

Consideration of Comments on 3rd Draft of FAC-003-2 Transmission Vegetation Management — Part of Project 2007-07 Vegetation Management

The Vegetation Management Standard Drafting Team and the Standards Committee's Process Subcommittee thank all those who submitted comments on the 3rd Draft of FAC-003-2 Transmission Vegetation Management. The standard was posted for a 30-day public comment period from March 1, 2010 through March 31, 2010. Stakeholders were asked to provide feedback on the standard and its proposed format through a special Electronic Comment Form. There were 13 questions posed, and most of the questions were developed to collect stakeholder feedback on the proposed "results-based format" for the standard. There were 55 sets of comments, including comments from more than 100 different people from over 60 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

On January 14, 2010, the NERC Standards Committee endorsed the use of Project 2007-07 Vegetation Management as the prototype for the proof-of-concept for using the results-based criteria for developing a reliability standard. The results-based initiative is intended to focus the collective effort of NERC and industry participants on improving the clarity and quality of NERC reliability standards by developing performance, risk and competency-based requirements that accomplish a reliability objective through a defense-in-depth strategy, while eliminating documentation-driven requirements that do not have an impact on bulk power system reliability.

This report provides a copy of each of the questions that was posted for stakeholder comment with the third draft of FAC-003-2, a summary indicating how the drafting team or the Process Subcommittee used stakeholder comments submitted in response to that question, and the comments received. The comments may be viewed in their original format at the following site:

http://www.nerc.com/filez/standards/Vegetation-Management_Project_2007-7.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures:
<http://www.nerc.com/standards/newstandardsprocess.html>.

Index to Questions, Comments, and Responses

1.	In response to comments received regarding potential for “double jeopardy” and to provide differentiation between transmission lines designated as having IROLs and Major WECC transfer paths from those that are not, the SDT consolidated requirements R4 through R8 found in the August 2009 draft of FAC-003-2 into two requirements in the latest draft of FAC-003-2 (new requirements R1 and R2). Do you agree? Please explain.	10
2.	The results-based reliability standard criteria focus on striving to achieve a portfolio of performance-based, risk-based, and competency-based mandatory reliability requirements that provide an effective defense-in-depth strategy for achieving an adequate level of reliability of the bulk power system in lieu of prescriptive requirements. Consequently, the SDT revised R1 and its subparts found in the August 2009 draft of FAC-003-2 in favor of the text in the latest draft of FAC-003-2 (new requirement R3). Do you agree? Please explain.	19
3.	Do you agree with the overall layout of the proposed template? If not, please suggest an alternative layout.	28
4.	Do you agree with grouping the standard development timeline (previously called roadmap) with the revision history, and the effective date(s) and putting this administrative information up front before the Introduction Section? Please explain.	36
5.	Do you agree with grouping the Requirements and Measures together, in one Section now called Requirements and Measures? Please explain.	41
6.	Do you agree with grouping VRFs, Time Horizons and VSLs together, and putting them in a table separate from the Requirements and Measures Section? Please explain.	46
7.	Do you agree with the insertion of text boxes, where necessary, to help readers better understand the basis of the Definitions and Requirements? Please explain.	51
8.	Do you agree with the addition of a Guideline and Technical Basis Section to place technical materials and other related information that assists entities in understanding how to comply with the standard but does not contain mandatory actions/activities? Please explain.	58
9.	Do you prefer putting URL links to reference materials in the Guideline and Technical Basis Section, or do you prefer putting the additional technical/information materials in appendices, where needed, to supplement the Guideline and Technical Basis Sections? Please explain.	65
10.	Do you agree with the addition of the Background Section to allow provision of background information, and to elaborate on the reliability-related drivers for the standard/change? Please explain.	71
11.	Do you agree with the addition of an Administrative Procedure Section to place administrative/procedural requirements that are contained in the existing standards but which do not meet the results-based or risk-based criteria? Please explain.	77
12.	Is there any other information that should be included in the standard document? If so, please explain why you feel that this information should be included.	83
13.	Do you have any other comment regarding the draft FAC-003-2 Transmission Vegetation Management standard that have not been addressed above? If yes, please provide a reference to the section, requirement, or subrequirement that you believe should be changed, added or deleted and the rationale for your proposal.	89

