advantages, as CBM can be clearly used to do. There can be little doubt that in a dispute today FERC would look to an RTO like the MISO to determine ATC and CBM on a consistent, neutral basis for commercial purposes and not have much sympathy for different regional methodologies not justified by real engineering differences. Yet, NERC may be perceived as approving just that.

For these reasons, I think that the NERC Board should revisit the planning standards adopted on February 20 immediately and address the threshold issue of whether international standards with respect to TTC, TRM, ATC and CBM are necessary for ensuring the reliability of the bulk system and then direct submittal through the stakeholder process of replacement standards for only TTC and TRM that require uniformity within an interconnection, except where a region has clearly demonstrated that calculation adjustments are legitimate and appropriate based on engineering differences. With respect to CBM, I would strongly urge the Board to inform FERC that there is no NERC requirement that CBM be reserved and that NERC regards CBM as a tariff/commercial issue, not a core reliability requirement. If a region wishes to adopt its own CBM standard or criteria and seek to defend it at FERC, it should do so, but not as a NERC requirement.

cc: Michehl Gent

Attachment B

**CALPINE**

# M E M O R A N D U M

**Date:** **April 18, 2002**

**To:** **NERC Board of Trustees**

**From:** **David H. McMillan**

**Subject:** Mr. Thilly's comments to the Board dated 4/17/02

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I am taking the opportunity to write in strong support of Mr. Thilly's comments regarding the Planning Committee's actions and performance associated with the topic of total transmission capacity (TTC), available transmission capacity (ATC), transmission reliability margin (TRM), and capacity benefit margin (CBM). I will not attempt to restate arguments that were most eloquently posited by Mr. Thilly's memo on the subject. I will only endorse by reference those arguments and add my voice requesting the Board take specific action in properly identifying CBM and ATC as commercial matters and not core reliability standards as has been suggested by NERC and others to date.

As a representative on NERC's Stakeholder Committee for Independent Power Producers, I can assure you of the truth of Mr. Thilly's suggestion that it is exactly this sort of issue that has led to much of the distrust that exists today in NERC's ability to impartially determine reliability requirements in a way that treats all industry participants fairly and with respect. The Board and NERC can begin to correct this persistent shortfall by embracing Mr. Thilly's challenge and insisting that before a SAR is posted, NERC staff do a critical and thorough assessment in addressing the threshold issue of whether or not a NERC reliability standard is the proper objective for the topic under scrutiny. Only then should NERC committees be permitted to spend time discussing and debating such topics. In addition to a suggested staff review, NERC should institute a process whereby any industry participant can challenge the subject matter of a newly posted SAR if there is a belief that something other than a core reliability standard should be considered. This review and process should be established without delay and should be implemented against the currently posted group of SAR's in order to weed out what appear to some to be largely commercial and not purely reliability issues.

With all the important changes that have impacted and continue to impact our industry (FERC's efforts in RTO formation, FERC's docket on Standard Market Design, an energy bill that may actually pass congress this year, and the appearance of NAESB on the scene) it is time for those of us who remain active in the NERC process to come together and provide the "change in culture and approach" that Mr. Thilly calls for in his memo.

I look forward to our meetings in June where I'm sure we can make significant progress in setting the proper policy direction for the dynamic times within which our industry currently exists.

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