Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Charles W. Rogers	
Organization:	Consumers Energy Company	
Telephone:	517-788-0027	
E-mail:	cwrogers@cmsenergy.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☒ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☒	3 — Load-serving Entities
	☒	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. Do you agree there is a reliability need for a standard addressing relay loadability?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: As noted in the SAR, this is an area which has contributed significantly to all major blackouts in North America. Additionally, actions directed by the NERC Planning Committee have resulted in much work on the part of the industry to resolve the problems. It's imperative that the work that has been accomplished is codified and captured within Reliability Standards.

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: The draft SAR seems well prepared, and seems to accurately capture the scope of the work done thus far within the industry.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: All listed entities have a role in addressing the problems. It's only unfortunate that there isn't an entity within the Functional Model which is specifically and completely responsible for all facets of protective systems.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments: This is wholly a technical issue related to the reliability of the electrical system. There is, of course, a cost issue related to continued compliance, but this isn't a commercial issue.

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☒ Yes

☐ No

Comments: Only to the extent that generator FAULT PROTECTIVE relays provide some degree of remote backup protection for transmission-voltage-level faults, and respond in such a way as to limit loading on the generator, generator step up transformer, or connection of the generator step up transformer to the transmission system. The applicability is well described in clause R1.2.5 of the posted Working Paper, and well limited by clause 4.3 of the Working Paper. This area of generator protection probably ultimately needs to be comprehensively addressed, but to do so would be premature based on the knowledge base within NERC and within the industry. Many other factors will probably also need to be considered to move forward to an increased degree on consideration of generator protection

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments: The clauses within the Working Paper seem to represent the major system issues endemic on all North American systems.

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: It's a superbly prepared SAR, and should go forward as is. Additionally, the Working Paper seems to represent an excellent first draft for the standard, and the process would probably be best served if the Standard Drafting Team, upon formation, would post the Working Paper as Draft 1 of the standard.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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

Group Name: Pepco Holdings, Inc. - Affiliates

Lead Contact: **Richard Kafka**

Contact Organization: **Potomac Electric Power Co**

Contact Segment: **1**

Contact Telephone: **301-469-5274**

Contact E-mail: **rjkafka@pepcoholdings.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
Evan Sage	Potomac Electric Power Co	RFC	1
Alvin Depew	Potomac Electric Power Co	RFC	1
Carl Kinsley	Delmarva Power and Light	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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: The SAR properly excludes generation protection systems. We acknowledge that the SAR should (and does) include transmission protection systems located (and possibly owned) by the Generation Owner

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☒ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☒	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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

Group Name: CP9, Reliability Standards Working Group

Lead Contact: **Guy Zito**

Contact Organization: **Northeast Power Coordinating Council (NPCC)**

Contact Segment: **2**

Contact Telephone: **212-840-1070**

Contact E-mail: **gzito@npcc.org**

Additional Member Name	Additional Member Organization	Region*	Segment*
Kathleen Goodman	ISO-New England	NPCC	2
Michael Shiavone	National Grid	NPCC	1
Roger Champagne	TransEnergie (Quebec)	NPCC	1
David Kiguel	Hydro One Network	NPCC	1
Ron Falsetti	IESO (Ontario)	NPCC	2
Edwin Thompson	ConEdison	NPCC	1
Donald Nelson	MA Dept of Energy and Tele.	NPCC	
Sashi Parekh	MA Dept of Energy and Tele.	NPCC	
George Dunn	New York Power Authority	NPCC	1
Brian Hogue	Northeast Power Coor. Council	NPCC	2
Alan Adamson	New York State Rel. Council	NPCC	2
Guy Zito	Northeast Power Coor. Council	NPCC	2
Greg Campoli	New York ISO	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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: NPCC reserves the right as stated in the SAR that determining what circuits are classified as Operationally Significant Circuits is the Region's responsibility. NPCC participating members are not in agreement with the definition as it appears in the "working paper".

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: While we agree with the applicable of the standard we also recognize that the equipment owners have concerns regarding the emergency loadibility of their equipment and the standard should recognize the ability for exceptions.