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

The Industry Segments are:

- 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

		Commenter	Organization	Industry Segment											
				1	2	3	4	5	6	7	8	9	10		
1.	Group	Guy Zito	Northeast Power Coordinating Council												X
Additional Member		Additional Organization		Region		Segment Selection									
1.	Alan Adamson	New York State Reliability Council		NPCC		10									
2.	Gregory Campoli	New York Independent System Operator		NPCC		2									
3.	Roger Champagne	Hydro-Quebec TransEnergie		NPCC		2									
4.	Sylvain Clermont	Hydro-Quebec TransEnergie		NPCC		1									
5.	Gerry Dunbar	Northeast Power Coordinating Council		NPCC		10									
6.	Ben Eng	New York Power Authority		NPCC		4									
7.	Brian Evans-Mongeon	Utility Services		NPCC		8									
8.	Mike Garton	Dominion Resources Services, Inc.		NPCC		5									
9.	Brian L. Gooder	Ontario Power Generation Incorporated		NPCC		5									
10.	David Kiguel	Hydro One Networks Inc.		NPCC		1									
11.	Michael R. Lombardi	Northeast Utilities		NPCC		1									
12.	Randy MacDonald	New Brunswick System Operator		NPCC		2									
13.	Greg Mason	Dynegy Generation		NPCC		5									
14.	Bruce Metruck	New York Power Authority		NPCC		6									
15.	Michael Schiavone	National Grid		NPCC		1									
16.	Lee Pedowicz	Northeast Power Coordinating Council		NPCC		10									

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

	Commenter	Organization	Industry Segment																				
			1	2	3	4	5	6	7	8	9	10											
17.	Robert Pellegrini	The United Illuminating Company	NPCC							1													
2.	Group	Jim Case	SERC OC Standards Review Group										X			X							
		Additional Member	Additional Organization				Region				Segment Selection												
1.	Gerald Beckerle	Ameren	SERC								1, 3												
2.	Alvis Ianton	Southern Illinois Power Cooperative	SERC								1, 3, 5												
3.	Melinda Montgomery	Entergy	SERC								1, 3												
4.	Ken Parker	Entegra	SERC								5												
5.	Larry Rodriguez	Entegra	SERC								5												
6.	Gwen Frazier	Gulf Power	SERC								1, 3, 5												
7.	Stephen Mizelle	Southern	SERC								1, 3, 5												
8.	Brad Young	E.ON.US	SERC								1, 3, 5												
9.	John Troha	SERC	SERC								10												
3.	Group	Louis Slade	Dominion										X			X		X	X				
		Additional Member	Additional Organization				Region				Segment Selection												
1.	Jalal Babik	Electric Market Policy	SERC								6, 5												
2.	Mike Garton	Electric Market Policy	MRO								6, 5												
3.	John Loftis	NERC compliance	SERC								1, 3												
4.	Angela Park	NERC compliance	SERC								1, 3												
5.	Aaron Jonas	Forestry	SERC								1												
4.	Group	Carol Gerou	MRO's NERC Standards Review Subcommittee																				X
		Additional Member	Additional Organization				Region				Segment Selection												
1.	Chuck Lawrence	American Transmission Company	MRO								1												
2.	Tom Webb	Wisconsin Public Service Company	MRO								3, 4, 5, 6												
3.	Terry Bilke	Midwest ISO Inc.	MRO								2												
4.	Jodi Jenson	Western Area Power Administration	MRO								1, 6												
5.	Ken Goldsmith	Alliant Energy	MRO								4												
6.	Dave Rudolph	Basin Electric Power Cooperative	MRO								1, 3, 5, 6												
7.	Eric Ruskamp	Lincoln Electric System	MRO								1, 3, 5, 6												
8.	Joseph Knight	Great River Energy	MRO								1, 3, 5, 6												

