

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Please use this form to submit comments on the proposed SAR for Project 2007-17 — Protection System Maintenance and Testing. Comments must be submitted by **July 10, 2007**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Protection Maintenance" in the subject line. If you have questions please contact Al Calafiore at al.calafiore@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Thad K. Ness	
Organization:	American Electric Power (AEP)	
Telephone:	614-716-2053	
E-mail:	tkness@aep.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input checked="" type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input checked="" type="checkbox"/> RFC	<input checked="" type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input checked="" type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input checked="" type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

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Maintenance and Testing**

Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

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Background Information

This SAR proposes to merge the requirements from the following standards into a single standard to reduce the costs of compliance while also improving efficiencies:

- PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing
- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
- PRC-011-0 — UVLS System Maintenance and Testing
- PRC-017-0 — Special Protection System Maintenance and Testing

The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

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You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments: AEP has not had an event, due to deficiencies in protection maintenance, in it's long existence that jeopardized the reliability or availability of Bulk Power transfers. Simply combining multiple standards into one, does nothing for improving reliability.

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: On the surface, the premise of reducing costs and improving efficiencies by combining multiple standards sounds excellent. Having to only keep up with one standard instead of four will not generate significant savings due to the fact that the maintenance will still have to be performed. But what lies hidden, is the fact that prescribed maximum allowable maintenance intervals will result from the revisions. They may require more frequent testing to be performed. Is there evidence that increasing the interval frequency results in a measurable increase in reliability and availability? Development of prescribed maximum intervals that are vastly different than the utility's existing practices may actual increase their O&M costs and reduce efficiencies.

The function of the protective system needs to be taken into account. The purpose of the line protection is very different than the purpose of UFLS/UVLS and SPS's. The UFLS program is there as the last line of defense against a decaying system after all other measures have failed. The combination of all the different relaying systems places them on equal ground. Shouldn't the reliability and dependability for one be more important than the others?

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

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Regional Variance: None
Comments: None

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: Possibly

Comments: AEP and other utilities, with many years of experience serving customers and supporting the electric grid, have voluntarily integrated maintenance and testing programs into the core of their work practices and processes. AEP fully supports improvements if they truly foster reliability and availability benefits to bulk power transfers. More Standards, Requirements and Business Practices are not always better. If Standards create burdens on a utility's physical resources and budgets, then some mechanism must be available to allow for the needed changes.

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: The standard should not use the term Bulk Electric System, but should instead specify a voltage threshold for impacts to bulk system transfers - specifically; 'Facilities operated 200 kV and above and Regionally-defined, Operationally Significant facilities operated greater than 100 kv, but less than 199 kV'. The term 'affects' also needs to be clarified. Inclusion of all facilities greater than 100 kV does not benefit the reliability of national bulk power transfers. For example, the loss or misoperation of a 138 kV line serving a localized load center would not be detrimental to bulk power transfers multiple busses away.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Dean Bender	
Organization:	Bonneville Power Administration	
Telephone:	(360) 418-2040	
E-mail:	dabender@bpa.gov	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

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The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

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You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments: No known regional variance

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: In the "Detailed Description" section of the SAR, it states:

"Part of the stated purpose in PRC-017 is: "To ensure that maintenance and testing programs are developed and misoperations are analyzed and corrected." The phrase "and misoperations are analyzed and corrected" is not clearly appropriate in a

maintenance and testing standard. That is the purpose is more appropriate in PRC-003

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and PRC-004, which relate to the analysis and mitigation of protection system misoperations. Analysis of correct operations or misoperations may be an integral part of condition-based maintenance processes, but need not be mandated in a maintenance standard."

The analysis of SPS misoperations is handled in PRC-016 (SPS Misoperations) and PRC 012 (SPS review Procedure) not in PRC-003 or PRC-004. Therefore, if the phrase is removed from PRC-017, it does not need to be added to PRC-003 or PRC-004.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Nancy C. Denton	
Organization:	Consumers Energy Company	
Telephone:	517-788-1310	
E-mail:	ncdenton@cmsenergy.com	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
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1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: N/A

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: N/A

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: None.