The TPSO definition in the whitepaper should be included in the SAR.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: Although NPCC's participating members believe that for the purposes of this SAR the relays assocciated with generators should not be included in the scope, it is important that the issue of coordination between generator and transmission system protection be addressed elsewhere in the NERC standards.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments: The SAR and subsequent standard should emphasize that the loadibility should apply only during emergency situations and not as a matter of normal system operations.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Ed Davis	
Organization:	Entergy Services	
Telephone:	601-339-2614	
E-mail:	edavis@entergy.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☒ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☒	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments:

The proposed criteria for determining Operationally Signficant Circuits should be more clear and concise. As written, misinterpretation is probable.

1. Does the term "Flowgates" refer to those facilities in the NERC Book of Flowgates? If so, please so state. If not, what is the definition of "Flowgates" as a proper term?

2. The phrase "All circuits that are elements of system operating limits" means what. Every transmission line has a rating that, when exceeded, constitutes a system operating limit. This seems to leave the door open to saying that every possible combination of outaged and monitor elements could be considered operationally signficant. It would be more practical to state that " All circuits that are elements of a reported SOL violation or IROL violation including both the monitored and outage elements"

3. With respect to the offsite power supply to nuclear plants, what is the criteria for "adverse impact"? If outage of a particular circuit drops the voltage at the offsite power bus for a nuclear plant from 1.02 per unit to 1.00 per unit, does this constitute an adverse impact? Hopefully not. Such would be impractical. A recommended alternative is "Any circuit, when outaged, that causes the voltage at the off-site power bus at a nuclear bus to exceed established operating limits".

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. **Should the scope of the proposed SAR include relays associated with generators?**

   Please explain in the comment area.

   ☐ Yes

   ☐ No

   Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments:

The draft standard will apply to transmission lines operated 200 kV and above. This assumes that all of these circuits are operationally significant and that may not be the case. The operationally significant criteria should be applied to all lines 100 kV and above.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Kathleen Goodman	
Organization:	ISO New England, Inc.	
Telephone:	(413) 535-4111	
E-mail:	kgoodman@iso-ne.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☒ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☒	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: ISO-NE believes that is it the Regions responsibility to determine what circuits are classified as "Operationally Significant Circuits."

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: This should be a future consideration for a staged implementation.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☒ Yes

☐ No

Comments: ISO-NE believes that because there are no uniform standards for rating facilities, such as conductors, transformers, etc. that have been accepted nationwide, it will be difficult to have all responsible entities comply with this Standard. The ISO believes that each Region must and should determine it's own standards for rating facilities, espeically if it pertains to determining which circuits are "operationally significant."

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: We feel that the definitions of TPSO and voltage classifications as noted on page SAR-6, should be included as part of the Standard. Furthermore, the Standard definitions should align with the working paper definitions.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Alan Gale	
Organization:	City of Tallahassee (TAL)	
Telephone:	(850) 891-3025	
E-mail:	galea@talgov.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☒ **FRCC**	☐	2 — RTOs, ISOs, Regional Reliability Councils
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
☐ **RFC**	☒	5 — Electric Generators
☐ **SERC**	☐	6 — Electricity Brokers, Aggregators, and Marketers
☐ **SPP**	☐	7 — Large Electricity End Users
☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: See comments in 2 below.

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: The scope of the SAR as written is too much. The recommendations sited in the Blackout Reports recommended checking Zone 3 loadability only. The SAR also states that "It is imperative to the continued reliability of the North American power system that the problems of relay loadability remain corrected and that the technical solutions are properly codified in the NERC reliability standards." So from the SAR drafters own point of view, the problem has been fixed. We do not need to impose additional requirements and work on entities that are already doing their part in maintaining a reliable bulk electric system.

I agree that we should codify the requirements that we have already met for Zone 3 loadability, but question the cost vs. gain in pursuing this "monumental undertaking" for the lower voltage lines and transformers which will be an even greater undertaking than the previous one.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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

