Northeast Power Coordinating Council
Reliability Assessment Program

STATUS REPORT

June 2000

Distributed to:

Members, Reliability Coordinating Committee
Members, Compliance Monitoring and Assessment Subcommittee
Members, Task Force on System Studies
Members, Task Force on System Protection
Members, Task Force on Coordination of Planning
Members, Task Force on Coordination of Operation
Members, Task Force on Energy Management Technology
Chairmen, NPCC Working Groups

and

Mr. Charles J. Durkin, Jr.
Mr. Robert A. Hiney
Mr. Edward A. Schwerdt
Ms. Jennifer Budd
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A) Budget Summary
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HIGHLIGHTS

ITEM NUMBER

Task Force on Coordination of Operation

30) CO-1 Control Performance Working Group

The Control Performance Working Group (CO-1) is currently pursuing the following tasks for the TFCO: 1) integration of the Maritimes into the NPCC procedure for shared activation of operating reserve; 2) documentation of the historical basis for a ten minutes Disturbance Recovery Period For Reportable Events; 3) reassessing NPCC document A-6, “Operating Reserve Criteria,” to address reliability concerns related to the treatment of recallable energy purchases in determining reserve requirements; 4) investigating the feasibility of full reserve sharing within NPCC; and 5) reassessing NPCC document A-3, “Emergency Operation Criteria,” to ensure consistency with NERC Appendix 9B, “Energy Emergency Alerts.”

115) NPCC Ad Hoc Operations Planning Working Group

The NPCC "RELIABILITY ASSESSMENT for SUMMER 2000" was approved by the Task Force on Coordination of Operation on May 17, 2000. The report has been posted on the NPCC Home Page.

Task Force on Coordination of Planning

52) CP-8 Working Group on Review of Interconnection Assistance Benefits

The CP-8 Working Group issued the NPCC Summer 2000 Multi-Area Probabilistic Reliability Assessment in May 2000. The report has been posted on the NPCC Home Page.

53) CP-9 Working Group on Review of NERC Planning Standards

The CP-9 Working Group provided NPCC review and comment on the Phase I NERC Planning Standards that were posted in Final NERC Due Process (April 2000).
Task Force on System Protection

65) System Protection – Minimum Maintenance Compliance Survey

The annual survey for compliance with the Maintenance Criteria for Bulk Power System Protection (Document A-4) has been submitted through CMAS to the RCC for consideration at the June 29, 2000 meeting.

66) Survey of Conformance to the NPCC Underfrequency Load Shedding Program

The annual survey for compliance with the underfrequency load shedding requirements of §4.6 of the Emergency Operation Criteria (Document A-3) as of December 31, 1999 has been submitted through CMAS to the RCC for consideration at the June 29, 2000 meeting.

67) Special Protection System List

The 2000 NPCC Special Protection System List has been submitted through CMAS to the RCC for consideration at the June 29, 2000 meeting.

Task Force on System Studies

83) Overall Transmission Reliability Study

The Terms of Reference for the Overall Transmission Reliability Study was approved by the TFSS at the May 2000 Meeting.

All Task Forces

1-20, Restructuring of NPCC Documents
37-40,
57-63, The restructuring of NPCC Documents related to System Operation and System Planning
71-74 & is underway.
87-88)

NPCC Recommendation Tracking Database

The Summary of the Recommendation Tracking Database is included as Appendix B in this NPCC Reliability Assessment Program Status Report.
## Documents

<table>
<thead>
<tr>
<th>Document Type</th>
<th>Description</th>
<th>Latest Version</th>
<th>Frequency of Reviews</th>
<th>Next Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-3 Emergency Operation Criteria</td>
<td>Objectives, principles and requirements are presented that govern the Areas in formulating plans and procedures to be followed in an emergency or during conditions which could lead to an emergency.</td>
<td>January 1999</td>
<td>3 Years</td>
<td>January 2002</td>
</tr>
<tr>
<td>A-6 Operating Reserve Criteria</td>
<td>Objectives, principles and requirements are presented that govern the amount, availability and distribution of operation reserve.</td>
<td>September 1998</td>
<td>3 Years</td>
<td>September 2001</td>
</tr>
<tr>
<td>B-2 Control Performance Guide During Normal Conditions</td>
<td>Standards are established with which the NPCC Areas and systems within the Areas may measure control performance.</td>
<td>March 1999</td>
<td>3 Years</td>
<td>March 2002</td>
</tr>
</tbody>
</table>

**Status/ Comments:**
- NPCC Document A - 3, Emergency Operation Criteria, will be submitted to the RCC at its June 29th meeting in conjunction with newly proposed documents B-20 and C-31. This revision to A-3 and the new documents addresses restoration facility identification and periodic testing. Also reference items 10, 18, 19 and 23.
- Also reference items 13, 18 and 27.
- Also reference items 12 and 26.
<table>
<thead>
<tr>
<th>PROGRAM ITEM NUMBER</th>
<th>Documents</th>
</tr>
</thead>
<tbody>
<tr>
<td>4) B-3</td>
<td>Guidelines for Inter-AREA Voltage Control</td>
</tr>
<tr>
<td></td>
<td><strong>Description:</strong> Procedures and principles are established for occasions where a deficiency or an excess of reactive power can affect bulk power system voltage levels in a large portion of an Area or in two adjacent Areas.</td>
</tr>
<tr>
<td></td>
<td><strong>Latest Version:</strong> November 6, 1997</td>
</tr>
<tr>
<td></td>
<td><strong>Frequency of Reviews:</strong> 3 Years</td>
</tr>
<tr>
<td></td>
<td><strong>Next Review Date:</strong> November 2000</td>
</tr>
<tr>
<td></td>
<td><strong>Status/ Comments:</strong> The TFCO will initiate its triennial review at its July 17-18, 2000 meeting. Also reference items 9 and 22.</td>
</tr>
<tr>
<td>5) B-9</td>
<td>Guide for Rating Generating Capability</td>
</tr>
<tr>
<td></td>
<td><strong>Description:</strong> Standards for rating and verifying net generating capability are established.</td>
</tr>
<tr>
<td></td>
<td><strong>Latest Version:</strong> November 1998</td>
</tr>
<tr>
<td></td>
<td><strong>Frequency of Reviews:</strong> 3 Years</td>
</tr>
<tr>
<td></td>
<td><strong>Next Review Date:</strong> November 2001</td>
</tr>
<tr>
<td></td>
<td><strong>Status/ Comments:</strong> Also reference items 11 and 25.</td>
</tr>
<tr>
<td></td>
<td><strong>Description:</strong> This document establishes requirements and guidelines for reporting the details of a system disturbance to enable assessments and reviews of those disturbances which impact a significant part of one Area or which have inter-Area implications.</td>
</tr>
<tr>
<td></td>
<td><strong>Latest Version:</strong> June 25, 1997</td>
</tr>
<tr>
<td></td>
<td><strong>Frequency of Reviews:</strong> 3 Years</td>
</tr>
<tr>
<td></td>
<td><strong>Next Review Date:</strong> July 2000</td>
</tr>
<tr>
<td></td>
<td><strong>Status/ Comments:</strong> The TFCO will reissue the document following its meeting of July 17-18, 2000 to ensure conformance with new DOE and NERC reporting requirements.</td>
</tr>
</tbody>
</table>
8) C-3  Procedures for Communications During Emergencies  

**Description:** These Procedures direct NPCC’s implementation of the Eastern Interconnection Hotline. The Eastern Interconnection Hotline is an emergency telecommunications network initiated through a preset conference call that interconnects one key Regional coordination center, staffed continuously, or a major utility control center serving the role of coordinator for the Region, in each Region of the NERC Eastern Interconnection. The North Texas Security Center in ERCOT is connected to the calls as well.

**Latest Version:** March 2000  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** March 2001

**Status/ Comments:** Reference also item 16.

9) C-4  Monitoring Procedures for Guidelines for Inter-AREA Voltage Control  

**Description:** Procedures are established for the Task Force on Coordination of Operation’s monitoring and reporting of conformance with NPCC’s Guidelines for Inter-AREA Voltage Control.

**Latest Version:** March 25, 1998  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** March 2001

**Status/ Comments:** Also reference items 4 and 22.

10) C-5  Monitoring Procedures for Emergency Operation Criteria  

**Description:** Procedures are established for the Task Force on Coordination of Operation’s monitoring and reporting of conformance with NPCC’s Emergency Operation Criteria.

