Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

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:	wsmith1@alleghenypower.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **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
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Michael Johnson	
Organization:	Bonneville Power Administration	
Telephone:	360.418.2161	
E-mail:	mdjohnson1@bpa.gov	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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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*

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: Ok, Yes and No. The first FERC NOPR bullet needs to be addressed. The second bullet is clearly discribed in the standard. A. 4.4.3. The reader must read the statement in context. It meets the Standard Review Guidelines.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments: Since this posting is for comment it would have been nice to provide more information as to why the FERC staff objects to the IEEE standard (since it meet the guidelines for as a North America standard. Also, why are stakeholder concerned with Reliability Coordinators vs. RRO?

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☒ Yes

   ☐ No

   Comments: It is not clear if categroy 1 and 2 refer only to occupied ROW, or also to unoccupied area reserved by the Transmission Owner for future expansion.

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	William T. Rees	
Organization:	Baltimore Gas and electric	
Telephone:	410-291-3479	
E-mail:	William.T.Rees@bge.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
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Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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

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Stakeholder Comments

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The revisions listed in the NOPR and FERC Staff Report do not provide the necessary justification to alter the requirements in the current FAC-003-1 document. The existing requirements already allow for each utility to specify the inspection requirements. There is no need to more prescriptive. The existing requirements already allow for the ERO to designate critical lines less than 200 kV so removal of the 200 kV benchmark is unecessary. The IEEE Standard is worthwhile to keep as a benchmark without which there would be no solid guidance for minimum clearances.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: As noted above.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Brian D. Bartos	
Organization:	Bandera Electric Cooperative, Inc.	
Telephone:	830-796-6074	
E-mail:	b.bartos@banderaelectric.com	
NERC Region		**Registered Ballot Body Segment**
☒ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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

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- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The items listed as potential revisions are vague and do not provide sufficient justification to alter the current requirements of this standard which has been in effect less than 1 year. The current standard allows for the region to determine which transmission lines are critical to reliability and should be included in a Transmission Owner's Transmission Vegetation Management Plan regardless of voltage classification. The current standard also allows each TO the flexibility to develop its plan in accordance with its specific geography and operating environment. There is no need to be more prescriptive.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: As submitted, the SAR appears to completely re-open this standard negating many months of work and industry comment to reach the consensus reflected in the current FAC-003.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments: See Comment #2

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	David Kiguel	
Organization:	Hydro One Networks Inc.	
Telephone:	416-345-5313	
E-mail:	David.Kiguel@HydroOne.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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Group Comments (Complete this page if comments are from a group.)

Group Name: Hydro One Networks Inc.

Lead Contact: **David Kiguel**

Contact Organization: **Hydro One Networks Inc.**

Contact Segment: **1**

Contact Telephone: **416-345-5313**

Contact E-mail: **David.Kiguel@HydroOne.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
George Juhn	**Hydro One Networks Inc.**	**NPCC**	1

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Background Information:

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FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: We believe that at this time it is premature to move forward with changes to the standard that are based on voltage class issues. The Standard, as developed, applies to the BES which have been determined by a performance based methodology. NERC should wait until the BES vs. BPS issue is resolved.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: To address FERC's objection to use the IEEE standard, it is necessary to clarify the objective of the Vegetation Management Standard. As we understand it, the focus of the FAC-003-1 standard is system reliability and as such, the responsibility and authority on defining and applying the safety margins is rightly assigned to the transmission owner. We request clarification on how employing safety factors will address reliability and how prescribing minimum clearances within the standard will improve reliability.

   Please note that the Canadian Standards Association is revising standard C22.3 No. 1 - Overhead Systems. The new version will include clearances to vegetation and the proposed minimum clearances are in alignment with FAC-003-1.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
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Group Comments (Complete this page if comments are from a group.)

Group Name: NPCC, CP9 Reliability Standards Working Group

Lead Contact: **Guy V. Zito**

Contact Organization: **NPCC**

Contact Segment: **10**

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

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

Additional Member Name	Additional Member Organization	Region*	Segment*
Ralph Rufrano	New York Power Authority	NPCC	1
Ed Thompson	Con Ed	NPCC	1
Jerad Barnhart	NSTAR	NPCC	1
Roger Champagne	Hydro Quebec TransEnergie	NPCC	1
Herb Schrayshuen	National Grid US	NPCC	1
Greg Campoli	New York ISO	NPCC	2
Kathleen Goodman	ISO-New England	NPCC	2
Bill Shemley	ISO-New England	NPCC	2
Ron Falsetti	The IESO, Ontario	NPCC	2
David Kiguel	Hydro One Networks Inc.	NPCC	1
Don Nelson	MA Dept of Tele. and Energy	NPCC	9
Murale Gopinathan	Northeast Utilities	NPCC	1
Guy Zito	NPCC	NPCC	10
Brian Hogue	NPCC	NPCC	10

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FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

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- Too weak on compliance
- Format inconsistencies

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: NPCC participating members believe that it is premature to move forward with changes based on voltage class. Applicability of the standard should only be to those portions of the system that are part of the Bulk Power System which have been determined by a performance based methodology.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: See response to question 1, above.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☒ Yes

   ☐ No

   Comments: Only if the Bulk Power System is determined as an impact based performance based methodology.

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Jimmy Etheridge	
Organization:	Georgia Transmission Corporation	
Telephone:	770-270-7650	
E-mail:	jimmy.etheridge@gatrans.com	
NERC Region		**Registered Ballot Body Segment**
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Group Comments (Complete this page if comments are from a group.)

Group Name: SERC Vegetation Management Subcommittee

Lead Contact: **Richard Dearman**

Contact Organization: **TVA**

Contact Segment: **1**

Contact Telephone: **256-519-2067**

Contact E-mail: **redearman@tva.gov**

Additional Member Name	Additional Member Organization	Region*	Segment*
Jay Farrington	Alabama Electric Coop	SERC	1
Randy Gann	Alabama Power Co.	SERC	1
Raymond Wiesehan	Ameren	SERC	1
John Neagle	Associated Electric Coop	SERC	1
Billy George	Duke Energy Carolinas	SERC	1
Ralph Hale	Entergy	SERC	1
Marc Tunstall	Fayetteville PWC	SERC	1
Jack Gardner	Progress Energy Carolinas	SERC	1
Jerry Lindler	SCE&G	SERC	1

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The SERC VMS is unsure how to answer the question as it is worded, but has the following comments on the SAR:

   The current standard contains appropriate requirements and measures to ensure the owners vegetation management program is implemented and managed to ensure the reliability of the transmission system. Mandating inspection cycle frequencies will not enhance nor ensure reliability by inspecting more or less frequently. The minimum vegetation clearances at maximum operating conditions that are established within the owner's program, which is auditable by the ERO, will ensure reliability. Extending the requirements to lines other than those >200KV may reduce the focus on those lines and may cause the allocation of resources away from lines >200KV. Generally easements are narrower on lower voltage lines, requiring more resources and emphasis on these lines. This may have an effect on the ability to focus clearing efforts on those lines that will have a much greater impact on the bulk power system. The IEEE standard when used as the minimum clearance distance at maximum operating condition will ensure reliability when these clearances are maintained by vegetation management activities. In addition, we do not agree that a standard of zero tolerance for vegetaion-related outages in the ROW is weak on compliance.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☐ No

   Comments: Minimum Inspection Intervals:
   The SERC VMS believes that FAC 003-1 provides the proper amount of flexibility regarding vegetation inspection cycles and that the Standards Drafting Team should not impose minimum inspection intervals on a continent with such regional diversity in climate and plant life.

   The purpose of Requirement 1.1 of standard FAC-003-1 is to put the responsibility for proper inspection cycles on the entity that knows the local conditions and can best define what that inspection frequency should be, the Transmission Owner. Both NERC and the FERC staff have recognized that various local conditions can have an affect on the determination of adequate inspection frequencies. Establishing a mandatory minimum inspection frequency could have two detrimental effects on the industry.

   First, where a particular region is heavily forested and has heavy rainfall along with extended or year round growing seasons, a "back stop" minimum inspection frequency could lead transmission owners to conduct inspections less frequently than required by the local conditions. This could result in a Transmission Owner complying with the

standard while not adequately protecting the reliability of that region's transmission system. This is a "lowest common denominator" approach which FERC has repeatedly stated is inappropriate for the reliability standards.

Second, where a particular region is arid, sparsely forested or has a minimum growing season, a "back stop" minimum could require a more frequent interval than is realistically needed. This would result in increased and unnecessary costs for electric utility customers without providing an increase in system reliability.

In its discussion of inspection intervals, FERC indicates that a "one-year vegetation inspection cycle is reasonable." FERC NOPR, 10/20/2002 paragraph 383. The Commission continues by stating "a one-year inspection cycle is the 'norm' for the industry, but not the lowest common denominator…" It follows from this observation that the industry as a whole recognizes and follows appropriate inspection intervals without a need to change the standard. Further, FERC also states "some variation to a continent-wide, one-year minimum inspection cycle should be allowed due to physical differences such as climate and species of vegetation." FERC NOPR 10/20/2006, paragraph 382. FERC's express recognition that a "one size fits all" approach is not appropriate further supports the SERC VMS's contention that the existing inspection requirements in standard FAC-003-1 should remain unchanged.