Group Name:	Midwest Reliability Organization (MRO)
Lead Contact:	**Alan Boesch**
Contact Organization:	**MRO for group (Nebraska Public Power District for lead contact)**
Contact Segment:	**2**
Contact Telephone:	**402-845-5210**
Contact E-mail:	**agboesc@nppd.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
Terry Bilke	MISO	MRO	2
Robert Coish	MHEB	MRO	2
Dennis Florom	LES	MRO	2
Todd Gosnell	OPPD	MRO	2
Wayne Guttormson	SPC	MRO	2
Jim Maenner	WPS	MRO	2
Darrick Moe, Chair	WAPA	MRO	2
Tom Mielnik	MEC	MRO	2
Pam Oreschnick	XEL	MRO	2
Dick Pursley	GRE	MRO	2
Dave Rudolph	BEPC	MRO	2
Ken Goldsmith	ALT	MRO	2
Joe Knight, Secretary	MRO	MRO	2
27 Additional MRO Member	Companies not named above	MRO	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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. Do you agree there is a reliability need for a standard addressing relay loadability?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: The MRO believes that the Relay Loadability is a serious concern and the NERC System Protection and Control Task Force (SPCTF) is to be commended on developing a good GUIDELINE for determining relay loadability settings. Based on the information contained in the Working Paper on a Proposed Transmission Relay Loadability the MRO has reservations on the appropriateness of the working paper becoming a Reliability Standard. The MRO believes that this issue could be adequately addressed through additions to existing standards to consider relay loadability. The highly prescriptive nature of the working paper is not suitable for a Reliability Standard.

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: The MRO is disappointed to see marked up version of the SAR posted on the NERC website. SARs should be in their final format prior to being posted.
The MRO questions whether the role of the NERC Reliability Standards is to codify technical solutions. We request that the NERC-SAC clarify this role. Codifying technical solutions seems inconsistent with the intent of standards process which is to focus on WHAT is required to maintain reliability not on how to do it (i.e., technical solutions).

The suggested draft Working Paper on a Proposed Transmission Relay Loadability Standard is a good GUIDELINE for determining relay loadability settings not a Reliability Standard. The draft requirements are overly prescriptive and focus on HOW to set relays not what is required to maintain reliability, i.e., that each Transmission Planner, Planning Authority, Reliability Coordinator, and Transmission Operator should optimize their system's ability to slow or stop an uncontrolled cascading failure of the power system. The MRO believes that this optimization is best addressed through existing standards such as the TPL standards. This provides for a complete and integrated response which Transmission System Protection Owner's (TPSO) can not provide.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: Nothing in the SAR explains why this should apply to the RRO or Distribution Provider.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: The working paper should not be turned into a Standard.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments: Without specific information about the content of the standard it is difficult to determine the necessity for Regional Differences.

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: Based on the draft standard that is included as a working paper the MRO would support a SAR of more limited scope if it focused on adding additional language to exisiting standards such as TPL-004 related to optimizing a system's ability to slow or stop an uncontrolled cascading failure of the power system.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	William J. Smith	
Organization:	Allegheny Power	
Telephone:	(724) 838-6552	
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☒ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☒	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Wayne Guttormson	
Organization:	SaskPower	
Telephone:	306-566-2166	
E-mail:	wguttormson@saskpower.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☒ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☒	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. Do you agree there is a reliability need for a standard addressing relay loadability?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: SaskPower believes that this issue is adequately addressed in following standards:
TPL-002-0 R1.3.10, TPL-003-0 R1.3.10, and TPL-004-0 R1.3.7; which require the Planning Authority and Transmission Plannner to include the effects of existing and planned protection systems in their transmission planning studies in order to evaluate system performance and mitigate any deficiencies.
FAC-008-1 and FAC-009-1; which require Transmission Owners (TO) and Generator Owners to have a Facility Ratings Methodology and to Establish and Communicate Facility Ratings. These standards address the most limiting applicable Equipment Rating, including relay protective devices, and applicable Emergency Ratings (if the TO allows emergency overloads).
PRC-001 which requires system protection coordination among operating entities.
The NERC System Protection and Control Task Force (SPCTF) is to be commended on developing a good GUIDELINE for determining relay loadability settings but SaskPower has serious reservations about its appropriateness for a Reliability Standard based on the information contained in the SAR and the Working Paper on a Proposed Transmission Relay Loadability Standard. The highly prescriptive nature of the working paper is not suitable for a Reliability Standard.

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: SaskPower questions whether the role of the NERC Reliability Standards process is to codify technical solutions. WE REQUEST THAT THE NERC-SAC CLARIFY THIS ROLE. Codifying technical solutions seems inconsistent with the intent of standards process which is to focus on WHAT is required to maintain reliability not on HOW to do it (i.e., technical solutions). If NERC is to be codifying technical solutions WHY have we not been doing that with all of the other standards that have been developed to date.