**Latest Version:** May 15, 1997  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** September 2000

**Status/ Comments:** The TFCO revised the document to address frequent utilization of emergency procedures. The document is now posted for open review. Also reference items 1, 23 and 29.
<table>
<thead>
<tr>
<th>PROGRAM ITEM NUMBER</th>
<th>Documents</th>
<th>Description:</th>
<th>Latest Version:</th>
<th>Frequency of Reviews:</th>
<th>Next Review Date:</th>
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<tbody>
<tr>
<td>Status/ Comments:</td>
<td>Also reference items 5 and 25.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status/ Comments:</td>
<td>Also reference items 3 and 26.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13) C-9</td>
<td>Monitoring Procedures for Operating Reserve Criteria</td>
<td>Procedures are established for the Task Force on Coordination of Operation’s monitoring and reporting of conformance with NPCC’s Operating Reserve Criteria</td>
<td>March 25, 1998</td>
<td>3 Years</td>
<td>March 2001</td>
</tr>
<tr>
<td>Status/ Comments:</td>
<td>Also reference items 2 and 27.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Documents

14) C-11 Monitoring Procedures for Interconnected System Frequency Response

**Description:** Procedures are established for monitoring and reporting the frequency responses to large generation losses.

**Latest Version:** March 25, 1998

**Frequency of Reviews:** 3 Years

**Next Review Date:** March 2001

**Status/ Comments:**

15) C-12 Procedure for Shared Activation of Ten Minute Reserve

**Description:** Procedures are established to provide for the shared activation of ten minute reserve on an Area basis.

**Latest Version:** March 25, 1998

**Frequency of Reviews:** 3 Years

**Next Review Date:** July 2000

**Status/ Comments:** The TFCO is reconsidering the SAR procedures to address market concerns.

16) C-13 Operational Planning Coordination

**Description:** Procedures are established to coordinate the exchange of operational data, provide for the notification of planned facility outages among the Areas, and provide for formal communications among the Areas in anticipation of a period of capacity shortage or light load conditions. It also established the procedures for the routine NPCC conference call held weekly among the Areas.

**Latest Version:** March 15, 1997

**Frequency of Reviews:** 3 Years

**Next Review Date:** July 2000

**Status/ Comments:** The TFCO will review the document at its meeting of July 17-18, 2000. Reference also items 8 and 28.

**Description:** Procedures are established providing for the reporting channels and information available to the operator during solar alerts and suggesting measures that may be taken to mitigate the impact of a solar magnetic disturbance.

**Latest Version:** March 25, 1998  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** June 2000

**Status/Comments:** This document is currently under review to address Space Environment Center (SEC) changes in the levels at which geomagnetically induced currents (GIC) event warning notifications are issued. An interim agreement on the notification process for the summer has been arranged.

18) C-19  Procedures During Shortages of Operating Reserve

**Description:** This Procedure establishes specific instructions for the redistribution of Operating Reserve among the Areas when one or more Areas is experiencing an Operating Reserve deficiency.

**Latest Version:** July 18, 1995  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** July 2000

**Status/Comments:** The TFCO will review the document at its meeting of July 17-18, 2000. Also reference items 1 and 2.

19) C-20  Procedures During Abnormal Operating Conditions

**Description:** This Procedure complements the Emergency Operation Criteria by establishing specific instructions for the System Operator during emergency conditions in an NPCC Area or Areas.

**Latest Version:** March 1999  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** March 2002

**Status/Comments:** Also reference item 1.
**Documents**

20) C-21 Monitoring Procedures for Conformance with Normal and Emergency Transfer Limits

**Description:** This Procedure establishes TFCO monitoring and reporting requirements for transfer limits during normal and emergency operations as stipulated in NPCC Document A-2, Basic Criteria for Design and Operation of Interconnected Power Systems.

**Latest Version:** January 21, 1997

**Frequency of Reviews:** 3 Years

**Next Review Date:** July 2000

**Status/ Comments:** The TFCO will review the document at its meeting of July 17-18, 2000. Also reference items 24 and 38.

21) Task Force Scope

**Description:** The overall charge to the TFCO, together with the scope of activities, is given to the Task Force through its scope.

**Latest Version:** June 29, 1999

**Frequency of Reviews:** 3 Years

**Next Review Date:** June 2002

**Status/ Comments:** The RCC approved the revised TFCO scope at its meeting of June 29, 1999.

**Surveys/Reviews**

22) Survey on conformance with the Guidelines for Inter-AREA Voltage Control

**Description:** As charged in the Monitoring Procedure C-4, each Area must successfully respond to a set of directives in order to demonstrate conformance with the Guidelines for Inter-AREA Voltage Control.

**Latest Version:** January 1997

**Frequency of Reviews:** 3 Years

**Next Review Date:** November 2000

**Status/ Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments. Also reference items 4 and 9.
PROGRAM ITEM NUMBER

Surveys/Reviews

23) Survey on conformance with the Emergency Operation Criteria
   **Description:** As charged in the Monitoring Procedure C-5, each Area must successfully respond to a set of directives in order to demonstrate conformance with the Emergency Operation Criteria.
   **Latest Version:** November 1998
   **Frequency of Reviews:** 3 Years
   **Next Review Date:** November 2001

   **Status/ Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments. Also reference items 1, 10 and 19.

24) Monitoring and reporting of conformance with the provisions of operating limits as specified in the Basic Criteria for Design and Operation of Interconnected Power Systems
   **Description:** As charged in the Monitoring Procedure C-21, each Area must demonstrate conformance to the testing criteria stated in the Basic Criteria for Design and Operation of Interconnected Power Systems.
   **Latest Version:** November 1998
   **Frequency of Reviews:** 3 Years
   **Next Review Date:** November 2001

   **Status/ Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments. Also reference items 20 and 38.

25) Survey on conformance with the Guide for Rating Generating Capability
   **Description:** As charged in the Monitoring Procedure C-7, each Area must state that it can verify the net capability of its generating capacity.
   **Latest Version:** January 1997
   **Frequency of Reviews:** 3 Years
   **Next Review Date:** November 2000

   **Status/ Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments. Also reference items 5 and 11.
### Survey on conformance with the Control Performance Guide During Normal Conditions

**Description:** The Task Force on Coordination of Operation reports annually to the Reliability Coordinating Committee on the control performance of the Areas as demonstrated by conformance with the CPS1 and CPS2 standards as presented in the Monitoring Procedure C-8.

**Latest Version:** June 2000  
**Frequency of Reviews:** See Status / Comments  
**Next Review Date:** July 2000  
**Status/Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments; however, the TFCO will continue to monitor compliance with CPS-1 and CPS-2 on an on-going monthly basis due to the criticality of this criterion. Also reference items 3 and 12.

### Survey on conformance with the Operating Reserve Criteria

**Description:** The Task Force on Coordination of Operation reports annually to the Reliability Coordinating Committee on the conformance of the Areas with the Operating Reserve Criteria as demonstrated by surveying the ability of the Areas to return to pre-contingency conditions within ten minutes of a defined reportable event as outlined in the Monitoring Procedure C-9.

**Latest Version:** June 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** November 2000  
**Status/Comments:** TFCO and CMAS are discussing the responsibility for all compliance monitoring and assessments. Also reference items 2 and 13.

### Survey of NPCC Transmission Facilities List

**Description:** An annual list of NPCC transmission facilities is established based on the criterion that, if removed from service, the transmission facility may directly or indirectly impact the reliability of another Area or other Areas.

**Latest Version:** January 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** July 2000  
**Status/Comments:** The TFCO will review the document at its meeting of July 17-18, 2000. Also reference item 16.
NPCC RELIABILITY ASSESSMENT PROGRAM
STATUS REPORT

TASK FORCE ON COORDINATION OF OPERATION

PROGRAM ITEM NUMBER

Surveys/Reviews

29) Black Start Survey

Description: This is a survey of station emergency power start-up facilities.

Latest Version: December 1999

Frequency of Reviews: Per new document

Next Review Date: June 2000

Status/ Comments: Task Force on Coordination of Operation established a working group to address the issue of ensuring appropriate operation of key system restoration facilities and their critical components. At its meeting of March 21, 2000, the NPCC Reliability Coordinating Committee approved the report and recommendations of this Working Group, including procedures developed by the Working Group for compliance monitoring and reporting. To accomplish this goal, the Working Group developed a new NPCC Procedure, NPCC Document C-31, "Testing and Reporting Procedure for Key Facilities and Their Critical Components Required for System Restoration," a new NPCC Guide, NPCC Document B-20, "Guidelines for Identifying Key Facilities and Their Critical Components for System Restoration," and an addition to the existing NPCC document A-3, "Emergency Operation Criteria."