Finally, the performance metrics of FAC-003 require the reporting of applicable transmission interruptions that are caused by vegetation. This process should appropriately identify Transmission Owners' inspection cycles that are not adequate. In this event, the ERO has the authority to engage the Transmission Owner in enforcement compliance actions and, therefore, can remedy any vegetation-related outage that is attributed to the Transmission Owner's inspection frequency.

Standard Applicability:
The SERC VMS disagrees with the proposal to revise the 200 kV threshold for determining facilities subject to this standard.

The majority of transmission facilities below 200 kV have significantly different design/construction/operating characteristics and have not been cited as impacting bulk power system reliability. For example, the Final Report on the August 14, 2003 Blackout in the United states and Canada: Causes and Recommendations April 2004 by the U.S.-Canada Power System Outage Task Force and all referenced major blackouts(pages 103-115) in that report, cited only outages which involved vegetation at line voltages above 200 kV. Generally applying requirements appropriate for 200 kV lines to lines less than 200 kV will result in significant documentation and reporting of items such as restrictions, mitigation plans, off right-of-way vegetation-related outage investigation/information and other issues, all of which dilutes the focus on lines that directly impact bulk power system reliability.

Revising the standard to use general criteria or broad language for defining "Bulk Power System" transmission lines covered by the standard could become a "one size fits all" approach. If that approach were taken, the standard would cover a significant number of transmission lines that have no direct impact on bulk power system reliability under standard planning/operating conditions, resulting in a significant increase in costs for electric customers without improving "Bulk Power System" system reliability. The SERC VMS believes that the applicability provision of the standard should instead focus attention of the standard only on the transmission lines below 200 kV that directly impact "Bulk Power System" reliability, as the current version requires.

In sum, while the SERC VMS recognizes some validity in the Commission's concern, the SERC VMS recommends that the applicability provision of this standard should be revised only if existing system design, planning or operating reliability criteria and parameters are considered as a basis for defining the applicability of the standard. To

that end, the SERC VMS recommends each Regional Entity (RE) determine applicability of FAC-003 to those lines within the region that are between 100 kV and 200 KV if and only if they are identified as operationally significant elements of Interconnection Reliability Operating Limits ("IROLs").

IEEE Standard for Minimum Clearances:
The SERC VMS disagrees with objections in the FERC staff report to the use of the IEEE 516-2003 clearance as the minimum acceptable distances for "Clearance 2". The IEEE 516-2003 tables are appropriate for defining the minimum acceptable clearances to prevent flashover between conductors and vegetation under all rated electrical operating conditions. Closer minimum clearances such as the minimum length of a support insulator could have been adopted as a "lowest common denominator" clearance. However the clearance in IEEE 516-2003 was adopted to ensure an additional margin of reliability. FERC staff references ANSI Z-133 which is a safety standard that addresses worker safety as well as the safety of the general public. As such, the purpose of ANSI Z-133 is to address worker safety and is not focused on transmission line reliability, which is the purpose of FAC-003-1. OSHA, NESC and other related safety standards have clearances in excess of IEEE 516-2003. Those clearances are clearly focused on safety issues and will still apply to other aspects of design and operation of electric facilities (such as public and worker safety) but do not need to be referenced in a vegetation management reliability standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

☒ Yes

☐ No

Comments: Standard Applicability:
The outage reporting requirement for the RRO should be deleted. Making FAC-003 applicable to the RRO is in violation of the legislation that established the ERO. This legislation states that enforceable standards can apply only to owners, users and operators of the bulk power system. Futher, in the NOPR on NERC standards, FERC declined to approve those standards that applied to the RROs, in part because the RROs are not owners, users or operators.

Compliance:
The SERC VMS recommends deleting reporting requirements for Category 3 outages. These outages are not controllable, not relevant to compliance, not related to grid reliability, not related to cascading blackouts, and such reporting leads to unnecessarily biasing reliability related information.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	John Loftis	
Organization:	Dominion - Electric Transmission	
Telephone:	(804) 819-2337	
E-mail:	john.loftis@dom.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **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
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: We disagree with the proposal from FERC NOPR regarding removing applicability to transmission lines >200kv. The proposal to apply the Standard to lines the ERO deems to have an impact on reliability can create inconsistency between regions and is a "fill in the blank" requirement. It is not clear whether the proposed change would increase or decrease the number of transmission lines which are subject to reportable outages. In addition, we support the Standard's existing language that limits reporting to locked out lines only.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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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,
	☐	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
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: Midwest Reliability Organization

Lead Contact: **Dick Pursley**

Contact Organization: **MRO for Group (Great River Energy for Contact)**

Contact Segment: **10**

Contact Telephone: **763.241.2249**

Contact E-mail: **dpursley@grenergy.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
Neal Balu	WPSR	MRO	10
Terry Bilke	MISO	MRO	10
Alan Boesch	NPPD	MRO	10
Robert Coish, Chair	MHEB	MRO	10
Carol Gerou	MP	MRO	10
Ken Goldsmith	ALT	MRO	10
Todd Gosnell	OPPD	MRO	10
Jim Haigh	WAPA	MRO	10
Tom Mielnik	MEC	MRO	10
Pam Oreschnick	XEL	MRO	10
Dave Rudolph	BEPC	MRO	10
Eric Ruskamp	LES	MRO	10
Joe Knight	MRO	MRO	10
27 Additional MRO Members	Not Named Above	MRO	10

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: The scope of this SAR would have been better defined if the complete Standard Review Form for the Vegetation Management Standard had been included as an attachment to the SAR. Several issues in the Standard Review Form for this SAR were excluded with this posted SAR. For example, issues related to R3.1 and R3.2.

   The MRO is also not clear on the scope of the instruction to the SDT to "Expand the applicability to include transmission lines operated at 200 kV and above and other facilities as determined by the ERO so that the Reliability Standard applies to Bulk-Power System transmission lines that have an impact on reliability" It is not clear to the MRO what is meant by "as determined by the ERO". What process will the ERO use? The ERO should use stakeholder input to make this determination. The current standard is applicable to all transmission lines 200 kV and above and to any lower voltage lines designated by the RRO as critical to the electric system in the region. Will the ERO be in a position to assume the assessment of the criticality of lines less than 200 kV without input from the entities that have historically operated in each region?

   Also, the MRO is not clear on what is included in the term Bulk-Power System. What guidance will the SDT have in determining what is meant by the Bulk-Power System? Since this relates to the large issue of the Bulk Electric System versus Bulk-Power System is this SAR the appropriate vehicle to address this issue? There should be a wider discussion and resolution to this issue for consistent application to all standards by all SDTs.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☒ Yes

   ☐ No

   Comments: Since the IEEE standard does not appear to be a favorable clearance requirement, minimum clearance requirements should be tied to legal documents such as easments, state statute, or permits. This will help Transmission Owners to maintain

their ROWs based on their agreements with the land owners and not rely on historical ROW management practices. It would also provide flexibility in clearance requirements based on geopraphical and climatological factors that influence different regions because landowner agreements will be different depending on local influences.

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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**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: Florida Power and Light Company

Lead Contact: **John Tamsberg**

Contact Organization: **Florida Power and Light Company**

Contact Segment: **1**

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Contact E-mail: **john_tamsberg@fpl.com**

Additional Member Name	Additional Member Organization	Region*	Segment*
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Barbara Jaindl, PE.		**FRCC**	1
Michael Warr, PE.		**FRCC**	1
Greg Keller, PE.		**FRCC**	1

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

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The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments: FPL recognizes the need to address the concerns outlined in the NOPR and by the FERC Staff.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: Establishing minimum inspection cycles is a very problematic given the large variety of vegetative conditions throughout North America. In reality most lines are inspected annually for all failure modes including vegetation. The trees that played a part of the North East Blackout were known and on the radar screen. The utility failed to take action. The inspection did not prevent the outage from occurring. The failure to take action on the known site condition was the contributing factor to the Blackout.

   We do not understand the need to establish separate criteria other than the RRO's critical designation. A transmission line is either necessary to the system to prevent an overload situation or it is not. To add lines that might not be critical to the system would dilute the effort needed to insure that the critical lines are properly maintained. Since system stability is the focus of the standard, what criteria would be used to bring additional lower voltage lines under the standard.

   When developing Clearance 2, the committee needed to determine a distance at which a Transmission Owner could be out of compliance even though no interruption has occurred. In a sense this is the maximum 'speed limit' at which the utility would be in violation. Their criteria was "How close can a tree be and not cause an outage?" The engineers on the team reviewed scientific data and current standards. The IEEE MAID standard was the consensus selection of the sub committee. All parties need to understand that this is one of the building blocks that would be used in determining the width of an easement or ROW. Picking the ANSI Z133.1 Table 1 or 2 as the NOPR suggests could immediately place thousands of miles of transmission lines out of compliance that have performed satisfactorily for years. The ANSI tables are phase to phase safety calculations when grow-in tree interruptions are phase to ground situations.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

☒ Yes

☐ No

Comments: Requirement 3.2 exempts reporting of outages from outside the ROW when natural disasters such as tornados or hurricanes occur. Our experience with numerous hurricanes indicates that all outages during these types of events should be exempt. The focus in these situations is to get the lines back in service and restore customers. There is insufficient manpower to adequately complete the forensics necessary to determine an accurate root cause. It is not uncommon to find vegetation debris in the lines or downed trees on the ROW in this situation. In most cases it is not possible to determine the original location of these trees.

