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**RCC Meeting  
July 9, 2003  
Agenda Item 12.0**

July 1, 2003

Members, Reliability Coordinating Committee

**Re: NPCC Reliability Assessment Program (NRAP) Summary Report**

The NPCC Reliability Assessment Program Summary Report has been updated (as of June 19<sup>th</sup> - see attached) and will be presented at the July 9<sup>th</sup> Reliability Coordinating Committee meeting.

The full updated NRAP report is posted in Adobe format in the Current Year NRAP folder on the NPCC Home Page. The URL to the folder is:

<http://www.npcc.org/NRAP.asp?Folder=CurrentYear>

Please note that the full report is only “distributed” with this reference.

Sincerely,

*Phil Fedora*

Philip A. Fedora  
Director, Market Interface

cc: 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 Infrastructure Security and Technology  
NPCC Working Group Chairs  
NPCC Staff

**NPCC RELIABILITY ASSESSMENT PROGRAM  
SUMMARY REPORT**

<b>Page #</b>	<b>PROJECT DESCRIPTION</b>	<b>2003 BUDGET</b>	<b>2003 EXPENSE</b>
3	<b>CO-1</b> Control Performance Working Group	\$25,000	\$4,750
3	<b>CO-2</b> Dispatcher Training Working Group	\$15,000	\$950
4	<b>CO-7</b> Operational Review Working Group	\$5,000	\$0
4	<b>CO-8</b> System Operations Managers Working Group	\$25,000	\$5,350
5	<b>C-15</b> o Solar Alert Service	\$15,000	\$15,000
5	<b>CO-10</b> Operational Tools Working Group	\$15,000	\$650
6	<b>LESPWG</b> Lake Erie Security Process Working Group	\$15,000	\$0
6	<b>ATCWG</b> Available Transfer Capability Working Group	\$5,000	\$0
7	<b>IRCWG</b> Inter-Control Area Restoration Coordination Working Group	\$10,000	\$2,550
7	<b>CO-2003</b> TFCO Summer 2003 Security Assessment Working Group	\$15,000	\$0
7	<b>CP-8</b> Working Group on Review of Resource and Transmission Adequacy	\$60,000	\$7,548
7	<b>CP-2003</b> o Summer 2003 Probabilistic Assessment	\$65,000	\$30,869
7	<b>CP-TIE</b> o Interconnection Reliability Analysis	\$50,000	\$0
8	<b>CP-9</b> Review of NERC Reliability Standards Working Group	\$20,000	\$11,600
8	<b>CP-10</b> Collaborative Planning Initiative	\$40,000	\$650
9	<b>RPF</b> Regional Planning Forum	\$50,000	\$19,613

**NPCC RELIABILITY ASSESSMENT PROGRAM  
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<b>Page #</b>	<b>PROJECT DESCRIPTION</b>	<b>2003 BUDGET</b>	<b>2003 EXPENSE</b>
9	<b>CP-11</b> <i>NPCC Basic Criteria for Design and Operation of Interconnected Power Systems Review Working Group</i>	\$10,000	\$8,300
9	<b>JGWG</b> Joint Glossary Working Group	\$5,000	\$0
10	<b>SS-37</b> Base Case Development Working Group	\$10,000	\$2,650
10	<b>SS-38</b> Inter-Area Dynamic Analysis Working Group	\$20,000	\$3,850
10	<b>EMT-1</b> Energy Management Technology Workshop Working Group	\$5,000	\$0
11	<b>MEN</b> MAAC-ECAR-NPCC Working Group	\$10,000	\$1,200
11	<b>MMWG</b> Multiregional Modeling Working Group	\$5,000	\$0
11	<b>NERC-ISN</b> Interregional Security Network (ISN)	\$120,000	\$49,616
12	<b>NPCC GAS</b> Multi-Regional Gas Assessment	\$50,000	\$0
	<b>TOTAL</b>	<b>\$665,000<sup>1</sup></b>	<b>\$165,146</b>

<sup>1</sup> At its September 10, 2002 meeting, the Executive Committee approved a recommendation that NPCC's 2003 Regional Budget include \$550,000 in Account #800 "Project Expense."