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Greg Rowland	
Organization:	Duke Energy	
Telephone:	704-382-5348	
E-mail:	gdrowlan@duke-energy.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

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Additional Member Name	Additional Member Organization	Region*	Segment*

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Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: Combining PRC-005, 008, 011 and 017 into one new standard does not seem to be the best approach. Duke Energy does not have UVLS systems or Special Protection Systems. Furthermore, Duke Energy's Underfrequency Load Shedding system is on the transmission system in the Carolinas, but on the distribution system in the Midwest. Combining these standards would likely create confusion and compliance issues for us and others as well. Also, combining the standards is unlikely to result in simplification, as different requirements associated with the different protection systems could have different Violation Risk Factors and levels of non-compliance, which would necessitate keeping them separate in the combined standard, which would defeat the purpose of combining them in the first place.

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

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Comments:

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Comments:

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Doug Hohlbaugh	
Organization:	FirstEnergy	
Telephone:	330-384-4698	
E-mail:	hohlbaughdg@firstenergycorp.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
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Group Comments (Complete this page if comments are from a group.)

Group Name: FirstEnergy Corp
Lead Contact: Doug Hohlbaugh
Contact Organization:
Contact Segment:
Contact Telephone: 330-384-4698
Contact E-mail: hohlbaughdg@firstenergycorp.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Craig Boyle	FE, Transmission Substation Maintenance	RFC	1
Ken Dresner	FE, Fossil Generation	RFC	5
Bill Duge	FE, Nuclear Generation	RFC	5
Dave Powell	FE, Transmission Planning & Protection	RFC	1
Jeff Mackauer	FE, Transmission Planning & Protection	RFC	1

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1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: Bullet #5 of the "Detailed Description" on page SAR-2 indicates the following:

"Applicable to all four standards — The requirements of the existing standards, as stated, support time-based maintenance and testing, and should be expanded to include condition-based and performance-based maintenance and testing. The requirements for maintenance and testing procedures need to have more specificity to insure that the stated intent of the standards is met to support review by the compliance monitor."

FE supports the scope of the SAR to consider adding the ability for condition-based and performance based testing, as suggested by the System Protection and Control Task Force. Additionally, the SDT should consider the need to perform some level of preventative maintenance on a periodic basis at an established maximum interval length, that would vary per the equipment being maintained. The interval established would be based on established guidelines from vendors, EPRI, industry experts, etc.

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments: The inclusion of the Distribution Provider is generally needed for UFLS and UVLS relays. The confusion that previously existed in PRC-005 by including the DP entity should be mitigated by the proposed consolidation of the four maintenance standards.

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

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Regional Variance:

Comments: Not aware of any.

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments: Not aware of any

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: None.

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Group Comments (Complete this page if comments are from a group.)

Group Name: FRCC
Lead Contact: Eric Senkowicz
Contact Organization: FRCC
Contact Segment: 10
Contact Telephone: 813-207-7980
Contact E-mail: esenkowicz@frcc.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Alan Gale	City of Tallahassee	FRCC	5

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1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments: Centralizing System Protection equipment maintenance and testing requirements in a single standard will add clarity, minimize synchronization issues across standards, help provide consistent terminology and improve understanding of system protection standards.

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: Use of subject matter experts (NERC SPCTF) along with the NERC Planning Committee review of the assessment is an effective and efficient way to supplement project SARs and provides critical input at the front-end of the standards process.

Attachment A is described as the SPCTF assessment, but attachment A to the SAR is the SPCTF roster. The assessment referenced in the scope of the SAR should include "Draft 1.0" if the full assessment is not included as part of the SAR.

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments: This question may be better addressed as the standards are integrated.

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: There are many standards being addressed (Disturbance Monitoring, System Protection Coordination, Reliability Coordination, along with Regional standard developments). As these standards are integrated into PRC-005, the existing and new terminology should be consistently applied in all system protection standards (with respect to defined terms). Where terms are undefined or being revised, the drafting team should carefully consider the terms used to ensure coordination of revised or new definitions with other Reliability standards or flag conflicts within the implementation plan.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Roger Champagne	
Organization:	Hydro-Québec TransÉnergie	
Telephone:	514 289-2211, X 2766	
E-mail:	champagne.roger.2@hydro.qc.ca	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

Group Comments (Complete this page if comments are from a group.)