In the compliance section of the document a transmission owner becomes non compliant with a single category 1 or 2 outage. This occurs regardless of the circumstances. A non compliant penalty for a single outage in a situation where no customers were affected and the system could not have been compromised is not reasonable. It is also not an indicator of a poorly maintained system. We agree that several Category 1 or 2 interruptions could be an indicator of neglect but one is not. We recommend that The compliance section be reviewed with this in mind.

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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,
	☐	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
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: FRCC

Lead Contact: **Eric Senkowicz**

Contact Organization: **FRCC**

Contact Segment: **10**

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

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

Additional Member Name	Additional Member Organization	Region*	Segment*
Alan Gale	City of Tallahassee	FRCC	5
Clark Hawkins	Lee County Electric Cooperative	FRCC	3
Mark Bennett	Gainesville Regional Utilities	FRCC	5
Pedro Modia	Florida Power and Light	FRCC	1

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

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The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:
   NERC as the ERO along with its regulated stakeholders need to use the Standards Process to continue refining the industry's suite of standards, especially to address inconsistencies within the standards. The process also serves to address real or perceived reliability concerns in a balanced and open forum.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: As stated in this SAR comment form, the improvements should be made to bring the standard into conformance with the Reliability Standards Development Procedure which at this time is version 6.0, adopted by NERC BOT, 11/1/2006. The SAR scope via the attached Standard Review Guidelines includes two areas not defined within the procedure. The Mitigation Time Horizons and definitions for the violation severity levels (VSLs), Lower, Moderate, High and Severe.

   We understand the description of Mitigation Time Horizons and definitions for VSLs are included in the SAR (the concept of Violation Time Horizons is included in the Sanctions Guidelines, appendix 4B, NERC Compliance Filing to FERC dated October 18th, 2006), but these discrepancies are part of a broader policy issue and since their use is not clearly stipulated in the NERC Reliability Standards Development Procedure, including them in the scope of the SAR is premature and will cause unnecessary confusion to stakeholders and regulators.

   The process is requesting the industry to comment on a scope that is defined outside the reliability standards process and as such is subject to revisions and interpretations outside the process as well. This appears inappropriate and at the extreme will lead to inconsistent understanding, measurement and enforcement of compliance actions.

   The Mitigation Time Horizons and VSL levels should be defined in the Reliability Standards Development Procedure prior to inclusion in the scope of a SAR.

   Specific Items Within Current SAR Scope:

   The establishment of minimum inspection cycles has been addressed previously, in the development of the current standard and was found very problematic given the large variety of vegetative conditions throughout North America. The vegetation that was

identified as a contributing cause to the 2003 Northeast Blackout had already been identified by previous inspection activities. It was the failure to take action on the known site conditions that contributed to the event. Therefore, a minimum inspection cycle would still NOT have prevented or mitigated the scope of the Blackout.

The current 200 kV threshold ensures that vegetation management efforts are focused on the critical bulk power transfer lines and that TVM efforts are not diluted by including additional lower voltage lines. In practicality, the RRO designation process provides the necessary flexibility to the Regions to address localized areas where bulk power system reliability may be compromised by lower voltage vegetation outages. To note as well, Northeast Blackout related vegetation outages which initiated the cascade occurred on lines that operate at 345 kV, well above the current threshold.

The FRCC supported the development of Clearance 2, as established in the current standard, as this was a consensus selection by not only the subject matter experts, but many industry participants. Picking the ANSI Z133.1 Table 1 or 2 as the NOPR suggests, could immediately place thousands of miles of transmission lines out of compliance even though operating data indicates that the lines have performed satisfactorily for years. The concern would be, the resulting dilution of valuable industry and regulator resources.

The SAR includes the following stakeholder comment: "Too weak on compliance" .
We caution that we feel the compliance section does need refining, but that in a world of limited resources should focus on trends in vegetation outages and not necessarily on single outages. For transmission owners, two outages on a radial 230 kV circuit should not carry the same penalty as eight outages on multiple 230 kV circuits within a network. We would recommend that compliance be refined to identify trends, relevance and risk probability to help the industry focus their resources appropriately.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

☒ Yes

☐ No

Comments:
Requirement 3.2, item (1), the reporting exemption for outages occuring due to natural disaters should be expanded to include all vegetation outages that occur as a result of the disaster. Currently the exemption applies to vegetation from outside the ROW.

As a result of significant experience with hurricanes, our operators have found that this distinction results in a waste of post-disaster resources. The standard currently requires the owner to investigate and determine the original location of the vegetation that may have caused an outage. Restoration of circuits may be delayed and often times, determination of the original location of the vegetation is not possible .

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Michael Spector, Transmission Planning	
Organization:	Central Hudson Gas & Electric	
Telephone:	845-486-5469	
E-mail:	mspector@cenhud.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
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☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The proposed revisions listed under the FERC NOPR do not provide proper justification to alter the requirements in the current FAC-003-1 document that was adopted one year ago.

   First, "a minimum vegatation inspection cycle that allows variation in physical difference" is already called for under the current standard. As stated in Section R1.1. of FAC-003-1, a schedule already should be defined under the transmission vegetation management program (TVMP). This schedule already allows for "variation in physical difference" since the current standard states that "this schedule should be flexible enough to adjust for changing conditions."

   Secondly, under Applicability Section 4.3., the current standard already allows for lines with lower voltage than 200kV to be "designated by the RRO as critical" and therefore applicable to the standard. Removal of the 200kV benchmark is not needed.

   And lastly, under the FERC staff report, the IEEE standard provides guidance in clearances and has been the industry standard for many years. If FERC objects to using this standard then they should provide clearances that can be discussed and agreed upon by the transmission owners.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: See comments above.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Sam Stonerock	
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Telephone:	951-317-6149	
E-mail:	samuel.stonerock@sce.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
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Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: There was no empirical or anecdotal evidence presented by FERC staff to support the Commission's view that the reliability of the Bulk Power System will be enhanced with further revisions to FAC-003-1. This standard was the subject of vigorous industry debate in a previous SAR. Although it is far from perfect, the proposed revisions will not improve reliability and may very well damage existing VM programs.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The Commission's reccomendation to develop a "minimum" vegetation inspection cycle is untimely and their proposal to revise the scope ignores plain language contained in the standard.

   In SCE's view, the Commission's incessant need to bolt on a "widget count" requirement (for minimum inspection cylcles) will likely lead to an increased number of tree-to-line contacts. Unlike the static equipment located in power plants and substations, trees and foliage in and around Transmission ROWs are subject to uncontrolable and fairly unpredictable natural forces. Industry debate during the previous SAR and comments submitted in the recently concluded NOPR demonstrate this approach is unsound. Transmission Owners in neighboring states commented that their cycles and trimming protocols vary from year to year and sometimes circuit to circuit. Instituting a minimum inspection cycle of 3 years (for example) might appeal to certain TOs because doing so will support a case for increased rate recovery. But for others, a mandatory 3 year inspection cycle will offer a potential cost reduction opportunity because they are already following a voluntary 2 year inspection cycle.

   The Commission's other reccomendedation should be rejected because subsection 4.3 clearly covers transmission lines operating below 200 kV. ["….any lower voltage lines designated by the RRO as critical to the reliabilty of the electric system in the region."]

   FAC-003-1 requires Transmission Owners to - "define a schedule for and the type (aerial, ground) of ROW vegetation inspections". Although the Commission staff would prefer a specific time duration because it suits their "check list" style of enforcement, the prudent thing to do is allow TOs the latitude to manage their part of the bulk system and hold each accountable to the existing compliance measures in FAC-003-1. Similarly, revising subsection 4.3 in deferrence to the Commission's or staff's misinterpretation of plain text is unwarranted.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments: Although SCE is wholly dissatisfied with the integration of IEEE 516-2003 into FAC-003-1 and looks forward to the day when qualified industry professionals and utility arborists are provided an opportunity to develop a reasonable and scientifically sound method for determining "minimum" tree-to-line clearances, we believe this standard should be allowed to "soak" a bit before subjecting it to further revision.

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Jack Gardner	
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NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☒ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The current standard contains appropriate levels of guidelines and penalties to ensure the owners vegetation management program is implemented and managed to ensure the reliability of the transmission system. Mandating inspection cycle frequencies will not enhance nor ensure reliability by inspecting more or less frequently. The minimum vegetation clearances at maximum operating conditions that are established within the owner's program that are auditable by the ERO will ensure reliability. By adding lines other than those >200KV may reduce the focus on those lines and impact the budget dollars allocated to focus on the lines >200KV. Generally easements are much more narrow on lower voltage lines, the impact on budget dollars would often require more emphasis on these lines. This may have an effect on the ability to focus clearing efforts on those lines that will have a much greater impact on the bulk power system. The IEEE standard when used as the minimum clearance distance at maximum operating condition will ensure reliability when these clearances are maintained by vegetation management activities.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments:
   Minimum Inspection Intervals:
   Progress Energy believes that this standard provides the proper amount of flexibility regarding vegetation inspection cycles and that the FAC-003 standard revision should not develop minimum inspection intervals on a continent with such regional diversity in climate and plant life.