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO-1	Control Performance Working Group	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.	<b>2003 Budget:</b>	\$25,000
			<b>Expense to Date:</b>	\$4,750
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	The Control Performance Working Group (CO-1) revised drafts of NPCC documents C-9 and C-12 was reviewed and accepted for posting by the TFCO at their May meeting. The Working Group is finalizing procedures for formal testing of an NPCC shared-reserve program.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO-2	Dispatcher Training Working Group	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.	<b>2003 Budget:</b>	\$15,000
			<b>Expense to Date:</b>	\$950
			<b>Next Seminar:</b>	May 2003
PAR	<b>Status/ Comments:</b>	The Dispatcher Training Seminar was held in May 2003. The Working Group has begun its planning for the November 5-6 Seminar, to be held in Halifax, Nova Scotia.		

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO-7	Operation Review Working Group	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.	<b>2003 Budget:</b>	\$5,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	The Working Group assisted CMAS in their review of the New England Control Area in May 2003.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO-8	System Operations Managers Working Group	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.	<b>2003 Budget:</b>	\$25,000
			<b>Expense to Date:</b>	\$5,350
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	The CO-8 Working Group reviewed the exchange of energy transactions in the newly evolving Northeast Market at its May meeting, and developed a commonly accepted definition of emergency energy.		

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<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
C-15	Solar Alert Service	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.	<b>Latest Version:</b>	March 2003
			<b>2003 Budget:</b>	\$15,000
			<b>Expense to Date:</b>	\$15,000
			<b>Frequency of Reviews:</b>	3 Years
			<b>Next Review Date:</b>	March 2006
PAR	<b>Status/ Comments:</b>	The NPCC Area control rooms have implemented the software package incorporating the Solar Terrestrial Dispatch notification/alert process.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO-10	Operational Tools Working Group	The system Operational Tools Working Group (CO-10) is responsible for taking a lead role in the development of NPCC and NERC operational tools (e.g. electronic tagging, the NERC Interchange Distribution Calculator and electronic scheduling), including hardware, software and integrated systems. The System Operational Tools Working Group will define the need for operational tools, evaluate the cost benefits of operational tools, coordinate their implementation within NPCC and coordinate common training in the use of operational tools.	<b>2003 Budget:</b>	\$15,000
			<b>Expense to Date:</b>	\$650
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	CO-10 is reviewing the NERC 2003 Project list to examine the operation applicability of the projects and rank their usefulness for NPCC applications.		

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>LESPWG</b>	Lake Erie Security Process Working Group	The Lake Erie Security Process 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.	<b>2003 Budget:</b>	\$15,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	LESPWG has curtailed activities for the last few months and plans to resume in the fall of 2003.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>ATCWG</b>	Available Transfer Capability Working Group	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.	<b>2003 Budget:</b>	\$5,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003
GVZ	<b>Status/ Comments:</b>	Comments from the Working Group to the NERC ATC Working Group on the treatment of TTC, ATC, TRM and CBM in Standard Market Design were finalized and were issued on October 16, 2002. The Working Group has picked up on past work on the NPCC ATC Methodology and will be revising the draft to finalize the document by the end of the year.		