SaskPower has the following additional comments for the Purpose/Industry Need section:

The purpose seems to overstate the role zone 3 played in the 2003 blackout in that relay loadability was not listed as a causal event in the final report. Quoting from the August 14, 2003, Blackout Final NERC Report, dated July 13, 2004, Section V, Conclusions and Recommendations, I. Conclusions and Recommendations, C. OTHER DEFICIENCIES, 1. Summary of Other Deficiencies Identified in the Blackout Investigation: Available system protection technologies were not consistently applied to optimize the ability to slow or stop an uncontrolled cascading failure of the power system. The effects of zone 3 relays, the lack of under-voltage load shedding, and the coordination of underfrequency load shedding and generator protection are all areas requiring further investigation to determine if opportunities exist to limit or slow the spread of a cascading failure of the system.

The reference to ongoing contributor to system disturbances is too general and should be clarified. Is it referring to all types of contingencies (Category B, C & D) or just extreme contingencies (Category D)? Given the references to the 2003 Blackout we assume it is meant for Category D.

SaskPower has the following additional comments for the Detailed Description section:

Is the SAR intended to mitigate relay loadability impacts for all contingencies or just extreme contingencies? Is this not already covered by the TPL standards? TPL-002-0 R1.3.10, TPL-003-0 R1.3.10, and TPL-004-0 R1.3.7; require the Planning Authority and Transmission Plannner to include the effects of existing and planned protection systems in their transmission planning studies. If system performance deficiencies are found they are supposed to mitigate them.

The SAR still seems to imply that manual operator action is preferred over automatic action, due consideration must be given to both. Relying on operator action to mitigate extreme (Category D) contingencies may be somewhat problematic.

As well, SaskPower is concerned that this SAR will limit our ability to decide how we want our system to respond to extreme contingencies. As the Planning Authority and Reliability Coordinator for Saskatchewan this is our responsibility and we feel that it is best left up to us to decide on how the relays in our system and on our tie-lines are to be set based on our system performance requirements.

The suggested draft Working Paper on a Proposed Transmission Relay Loadability Standard is a good GUIDELINE for determining relay loadability settings not a Reliability Standard. The draft requirements are overly prescriptive and focus on HOW to set relays not WHAT is required to maintain reliability, i.e., that each Transmission Planner, Planning Authority, Reliability Coordinator, and Transmission Operator should optimize their system's ability to slow or stop an uncontrolled cascading failure of the power system. SaskPower believes that this optimization is adequately addressed through the TPL standards. This provides for a complete and integrated response which Transmission System Protection Owner's (TPSO) can not provide.

Some general comments on the draft standard:
R1.1.2 uses a 15 minute emergency rating. Will system operators be able to respond within 15 minutes for a Category B, C, or D contingency (R1.1.2.2)?
System topologies used in the examples are rather limiting, are they system equivalents or specific topologies?
Applying the required settings may be somewhat impractical. For example: The TPSO shall determine the maximum current flow … under ANY system condition. Suggest changing the language to any credible worst case system condition. In the case of multiple lines, this includes situations where ALL the other lines … are out of service. Is this a credible system condition? Does the TPSO have the capability to perform this analysis? Wouldn't this analysis be performed by the Planning Authority, Transmission Planner, Reliability Coordinator, or Transmission Operator?
R1.2.9. Transformer Overcurrent Protection: This requirement states that the TPSO must provide emergency loadability. SaskPower believes that Emergency Ratings for facilities are the sole responsibility of the TO (as per FAC-008 and 009) not the TPSO, and that emergency loadability is at the discretion of the TO. SaskPower also questions whether it is within the purview of this standard (or the SPCTF) to determine acceptable overloads or acceptable loss of life for ANY piece of equipment. Is this not the responsibility of the TO? As well, the protection philosophy used by the TO should be at the discretion of the TO as long as system performance criteria are met, and there has been proper coordination with the Planning Authority, Transmission Planner, Reliability Coordinator, and Transmission Operator.
R1.2.10.1 TPSO-Established Maximum Loading Capability: If the RRO is not approving Facility Ratings (FAC-008-1 and FAC-009-1) why is it approving this rating?

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: Nothing in the SAR explains why this should apply to the RRO. The RRO is referenced in the draft standard (which we are not supposed to comment on).