Working Groups/Ad Hoc Assignments

30) CO-1 Control Performance

Assignment: The Working Group insures coordination between adjacent control areas in establishing interchange schedules, reviews time error correction procedures, and monitors the conformance of the Areas with NPCC Control Performance Criteria and Operating Reserve Criteria. At the request of the Task Force on Coordination of Operation, it conducts investigations of control performance problems.

2000 Budget: $20,300

Expense to Date: $1,300

Status/ Comments: The Control Performance Working Group (CO-1) is currently pursuing the following tasks: 1) integration of the Maritimes into the NPCC procedure for shared activation of operating reserve; 2) documentation of the historical basis for a ten minutes Disturbance Recovery Period For Reportable Events; 3) reassessing NPCC document A-6, "Operating Reserve Criteria", to address reliability concerns related to the treatment of recallable energy purchases in determining reserve requirements; 4) investigating the feasibility of full reserve sharing within NPCC; and 5) reassessing NPCC document A-3, "Emergency Operation Criteria", to ensure consistency with NERC Appendix 9B, "Energy Emergency Alerts."
### Working Groups/Ad Hoc Assignments

<table>
<thead>
<tr>
<th>Program Item Number</th>
<th>Assignment</th>
<th>2000 Budget</th>
<th>Expense to Date</th>
<th>Next Seminar</th>
<th>Status/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>31) CO-2 Dispatcher Training</td>
<td>The Working Group establishes a program for system dispatcher training relating to NPCC inter-Area matters, criteria, terminology, policies and operating instructions. It prepares and presents material at dispatcher training sessions exchanges information on internal dispatcher training methods. The Working Group CO-2 also evaluates and propose new techniques and training aids as they become available.</td>
<td>$22,350</td>
<td>$3,200</td>
<td>November 2000</td>
<td>The Dispatcher Training Working Group (CO-2) held its spring training seminar in May 2000.</td>
</tr>
<tr>
<td>32) CO-7 Operation Review Team</td>
<td>To enhance the relationship between the control room personnel and NPCC, and to insure a continued understanding and effective implementation of the criteria and guides.</td>
<td>$25,000</td>
<td>$0</td>
<td></td>
<td>The Working group is now being populated.</td>
</tr>
<tr>
<td>33) CO-8 System Operations Managers Working Group</td>
<td>Provide a forum for the Managers of the NPCC control centers to identify and discuss security concerns in the operation of the interconnected bulk power supply system, and specific concerns related to the integration of operation between and among the evolving ISOs. The System Operations Managers Working Group will also assist the Task Force on Coordination of Operation in their work on issues related to system security and the operation of the ISOs, and provide advice to the Tfco, as requested.</td>
<td>$25,000</td>
<td>$1,900</td>
<td></td>
<td>The CO-8 Working Group completed and posted the &quot;Memorandum of Understanding for Area Exchange of Emergency Assistance.&quot; The WG is reviewing the report by the PJM Interconnection of its 1999 Summer Postseasonal Assessment as well as the 1999 Summer Postseasonal Assessment conducted by the US Department of Energy.</td>
</tr>
</tbody>
</table>
## Task Force on Coordination of Operation

### Working Groups/Ad Hoc Assignments

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Assignment</th>
<th>2000 Budget:</th>
<th>Expense to Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Lake Erie Circulation Working Group (LECWG)</td>
<td>The Lake Erie Circulation Working Group was formed to address the charge stemming from the Northeast Power Coordinating Council Security Process Plan. The Lake Erie Security Process has established Lake Erie line loading relief procedures developed by representatives from Ontario Hydro, the New York Power Pool, the Pennsylvania-New Jersey-Maryland Interconnection Association and the Michigan Electric Coordinated Systems.</td>
<td>$30,000</td>
<td>$3,900</td>
</tr>
<tr>
<td>36</td>
<td>NPCC Ad Hoc Working Group on ATC</td>
<td>Formulate NPCC's responses to the updated charges from the NERC Engineering Committee (EC) to the NERC ATC Implementation Working Group. These include: the development of an ATC compliance review schedule; the coordination of intra-/inter-regional ATC postings; the development of data exchange guidelines; the assessment of the commercial viability of ATC calculations; and the continued review of the TRM/CBM parameters.</td>
<td>$10,000</td>
<td>$4,150</td>
</tr>
</tbody>
</table>

**Status/Comments:**

**35** Lake Erie Circulation Working Group (LECWG)

The LECWG has developed a coordinated Phase Angle Regulator (PAR) Operation agreement between the Lake Erie members.

**36** NPCC Ad Hoc Working Group on ATC

The NPCC ATCWG has responded to NERC on their the comments on NPCC methodologies. The WG has also conducted an audit of the inter area ATC postings within NPCC and is in the process of developing strategies to ensure consistent information is posted on OASIS.

**Assignment:** Identification of the key facilities required for system restoration purposes and development of appropriate test procedures for the key facilities and their critical components in order to ensure their suitable operation in the event of a system disturbance and possible loss of AC station service power supply.

**2000 Budget:** $0  
**Expense to Date:** $0  
**Completion Date:** March 21, 2000

**Status/ Comments:** The report of the Joint Working Group on the Identification of Critical Facilities for Restoration was approved and accepted by the RCC at its meeting of March 21, 2000. Reference also items 10 and 23.

115) NPCC Ad Hoc Operations Planning Working Group

**Assignment:** Review the overall reliability of the generation and transmission system in the NPCC Region for the 2000 Summer.

**Completion Date:** May 2000

**Status/ Comments:** The NPCC “RELIABILITY ASSESSMENT for SUMMER 2000” was approved by the Task Force on Coordination of Operation on May 17, 2000. The report has been posted on the NPCC Home Page.

116) CO-9 Review of NERC Operating Standards

**Assignment:** The CO-9 Working Group was charged to coordinate the reformatting of the Northeast Power Coordinating Council (NPCC) operating criteria, guides and procedures and to incorporate them into the NERC Operating Policies as Regionally specific provisions.

**2000 Budget:** $7,500  
**Expenses to Date:** $6,450

**Status/ Comments:** The final draft composite NPCC-NERC Operating Manual will be posted for comments through the NPCC Open Process in August 2000. The NPCC-NERC Operating Manual will be submitted to the RCC for approval at the November 2000 meeting.
### Documents

37) A-1 Criteria for Review and Approval of Documents

**Description:** Criteria outlines the review and approval procedures for all NPCC and NERC documents and contains the NPCC Glossary.

**Latest Version:** March 1997

**Frequency of Reviews:** 4 Years

**Next Review Date:** August 2000

**Status/ Comments:** All NPCC documents are being reviewed and restructured. Upon completion of this effort all existing NPCC Criteria will be reformatted and be utilized in the NPCC Reliability Compliance Program (RCP).

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38) A-2 Basic Criteria for Design and Operation of Interconnected Power Systems

**Description:** Criteria are established for proper design and operation concerning Resource Adequacy and Transmission Capability.

**Latest Version:** August 1995

**Frequency of Reviews:** 4 Years

**Next Review Date:** August 2000

**Status/ Comments:** All NPCC documents are being reviewed and restructured. Upon completion of this effort all existing NPCC Criteria will be reformatted and be utilized in the NPCC Reliability Compliance Program (RCP).

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39) B-8 Guidelines for Area Review of Resource Adequacy

**Description:** Guidelines to help TFCP ascertain that each Area's resource plan is in accordance with the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems".

**Latest Version:** February 14, 1996

**Frequency of Reviews:** 3 Years

**Next Review Date:** July 2000

**Status/ Comments:** Document to be placed in NPCC Open Process for review and comment in July 2000
**Documents**

40)C-16  Procedure for NPCC Review of New or Modified Bulk Power System Special Protection Systems  

**Description:** This document outlines procedures for reporting new or modified Bulk Power System Special Protection Systems.  