   The purpose of Requirement 1.1 of standard FAC-003-1 is to put the responsibility for proper inspection cycles on the entity that knows the local conditions and can best define what that inspection frequency should be, the Transmission Owner. Both NERC and the FERC staff have recognized that various local conditions can have an affect on the determination of adequate inspection frequencies. Establishing a mandatory minimum inspection frequency could have two detrimental effects on the industry.

   First, where a particular region is heavily forested and has heavy rainfall along with extended or year round growing seasons, a "back stop" minimum inspection frequency could lead transmission owners to conduct inspections less frequently than what the local conditions require. This could result in a Transmission Owner complying with the standard while not adequately protecting the reliability of that region's transmission system. This is a "lowest common denominator" approach which FERC has repeatedly stated is inappropriate for the reliability standards.

Second, where a particular region is arid, sparsely forested or has a minimum growing season, a "back stop" minimum could require a more frequent interval than is realistically needed. This would result in increased and unnecessary costs for electric utility customers without providing an increase in system reliability.

In its discussion of inspection intervals, FERC indicates that a "one-year vegetation inspection cycle is reasonable." NOPR, P 383. The Commission continues by stating "a one-year inspection cycle is the 'norm' for the industry, but not the lowest common denominator…" It follows from this observation that the industry as a whole recognizes and follows appropriate inspection intervals without a need to change the standard. Further, FERC also states "some variation to a continent-wide, one-year minimum inspection cycle should be allowed due to physical differences such as climate and species of vegetation." NOPR, P 382. FERC's express recognition that a "one size fits all" approach is not appropriate further supports Progress Energy's contention that the existing inspection requirements in standard FAC-003 should remain unchanged.

Finally, the performance metrics of proposed standard FAC-003 require the reporting of applicable transmission interruptions that are caused by vegetation. This process should appropriately identify Transmission Owners' inspection cycles that are not adequate. In this event, the ERO has the authority to engage the Transmission Owner in enforcement compliance actions and, therefore, can remedy any vegetation-related outage that is attributed to the Transmission Owner's inspection frequency.

Standard Applicability:
Progress Energy disagrees with the proposal to revise the 200 kV guidepost for determining facilities subject to this standard.

The majority of transmission facilities below 200 kV have significantly different design/construction/operating characteristics and have not been cited as impacting bulk power system reliability. For example, the 2003 DOE "Blackout Report," and all referenced major blackouts in the Report, cited only outages which involved vegetation at line voltages above 200 kV. The characteristics of lines below 200 kV will result in significant documentation and reporting of items such as restrictions, mitigation plans, off right-of-way vegetation-related outage investigation/information and other issues, all of which dilutes the focus on lines that directly impact bulk power system reliability.

Revising the standard to use general criteria or broad language for defining "Bulk Power System" transmission lines covered by the standard could become a "one size fits all" approach. If that approach were taken, the standard would cover a significant number of transmission lines that have no direct impact on bulk power system reliability under standard planning/operating conditions, resulting in a significant increase in costs for electric customers without improving "Bulk Power System" system reliability. Progress Energy believes that the applicability provision of the standard should instead focus attention of the standard only on the transmission lines below 200 kV that directly impact "Bulk Power System" reliability, as the current version requires.

In sum, while Progress Energy recognizes some validity in the Commission's concern, Progress Energy recommends that the applicability provision of this standard should be revised only if existing system design, planning or operating reliability criteria and parameters are considered as a basis for defining the applicability of the standard. For example, it may be appropriate to limit the applicability of the standard to all lines that are operated at 200 kV and above and to operationally significant circuits between 100 kV and 200 KV that are elements of Interconnection Reliability Operating Limits ("IROLs").

IEEE Standard for Minimum Clearances:
Progress Energy disagrees with objections in the FERC staff report to the use of the IEEE 516-2003 clearance as the minimum acceptable distances for "Clearance 2". The IEEE

516-2003 tables are appropriate for defining the minimum acceptable clearances to prevent flashover between conductors and vegetation under all rated electrical operating conditions. Closer minimum clearances such as the minimum length of a support insulator could have been adopted as a "lowest common denominator" clearance. However the clearance in IEEE 516-2003 was adopted to ensure an additional margin of reliability. FERC staff references ANSI Z-133 which is a safety standard that addresses worker safety as well as the safety of the general public. As such, the purpose of ANSI Z-133 is to address safety and is not focused on transmission line reliability, which is the purpose of FAC-003-1. OSHA, NESC and other related safety standards have clearances in excess of IEEE 516-2003. Those clearances are clearly focused on safety issues and will still apply to other aspects of design and operation of electric facilities (such as public and worker safety) but do not need to be referenced in a vegetation management reliability standard. Reliability standards are not the appropriate forum for addressing safety standards or issues, such as worker safety. The reliability standards should focus on reliability issues.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☒ Yes

   ☐ No

   Comments: Standard Applicability:
   The outage reporting requirement for the RRO should be deleted. Making FAC-003 applicable to the RRO is in violation of the legislation that established the ERO. This legislation states that enforceable standards can apply only to owners, users and opeartors of the bulk power system. Futher, in the NOPR on NERC standards, FERC declined to approve those standards that applied to the RROs, in part because the RROs are not owners, users or operators.

   Compliance:
   Progress Energy believes that FAC-003 should focus compliance on the issues that improve system/grid reliability. The VM standard outage reporting requirements do not focus on ensuring grid/network reliability.
   Category 2 outages ("Fall-ins" from vegetation within the R/W) result in a level of non-compliance (Level 2 or 3). However, "Fall-ins", either off-R/W or within the R/W, are random events. They would not occur sequentially (i.e., a fall-in causing another line section to overload resulting in another "fall-in") and would not have the potential to cascade into a widespread blackout. This is a customer reliability issue for that line, not a grid reliability issue. While it may be worthwhile to report for tracking and trending, it is not an outage that should result in non-compliance.
   Category 1 "Grow-ins" include outages that result from conductor side-wing would be reported as Category 1 outages, resulting in non-compliance (Level 3 or 4). However, conductor side-swing outages are random occurrences. They are not the sequential outages that would have the potential to cascade into a widespread blackout. This is a customer reliability issue for that line, not a grid reliability issue.
   These types of outages should be not be considered any different than numerous other random events that result in transmission line outages.

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
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Organization:	New York State Electric and Gas Corporation	
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NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
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Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

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Additional Member Name	Additional Member Organization	Region*	Segment*

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FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
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You do not have to answer all questions. Enter All Comments in Simple Text Format.

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The current draft FAC 003 1 will provide a high level of reliability for the transmission bulk delivery system which the public now expects. After a comprehensive industry rewiew which included industry balloting, the current Vegetaion Management Standard 003 1 was approved in Feburary 2006 and several sections did not go in to effect for one year (2007). Sufficient time should be allowed so that impact of the current standard can be monitored.
   FAC 003 1 was designed to prevent cascading type outages and by establishing a standard for 200KV lines and above catastrophic type power outages will be eliminated. Lower volatge lines can be placed under this standard when the impact on the bulk delivery system requires tighter management as determined by local reliability organizations. Inspection cycles must be designed to meet regional needs based on local conditons, and the current standard provides this flexiblity.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The current standard FAC 003 1 should be monitored for one to two full years after all segments have been implemented. February 14, 2007 is too soon to determine if a revision is required.
   The standard should apply to 200 KV lines and higher voltages to prevent cascading type power outages.
   The IEEE table 516 is referenced as a minimum guide for table 2 clearances. This table provides clear and measurable distances that can used for audits and potential compliance issues. The current standard allows enough flexibility so that the clearance 2 distance can be expanded if a utility feels that is the correct approach in a specfic region.
   The physical differences between electric systems, tree growth rates, local regulations, climate, and geography make it important to provide a flexible standard, a "one size fits all" approach will not be effective in the long run.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

Comments: The Vegetation Management Standard FAC 003 1 is comprehensive, and utilities following the established guidelines will be able to meet FERC's expecation of preventing bulk power delivery outages by using crisp measurable guidleines that offer limited flexiblity for varying conditions.

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

Group Name: Southern Company Transmission

Lead Contact: **Roman Carter**

Contact Organization: **Southern Co. Transmission**

Contact Segment: **1**

Contact Telephone: **205-257-6027**

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

Additional Member Name	Additional Member Organization	Region*	Segment*
Roman Carter	Southern Company Transmission	SERC	1
Steve Burns	Gulf Power Co.	SERC	1
Randall Gann	Alabama Power Co.	SERC	1
John West	Georgia Power Co.	SERC	1
Marc Butts	Southern Co. Transmission	SERC	1
JT Wood	Southern Co. Trans.	SERC	1
Jim Busbin	Southern Co. Trans.	SERC	1

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: We are not sure what you are asking? If you are asking whether we support the standard as it exists today-Southern does! If you are asking whether Southern Co. supports the changes being recommended in this Standard-we DON"T.