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: The working paper should not be turned into a Standard.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: SaskPower would vote NO on this draft standard if it were pushed to ballot. SaskPower would consider supporting a SAR of a MUCH MORE limited scope if it focused on adding additional language to TPL-004 related to optimizing a system's ability to slow or stop an uncontrolled cascading failure of the power system, and perhaps PRC-001 for coordination purposes.
Also, if a proposed draft standard is included with a SAR it should be commented on now, not later. If the draft is what the requestor envisions the final standard to be it should be evaluated by the industry to determine if the industry and requestor have any common ground.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	James W. Ingleson	
Organization:	New York ISO	
Telephone:	518-356-6131	
E-mail:	ingleson@nyiso.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☒	2 — RTOs, ISOs, Regional Reliability Councils
☐ **MRO**	☐	3 — Load-serving Entities
☒ **NPCC**	☐	4 — Transmission-dependent Utilities
☐ **RFC**	☐	5 — Electric Generators
☐ **SERC**	☐	6 — Electricity Brokers, Aggregators, and Marketers
☐ **SPP**	☐	7 — Large Electricity End Users
☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: NPCC reserves the right as stated in the SAR that determining what circuits are classified as Operationally Significant Circuits is the Region's responsibility. NPCC participating members are not in agreement with the definition as it appears in the "working paper".

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: While we agree with the applicable of the standard we also recognize that the equipment owners have concerns regarding the emergency loadibility of their equipment and the standard should recognize the ability for exceptions.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: Generator protection considerations are different and a different set of people would be needed on the team, so this would make a strange combination with transmission system loadability. We recognize however that there are generator protections such as backup distance relay protection which require coordination between generator and tranmission relays.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: The SAR and subsequent standard should emphasize that the loadibility should apply only during emergency situations and not as a matter of normal system operations.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Bill Middaugh	
Organization:	Tri-State Generation and Transmission Association, Inc.	
Telephone:	303-254-3433	
E-mail:	bmiddaugh@tristategt.org	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs, Regional Reliability Councils
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
☐ **RFC**	☐	5 — Electric Generators
☐ **SERC**	☐	6 — Electricity Brokers, Aggregators, and Marketers
☐ **SPP**	☐	7 — Large Electricity End Users
☒ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: 'Protection systems intended for protection during stable power swings' are excempted from the standard. It's been my experience that stable power swings usually call for blocking of relay operation. It would seem that 'Protection systems intended for protection during unstable power swings' ought also to be exempted from the standard.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

Group Comments (Complete this page if comments are from a group.)	
Group Name:	NERC Standards Evaluation Subcommittee
Lead Contact:	**Bill Bojorquez**
Contact Organization:	**ERCOT**
Contact Segment:	
Contact Telephone:	**512-248-3036**
Contact E-mail:	**bbojorquez@ercot.com**

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. Do you agree there is a reliability need for a standard addressing relay loadability?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: The SES does believe that there is a need for a standard to address relay loadability. However, the SES urges extreme caution in moving forward with this, or any other, SAR which may arbitarily impose new requirements on the protection system of the Bulk Electric System. The SES takes note of the first sentence in the background of this SAR Comment form which to the novice reader makes it sound as if protective relays were the cause of both the 1965 and 2003 Blackout. The SES would point out that in most cases, the relays associated with these events responded properly as designed.

Protective relaying is as much art as it is science. Also protective relay schemes are designed to work as an integrated system. It is difficult to make what might seem to be a simple beneficial change in one location and not fully consider the negative consequences this might cause in another area. Modern microproccessor relay components have made the job of determining, setting, and testing relays much simplier and more exact than in decades past. Utility personnel have spent countless hours determining the facility ratings, both normal and emergency, and the appropriate protection schemes for their lines, transformers, and other equipment in accordance with the expectations of their stakeholders (regulators, customers, and stockholders). Our bulk electric system, considered the most reliabile in the world, is a result of this effort. Great care should be taken when considering blanket changes in how relay systems are designed.

Therefore, NERC standards related to relay loading proposed at measures of 150% of emergency rating for a period of 15 minutes may seem extreme to some. The SES questions if the SDT had considered other alternatives such as 120% for 10 minutes for example. The SES commends the SDT for the tremendous effort in bringing a proposed standard for review and looks forward to actively participate in the coming debate over this SAR.