**Latest Version:** September 28, 1995  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** July 2000

**Status/ Comments:** To be submitted to NPCC Open Process.

41)  Task Force Scope  

**Description:** The Task Force on Coordination of Planning scope of activities.  

**Latest Version:** February 26, 1997  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** September 2000

**Status/ Comments:** Business Plan to be presented to RCC at June 29, 2000 meeting.

**Surveys/Reviews**

42)  Resource Adequacy — Coordination and Review of Area Studies  

**Description:** Review of the New York Area resource adequacy study.  

**Latest Version:** June 29, 1999  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** June 2002

**Status/ Comments:**
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>43)</td>
<td>Resource Adequacy — Coordination and Review of Area Studies</td>
<td></td>
<td>Frequency of Reviews: 3 Years</td>
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<tr>
<td></td>
<td></td>
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<td>Next Review Date: March 2003</td>
</tr>
<tr>
<td><strong>Status/ Comments:</strong></td>
<td>The RCC approved the New England Triennial Review of Resource Adequacy for the period 2000-2009 at the March 21, 2000 meeting.</td>
<td></td>
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<td>Frequency of Reviews: 3 Years</td>
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<td>Next Review Date: November 2000</td>
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<td><strong>Status/ Comments:</strong></td>
<td>Analysis underway. To be presented to TFCP at the September 2000 meeting.</td>
<td></td>
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<tr>
<td>45)</td>
<td>Resource Adequacy — Coordination and Review of Area Studies</td>
<td>Description: Review of the Québec Area resource adequacy study.</td>
<td>Latest Version: June 29, 1999</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Frequency of Reviews: 3 Years</td>
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<td></td>
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<td>Next Review Date: June 2002</td>
</tr>
<tr>
<td><strong>Status/ Comments:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Surveys/Reviews

46) Resource Adequacy — Coordination and Review of Area Studies

Description: Review of the Maritime Area resource adequacy study.

Latest Version: March 1999

Frequency of Reviews: 3 Years

Next Review Date: March 2002

Status/ Comments:

47) NPCC Area Transmission Review

Description: Review of the New York Area future transmission plans (5-7 years out)

Latest Version: February 1999

Frequency of Reviews: 1 Year

Next Review Date: November 2000

Status/ Comments: Task Force Review continues. To be presented to TFCP at the September 2000 meeting.

48) NPCC Area Transmission Review

Description: Review of the New England Area future transmission plans (5-7 years out)

Latest Version: March 2000

Frequency of Reviews: 1 Year

Next Review Date: March 2001

NPCC RELIABILITY ASSESSMENT PROGRAM
STATUS REPORT

TASK FORCE ON COORDINATION OF PLANNING

PROGRAM ITEM NUMBER

Surveys/Reviews

49) NPCC Area Transmission Review Description: Review of the Ontario Area future transmission plans (5-7 years out)

Latest Version: December 1999
Frequency of Reviews: 1 Year
Next Review Date: November 2000

Status/ Comments:

50) NPCC Area Transmission Review Description: Review of the Québec Area future transmission plans (5-7 years out)

Latest Version: September 1999
Frequency of Reviews: 1 Year
Next Review Date: September 2000

Status/ Comments: Review to be presented to TFCP at the September 2000 meeting.

51) NPCC Area Transmission Review Description: Review of the Maritime Area future transmission plans (5-7 years out)

Latest Version: June 1999
Frequency of Reviews: 1 Year
Next Review Date: September 2000

Status/ Comments: Review to be presented to TFCP at the September 2000 meeting.
**NPCC RELIABILITY ASSESSMENT PROGRAM**

**STATUS REPORT**

**TASK FORCE ON COORDINATION OF PLANNING**

**PROGRAM ITEM NUMBER**

**Working Groups/Ad Hoc Assignments**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Task</th>
<th>Description</th>
<th>2000 Budget:</th>
<th>Expense to Date:</th>
<th>Completion Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>52) CP-8</td>
<td>Working Group on the Review of Interconnection Assistance Benefits</td>
<td>Review the overall reliability benefits of the interconnections for each Area within the NPCC Region; perform pre-seasonal resource adequacy assessment of the NPCC Region.</td>
<td>$30,000</td>
<td>$10,750</td>
<td>December 2000</td>
</tr>
<tr>
<td>53) CP-9</td>
<td>Working Group on the Review of NERC Planning Standards</td>
<td>Initially review the Phase I NERC Planning Standards that have been placed into final NERC due process. Recommend changes to those NERC Planning Standards that are scheduled for implementation in latter phases of the NERC Compliance Program.</td>
<td>$7,500</td>
<td>$650</td>
<td>Ongoing</td>
</tr>
<tr>
<td>54) EMWG</td>
<td>Environmental Matters Working Group</td>
<td>Serve as the primary resource to the TFCP on all environmental matters. This includes but is not limited to review of reliability implications, review of legislative and regulatory existing and emerging issues, evaluation of the effects of proposed system modifications, operating procedures or environmental equipment, identification of the need for special environmental studies, performance of assignments, etc.</td>
<td>$0</td>
<td>$0</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

**Status/ Comments:**

- CP-8 issued NPCC Summer 2000 Multi-Area Probabilistic Reliability Assessment in May 2000
- CP-9 provided NPCC review and comment on the Phase I NERC Planning Standards that were posted in Final NERC Due Process (April 2000). Formal scope detailing additional Working Group activities to be presented for approval at June 29, 2000 RCC meeting.
PROGRAM ITEM NUMBER

TASK FORCE ON COORDINATION OF PLANNING

Working Groups/Ad Hoc Assignments

55) LCFWG Load, Capacity & Fuels Working Group

Assignment General: Serve as the primary resource to the TFCP on matters relating to load, capacity energy and fuels data within NPCC.

Specific: 1) Provide load, capacity, energy, fuel and other data in electronic format through NERC to the DOE-EIA as part of the annual EIA-411 filing.

2) Prepare an NPCC Load, Capacity, Energy, Fuels and Transmission report.

2000 Budget: $5,000
Expense to Date: $0
Completion Date: 1) EIA-411 data: April 2000

Status/Comments: Existing and planned NPCC generating unit data were submitted to NERC on time by March 15, 2000. Demand, energy, capacity and transmission data were also submitted in a timely manner by April 3, 2000. The Area/NPCC Staff effort has been completed with the publication of the NPCC Load, Capacity, Energy, Fuels and Transmission report. Also reference item 104.

56) JGWG Joint Glossary Working Group

Assignment To maintain the NPCC Glossary of Terms (Document A-7) and to expand the Glossary to include new terms as necessary.

2000 Budget: $5,000
Expense to Date: $0
Next Review Date: Ongoing

Status/Comments: Reference Item 112 below.

Documents

112) A-7 NPCC Glossary of Terms

Description: The NPCC Glossary of Terms (the Glossary) includes terms from NPCC Criteria (A), Guideline (B) and Procedure (C) Documents, as well as the North American Electric Reliability Council (NERC) Glossary of Terms, August 1996.

Latest Version: September 1998
Frequency of Reviews: 1 Year
Next Review Date: September 2000

Status/Comments: The JGWG has initiated the review of Document A-7.
### Documents

<table>
<thead>
<tr>
<th>Program Item Number</th>
<th>Description</th>
<th>Latest Version</th>
<th>Frequency of Reviews</th>
<th>Next Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>57) A-4</td>
<td>Maintenance Criteria for Bulk Power System Protection</td>
<td>This document establishes the maintenance intervals and practices which should result in dependable and secure protection system operation.</td>
<td>September 1998</td>
<td>September 2001</td>
</tr>
<tr>
<td>58) A-5</td>
<td>Bulk Power System Protection Criteria</td>
<td>This document establishes the minimum design objectives and recommends design practices to minimize the severity and extent of system disturbances and to minimize possible damage to system equipment.</td>
<td>September 1998</td>
<td>September 2001</td>
</tr>
<tr>
<td>59) B-1</td>
<td>Guide for the Application of Autoreclosing to the Bulk Power System</td>
<td>This document establishes guidelines for automatic reclosing to facilitate restoration of the system to normal following automatic tripping of transmission facilities.</td>
<td>March 2, 1999</td>
<td>March 2002</td>
</tr>
</tbody>
</table>

**Status/ Comments:**

- A revised draft of this document was approved at the March 21, 2000 RCC meeting. The document has been submitted to the NPCC Full Membership for final approval.
- Also reference item 69.
<table>
<thead>
<tr>
<th>Documents</th>
<th>Description:</th>
<th>Latest Version:</th>
<th>Frequency of Reviews:</th>
<th>Next Review Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>61) B-7</td>
<td>Automatic Underfrequency Load Shedding Program Relaying Guideline</td>
<td>This guideline establishes requirements for application and testing of underfrequency threshold relays that are necessary to accomplish the objectives of the NPCC automatic underfrequency load shedding program established in the Emergency Operation Criteria (Document A-3).</td>
<td>March 2, 1999</td>
<td>March 2002</td>
</tr>
<tr>
<td>62) B-11</td>
<td>Special Protection System Guideline</td>
<td>This guideline categorizes the Special Protection System (SPS) according to the Criteria fault for which it is designed and the impact its failure would have on the network. It further provides guidelines for the design, testing and operation of the SPS.</td>
<td>March 2, 1999</td>
<td>March 2002</td>
</tr>
<tr>
<td>63) C-22</td>
<td>Procedure for Reporting and Reviewing Proposed Protection Systems for the Bulk Power System Formerly Document B-5</td>
<td>This procedure indicates how new facilities or modifications to existing facilities are to be presented to the TFSP in order to ascertain compliance with the principles of the Protection Criteria.</td>
<td>April 14, 1999</td>
<td>April 2002</td>
</tr>
</tbody>
</table>
Task Force on System Protection