   The present standard appears to be serving its intended purpose and the industry as currently written. The standard should not be revised until it has demonstrated it is ineffective or inadequate for ensuring the reliability of the nation's transmssion grid.

   Any changes to the standard should be based on empirical data rather than the assumption that the Standard is not serving its intended purpose. The standard has not been in effect long enough to determine if it is ineffective.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The scope of the SAR should be limited to formatting and changes of wording that recognize the formation of the ERO and its procedures.

   The drafting team should not attempt to re-write the present clearance requirements, which are based on IEEE flashover distances. The clearance requirements in the orignal standard were written through extensive evaluation and input from the industry. There was strong industry consensus on the present language and the standard is serving its intended purpose very well. The clearance standard should not be revised until it is found to be ineffective or inadequate.

   The drafting team should not attempt to change the applicability of the present standard. The present standard applies to all 200 KV and higher lines, plus any other line the Regional Entity deems critical. A change in wording to make the standard apply to any bulk power system transmission line deemed critical by the ERO does not provide any additional safeguard that is not already contained in the standard as presently written.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

☒ No

Comments:

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Ron Falsetti	
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Telephone:	905 855-6187	
E-mail:	ron.falsetti@ieso.ca	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☒	2 — RTOs, ISOs,
☐ **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
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments:
   With respect to the item in the Brief Description section under FERC NOPR: "Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to Bulk Power System transmission lines that have an impact on reliability as determined by the ERO." It is the IESO's view that requiring the ERO to make these determinations, is inappropriate. We believe the standard should remain applicable to lines 200 kV and above and lines below 200 kV as determined by the Reliability Coordinator, similar to the PRC-023 standard.

   The IESO also suggests that it be made clear in the SAR that it will be a complete review of the subject requirements: to include the addition, deletion and modification of requirements, as agreed to by public consensus.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Mike Gentry	
Organization:	Salt River Project	
Telephone:	602-236-6408	
E-mail:	Mike.Gentry@srpnet.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Richard Dearman	
Organization:	Tennessee Valley Authority	
Telephone:	256-519-2067	
E-mail:	redearman@tva.gov	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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☐ **RFC**	☐	5 — Electric Generators
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	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: As worded this question is confusing however the following comments are presented on the SAR:

   The current standard contains appropriate requirements and measures to ensure that vegetation related outages will not cause cascading transmission blackouts. Mandating new expiicit inspection cycle frequencies will not enhance nor ensure reliability by inspecting more or less frequently. The current minimum vegetation clearances at maximum operating conditions that are established within the owner's program, which is auditable by the ERO, is sufficient to prevent vegetation related cascading transmission blackouts. Extending the requirements to a much a larger population of lines would reduce the current focus on the most important lines (those >200 kV). The IEEE standard when used as the minimum vegetation clearance distance at maximum operating condition will ensure desired performance of the lines. A standard of zero tolerance for vegetaion related outages in the ROW is not a weak standard on compliance.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: Minimum Inspection Intervals:

   FAC 003-1 provides the proper amount of flexibility regarding vegetation inspection cycles and that the Standards Drafting Team should not impose minimum inspection intervals on a continent with such regional diversity in climate and plant life.

   Requirement 1.1 of standard FAC-003-1 places the responsibility for proper inspection cycles on the entity that knows the local conditions and can best define what that inspection frequency should be, the Transmission Owner. Both NERC and the FERC staff have recognized that various local conditions can have an affect on the determination of adequate inspection frequencies. Establishing a mandatory minimum inspection frequency could have two detrimental effects on the industry.

   First, where a particular region is heavily forested and has heavy rainfall along with extended or year round growing seasons, a "back stop" minimum inspection frequency could lead transmission owners to conduct inspections less frequently than required by the local conditions. This could result in a Transmission Owner complying with the standard while not adequately protecting the reliability of that region's transmission system. This is a "lowest common denominator" approach which FERC has repeatedly stated is inappropriate for the reliability standards.

Second, where a particular region is arid, sparsely forested or has a minimum growing season, a "back stop" minimum could require a more frequent interval than is realistically needed. This would result in increased and unnecessary costs for electric utility customers without providing an increase in system reliability.

In its discussion of inspection intervals, FERC indicates that a "one-year vegetation inspection cycle is reasonable." FERC NOPR, 10/20/2002 paragraph 383. The Commission continues by stating "a one-year inspection cycle is the 'norm' for the industry, but not the lowest common denominator…" It follows from this observation that the industry as a whole recognizes and follows appropriate inspection intervals without a need to change the standard. Further, FERC also states "some variation to a continent-wide, one-year minimum inspection cycle should be allowed due to physical differences such as climate and species of vegetation." FERC NOPR 10/20/2006, paragraph 382. FERC's recognition that a "one size fits all" approach is not appropriate supports maintaining the existing inspection requirements in standard FAC-003-1.

Finally, the performance metrics of FAC-003 require the reporting of applicable transmission interruptions that are caused by vegetation. This process will identify Transmission Owners' inspection cycles that are not adequate. In this event, the ERO has the authority to engage the Transmission Owner in enforcement compliance actions and, therefore, can remedy any vegetation-related outage that is attributed to the Transmission Owner's inspection frequency.

Standard Applicability:
The 200 kV threshold for determining facilities subject to this standard should not be revised.

The transmission facilities below 200 kV have not been cited as impacting bulk power system reliability. The Final Report on the August 14, 2003 Blackout in the United states and Canada: Causes and Recommendations April 2004 by the U.S.- Canada Power System Outage Task Force and all referenced major blackouts(pages 103-115) in that report, cited only outages which involved vegetation at line voltages above 200 kV. Generally applying requirements appropriate for 200 kV lines to lines less than 200 kV will result in significant documentation and reporting of items such as restrictions, mitigation plans, off right-of-way vegetation-related outage investigation/information and other issues, all of which dilutes the focus on lines that directly impact bulk power system reliability.

Revising the standard to use general criteria or broad language for defining "Bulk Power System" transmission lines covered by the standard could become a "one size fits all" approach. If that approach were taken, the standard would cover a significant number of transmission lines that have no direct impact on bulk power system reliability under standard planning/operating conditions, resulting in a significant increase in costs for electric customers without improving "Bulk Power System" system reliability. The SERC VMS believes that the applicability provision of the standard should instead focus attention of the standard only on the transmission lines below 200 kV that directly impact "Bulk Power System" reliability, as the current version requires.

The applicability provision of this standard should be revised only if existing system design, planning or operating reliability criteria and parameters are considered as a basis for defining the applicability of the standard. To that end, each Regional Entity (RE) should determine the applicability of FAC-003 to those lines within the region that are between 100 kV and 200 KV if and only if they are identified as operationally significant elements of Interconnection Reliability Operating Limits ("IROLs").

IEEE Standard for Minimum Clearances:

The IEEE 516-2003 should continue to be used as the minimum acceptable distances for "Clearance 2". The IEEE 516-2003 tables are appropriate for defining the minimum acceptable clearances to prevent flashover between conductors and vegetation under all rated electrical operating conditions. Closer minimum clearances such as the minimum length of a support insulator could have been adopted as a "lowest common denominator" clearance. However the clearance in IEEE 516-2003 was adopted to ensure an additional margin of reliability. FERC staff references ANSI Z-133 which is a safety standard that addresses worker safety as well as the safety of the general public. As such, the purpose of ANSI Z-133 is to address worker safety and is not focused on transmission line reliability, which is the purpose of FAC-003-1. OSHA, NESC and other related safety standards have clearances in excess of IEEE 516-2003. Those clearances are clearly focused on safety issues and will still apply to other aspects of design and operation of electric facilities (such as public and worker safety) but do not need to be referenced in a vegetation management reliability standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☒ Yes

   ☐ No

   Comments: Standard Applicability:
   The outage reporting requirement for the RRO should be deleted. Making FAC-003 applicable to the RRO is in violation of the legislation that established the ERO. This legislation states that enforceable standards can apply only to owners, users and operators of the bulk power system. Futher, in the NOPR on NERC standards, FERC declined to approve those standards that applied to the RROs, in part because the RROs are not owners, users or operators.