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: The SES has concern over the wording of the proposed definition of Operationally Significant Circuits. In the definition proposed, the SDT seems to indicate the determination of Operationally Significant Circuits is the responsibility of the Regional Reliability Organization, but then the definition prescribes what types of circuits are to be included. The SES believes each Region should determine its own Operationally Significant Circuits.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: In general, the SES agrees with the scope of the SAR. However, the SES would recommend the SDT consider adding a exemption allowance for known equipment limitations.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: The SES believes that is proper that this proposed SAR examine relay loadability requirements for transmission lines and not address relays associated with generators with SAR. The SES believes this generator effort should be reserved for a different team in a different SAR and should move forward in parallel with this effort.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments: As noted earlier, the SES commends the SAR drafting team for their extensive work in preparing this SAR for comment and looks forward to reviewing their responses to comments received.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Peter Burke [on behalf of ATC's Rich Young]	
Organization:	American Transmission Company LLC ATC	
Telephone:	262-506-6863	
E-mail:	PBurke@atcllc.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☒ **MRO** ☐ **NPCC** ☒ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☒	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☒ Yes

☐ No

Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: Comments on the associated working paper:
1. R1.1.2 states the relay should not operate at or below 1.15 times the 15-minute emergency rating of the line, but the equation is identical to the one in R1.1.1 for the 4-hour rating, which indicates a limit of 1.5 times. Change “1.5” in the denominator to “1.15”, as required in Exception 1 of the “Protection System Review Program – Beyond Zone 3” dated August 2005.
2. R1.2.2.2, R1.2.6.5, R1.2.4.5 and R1.2.10.5 require operators to take immediate remedial steps, including dropping load, if the current on the circuit reaches I(emergency). This is an operating requirement, and does not belong in a relay loadability standard. Remove these requirements. There should be a requirement to that effect in the IRO or TOP standards.

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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

Group Name: FRCC

Lead Contact: **John Odom**

Contact Organization: **FRCC**

Contact Segment: **2**

Contact Telephone: **813-289-5644**

Contact E-mail: **jodom@frcc.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
Linda Campbell	FRCC	FRCC	2
John Mulhausen	FPL	FRCC	1
Garl Zimmerman	SECI	FRCC	5
Steve Wallace	SECI	FRCC	4
Roland Stafford	SECI	FRCC	4

*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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments: A standard addressing relay loadability is necessary to ensure that protection systems are in place to limit or stop cascading outages, while at the same time not adversely affecting the ability to use the transmission system.

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments: The SAR adequately addresses the requirements necessary to establish minimum loadability criteria for critical relays to minimize the chance of unnecessary line trips during a major transmission system disturbance.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: The SAR covers the necessary Transmission Protection Systems and does not need to be expanded to cover relays associated with generators.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Jeffrey T. Baker	
Organization:	Cinergy	
Telephone:	513-287-3368	
E-mail:	jeff.baker@cinergy.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs, Regional Reliability Councils
☐ **MRO**	☒	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
☒ **RFC**	☐	5 — Electric Generators
☐ **SERC**	☒	6 — Electricity Brokers, Aggregators, and Marketers
☐ **SPP**	☐	7 — Large Electricity End Users
☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: We believe that additional or specific guidance on how to handle generators should be detailed in a separate standard.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☐ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☐	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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

Group Name: Southern Company - Transmission

Lead Contact: **Marc M. Butts**

Contact Organization: **Southern Company Services**

Contact Segment: **1**

Contact Telephone: **205-257-4839**

Contact E-mail: **mmbutts@southernco.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
Jim Viikinsalo	Southern Company Services	SERC	1
Jim Busbin	Southern Company Services	SERC	1
Phil Winston	Georgia Power	SERC	3

*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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. **Do you agree there is a reliability need for a standard addressing relay loadability?**

   If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

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

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☒ Yes

☐ No

Comments:

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments:

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☐ Yes

☒ No

Comments:

Comment Form — Proposed Relay Loadability SAR

This form is to be used to submit comments on the proposed Relay Loadability SAR Standards. Comments must be submitted by **February 15, 2006**. You may submit the completed form by e-mailing it to: sarcomm@nerc.com with the words "Relay Loadability SAR Comments" in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE. IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:
Do enter text only, with no formatting or styles added.
Do use punctuation and capitalization as needed (except quotations).
Do use more than one form if responses do not fit in the spaces provided.
Do submit any formatted text or markups in a separate WORD file.