**Documents**

64) Task Force Scope  
**Description:** This document outlines the Task Force on System Protection scope of activities.  
**Latest Version:** June 29, 1999  
**Frequency of Reviews:** 3 Years  
**Next Review Date:** June 2002

**Status/ Comments:**

**Surveys/Reviews**

65) Minimum Maintenance Compliance Survey  
**Description:** This report summarizes member system compliance with the Maintenance Criteria for Bulk Power System Protection (Document A-4).  
**Latest Version:** June 29, 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** June 2000

**Status/ Comments:** The annual survey for compliance with the Maintenance Criteria for Bulk Power System Protection (Document A-4) for the period ending December 31, 1999 will be submitted to CMAS for consideration at its June 5, 2000 meeting.

66) Survey of Compliance with the NPCC Underfrequency Load Shedding Program  
**Description:** These reports summarize Area compliance with sections 4.6 and 4.9 of the "Emergency Operation Criteria" (Document A-3)  
**Latest Version:** June 29, 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** June 2000

**Status/ Comments:** The annual survey for compliance with section 4.6 (load shedding) and section 4.9 (equivalent MW load shed) of the "Emergency Operation Criteria" (Document A-3) for the period ending December 31, 1999 will be submitted to CMAS for consideration at its June 5, 2000 meeting.
Surveys/Reviews

67) Special Protection System List  
**Description:** This document lists Special Protection Systems on the NPCC Bulk Power System.  
**Latest Version:** June 29, 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** June 2000  

**Status/Comments:** The NPCC 2000 Special Protection System List will be submitted to CMAS for consideration at its June 5, 2000 meeting.

68) Review protection systems for proposed installations or existing installations undergoing substantial modifications  
**Description:** Review, in accordance with the Procedure for Reporting and Reviewing Proposed Protection Systems for the Bulk Power System (Document C-22) proposed protection systems, including special protection systems, for new major installations as well as existing installations undergoing substantial modifications, before such facilities are constructed or modified and report on the findings with respect to compliance with the NPCC Bulk Power System Protection Criteria (Document A-5).  
**Latest Version:** Ongoing  
**Frequency of Reviews:** As Required  

**Status/Comments:** At its recent meetings, the TFSP discussed a number of protection system changes, including SPS installations and modifications.

69) Review protection system performance following major system events or disturbances  
**Description:** In conjunction with other task forces, review and analyze the detailed performance of protection systems following major power system disturbances and events and participate in the preparation of reports, which would include appropriate recommendations.  
**Latest Version:** Ongoing  
**Frequency of Reviews:** As Required  

**Status/Comments:** The NERC/DAWG Reports on 1996, 1997, 1998 and 1999 System Disturbances have not been issued yet. At its March 2000 meetings, the TFSP discussed system disturbances that have been reported to NPCC and NERC since the previous TFSP meetings. Also reference items 57 and 58.
Working Groups/Ad Hoc Assignments

70) Protection System Maintenance Practices

**Assignment:** Collect Bulk Power System protection system maintenance data on an annual basis to enable the TFSP to evaluate protection system maintenance costs and the impact on Bulk Power System performance due to alternative methods and intervals for protection system maintenance.

**Completion Date:** Deferred

**Frequency of Reviews:** 3 years

**Next Review Date:** September 2001

**Status/ Comments:** The TFSP has deferred action on the update of the actual performance database. The situation will again be reviewed at the next triennial review of the Maintenance Criteria (Document A-4). Also reference item 57.

Documents

113) C-26 Procedures for Task Force on System Protection Compliance Monitoring and Surveys

This document describes the TFSP's procedures for annually completing its compliance surveys and updating the Special Protection System List.

**Latest Version:** November 3, 1999

**Frequency of Reviews:** 3 years

**Next Review Date:** November 2002

**Status/ Comments:**

114) C-30 Procedure for Task Force on System Protection Review of Disturbances

This document outlines the process the TFSP follows to review and analyze the performance of protection systems following selected major power system events, inside as well as outside NPCC.

**Latest Version:** December 6, 1999

**Frequency of Reviews:** 3 Years

**Next Review Date:** December 2002

**Status/ Comments:**
PROJECT ITEM NUMBER

71) B-4 Guidelines for NPCC Area Transmission Reviews

Description: Guidelines to help TFSS ascertain that each Area's transmission expansion plan, based on its proposed generation additions, has been developed in accordance with the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems."

Latest Version: August 7, 1996
Frequency of Reviews: 3 Years
Next Review Date: July 2000

Status/ Comments: The Interim Document iB-4 has been field tested as part of the NERC Phase I Pilot Program in 1999. The interim document, the assessment of transmission expansion plan and the process was discussed by the TFSS at their May 23-24 meeting. The document will be updated to reflect the changing market environment and broaden the scope of interim review.

72) B-10 Guidelines for Requesting Exclusions to Section 5.1 (B) and 6.1 (B) of the NPCC "Basic Criteria for Design and Operation of Interconnected Power Systems"

Description: Establishes procedures for requesting exclusion from certain contingencies in the Basic Criteria.

Note: Member Representatives shall be advised of approvals by the Reliability Coordinating Committee of applications for exclusions.

Latest Version: June 26, 1998
Frequency of Reviews: 3 years
Next Review Date: June 2001

Status/ Comments:

73) C-18 Procedure for Testing and Analysis of Extreme Contingencies

Description: This document establishes a procedure for the testing and analysis of Extreme Contingencies.

Latest Version: January 1999
Frequency of Reviews: 3 years
Next Review Date: January 2002

Status/ Comments:
**Documents**

74) C-25  Procedure to Collect Real Time Data for Inter-Area Dynamic Analysis

**Description:** This document establishes a procedure for the collection of real time data following a power system disturbance for the purpose of analyzing the dynamic performance of the NPCC bulk power system.

**Latest Version:** February 1, 1996

**Frequency of Reviews:** 3 years

**Next Review Date:** September 2000

**Status/ Comments:** A final draft of interim document iC-25 that addresses NPCC Conformance with NERC Planning Standards I.F was field tested during the 1999 pilot program and the final review will be conducted in the fall of 2000.

75) Task Force Scope

**Description:** The Task Force on System Studies scope of activities.

**Latest Version:** February 1997

**Frequency of Reviews:** 3 Years

**Next Review Date:** July 2000

**Status/ Comments:** The scope of the Task Force on System Studies is under review and will be discussed at the July 20-21, 2000 meeting.

**Surveys/Reviews**

76) NPCC Area Transmission Review

**Description:** Review of New York Area future transmission plans (5-7 years out)

**Latest Version:** February 1999

**Frequency of Reviews:** 1 Year

**Next Review Date:** November 2000

**Status/ Comments:** The New York Area comprehensive Transmission Review was presented to the TFSS at their May 23-24, 2000 meeting. It is expected that the TFSS review will be complete by September 2000.
77) NPCC Area Transmission Review **Description:** Review of New England Area future transmission plans (5-7 years out)  
**Latest Version:** March 2000  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** March 2001  
**Status/ Comments:** New England's comprehensive review was approved by the RCC at the March 21, 2000 meeting.

78) NPCC Area Transmission Review **Description:** Review of Ontario Area future transmission plans (5-7 years out)  
**Latest Version:** December 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** November 2000  
**Status/ Comments:** The Ontario Area Interim Transmission Review was approved at the November 18-19, 1999 meeting of the TFSS. The review report is available on the NPCC website under TFSS.