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
IRCWG	Inter-Control Area Restoration Coordination Working Group	IRCWG addresses the issue of ensuring appropriate operation of key system restoration facilities and their critical components.	<b>2003 Budget:</b>	\$10,000
			<b>Expense to Date:</b>	\$2,550
			<b>Completion Date:</b>	December 2003
PAR	<b>Status/ Comments:</b>	The IRCWG completed the development of the necessary templates to initiative the 2003 trial program for compliance to the restoration provisions of the newly revised NPCCC Document A-03.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CO - 2003	TFCO Summer 2003 Security Assessment Working Group	Review the overall reliability of the generation and transmission system in the NPCC Region for the 2003 Summer.	<b>2003 Budget:</b>	\$15,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	May 2003
PAR	<b>Status/ Comments:</b>	The 2003 Summer Assessment report was completed May 2003.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CP- 8	Working Group on Review of Resource and Transmission Adequacy	Review the overall reliability of the NPCC Areas and perform pre-seasonal resource adequacy assessments.	<b>2003 Budget:</b>	\$60,000
			<b>Expense to Date:</b>	\$7,548
			<b>Completion Date:</b>	December 2003
CP- 2003	<b>Status/ Comments:</b>	Summer 2003 Multi-Area Probabilistic Reliability Assessment was completed in May 2003.		
			<b>2003 Budget:</b>	\$65,000
			<b>Expense to Date:</b>	\$30,869
			<b>Completion Date:</b>	May 2003
CP - TIE	<b>Status/ Comments:</b>	Review of Interconnection Benefits scope and methodology approved at the June 18 <sup>th</sup> TFCP meeting. Study underway.		
PAF			<b>2003 Budget:</b>	\$50,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003



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<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CP-9	Review of NERC Reliability Standards Working Group	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. Review the Standards Authorization Requests and Reliability Standards as well as participate in the NERC process. Educate and inform the membership of developments.	<b>2003 Budget:</b>	\$20,000
			<b>Expense to Date:</b>	\$11,600
			<b>Completion Date:</b>	December 2003
GVZ	<b>Status/ Comments:</b>	CP-9 will focus on the review of NERC Planning Standards and new NERC Reliability Standards (as they are developed) and is developing recommendations for the membership on ballots as they transpire.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CP-10	Collaborative Planning Initiative	The CP10 Working Group is tasked with determination of the effects of proposed new generation and transmission in the year 2006. The group will initially be studying the effects the additions have on existing bottlenecks as well as any new ones. The study will then focus on various scenarios as defined by working group members to determine the impacts on those bottlenecks identified. Possible future study this group will undertake could involve proposing solutions to the problem bottlenecks.	<b>2003 Budget:</b>	\$40,000
			<b>Expense to Date:</b>	\$650
			<b>Completion Date:</b>	December 2003
GVZ	<b>Status/ Comments:</b>	Phase 1 of the study was approved by the RCC in March identifying approximately 50 transmission bottlenecks for a 2006 study year. Phase 2 of the study is currently underway which will prioritize those bottlenecks found in Phase 1 and is scheduled to be completed by August 2003.		

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
RPF	Regional Planning Forum	The objective of the RPF is to explore innovative approaches to enhancing the capabilities of the transmission grid from a Wide-Area, trans-regional outlook.	<b>2003 Budget</b>	\$50,000
			<b>Expense to Date:</b>	\$19,613
			<b>Completion Date:</b>	December 2003

PAF      **Status/ Comments:**    A status report summarizing preliminary results to date was given at the June EC meeting, and has been posted on the NPCC web site.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
CP-11	<i>NPCC Basic Criteria For Design and Operation Of Interconnected Power Systems Review Working Group</i>	This Working Group is charged with the revision of the NPCC Basic Design Criteria Document A-02 and the NPCC Glossary of Terms Document A-07. The review is currently underway and scheduled for submittal to the RCC for approval at their November 2003 meeting.	<b>2003 Budget</b>	\$10,000
			<b>Expense to Date:</b>	\$8,300
			<b>Completion Date:</b>	December 2003

SEK      **Status/ Comments:**    The revised A-2 criteria was posted for the first time and comments considered. The document is currently posted for a second open comment period through March 10, 2003. An update will be provided to the RCC at their July meeting.