Group Name:
Lead Contact:
Contact Organization:
Contact Segment:
Contact Telephone:
Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

This SAR proposes to merge the requirements from the following standards into a single standard to reduce the costs of compliance while also improving efficiencies:

- PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing
- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
- PRC-011-0 — UVLS System Maintenance and Testing
- PRC-017-0 — Special Protection System Maintenance and Testing

The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments: Each requirement needs to specifically address what protection systems need to comply with the standard - i.e. a generator not connected to the BPS with under frequency trip relay should only be subject to under frequency relay maintenance requirements

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: None

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments: none that we know of

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: Due consideration should be given to potential difficulties in obtaining required outages. System reliability concerns may preclude performing maintenance at

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

the intervals required. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided, with "appropriate" approvals, for delays in the testing process.

There is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that would be subject to this Standard – i.e., what subset of GPS are critical to bulk power system operation, as distinct from generator operation. For example, typically there is no single generating unit that would, if a contingency event occurs on that generating unit, result in significant adverse impacts outside of the local area in which the single generating unit is located. As a result, if these NERC Standards are to apply to all NERC-registered Generators, only a subset of the GPS need to be subjected to the maintenance testing intervals.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Ron Falsetti	
Organization:	IESO	
Telephone:	905-855-6187	
E-mail:	ron.falsetti@ieso.ca	
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input checked="" type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

- Group Name:**
Lead Contact:
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Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

*If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

This SAR proposes to merge the requirements from the following standards into a single standard to reduce the costs of compliance while also improving efficiencies:

- PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing
- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
- PRC-011-0 — UVLS System Maintenance and Testing
- PRC-017-0 — Special Protection System Maintenance and Testing

The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments:

1. The IESO commends NERC, the SDT and the SPCTF for providing clarity and for efforts to reduce the costs of compliance.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

2 In the Standard PRC-008-0, Generation Owners were not included in the applicable entities. Generation Owners may have underfrequency tripping devices for protection of their units. Hence, it would be appropriate to include these devices for maintenance and testing requirements also.

3. There is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that are critical to bulk power system operation, as distinct from generator operation. For example, a single generating unit may experience contingency events that would not result in any significant adverse impacts outside the local area in which the single generating unit is located. As a result, there remains a need to subject those GPSs that are important to the Bulk Power System, such as generator underfrequency trip settings, to the maintenance testing intervals to be derived in these standards.

4. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided for delays in the testing process.

5. However, the SAR team needs to also consider, as part of its scope, assurance that the asset owner has taken all appropriate steps to ensure that required outages are appropriately planned, can be reasonably accommodated, and approved by the TOP or RC.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Tony Clark	
Organization:	Manitoba Hydro	
Telephone:	204-487-5478	
E-mail:	tclark@hydro.mb.ca	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input checked="" type="checkbox"/> MRO	<input checked="" type="checkbox"/>	3 — Load-serving Entities
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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments: There is a need to better define and explain the terms "maintenance" and "testing" as they relate to this standard. Also a tighter definition as to which systems are considered to affect the BES is required. The need to improve the standard is driven by the administration of the standard rather than reliability.

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: We disagree that there is a need to change the standard to include more specificity for maintenance and test procedures. We also disagree with mandating minimum maintenance intervals for protection system equipment.

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

Comments: Manitoba Hydro takes exception to the prescriptive nature of the proposed changes to the maintenance procedures and maintenance intervals. The type of maintenance performed and the minimum maintenance intervals should be determined by the utility within the operating context of the protection system. There is no need for the standard to reflect the inherent difference between various protection system technologies as the utility would account for differences within their stated maintenance practices.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
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	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

Group Name: Midwest Reliability Organization (MRO)

Lead Contact: Joe Knight

Contact Organization: MRO for Group (GRE - for lead contact)

Contact Segment: 10

Contact Telephone: 763.241.5633

Contact E-mail: jknight@greenergy.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Neal Balu	WPS	MRO	10
Terry Bilke	MISO	MRO	10
Robert Coish, Chair	MHEB	MRO	10
Carol Gerou	MP	MRO	10
Ken Goldsmith	ALT	MRO	10
Jim Haigh	WAPA	MRO	10
Tom Mielnik	MEC	MRO	10
Pam Oreschnick	XEL	MRO	10
Dave Rudolph	BEPC	MRO	10
Eric Ruskamp	LES	MRO	10
Mike Brytowski, Secretary	MRO	MRO	10
28 Additional Members	Not Named Above	MRO	10

*If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

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- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
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- PRC-017-0 — Special Protection System Maintenance and Testing

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Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments: FERC Order 693 in both paragraph 1466 and in footnote 384, indicates that in some areas of the country, Load Serving Entities (LSE) and Transmission Operators (TOP) may individually or jointly own and operate a protection system. Thus, these additional entities should be subject to the resulting consolidated standard. The MRO believes that the following caveat should be added to the LSE where it is listed as an Applicable Entity, (where operation of the protection system can affect the Bulk Electric System).