79) NPCC Area Transmission Review **Description:** Review of Québec Area future transmission plans (5-7 years out)  
**Latest Version:** September 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** September 2000  
**Status/ Comments:** The Quebec Area Interim Review submission by Hydro Quebec was approved by the TFSS at its Sept. 23-24, 1999 meeting. It is available on the NPCC website under TFSS.
**Surveys/Reviews**

80) NPCC Area Transmission Review **Description:** Review of Maritime Area (New Brunswick and Nova Scotia) future transmission plans (5-7 years out)  
**Latest Version:** June 1999  
**Frequency of Reviews:** 1 Year  
**Next Review Date:** September 2000

**Status/ Comments:** The Maritime Area Interim Review submission by Nova Scotia and New Brunswick were approved by the TFSS at its June 3-4 1999 meeting. The reviews are available on the NPCC website under TFSS.

81) Adequacy of Automatic Load Shedding Programs **Description:** Assessment of the adequacy and suitability of existing underfrequency load shedding settings.  
**Latest Version:** February 1998  
**Frequency of Reviews:** 3 Years  
**Completion Date:** February 2001

**Status/ Comments:**

82) Creation of Base Case Library **Description:** On an annual basis, develop a library of solved load flow cases and associated dynamic data.  
**Note:** The present assessment is being conducted by the SS-37 Working Group.  
**Latest Version:** November 1999  
**Frequency of Reviews:** 1 Year  
**Completion Date:** November 2000

**Status/ Comments:** Eight load flow models will be assembled as part of the 2000 Base Case Development effort. These cases form the basis for the twelve models that will be submitted to the NERC MMWG. Also reference item 85.

Several load flow base case models and associated dynamic data for Overall Transmission study have been developed. These cases will be used for simulating contingencies to determine the robustness of the system from inter area and inter regional perspective. See Item # 83
Surveys/Reviews

83) Overall Transmission Reliability Study

**Description:** Evaluate the need to perform an overall assessment to evaluate the thermal, and dynamic performance of the NPCC Region. If necessary perform this assessment including the calculation of Inter-Area transfer capabilities and Extreme contingency performance.

**Latest Version:** September 1997

**Frequency of Reviews:** 3 Years

**Completion Date:** November 2000

**Status/Comments:** The Terms of Reference for the Overall Transmission Reliability Study was approved by the TFSS at the May 2000 Meeting. Several load flow base case models and associated dynamic data for Overall Transmission study have been developed. These cases will be used by SS-38 for simulating contingencies to determine the overall robustness of the system from inter area and inter regional perspective. See Item # 83.

84) Review of Dynamic Analysis Recording Devices

**Description:** This review summarizes the characteristics of recording devices used to capture power system dynamic phenomena.

**Latest Version:** June 4, 1999

**Frequency of Reviews:** 3 Years

**Next Review Date:** June 2002

**Status/Comments:** The survey and associated report is available on the NPCC web site under TFSS.
85) SS-37  Base Case Development

**Assignment:** On an annual basis, develop a library of solved load flow cases and associated dynamic data.

**2000 Budget:** $20,000  
**Expense to Date:** $700  
**Completion Date:** Ongoing

**Status/ Comments:** The User Written Models have been converted to PSS/E Rev 25. The coordination with PTI to incorporate these models in PSS/E is continuing. The progress in this area had been slow due to restructuring at PTI.

Dynamic data for 2001 Summer Pk and 2003/4 Winter were submitted to the NERC SDDWG in February 2000. Reference items 82, 101 and 105.

Several load flow base case models and associated dynamic data for Overall Transmission have also been developed. These cases are being used by SS-38 for simulating contingencies to determine the overall robustness of the system from inter area and inter regional perspective. See Item # 83

86) SS-38  Working Group on Inter-Area Dynamic Analysis

**Assignment:** Assigned to analyze dynamic phenomena, which may affect interconnected system reliability, especially in the area of low frequency oscillations.

**2000 Budget:** $20,000  
**Expense to Date:** $7,300  
**Completion Date:** Ongoing

**Status/ Comments:** The RCC at their November 9, 1999 meeting approved an updated scope for the "Working Group on Inter-Area Dynamic Analysis ", SS-38.

As assigned by TFSS, SS-38 will conduct the Overall Transmission study to determine the overall robustness of the system from inter area and inter regional perspective. It is anticipated that the study will be complete by November 2000.
### Documents

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<tr>
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<th>Next Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>87) B-12</td>
<td>Guidelines for On-Line Computer System Performance During Disturbances</td>
<td>November 1998</td>
<td>3 Years</td>
<td>November 2001</td>
</tr>
<tr>
<td></td>
<td>This document establishes guidelines for the performance of NPCC Area on-line computer systems during a power system disturbance.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Status/ Comments:</td>
<td>Reference also item number 88.</td>
<td></td>
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<th>Latest Version</th>
<th>Frequency of Reviews</th>
<th>Next Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This document establishes monitoring and reporting procedures for the B-12 Guideline, and specifically details on-line computer response objectives.</td>
<td></td>
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<td>Status/ Comments:</td>
<td>Reference also item number 87.</td>
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### Surveys/Reviews

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<tr>
<th>Program Item Number</th>
<th>Description</th>
<th>Latest Review</th>
<th>Frequency of Reviews</th>
<th>Next Review Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Review of on-line computer performance during system events or disturbances including all NERC regions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status/ Comments:</td>
<td>The Task force is currently awaiting the completion of the 1996, 1997, 1998 and 1999 NERC Disturbance Reports by the NERC/DAWG. These reports have not been distributed by NERC yet.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Surveys/Reviews

90) Review of NPCC Area disturbances

**Description:** Review of on-line computer system performance during disturbances, as required by Document B-12.

**Latest Review:** April 2000

**Frequency of Reviews:** As Required

**Status/ Comments:** At its April 2000 meeting, the TFEMT discussed system disturbances that have been reported to NPCC. The Task Force reported that all computer systems worked well.

91) Review On-Line Computer System Status Reports

**Description:** Review of member on-line computer system statuses and plans.

**Latest Review:** April 2000

**Frequency of Reviews:** As Required

**Status/ Comments:** Member system status reports were reviewed at the April 2000 Task Force meeting. Such reviews include highlights of each system’s Energy Management System status and planned system enhancements.

Working Groups/Ad Hoc Assignments

92) EMT-1 Energy Management Technology Workshop Working Group

**Assignment:** Bi-Annual workshop to address timely issues and update member system personnel associated with the provision of on-line computer systems for operation of the power system.

**2000 Budget:** $5000

**Expense to Date:** $0

**Last Workshop:** May 14-15, 1998

**Next Workshop:** To be scheduled

**Status/ Comments:** The next workshop has been postponed until further notice.
NPCC RELIABILITY ASSESSMENT PROGRAM
STATUS REPORT

TASK FORCE ON ENERGY MANAGEMENT TECHNOLOGY

WORKING GROUPS/AD HOC ASSIGNMENTS

94) Correspondence with other regional and national groups associated with on-line computer systems

Assignment: Exchange of meeting minutes and other correspondence with representatives from other Regions. Also monitor IEEE and CIGRÉ efforts.

Latest Review: April 2000
Frequency of Reviews: As Required

Status/Comments: This is an ongoing effort to facilitate communications with other groups pursuing similar interests in order to enhance the knowledge of the Task Force on Energy Management Technology regarding current technologies. The majority of efforts in this area are currently being directed at participation in the NERC Data Exchange and Telecommunications Working Group efforts.

A member of the NERC Telecommunication Working Group along with a member of the NERC Data Exchange Working Group attended the the April 2000 TFEMT meeting.

95) Ad Hoc Working Group on Information Exchange

Assignment: Develop a document discussing communication channels, company contacts and coordination of outages.

Latest Review: April 2000
Frequency of Reviews: As Required

Status/Comments: The Ad Hoc Working Group on Information Exchange has prepared a collection of presentations related to communication or operating tools, communication channel descriptions which is available on the web site at the following URL: ftp://www.npcc.org/bbs/NPCC_task_forces/TFEMT/Information_Exchange_Pres/

This Ad Hoc Working Group has completed its task.
Working Groups/Ad Hoc Assignments

108) Y2K Ad Hoc Working Group

**Assignment**
Identify Y2K initiatives within NPCC to address threats to interconnected system security. Work closely with the NERC Y2K Coordination Task Force to ensure that all NPCC responsibilities and deliverables are met. Coordinate Y2K preparation and risk assessment efforts for NPCC and provide status reports to the NPCC TFEMT and other Task Forces indicating the preparation status and lessons learned.

**2000 Budget:** $7,500  
**Expense to Date:** $5,450  
**Expected Completion** Year 2000

**Status/ Comments:** NPCC staff participated in the transition by coordinating the flow of information during the rollover. A close out summary will be forwarded to the TFCO for information.