   Compliance:
   Reporting requirements for Category 3 outages should be eliminated. These outages are not controllable, not relevant to compliance, not related to grid reliability, not related to cascading blackouts, and such reporting leads to unnecessarily biasing reliability related information.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
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☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: SERC Vegetation Management Subcommittee

Lead Contact: **Richard Dearman**

Contact Organization: **TVA**

Contact Segment: **1**

Contact Telephone: **256-519-2067**

Contact E-mail: **redearman@tva.gov**

Additional Member Name	Additional Member Organization	Region*	Segment*
Jay Farrington	Alabama Electric Coop	SERC	1
Randy Gann	Alabama Power Co.	SERC	1
Raymond Wiesehan	Ameren	SERC	1
John Neagle	Associated Electric Coop	SERC	1
Billy George	Duke Energy Carolinas	SERC	1
Ralph Hale	Entergy	SERC	1
Marc Tunstall	Fayetteville PWC	SERC	1
Jack Gardner	Progress Energy Carolinas	SERC	1
Jerry Lindler	SCE&G	SERC	1

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: The SERC VMS is unsure how to answer the question as it is worded, but has the following comments on the SAR:

   The current standard contains appropriate requirements and measures to ensure the owners vegetation management program is implemented and managed to ensure the reliability of the transmission system. Mandating inspection cycle frequencies will not enhance nor ensure reliability by inspecting more or less frequently. The minimum vegetation clearances at maximum operating conditions that are established within the owner's program, which is auditable by the ERO, will ensure reliability. Extending the requirements to lines other than those >200KV may reduce the focus on those lines and may cause the allocation of resources away from lines >200KV. Generally easements are narrower on lower voltage lines, requiring more resources and emphasis on these lines. This may have an effect on the ability to focus clearing efforts on those lines that will have a much greater impact on the bulk power system. The IEEE standard when used as the minimum clearance distance at maximum operating condition will ensure reliability when these clearances are maintained by vegetation management activities. In addition, we do not agree that a standard of zero tolerance for vegetaion-related outages in the ROW is weak on compliance.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: Minimum Inspection Intervals:
   The SERC VMS believes that FAC 003-1 provides the proper amount of flexibility regarding vegetation inspection cycles and that the Standards Drafting Team should not impose minimum inspection intervals on a continent with such regional diversity in climate and plant life.

   The purpose of Requirement 1.1 of standard FAC-003-1 is to put the responsibility for proper inspection cycles on the entity that knows the local conditions and can best define what that inspection frequency should be, the Transmission Owner. Both NERC and the FERC staff have recognized that various local conditions can have an affect on the determination of adequate inspection frequencies. Establishing a mandatory minimum inspection frequency could have two detrimental effects on the industry.

   First, where a particular region is heavily forested and has heavy rainfall along with extended or year round growing seasons, a "back stop" minimum inspection frequency could lead transmission owners to conduct inspections less frequently than required by the local conditions. This could result in a Transmission Owner complying with the

standard while not adequately protecting the reliability of that region's transmission system. This is a "lowest common denominator" approach which FERC has repeatedly stated is inappropriate for the reliability standards.

Second, where a particular region is arid, sparsely forested or has a minimum growing season, a "back stop" minimum could require a more frequent interval than is realistically needed. This would result in increased and unnecessary costs for electric utility customers without providing an increase in system reliability.

In its discussion of inspection intervals, FERC indicates that a "one-year vegetation inspection cycle is reasonable." FERC NOPR, 10/20/2002 paragraph 383. The Commission continues by stating "a one-year inspection cycle is the 'norm' for the industry, but not the lowest common denominator…" It follows from this observation that the industry as a whole recognizes and follows appropriate inspection intervals without a need to change the standard. Further, FERC also states "some variation to a continent-wide, one-year minimum inspection cycle should be allowed due to physical differences such as climate and species of vegetation." FERC NOPR 10/20/2006, paragraph 382. FERC's express recognition that a "one size fits all" approach is not appropriate further supports the SERC VMS's contention that the existing inspection requirements in standard FAC-003-1 should remain unchanged.

Finally, the performance metrics of FAC-003 require the reporting of applicable transmission interruptions that are caused by vegetation. This process should appropriately identify Transmission Owners' inspection cycles that are not adequate. In this event, the ERO has the authority to engage the Transmission Owner in enforcement compliance actions and, therefore, can remedy any vegetation-related outage that is attributed to the Transmission Owner's inspection frequency.

Standard Applicability:
The SERC VMS disagrees with the proposal to revise the 200 kV threshold for determining facilities subject to this standard.

The majority of transmission facilities below 200 kV have significantly different design/construction/operating characteristics and have not been cited as impacting bulk power system reliability. For example, the Final Report on the August 14, 2003 Blackout in the United states and Canada: Causes and Recommendations April 2004 by the U.S.-Canada Power System Outage Task Force and all referenced major blackouts(pages 103-115) in that report, cited only outages which involved vegetation at line voltages above 200 kV. Generally applying requirements appropriate for 200 kV lines to lines less than 200 kV will result in significant documentation and reporting of items such as restrictions, mitigation plans, off right-of-way vegetation-related outage investigation/information and other issues, all of which dilutes the focus on lines that directly impact bulk power system reliability.

Revising the standard to use general criteria or broad language for defining "Bulk Power System" transmission lines covered by the standard could become a "one size fits all" approach. If that approach were taken, the standard would cover a significant number of transmission lines that have no direct impact on bulk power system reliability under standard planning/operating conditions, resulting in a significant increase in costs for electric customers without improving "Bulk Power System" system reliability. The SERC VMS believes that the applicability provision of the standard should instead focus attention of the standard only on the transmission lines below 200 kV that directly impact "Bulk Power System" reliability, as the current version requires.

In sum, while the SERC VMS recognizes some validity in the Commission's concern, the SERC VMS recommends that the applicability provision of this standard should be revised only if existing system design, planning or operating reliability criteria and parameters are considered as a basis for defining the applicability of the standard. To

that end, the SERC VMS recommends each Regional Entity (RE) determine applicability of FAC-003 to those lines within the region that are between 100 kV and 200 KV if and only if they are identified as operationally significant elements of Interconnection Reliability Operating Limits ("IROLs").

IEEE Standard for Minimum Clearances:
The SERC VMS disagrees with objections in the FERC staff report to the use of the IEEE 516-2003 clearance as the minimum acceptable distances for "Clearance 2". The IEEE 516-2003 tables are appropriate for defining the minimum acceptable clearances to prevent flashover between conductors and vegetation under all rated electrical operating conditions. Closer minimum clearances such as the minimum length of a support insulator could have been adopted as a "lowest common denominator" clearance. However the clearance in IEEE 516-2003 was adopted to ensure an additional margin of reliability. FERC staff references ANSI Z-133 which is a safety standard that addresses worker safety as well as the safety of the general public. As such, the purpose of ANSI Z-133 is to address worker safety and is not focused on transmission line reliability, which is the purpose of FAC-003-1. OSHA, NESC and other related safety standards have clearances in excess of IEEE 516-2003. Those clearances are clearly focused on safety issues and will still apply to other aspects of design and operation of electric facilities (such as public and worker safety) but do not need to be referenced in a vegetation management reliability standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

☒ Yes

☐ No

Comments: Standard Applicability:
The outage reporting requirement for the RRO should be deleted. Making FAC-003 applicable to the RRO is in violation of the legislation that established the ERO. This legislation states that enforceable standards can apply only to owners, users and operators of the bulk power system. Futher, in the NOPR on NERC standards, FERC declined to approve those standards that applied to the RROs, in part because the RROs are not owners, users or operators.

Compliance:
The SERC VMS recommends deleting reporting requirements for Category 3 outages. These outages are not controllable, not relevant to compliance, not related to grid reliability, not related to cascading blackouts, and such reporting leads to unnecessarily biasing reliability related information.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Brian Thumm	
Organization:	ITC Transmission	
Telephone:	248.374.7846	
E-mail:	bthumm@itctransco.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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Group Comments (Complete this page if comments are from a group.)

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Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
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The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: While there may be "statutory" needs to address (e.g., FERC's request to modify particular components of the existing Standard), we do not feel there is a reliability need to do so.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The Standard Drafting Team should not be given lattitude to "include other improvements to the standards deemed appropriate by the drafting team." The purpose of the SAR is to identify the changes contemplated by the need for the Standard Revision. If there are changes that the SAR requestor would like to make to the Standard, they should be spelled out in the SAR. If the SAR requestor does not really know the changes that should be made to the standard, then the SAR should be withdrawn until the need for a SAR can be adequately justified.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments: We think the Standard is fine the way it is.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **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
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: ISO RTO Council Standards Review Committee

Lead Contact: **Charles Yeung**

Contact Organization: **Southwest Power Pool**

Contact Segment: **2**

Contact Telephone: **832-724-6142**

Contact E-mail: **cyeung@spp.org**

Additional Member Name	Additional Member Organization	Region*	Segment*
Tom Bowe	PJM	RFC	2
Mike Calimano	NYISO	NPCC	2
Ron Falsetti	IESO	NPCC	2
Matt Goldberg	ISO-NE	NPCC	2
Brent Kingsford	CAISO	WECC	2
Anita Lee	AESO	WECC	2
Steve Myers	ERCOT	ERCOT	2
Bill Phillips	MISO	RFC	2
		SERC	
		MRO	

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The SRC would suggest that the SAR be clear that it will be a complete review of the subject requirements: to include the addition, deletion and modification of requirements as agreed to by public consensus.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	James H. Sorrels, Jr.	
Organization:	American Electric Power	
Telephone:	(614) 716-2370	
E-mail:	jhsorrels@AEP.com	
NERC Region		**Registered Ballot Body Segment**
☒ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
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	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: American Electric Power believes that the current standard (when thoroughly read and understood) is completely adequate to maintain a reliable transmission system with minimum risk of vegetation-related outages.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: American Electric Power is not aware of any evidence to support a need for revising the vegetation management standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments: As stated in responses to questions 1 and 2, AEP believes that the current standard is adequate and that we are not aware of evidence to support a need for revising the current vegetation management standard.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	John R. Kellum, Jr.	
Organization:	CenterPoint Energy Houston Electric, LLP	
Telephone:	713-207-6036	
E-mail:	john.kellum@centerpointenergy.com	
NERC Region		**Registered Ballot Body Segment**
☒ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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☐ **RFC**	☐	5 — Electric Generators
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☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: CenterPoint Energy disagrees that there is a reliability-related need to address the proposed revisions to FAC-003-1.