2. The MRO requests that the SDT review whether or not the Reliability Coordinator (RC) should be added to the list of Applicable Entities given their wide area view-for example, the RC may need to be involved in determining which protection systems below 100kV will affect the BES.

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: None

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: None

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments:

1. The MRO commends NERC and the SDT for taking steps to remove some of the redundancy that currently exists among many of the standards today. The consolidation of the protection system maintenance and testing standards is a good first step.
2. The MRO requests that the following be considered during the initial drafting of the Requirements for this new protection and maintenance standard. A minimum set of evidence to be included in a maintenance and testing program should be established in the measures for R1.2.
3. In the SPCTF Assessment of PRC-005-1, PRC-008-0, PRC-011-0, and PRC-017-0, the clarification for R2 states that documentation is available to its Regional Reliability Organization and NERC during audits or upon request within 30 days but paragraph 1545 of FERC Order 693 states "be routinely provided to the ERO or Regional Entity and not only when it is requested." The MRO believes that the FERC request would be satisfied if the standard were to state: "the applicable entities shall provide testing records to the Regional Entity on a periodic basis e.g. (annually).
4. In the event that the SAR DT does not become the SDT, the MRO requests that these comments be forwarded on to the group that will do the actual drafting of the Standard.

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Organization:		
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E-mail:		
NERC Region		Registered Ballot Body Segment
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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

Group Name: NPCC, CP9 Reliability Standards Working Group

Lead Contact: Guy V. Zito

Contact Organization: Northeast Power Coordinating Council

Contact Segment: 10

Contact Telephone: 212-840-1070

Contact E-mail: gzito@npcc.org

Additional Member Name	Additional Member Organization	Region*	Segment*
Ralph Rufrano	New York Power Authority	NPCC	1
Kathleen Goodman	ISO-New England	NPCC	2
Greg Campoli	New York ISO	NPCC	2
Donald Nelson	MADPU	NPCC	9
David Kiguel	Hydro One Networks	NPCC	1
Ron Falsetti	The IESO	NPCC	2
Roger Champagne	TransEnergie HydroQuebec	NPCC	1
Murale Gopinathan	Northeast Utilities	NPCC	1
Michael Gildea	Constellation Energy	NPCC	6
Glen McCartney	Constellation Energy	NPCC	6
Al Adamson	New York State Reliability Council	NPCC	10
Michael Shiavone	National Grid US	NPCC	1
Guy V. Zito	NPCC	NPCC	10
Bill Shemley	ISO-New England	NPCC	2

* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments: Each requirement needs to specifically address what protection systems need to comply with the standard - i.e. a generator not connected to the BPS with under frequency trip relay should only be subject to under frequency relay maintenance requirements

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: None

Comments: Certain unavoidable delays like the inability to schedule outages for reliability reasons or labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude, with the "appropriate approvals", needs to be provided for delays in the testing process.

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments: none that we know of

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: Due consideration should be given to potential difficulties in obtaining required outages. System reliability concerns may preclude performing maintenance at the intervals required. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided, with "appropriate" approvals, for delays in the testing process.

There is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that would be subject to this Standard – i.e., what subset of GPS are critical to bulk power system operation, as distinct from generator operation. For example, typically there is no single generating unit that would, if a contingency event occurs on that generating unit, result in significant adverse impacts outside of the local area in which the single generating unit is located. As a result, if these NERC Standards are to apply to all NERC-registered Generators, only a subset of the GPS need to be subjected to the maintenance testing intervals.

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<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

Group Name: Pepco Holdings, Inc. - Affiliates

Lead Contact: Richard Kafka

Contact Organization: Pepco Holdings, Inc.