NPCC staff will archive all the Y2k related information and provide a copy to each of the TFCO member.

The task of Y2kWG has been successfully completed by ensuring an uneventful transition on December 31, 1999 and February 29, 2000. The Working Group has now been disbanded.

Documents

109) Task Force Scope

**Description:** This document outlines the Task Force on Energy Management Technology scope of activities.

**Latest Review** March 21, 2000  
**Frequency of Reviews:** 3 Years  
**Next Review Date** March 2000

**Status/ Comments:** A revised TFEMT scope was approved by the RCC at the March 21, 2000 meeting.
**Study Committees**

**96) MEN SC  MEN Study Committee**

**Assignment:** The MEN Study Committee directs the activities of the MEN Operating Studies and Future Systems Working Groups and reports to the Joint Interregional Review Committee (JIRC) on study activities and other interregional matters of interest.

**Completion Date:** Ongoing

**Status/Comments:** The 2000 Summer MEN Interregional Transmission System Reliability Assessment was approved by the Joint Interregional Review Committee at its May 9, 2000 meeting. The Assessment focused on the expected conditions this summer and the effects of the three new phase angle regulators (PARs) that are being installed in the ties forming the Ontario-Michigan interface. One of the PARs will not be available this summer, and transfer capabilities were re-evaluated for NPCC exports with the PARs modeled as they are now expected to be operated this summer. The report, and the addendum documenting the re-evaluation studies, have been placed in the "Seasonal Assessments" folder on the NPCC Home Page. Also reference item 97 and 98.

**Working Groups/Ad Hoc Assignments**

**97) OSWG  MEN Operating Studies Working Group**

**Assignment:** The MEN Operating Studies Working Group, under the direction of the MEN Study Committee, conducts appraisals of the MAAC-ECAR-NPCC (MEN) interconnected systems for expected summer and winter periods.

**2000 Budget:** $12,000

**Expense to Date:** $12,000

**Completion Date:** May 2000

**Status/Comments:** The Working Group conducted studies for the 2000 Summer MEN Interregional Transmission System Reliability Assessment in a timely manner and participated in reshaping the MEN Assessment report format. Also reference item 96.
Working Groups/Ad Hoc Assignments

98) FSWG  MEN Future Systems Working Group  

**Assignment:** The MEN Future Systems Working Group, under the direction of the MEN Study Committee, conducts appraisals of the MAAC-ECAR-NPCC (MEN) interregional system performance for projected future conditions.

**2000 Budget:** $0  
**Expense to Date:** $0  
**Completion Date:** February 2001

**Status/ Comments:** The MEN and VEM Study Committees recommended to the Joint Interregional Review Committee (JIRC) that a proposed future study (2003 or 2004 summer conditions) be postponed for six months. The recommendation was accepted by the JIRC at the May 9, 2000 meeting. The MEN Study Committee will continue to monitor system developments and make recommendations regarding the need for a future joint study to the JIRC accordingly. Also reference items 96 and 97.
### Working Groups/Ad Hoc Assignments

<table>
<thead>
<tr>
<th>Program Item</th>
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<th>Assignment</th>
<th>Completion Date</th>
<th>Status/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>99) RAS</td>
<td>Reliability Assessment Subcommittee</td>
<td>Conduct an annual review of the overall reliability of the existing and planned generation and transmission systems of the ten Regional Reliability Councils for the ten year horizon. Conduct semiannual seasonal assessments of the overall reliability of the existing generation and transmission systems of the ten Regional Reliability Councils.</td>
<td>September 2000</td>
<td>The Reliability Assessment Subcommittee’s report of “Reliability Assessment 2000-2009” is currently in draft form and will be presented to the NERC Board of Trustees at its September 2000 meeting. The report of “Reliability Assessment 1999-2008” was posted on May 23, 2000. The preseasonal “NERC 2000 Summer Assessment” was also posted on May 23, 2000.</td>
</tr>
<tr>
<td>100) PSS</td>
<td>Planning Standards Subcommittee</td>
<td>The PSS, as charged by the NERC Engineering Committee, assesses and evaluates the NERC Planning Standards.</td>
<td>Ongoing</td>
<td>The PSS is reviewing the comments submitted to the Phase I Planning Standards and also reviewing the Phases II, III and IV Planning Standards. PSS is working jointly with the NERC Compliance Review Working Group (CRWG) in developing revised templates for the remaining Phases of the NERC Compliance Program.</td>
</tr>
<tr>
<td>101) MMWG</td>
<td>Multiregional Modeling Working Group</td>
<td>Develop a library of solved load flow models for use by the Regions and their member systems in planning and evaluating future systems and current operating conditions.</td>
<td>$12,000</td>
<td>$2,610</td>
</tr>
</tbody>
</table>
Working Groups/Ad Hoc Assignments

102) LFWG  Load Forecasting Working Group  **Assignment:** Annually develops sensitivity bandwidths (for completion each July) about the US and Canadian forecast aggregations of peak demand and annual net energy for load. Develop the LFWG Position Paper on Preparing Demand Forecasts in a Deregulated Market to aggregate Transco/Disco forecasts within the Regions.  **Completion Date:** June 2000

**Status/ Comments:** The LFWG has developed the draft “Peak Demand and Energy Projection Bandwidth: 2000-2009 Projections” report for information purposes.

103) Generating Availability Working Group  **Assignment:** The Working Group provides guidance on industry issues related to generating availability and the collection of electric utility generator unit performance data for NERC’s Generating Availability Data System (GADS)  **Completion Date:** Ongoing

**Status/ Comments:**

104) DOE/EIA Data Coordination Working Group  **Assignment:** Serve as the electric utility industry’s coordinator with the Department of Energy (DOE) and the Energy Information Administration (EIA) in negotiating the requirements for data submission to the DOE and EIA.  **Completion Date:** April 2000

**Status/ Comments:** Existing and planned NPCC generating unit data were submitted to NERC on time by March 15, 2000. Demand, energy, capacity and transmission data were also submitted in a timely manner by April 3, 2000. The Area/NPCC Staff effort has been completed with the publication of the NPCC Load, Capacity, Energy, Fuels and Transmission report.
## Working Groups/Ad Hoc Assignments

### 105) SDDWG System Dynamics Database Working Group

**Assignment:** Develop a library of dynamic simulation models for use by the Regions and their member systems in planning and evaluating future systems and current operating conditions.

<table>
<thead>
<tr>
<th>2000 Budget:</th>
<th>$15,000</th>
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<tr>
<td>Expense to Date:</td>
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<td>Completion Date:</td>
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**Status/ Comments:** The dynamics data for 2001 Summer Peak and 2004/5 Winter peak conditions cases had been tested and posted on the password protected site of NERC. The NPCC SS-37 working group on Base Case Development provided the NPCC data to the SDDWG in February 2000. Also reference item 85.

### 106) ATC Implementation Working Group

**Assignment:** Review the procedures developed by the Regions (or sub-regions) for determining ATC to ensure that the procedures are in concert with the ATC Principles in NERC’s June 1996 Available Transfer Capability Definitions and Determination report.

**Completion Date:** Ongoing

**Status/ Comments:** The NERC ATCWG has provided their comments on the "NPCC Methodologies" report which was presented at their December 1, 1999 meeting. NPCC has responded to NERC’s comments.

In April 2000, NPCC ATCWG conducted an audit of the ATC postings within NPCC. Based on the findings of the audit, the WG is in the process of developing standards which will ensure consistency in the ATC postings and interface definitions.
NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL (NERC)

Working Groups/Ad Hoc Assignments

110) CRWG  Compliance Review Working Group

**Assignment**: Develop NERC compliance procedures for those Planning Standards/Measurements that are in the NERC 2000 Compliance Program. Review/develop Compliance Reports for the NERC 2000 Program as required. Apply Sanctions Matrix and calculate penalties, for the program, to those Planning Standards/Measurements that NERC has compliance monitoring and assessment responsibility. No penalties will be assessed until enforcement authority is established.

**Completion Date**: Ongoing

**Status/Comments**: CRWG: 1) Has supplied comments to the Phase I Planning Standards that were in NERC Final Due Process, they are being considered by the PSS; 2) is working jointly with the PSS on revising the Phase III Planning Standards Templates; 3) continuing development of sanctions/penalties matrices, and 4) discussing means to streamline the implementation of future Phases of the NERC Compliance Program.