   This SAR proposes to establish a minimum vegetation inspection cycle for transmission facilities throughout the United States. Yet, based upon the location of each utility, different vegetation and growth rates will be experienced throughout the country. Placing a time specific vegetation management cycle for all regions does not address the wide divergence of vegetation and growth rates that each utility must face.

   For instance, in certain areas of the country, such as desert areas, vegetation growth rates are exceedingly small; therefore, vegetation management cycles would likely be for extended periods of time. Placing a required frequent cycle will unnecessarily increase the costs to ratepayers. While in other parts of the country, vegetation can grow rapidly, and there should be shorter periods of time for the vegetation management cycle.

   Based upon these facts, CenterPoint Energy does not believe that adopting a standard inspection cycle that is applicable to all regions is prudent. However, CenterPoint Energy understands and supports the concept of standard requirements applicable to all regions where such standardization is practical and reasonable. In the specific case of vegetation management, it may be reasonable and practical to establish a national standard based on maximum number of allowed annual vegetation-caused outages per 100-circuit-miles of transmission. Such a standard would allow utilities flexibility to use inspection cycles and other practices that are prudent based on each utility's circumstances while still holding utilities accountable for the results.

   The SAR also proposes to change the 200 kV threshold and use of the IEEE standard for minimum clearances. These requirements were established by a broad consensus of industry experts. CenterPoint Energy believes the broad industry consensus on these matters should be respected.

   CenterPoint Energy submits the following specific comments:

   Minimum inspection cycle, FERC NOPR Paragraph 382-

   CenterPoint Energy disagrees that "complete discretion left to the transmission owners in determining inspection cycles limits the effectiveness of the Reliability Standard." The standard is effective because it requires the transmission owners to balance several factors to achieve the optimum inspection cycle.

It is not necessary to specify a specific inspection interval in the standard. The inspection cycle interval is one component of several conditions to be considered in FAC-003-1 Requirement R1.2.1 for establishing the required Clearance 1 of the NERC standard. Other conditions that should be considered include operating voltage, appropriate vegetation management techniques, fire risk, reasonably anticipated tree and conductor movement, species types and growth rates, species failure characteristics, local climate and rainfall patterns, line terrain and elevation, location of the vegetation within the span, and worker approach distance requirements. It is the growth rate of the vegetation coupled with the amount of clearance achieved at the time of maintenance that determines the inspection cycle interval. As such, the longer the inspection interval, the larger the clearance that must attained to achieve balance. If the utility does not achieve balance, then it will likely not avoid vegetation-related outages. It would not be necessary for a utility to be faulted based on its inspection interval, rather it would be measured for compliance under FAC-003-1 D2.3.1, D2.3.2, D2.3.3, and D2.4.1 for operational conditions regarding maintaining the minimum clearance (Clearance 2) required under FAC-003-1 Requirement R1.2.2 and any actual vegetation-related outages.

FERC NOPR Paragraph 383-

CenterPoint Energy disagrees that "a one-year vegetation inspection cycle is the "norm" for the industry." The reference to "76 of 161 entities surveyed conduct ground inspections once a year" was taken from Table 3 entitled "Ground Inspection Frequency". The table can also be interpreted to indicate that 78 of 161 entities surveyed conduct ground inspections on cycles other than once a year. At best, the table shows a distribution of the varying practices of companies surveyed. The table by itself does not indicate the level of reliability provided by each of those companies.

The table entries may also be incomplete because the original order under Docket EL04-52-000 under paragraph 12c asked "how often the transmission provider inspects that facility for vegetation management purposes" which did not specify ground or aerial inspection. The EEI template that many respondents used did specify ground inspection and aerial inspection separately, but the template was not used by all of the respondents as noted in the report. Interpolation of the data collected may have affected the accuracy of the results reported, so specific conclusions should consider the disparity between how the data request was worded and how the data was reported. It is important to clearly distinguish between ground inspection, aerial inspection, and pruning cycle when soliciting and interpreting industry data. Additionally, new technologies such as airborne laser surveys are coming to the market which may replace or augment other types of vegetation inspections as they become cost-effective. The industry "norm" may change as a result.

FERC NOPR Paragraph 384-

Although CenterPoint Energy does not agree with establishing a "one year minimum inspection cycle", it should be left to the discretion of the transmission owner as to what type of inspection is employed so that the most cost-effective methods can be utilized, depending on the system's size and terrain. It should also be made clear that "inspection cycle" is not intended to mean "pruning cycle".

Remove 200kV threshold, FERC NOPR Paragraph 385-

CenterPoint Energy believes the applicability of FAC-003-1 should be "to all transmission lines operated at 200kV and above and to any lower voltage lines designated by the regional reliability organization as critical to reliability", because such a standard most closely matches the vegetation management reporting requirements from Docket EL04-52-000. Voltages below this threshold are not likely to impact the reliability of the Bulk Power System. Further, regional reliability organizations have the authority to designate lower voltages critical to reliability as appropriate. The proposed change is unnecessary.

IEEE Standard as basis for minimum clearance to prevent flashover (Clearance 2) -

CenterPoint Energy believes that the IEEE standard is sufficient and appropriate as a basis to determine the specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions (Clearance 2). Clearance 2 also must consider additional clearance for the dynamic movement of the transmission conductors to avoid vegetation related outages. Thus, the minimum clearances that a transmission owner must identify and document depend on a variety of conditions including, but not limited to, transmisison line voltage, temperature, wind velocities, and altitude.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: CenterPoint Energy does not agree with the scope of the SAR for the reasons discussed in response to question 1.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Kathleen Goodman	
Organization:	ISO New England	
Telephone:	(413) 535-4111	
E-mail:	kgoodman@iso-ne.com	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☐	1 — Transmission Owners
☐ **FRCC**	☒	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
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☐ **RFC**	☐	5 — Electric Generators
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☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
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Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact E-mail:

Additional Member Name	Additional Member Organization	Region*	Segment*

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

Background Information:

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FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: ISO New England would suggest that the SAR be clear that it will be a complete review of the subject requirements: to include the addition, deletion and modification of requirements as agreed to by public consensus.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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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**	☐	1 — Transmission Owners
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☐ **MRO**	☐	3 — Load-serving Entities
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☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: Public Service Commission of South Carolina

Lead Contact: **Phil Riley**

Contact Organization: **Public Service Commission of South Carolina**

Contact Segment: **9**

Contact Telephone: **803-896-5154**

Contact E-mail: **philip.riley@psc.sc.gov**

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

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

Background Information:

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- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

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1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: We are concerned that lowering the applicability threshold to all lines below 200KV will divert attention and resources from the higher voltage lines which have a higher probability of causing grid problems. The RRO and transmission owners best know which lower voltage lines should be included under the requirements of the standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Robert Coish	
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Telephone:	204-487-5479	
E-mail:	rgcoish@hydro.mb.ca	
NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
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Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

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Additional Member Name	Additional Member Organization	Region*	Segment*

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FERC NOPR

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FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☐ No

   Comments:

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: The scope of the SAR is too vague on several important points. (1) There is no definition for the phrase bulk-power system - it would be therefore unclear as to what facilities would be covered by the standard. What guidance will the SDT have in determining what is meant by the bulk-power system? Since this relates to the large issue of the Bulk Electric System versus Bulk-Power System is this SAR the appropriate vehicle to address this issue? There should be a wider discussion and resolution to this issue for consistent application to all standards by all SDTs. (2)The concept of Mitigation Time Horizons has not been defined and the use of Mitigation Time Horizons has not been detailed. (3)The ERO is not the appropriate entity to determine which lines have an impact on reliability. This should be Transmission Operators in coordination with Reliability Coordinators. If this standard is to include the methodology to determine which lines have a reliability impact on the bulk-power system, the the applicability of the standard will have to include other entities besides the Transmission Owners. (4) The SAR refers to RA, i.e., Reliability Authority. This entity no longer exists in the Functional Model but has been replaced by Reliability Coordinator. (5) What is meant by "Too weak on compliance"? (5) FERC objects to IEEE Standard but there is no other guidance to the standard drafting team.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☐ No

   Comments: None identified.

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

Please use this form to submit comments on the Vegetation Management SAR. Comments must be submitted by **February 14, 2007.** You may submit the completed form by e-mail to sarcomm@nerc.com with the words "Vegetation Management" in the subject line. If you have questions, please contact Richard Schneider at richard.schneider@nerc.net or by telephone at 609-452-8060.

Individual Commenter Information **(Complete this page for comments from one organization or individual.)**		
Name:	Roger Champagne	
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NERC Region		**Registered Ballot Body Segment**
☐ **ERCOT**	☒	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **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
	☐	10 — Regional Reliability Organizations, Regional 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 prior page.