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
JGWW	Joint Glossary Working Group	Maintain the NPCC Glossary of Terms (Document A-7) and to expand the Glossary to include new terms as necessary.	<b>2003 Budget:</b>	\$5,000
			<b>Expense to Date:</b>	\$0
			<b>Next Review Date:</b>	December 2003

GVZ      **Status/ Comments:**    The CP-11 Working Group is currently reviewing the need to revise this document in 2003.

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<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>SS-37</b>	Base Case Development Working Group	On an annual basis, develop a library of solved load flow cases and associated dynamic data.	<b>2003 Budget:</b>	\$10,000
			<b>Expense to Date:</b>	\$2,650
			<b>Completion Date:</b>	December 2003
DJK	<b>Status/ Comments:</b>	Year 2003 Base Case Development effort is underway and scheduled for completion by the end of the year.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>SS-38</b>	Inter-Area Dynamic Analysis Working Group	Assigned to analyze dynamic phenomena, which may affect interconnected system reliability, especially in the area of low frequency oscillations.	<b>2003 Budget:</b>	\$20,000
			<b>Expense to Date:</b>	\$3,850
			<b>Completion Date:</b>	December 2003
DJK	<b>Status/ Comments:</b>	A final UFLS report was completed and was presented to the RCC in March 2003. The implementation of the recommendations from the report will be coordinated by the TFCP; a status report will be given at the July RCC meeting.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>EMT-1</b>	Energy Management Technology Workshop Working Group	Periodic workshops to address timely issues and update member system personnel associated with the provision of on-line computer systems for operation of the power system.	<b>2003 Budget:</b>	\$5,000
			<b>Expense to Date:</b>	\$0
			<b>Last Workshop:</b>	May 16, 2002
FR	<b>Status/ Comments:</b>	The TFIST is currently reviewing the need for a workshop this year.		

## NPCC RELIABILITY ASSESSMENT PROGRAM SUMMARY REPORT

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>MEN</b>	MAAC-ECAR-NPCC Working Group	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.	<b>2003 Budget:</b>	\$10,000
			<b>Expense to Date:</b>	\$1,200
			<b>Completion Date:</b>	December 2003
DJK	<b>Status/ Comments:</b>	The Working Group completed the MEN 2003 Summer Study and Report in April 2003. The Working Group is currently working on the MEN 03/04 Winter Study and Report, anticipated to be completed by the end of October 2003.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>MMWG</b>	Multiregional Modeling Working Group	Develop a library of solved load flow and dynamic simulation models for use by the Regions and their member systems in planning and evaluating future systems and current operating conditions.	<b>2003 Budget:</b>	\$5,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003
DJK	<b>Status/ Comments:</b>	The MMWG was directed to review and update the existing data release policies for power flow and dynamic data and models. In 2003, MMWG will assemble twelve load flow models that constitute the 2004 base case library and five dynamics library cases. The NPCC SS-37 Working Group on Base Case Development is currently on schedule.		

<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>NERC-ISN</b>	Interregional Security Network (ISN)	The ISN allows for the exchange of security data between Security Coordination Centers.	<b>2003 Budget:</b>	\$120,000
			<b>Expense to Date:</b>	\$49,616
			<b>Completion Date:</b>	December 2003
FR	<b>Status/ Comments:</b>	Expense represents monthly NERC network charge to provide ISN services for ISO New England, the New York ISO, the IMO and TransEnergie.		

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<b>Item</b>	<b>Name</b>	<b>Assignment</b>		
<b>NPCC-GAS</b>	Multi-Regional Gas Assessment	Multi-Regional Assessment of the Adequacy of the Northeast Natural Gas Infrastructure to serve the Electric Power Generating Sector.	<b>2003 Budget:</b>	\$50,000
			<b>Expense to Date:</b>	\$0
			<b>Completion Date:</b>	December 2003
PAF	<b>Status/ Comments:</b>	This project is managed by the IMO with direction from a Steering Committee of Study Participants. NPCC share of the study cost will be billed once the appropriate confidentiality agreements are executed. Phase I report expected in late June. Phase II contingency analysis expected to be completed by the end of the year.		