111) CS  Compliance Subcommittee

**Assignment**: Develop templates for measurements contained in NERC Operating Policies; Monitor compliance to those operating measurements in the 2000 NERC Compliance Program and prepare necessary documentation of Regional compliance/non-compliance as required.

**Completion Date**: Ongoing

**Status/Comments**: The Compliance Subcommittee has submitted Phase II Operating Standards Templates for implementation in field testing; is developing Phase III Operating Standards Templates and is working closely with the appropriate NERC Subcommittees to implement the future Phases of the NERC Compliance Program.
Pages 42 and 43 are intentionally omitted.
## BUDGET SUMMARY

<table>
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<tr>
<th>ITEM NUMBER</th>
<th>PROJECT DESCRIPTION</th>
<th>2000 BUDGET</th>
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<td>Dispatcher Training Working Group</td>
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<td>33</td>
<td>System Operating Managers Working Group</td>
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<td>CO-9 Review of NERC Operating Standards</td>
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<td>ETIWG Electronic Tagging Implementation Working Group</td>
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<td>Review of NERC Planning Standards</td>
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<td>Load, Capacity &amp; Fuels Working Group</td>
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<td>MAAC-ECAR-NPCC Activities</td>
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* At its September 1, 1999 meeting, the Executive Committee considered a recommendation that NPCC's 2000 Budget include $300,000 in Account #800 "Project Expense" to cover the projects noted above.

## Appendix A

June 21, 2000
<table>
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<tr>
<th>ID #</th>
<th>Recommendation Summary</th>
<th>STATUS</th>
<th>Lead Group</th>
<th>Next Tracking</th>
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<tr>
<td>DOE-96-05</td>
<td>Define and enforce reliability standards to ensure that a continuous supply/demand balance is maintained and that transmission systems are operated within security limits.</td>
<td>NPCC will continue to monitor compliance to its Reliability Criteria through the NPCC Reliability Assessment Program (NRAP). The updated NRAP Status report will be presented at the June 29, 2000 RCC meeting.</td>
<td>RCC</td>
<td>2000/06/29</td>
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<tr>
<td>NERC-95-01</td>
<td>ATC determination, IDC and TIS.</td>
<td>The NPCC ATCWG has responded to NERC on their comments on NPCC methodologies. The WG has also conducted an audit of the inter area ATC postings within NPCC and is in the process of developing strategies to ensure consistent information is posted on OASIS.</td>
<td>RCC</td>
<td>2000/11/09</td>
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<tr>
<td>NERC-95-02</td>
<td>Implement line loading relief procedure and Implement ISN primary node.</td>
<td>The LEER, which was signed by all parties as of December 22, 1998, was filed with the FERC on March 1, 1999. On May 12, 1999 FERC issued an Order on Interim Procedures granting conditional approval to the LEER process. On July 2, 1999 FERC accepted the LEER compliance filing thereby granting final approval of LEER. Please see NPCC-98-05 for ICCP/ISN implementation.</td>
<td>RCC</td>
<td>Complete</td>
</tr>
<tr>
<td>NERC-96-07</td>
<td>Form a group to define enforcement measures in lieu of mandatory compliance and review the Regional Reliability Councils ability to impose sanctions for noncompliance.</td>
<td>NPCC has developed its Reliability Compliance Program (RCP). This program has been utilized in implementing the NERC Pilot Compliance Program. It has been revised and adapted to meet the needs of NPCC. CMAS is responsible for administering the program and has also assumed the responsibility of developing enforcement recommendations to be presented to the RCC. CMAS is also looking into the development of an &quot;audit&quot; or review process for the RCP. NPCC is developing the Reliability Compliance and Enforcement Program and is scheduled to implement the first phase in March, 2001.</td>
<td>RCC</td>
<td>2000/06/29</td>
</tr>
<tr>
<td>NERC-97-01</td>
<td>Review of NERC Planning Standards and revised Operating Policies to assess and evaluate them against the existing NPCC Reliability Assessment Program.</td>
<td>NPCC will form two groups to address the review of the NERC Planning and Operating Standards. CP-9, under the Task Force on Coordination of Planning, will review the NERC Planning Standards and CO-9, under the Task Force on Coordination of Operation, will review the NERC Operating Standards.</td>
<td>TFCP</td>
<td>2000/06/29</td>
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<tr>
<td>ID #</td>
<td>Recommendation Summary</td>
<td>STATUS</td>
<td>Lead Group</td>
<td>Next Tracking</td>
</tr>
<tr>
<td>---------</td>
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<tr>
<td>NPCC-97-15</td>
<td>Review and testing of restoration plans and procedures needs to be strengthened.</td>
<td>At its meeting of March 21, 2000, the NPCC Reliability Coordinating Committee approved the report and recommendations of this Working Group including procedures developed by the Working group for compliance monitoring and testing. To accomplish this goal, the Working Group developed a new NPCC Procedure, NPCC Document C-31, “Testing and Reporting Procedure for Key Facilities and Their Critical Components Required for System Restoration,” a new NPCC Guide, NPCC Document B-20, “Guidelines for Identifying Key Facilities and Their Critical Components Required for System Restoration;” and an addition to the existing NPCC Document A-3, “Emergency Operation Criteria.”</td>
<td>TFCO</td>
<td>Complete</td>
</tr>
<tr>
<td>NPCC-98-05</td>
<td>TFEMT will investigate NPCC ICCP/ISN implementation.</td>
<td>The ISN has been implemented and is working properly. The NERC Telecommunications Working Group is investigating ISN redundancy issues.</td>
<td>TFEMT</td>
<td>Complete</td>
</tr>
<tr>
<td>NPCC-98-08</td>
<td>Streamline disturbance reporting procedures under future similar circumstances to the January 1998 Ice Storms.</td>
<td>TFCO reviewed and made the following modifications to B-13 at its September 1999 meeting: 1) removed ad hoc from DAWG or “to the appropriate Working Group”; 2) when Policy 5 comes up—make sure the latest Appendix 5F form is attached; and 3) conduct BOTH NERC and NPCC reporting at the SAME TIME. The document will be reposted for Open Process comment once these modifications have been added to the document.</td>
<td>TFCO</td>
<td>2000/07</td>
</tr>
</tbody>
</table>
GOALS AND RESPONSIBILITIES

The Northeast Power Coordinating Council (NPCC) Membership Agreement, as amended to November 9, 1999, specifies:

"The purpose of the Council is to promote the reliable and efficient operation of the interconnected bulk power systems in Northeastern North America through the establishment of criteria, coordination of system planning, design and operations, and assessment of compliance with such criteria."

Consistent with the purpose, NPCC has established a Reliability Assessment Program. This program brings together work done by the Council, its member systems and Areas (Independent System Operators - ISOs) relevant to the assessment of bulk power system reliability. Reviews and studies completed by member systems and Areas (ISOs) are not duplicated by the Council, but are referenced in appropriate NPCC reports.

The overall program includes two categories of assessment:
1. Standing Assessments
2. Ad Hoc Assessments

Standing Assessment

The Reliability Coordinating Committee (RCC) has the responsibility for assessing the reliability of the present and proposed bulk power systems of the NPCC members. To this end, the RCC has assigned duties on an ongoing basis to NPCC Staff, the NPCC Compliance Monitoring and Assessment Subcommittee (CMAS) and to the Task Forces as generally covered by their respective scopes and specifically assigned in the attached program. Included in the assignment are: system studies applicable to intra-regional reviews; the formation and review of NPCC criteria, guides, procedures & diagrams; and coordination of generation and transmission plans among the various investigations. In addition, all NPCC documents are regularly reviewed, and updated where required. Finally, compliance by NPCC members with the NPCC Criteria and Guides and the NERC Operating and Planning Standards are assessed on a regular basis by CMAS.

Ad Hoc Assessments

Flexibility to deal with non-routine issues is retained through assignments made by the RCC on an ad hoc basis to Staff, Task Forces or ad hoc committees as appropriate. These assignments might include, for example, assessments of major system disturbances, whether they occur within the NPCC region or elsewhere. NPCC's participation in similar activities by NERC or governmental agencies would also be considered part of the Program.

General

The Reliability Coordinating Committee is responsible for assignment, final review and approval of all reports. Final approval of criteria documents, following approval by the RCC, rests with the NPCC member systems.

The various Task Forces, Staff and ad hoc committees, acting individually or in concert, are responsible for the conduct of both the standing assessments and the ad hoc assessments.

The NPCC Staff is responsible for the overall coordination of the Program.

Since the Program is by nature ongoing and dynamic, it will be modified by the RCC when deemed necessary.

Appendix C