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

- Develop a minimum vegetation inspection cycle that allows variation for physical differences, as discussed above; and
- Remove the applicability to transmission lines operated at 200 kV and above so that the Reliability Standard applies to bulk power system transmission lines that have an impact of reliability as determined by the ERO.

FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

- Reliability Coordinator vs. Regional Reliability Organization
- Too weak on compliance
- Format inconsistencies

The improvements to the standard should bring the standard's format and elements into conformance with the latest version of the *Reliability Standards Development Procedure* and the ERO Rules of Procedure.

The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: We believe that it is premature to move forward with changes based on voltage class. Applicability of the standard should only be to those portions of the system that are part of the Bulk Power System which have been determined by a performance based methodology.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: FERC staff report has objection to use IEEE standard. Should we understand that another standard is recommended instead?

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

   ☐ Yes

   ☒ No

   Comments:

Comment Form — 1st Posting of SAR for Revisions to Vegetation Management FAC-003-1

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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**	☐	1 — Transmission Owners
☐ **FRCC**	☐	2 — RTOs, ISOs,
☐ **MRO**	☐	3 — Load-serving Entities
☐ **NPCC**	☐	4 — Transmission-dependent Utilities
☐ **RFC**	☐	5 — Electric Generators
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☐ **WECC**	☐	8 — Small Electricity End Users
☐ **NA – Not Applicable**	☐	9 — Federal, State, Provincial Regulatory or other Government Entities
	☐	10 — Regional Reliability Organizations, Regional Entities

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

Group Name: South Carolina Electric & Gas Company

Lead Contact: **Jerry Lindler**

Contact Organization: **Electric Transmission**

Contact Segment: **1**

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Additional Member Name	Additional Member Organization	Region*	Segment*
Lee Xanthakos	**SCE&G**	**SERC**	1
Clay Young	**SCE&G**	**SERC**	3
Matt Hammond	**SCE&G**	**SERC**	6
Rick Jones	**SCE&G**	**SERC**	5

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

Background Information:

FAC-003-1 is a relatively new standard that was approved in 2006. FAC-003 has some "fill-in-the-blank" components to eliminate. In addition, the following comments submitted by FERC and stakeholders need to be addressed in the refinement of the standard:

FERC NOPR

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FERC staff report

- Objections to use of IEEE standard

Stakeholder Comments

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The development may include other improvements to the standards deemed appropriate by the drafting team, with the consensus of stakeholders, consistent with establishing high quality, enforceable and technically sufficient bulk power system reliability standards.

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

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

1. Do you agree that there is a reliability-related need to address the proposed revisions to FAC-003-1 — Transmission Vegetation Management? If not, please explain in the comment area.

   ☒ Yes

   ☒ No

   Comments: SCE&G is unsure how to interpret the question but would like to offer the following comments:

   The current standard contains appropriate requirements and measures to ensure the owners vegetation management program is implemented and managed to ensure the reliability of the transmission system. Mandating inspection cycle frequencies will not enhance nor ensure reliability by inspecting more or less frequently. The minimum vegetation clearances at maximum operating conditions that are established within the owner's program, which is auditable by the ERO, will ensure reliability. Extending the requirements to lines other than those >200KV may reduce the focus on those lines and may cause the allocation of resources away from lines >200KV. Generally easements are narrower on lower voltage lines, requiring more resources and emphasis on these lines. This may have an effect on the ability to focus clearing efforts on those lines that will have a much greater impact on the bulk power system. The IEEE standard when used as the minimum clearance distance at maximum operating condition will ensure reliability when these clearances are maintained by vegetation management activities. In addition, we do not agree that a standard of zero tolerance for vegetaion-related outages in the ROW is weak on compliance.

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

   ☐ Yes

   ☒ No

   Comments: Minimum Inspection Intervals:
   SCE&G believes that FAC 003-1 provides the proper amount of flexibility regarding vegetation inspection cycles and that the Standards Drafting Team should not impose minimum inspection intervals on a continent with such regional diversity in climate and plant life.

   The purpose of Requirement 1.1 of standard FAC-003-1 is to put the responsibility for proper inspection cycles on the entity that knows the local conditions and can best define what that inspection frequency should be, the Transmission Owner. Both NERC and the FERC staff have recognized that various local conditions can have an affect on the determination of adequate inspection frequencies. Establishing a mandatory minimum inspection frequency could have two detrimental effects on the industry.

   First, where a particular region is heavily forested and has heavy rainfall along with extended or year round growing seasons, a "back stop" minimum inspection frequency could lead transmission owners to conduct inspections less frequently than required by

the local conditions. This could result in a Transmission Owner complying with the standard while not adequately protecting the reliability of that region's transmission system. This is a "lowest common denominator" approach which FERC has repeatedly stated is inappropriate for the reliability standards.

Second, where a particular region is arid, sparsely forested or has a minimum growing season, a "back stop" minimum could require a more frequent interval than is realistically needed. This would result in increased and unnecessary costs for electric utility customers without providing an increase in system reliability.

In its discussion of inspection intervals, FERC indicates that a "one-year vegetation inspection cycle is reasonable." FERC NOPR, 10/20/2002 paragraph 383. The Commission continues by stating "a one-year inspection cycle is the 'norm' for the industry, but not the lowest common denominator…" It follows from this observation that the industry as a whole recognizes and follows appropriate inspection intervals without a need to change the standard. Further, FERC also states "some variation to a continent-wide, one-year minimum inspection cycle should be allowed due to physical differences such as climate and species of vegetation." FERC NOPR 10/20/2006, paragraph 382. FERC's express recognition that a "one size fits all" approach is not appropriate further supports the SERC VMS's contention that the existing inspection requirements in standard FAC-003-1 should remain unchanged.

Finally, the performance metrics of FAC-003 require the reporting of applicable transmission interruptions that are caused by vegetation. This process should appropriately identify Transmission Owners' inspection cycles that are not adequate. In this event, the ERO has the authority to engage the Transmission Owner in enforcement compliance actions and, therefore, can remedy any vegetation-related outage that is attributed to the Transmission Owner's inspection frequency.

Standard Applicability:
SCE&G disagrees with the proposal to revise the 200 kV threshold for determining facilities subject to this standard.

The majority of transmission facilities below 200 kV have significantly different design/construction/operating characteristics and have not been cited as impacting bulk power system reliability. For example, the Final Report on the August 14, 2003 Blackout in the United states and Canada: Causes and Recommendations April 2004 by the U.S.-Canada Power System Outage Task Force and all referenced major blackouts(pages 103-115) in that report, cited only outages which involved vegetation at line voltages above 200 kV. Generally applying requirements appropriate for 200 kV lines to lines less than 200 kV will result in significant documentation and reporting of items such as restrictions, mitigation plans, off right-of-way vegetation-related outage investigation/information and other issues, all of which dilutes the focus on lines that directly impact bulk power system reliability.

Revising the standard to use general criteria or broad language for defining "Bulk Power System" transmission lines covered by the standard could become a "one size fits all" approach. If that approach were taken, the standard would cover a significant number of transmission lines that have no direct impact on bulk power system reliability under standard planning/operating conditions, resulting in a significant increase in costs for electric customers without improving "Bulk Power System" system reliability. SCE&G believes that the applicability provision of the standard should instead focus attention of the standard only on the transmission lines below 200 kV that directly impact "Bulk Power System" reliability, as the current version requires.

In sum, while SCE&G recognizes some validity in the Commission's concern, we recommend that the applicability provision of this standard should be revised only if existing system design, planning or operating reliability criteria and parameters are considered as a basis for defining the applicability of the standard. To that end, we

recommend that each Regional Entity (RE) determine applicability of FAC-003-1 to those lines within the region that are between 100 kV and 200 KV if and only if they are identified as operationally significant elements of Interconnection Reliability Operating Limits ("IROLs").

IEEE Standard for Minimum Clearances:
SCE&G disagrees with objections in the FERC staff report to the use of the IEEE 516-2003 clearance as the minimum acceptable distances for "Clearance 2". The IEEE 516-2003 tables are appropriate for defining the minimum acceptable clearances to prevent flashover between conductors and vegetation under all rated electrical operating conditions. Closer minimum clearances such as the minimum length of a support insulator could have been adopted as a "lowest common denominator" clearance. However the clearance in IEEE 516-2003 was adopted to ensure an additional margin of reliability. FERC staff references ANSI Z-133 which is a safety standard that addresses worker safety as well as the safety of the general public. As such, the purpose of ANSI Z-133 is to address worker safety and is not focused on transmission line reliability, which is the purpose of FAC-003-1. OSHA, NESC and other related safety standards have clearances in excess of IEEE 516-2003. Those clearances are clearly focused on safety issues and will still apply to other aspects of design and operation of electric facilities (such as public and worker safety) but do not need to be referenced in a vegetation management reliability standard.

3. Are there additional revisions, beyond those identified in the SAR that should be addressed within the scope of this project?

☒ Yes

☐ No

Comments: Compliance:
The SERC VMS recommends deleting reporting requirements for Category 3 outages. These outages are not controllable, not relevant to compliance, not related to grid reliability, not related to cascading blackouts, and such reporting leads to unnecessarily biasing reliability related information.