DO NOT:
Do not insert tabs or paragraph returns in any data field.
Do not use numbering or bullets in any data field.
Do not use quotation marks in any data field.
Do not submit a response in an unprotected copy of this form.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Mark Kuras	
Organization:	PJM	
Telephone:	610-666-8924	
E-mail:	kuras@pjm.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT** ☐ **FRCC** ☐ **MRO** ☐ **NPCC** ☒ **RFC** ☐ **SERC** ☐ **SPP** ☐ **WECC** ☐ **NA – Not Applicable**	☐	1 — Transmission Owners
	☒	2 — RTOs, ISOs, Regional Reliability Councils
	☐	3 — Load-serving Entities
	☐	4 — Transmission-dependent Utilities
	☐	5 — Electric Generators
	☐	6 — Electricity Brokers, Aggregators, and Marketers
	☐	7 — Large Electricity End Users
	☐	8 — Small Electricity End Users
	☐	9 — Federal, State, Provincial Regulatory or other Government Entities

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 the prior page.

Background Information:

Protective relays have often contributed to system disturbances including the Northeast Blackout of 1965, and the Blackout of August 14, 2003. During the 2003 blackout, relay loadability was found to have played a pivotal role in accelerating and spreading the early part of the cascade in Ohio and Michigan. Although the U.S.-Canada Power System Outage Task Force focused on the role played by "zone 3" relays, it was later found that other phase-distance and overcurrent relays also contributed to the cascade.

The purpose of the proposed Standard Authorization Request (SAR) is to ensure that protection systems and settings shall not limit transmission loadability, nor contribute to cascading outages. This transmission relay loadability SAR is submitted in response to the NERC Blackout Recommendation 8a, *Improve System Protection to Slow or Limit the Spread of Future Cascading Outages*, as included in the document approved by the NERC Board of Trustees on February 10, 2004.

The available working paper includes a proposed draft Transmission Relay Loadability Standard that codifies the relay loadability criteria prescribed in the NERC and U.S.-Canada Power System Outage Task Force recommendations on relaying. This working paper was prepared to assist the SAR and/or standards drafting team in the development of the proposed standard.

The requestor would like to receive industry comments on this SAR and to obtain the input of the industry prior to determining the final scope of the SAR. Although a proposed draft is provided in the working paper, *please limit your comments to the subject SAR* realizing there will be future opportunity to comment on any proposed standard. Accordingly, we request your comments be included on this form and emailed with the subject "Relay Loadability SAR Comments" by February 15, 2006 to sarcomm@nerc.com

1. Do you agree there is a reliability need for a standard addressing relay loadability?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: Installation and coordination of relays is not something that should be dealt with with national standards. Not even sure what the name of the SAR/Standard means. Relays are not loaded or unloaded. I recommend not moving forward with this SAR. I see no reason to move beyond the work that has already been done.

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

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: NERC should not get involved with this issue. Possibly a simple standard that states that protection systems shall not restrict the normal or the necessary realizable network transfer capabilities of the system is all that's needed.

3. Do you agree with the proposed applicability of the SAR?

If not, please explain in the comment area.

☐ Yes

☒ No

Comments: An attempt is made here to circumvent the NERC definition of Transmission System by defining a Transmission Protection System Owner that goes down to 100 kV. The NERC definition of Transmission system allows regional interpretation of the voltage class. I completely disagree with this attempt.

4. Are you aware of any commercial considerations that might require a concurrent NAESB action associated with the proposed SAR?

If yes, please explain in the comment area.

☐ Yes

☒ No

Comments:

5. Should the scope of the proposed SAR include relays associated with generators?

Please explain in the comment area.

☐ Yes

☒ No

Comments: I disgree with NERC dealing with this topic.

6. Are you aware of any regional differences that should be identified as part of the development of the standard?

If yes, please explain in the comment area.

☒ Yes

☐ No

Comments: Regional differences having to do with the definition of bulk power system should be recognized.

7. Do you have any additional comments on this SAR you would like to include?

If yes, please elaborate in the comment area.

☒ Yes

☐ No

Comments: Recommend this SAR be deleted.