Contact Segment: 1

Contact Telephone: 301-469-5274

Contact E-mail: rjkafka@pepcoholdings.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Carl Kinsley	Delmarva Power & Light	RFC	1
Alvin Depew	Potomac Electric Power Company	RFC	1
Evan Sage	Potomac Electric Power Company	RFC	1

* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

This SAR proposes to merge the requirements from the following standards into a single standard to reduce the costs of compliance while also improving efficiencies:

- PRC-005-1 — Transmission and Generation Protection System Maintenance and Testing
- PRC-008-0 — Underfrequency Load Shedding Equipment Maintenance Programs
- PRC-011-0 — UVLS System Maintenance and Testing
- PRC-017-0 — Special Protection System Maintenance and Testing

The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: This SAR will bring needed coherence to what are now several related standards.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Please use this form to submit comments on the proposed SAR for Project 2007-17 — Protection System Maintenance and Testing. Comments must be submitted by **July 10, 2007**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Protection Maintenance" in the subject line. If you have questions please contact Al Calafiore at al.calafiore@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

Group Name: Public Service Commission of South Carolina
Lead Contact: Phil Riley
Contact Organization: Public Service Commission of South Carolina
Contact Segment: 9
Contact Telephone: 803-896-5154
Contact E-mail: philip.riley@psc.sc.gov

Additional Member Name	Additional Member Organization	Region*	Segment*
Mignon L. Clyburn	Public Service Commission of SC	SERC	9
Elizabeth B. "Lib" Fleming	Public Service Commission of SC	SERC	9
G. O'Neal Hamilton	Public Service Commission of SC	SERC	9
John E. "Butch" Howard	Public Service Commission of SC	SERC	9
Randy Mitchell	Public Service Commission of SC	SERC	9
C. Robert "Bob" Moseley	Public Service Commission of SC	SERC	9
David A. Wright	Public Service Commission of SC	SERC	9

* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

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Comments:

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Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments: N/A

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments: N/A

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: N/A

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:	Mike Gentry	
Organization:	Salt River Project	
Telephone:	602-236-6408	
E-mail:	Mike.Gentry@srpnet.com	
NERC Region		Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input checked="" type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
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**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: None.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Please use this form to submit comments on the proposed SAR for Project 2007-17 — Protection System Maintenance and Testing. Comments must be submitted by **July 10, 2007**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Protection Maintenance" in the subject line. If you have questions please contact Al Calafiore at al.calafiore@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
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<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
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	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Group Comments (Complete this page if comments are from a group.)

Group Name: SERC EC Protection & Control Subcommittee (PCS)

Lead Contact: Jay Farrington

Contact Organization: Alabama Electric Cooperative, Inc.

Contact Segment: 1

Contact Telephone: (334) 427-3225

Contact E-mail: jay.farrington@powersouth.com

Additional Member Name	Additional Member Organization	Region*	Segment*
Robert Rauschenbach	Ameren	SERC	1
Charlie Fink	Entergy	SERC	1
Jammie Lee	Entergy	SERC	1
Tom Seeley	E.ON-U.S.	SERC	1
Steve Waldrep	Georgia Power Company	SERC	1
Hong-Ming Shuh	Georgia Transmission Corporation	SERC	1
Neal Jones	Georgia Transmission Corporation	SERC	1
Jerry Blackley	Progress Energy Carolinas	SERC	1
Pat Huntley	SERC Reliability Corp.	SERC	10
Marion Frick	South Carolina Electric & Gas Co.	SERC	1
Bridget Coffman	South Carolina Public Service Authority	SERC	1
George Pitts	Tennessee Valley Authority	SERC	1
Meyer Kao	Tennessee Valley Authority	SERC	1
Phil Winston	Georgia Power Company	SERC	1
Ernesto Paon	Municipal Electric Authority of Georgia	SERC	1

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

*If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

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The SAR also proposes to address the FERC directives in Order 693 and to address a number of technical short comings identified by stakeholders and the System Protection and Control Task Force and to bring the standard into conformance with the "Standard Review Guidelines." The goal is to provide a set of requirements that will support reliable performance when responding to abnormal system conditions.

Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments: Consolidation of the maintenance and testing standards is appropriate. Separate definitions for maintenance and testing are needed.

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: none

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: none

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: The SERC EC PCS supports the work of the NERC SPCTF in their assessments of these standards.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Please use this form to submit comments on the proposed SAR for Project 2007-17 — Protection System Maintenance and Testing. Comments must be submitted by **July 10, 2007**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Protection Maintenance" in the subject line. If you have questions please contact Al Calafiore at al.calafiore@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
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E-mail:		
NERC Region		Registered Ballot Body Segment
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<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
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Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

Background Information

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Please review the SAR and then answer the questions on the following page. Please e-mail your comments on this form to sarcomm@nerc.net with the subject "Protection Maintenance SAR" by **July 10, 2007**.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice:

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: In the SAR you state "The revised PRC-005 standard should address the issues raised in the FERC Order 693". With the exception of mentioning the consolidation of the standards into one standard, the SAR drafting team didn't provide readers with the exact language from FERC that would be useful to know with respect to PRC-005 in the directive below:

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

The Commission directs the ERO to develop a modification to PRC-005-1 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System. We further direct the ERO to consider FirstEnergy's and ISO-NE's suggestion to combine PRC-005-1, PRC-008-0, PRC-011-0 and PRC-017-0 into a single Reliability Standard through the Reliability Standards development process.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

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NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments:

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments:

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance:

Comments:

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: none

Comments:

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments:

1. The SRC commends NERC, the SDT and the SPCTF for providing clarity and for efforts to reduce the costs of compliance.

Comment Form — First Draft of SAR for Project 2007-17 — Protection System Maintenance and Testing

2 In the Standard PRC-008-0, Generation Owners were not included in the applicable entities. Generation Owners may have underfrequency tripping devices for protection of their units. It would be appropriate to include these devices for maintenance and testing requirements also.

3. Further, there is need to specify which types of relays will be covered by the new standard. The SAR Team needs to focus on better defining the Generator Protection Schemes ("GPS") that are critical to bulk power system operation, as distinct from generator operation. For example, a single generating unit may experience contingency events that would not result in any significant adverse impacts outside the local area in which the single generating unit is located. As a result, there remains a need to subject those GPSs that are important to the Bulk Power System, such as generator underfrequency trip settings, to the maintenance testing intervals to be derived in these standards.

4. Certain unavoidable delays like the inability to schedule outages for reliability reasons, labor disputes, or force-majeure conditions could affect testing period requirements. These factors should be considered and certain latitude needs to be provided for delays in the testing process.

5. However, the SAR team needs to also consider, as part of its scope, assurance that the asset owner has taken all appropriate steps to assure that required outages are appropriately planned and can be reasonably accommodated and approved by the TOP or RC.

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Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. Do you agree that there is a reliability-related need to improve the requirements in this set of standards?

Yes

No

Comments: This SAR proposes to revise several standards to eliminate ambiguities and to provide requirements that are measurable. In addition, the SPCTF report "Assessment of PRC-005-1 – Transmission and Generation Protection System Maintenance and Testing; with implications for PRC-008-0, PRC-011-0, and PRC-017-0" indicates the need to differentiate between the different technologies used and insure the standard applies to all in the appropriate way (i.e. electromechanicals, microprocessor-based, solid-state). Southwest Transmission Cooperative, Inc. also recognizes this deficit in the existing standards.

2. Do you agree with the proposed scope of this SAR?

Yes

No

Comments: Since most protection schemes are maintained and tested in a similar manner regardless of scheme type, we agree that combining the (4) PRC standards related to maintenance and testing of different types of systems into one standard will create a that is more streamlined and less burdensome standard with easily understood measurable compliance elements.

The most exciting part of the proposed modifications is the inclusion of condition-based and performance-based maintenance and testing and not just time-based criteria. Presently Southwest Transmission Cooperative, Inc. uses this type of maintenance and testing criteria (maintenance data server) which is the current system protection industry technology.

3. Do you agree with the applicability of the proposed SAR (Transmission Owners, Generator Owners and Distribution Providers - Distribution Providers may own the devices that must be tested and maintained)?

Yes

No

Comments:

4. If you know of a Regional Variance that should be developed as part of this SAR, please identify that for us. If not, please explain in the comment area.

Regional Variance: N/A

**Comment Form — First Draft of SAR for Project 2007-17 — Protection System
Maintenance and Testing**

Comments: Not aware of any Regional Variance requirements

5. If you are aware of a Business Practice that needs to be developed to support the proposed SAR, please identify that for us.

Business Practice: N/A

Comments: Not aware of any Business Practice needs

6. If you have any other comments on this SAR that you haven't provided above, please provide them here.

Comments: N/A