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
9.	Joe DePoorter	Madison Gas & Electric	MRO						3, 4, 5, 6						
10.	Scott Nickels	Rochester Public Utilities	MRO						4						
11.	Terry Harbour	MidAmerican Energy Company	MRO						1, 3, 5, 6						
5.	Group	Denise Koehn	Bonneville Power Administration			X		X		X	X				
Additional Member		Additional Organization			Region					Segment Selection					
1.	Chuck Sheppard	BPA Transmission Field Services			WECC					1					
2.	Don Swanson	BPA Transmission Line Maintenance			WECC					1					
6.	Group	Joe Spencer (SERC staff) and Jack Gardner (VMS chair)	SERC Vegetation Management Sub-committee												X
Additional Member		Additional Organization			Region					Segment Selection					
1.	Randy Gann	Alabama Power Company			SERC										
2.	Gerald Beckerle	Ameren Services Company			SERC										
3.	Jeffrey Hackman	Ameren Services Company			SERC										
4.	John Neagle	Associated Electric Cooperative, Inc.			SERC										
5.	Billy George	Duke Energy Carolinas			SERC										
6.	Ron Adams	Duke Energy Carolinas			SERC										
7.	Robert Trimble	E.ON U.S. Services Inc. for LG&E & KU			SERC										
8.	Jim Case	Entergy			SERC										
9.	Ralph Hale	Entergy			SERC										
10.	Marc Tunstall	Fayetteville Public Works Commission			SERC										
11.	Reggie Wallace	Fayetteville Public Works Commission			SERC										
12.	Terry Wilson	PowerSouth Energy Cooperative			SERC										
13.	Jack Gardner	Progress Energy Carolinas			SERC										
14.	John Wolfmeyer	SERC Reliability Corporation			SERC										
15.	Jerry Lindler	South Carolina Electric & Gas Company			SERC										
16.	Richard Dearman	Tennessee Valley Authority			SERC										
7.	Group	Ben Li	IRC Standards Review Committee				X								
Additional Member		Additional Organization			Region					Segment Selection					

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

	Commenter	Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
1.	Bill Phillips	MISO	MRO								2				
2.	James Castle	NYISO	NPCC								2				
3.	Charles Yeung	SPP	SPP								2				
4.	Matt Goldberg	ISO-NE	NPCC								2				
5.	Mark Thompson	AESO	WECC								2				
6.	Patrick Brown	PJM	RFC								2				
7.	Steve Myers	ERCOT	ERCOT								2				
8.	Group	Richard Kafka	Pepco Holdings, Inc. - Affiliates	X		X		X	X						
Additional Member		Additional Organization		Region						Segment Selection					
1.	Pat Byrne	Pepco Holdings, Inc	RFC								1				
2.	Dave Paduda	Potojmac Electric Power Company	RFC								1				
3.	Steve Benn	Delmarva Power & Light	RFC								1				
4.	Olivia Watts	Atlantic City Electric	RFC								1				
5.	Steve Genua	Pepco Holdings, Inc	RFC								1				
9.	Group	Sam Ciccone	FirstEnergy	X		X	X	X	X						
Additional Member		Additional Organization		Region						Segment Selection					
1.	Rebecca Spach	FE	RFC								1				
2.	Katrina Schnobrich	FE	RFC								1				
3.	Dave Folk	FE	RFC								1, 3, 4, 5, 6				
4.	Doug Hohlbaugh	FE	RFC								1, 3, 4, 5, 6				
10.	Group	Carter B. Edge	Ad Hoc Group subteam formed to review draft standard												X
Additional Member		Additional Organization		Region						Segment Selection					
1.	Peter Heidrich	FRCC	FRCC												
2.	Pat Huntley	SERC	SERC												
3.	Roman Carter	NERC	NA - Not Applicable												
4.	Steve Ruckert	WECC	WECC												
5.	Chris Hajovsky	RRI Energy	NA - Not Applicable												
11.	Group	Frank Gaffney	Florida Municipal Power Agency (FMPA) and Some	X		X	X	X	X						

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

		Commenter	Organization	Industry Segment											
				1	2	3	4	5	6	7	8	9	10		
			Members												
Additional Member		Additional Organization		Region					Segment Selection						
1.	Tim Byerle	New Smyrna Beach		FRCC					1, 3, 4						
2.	Jim Howard	Lakeland Electric		FRCC					1, 3, 5						
3.	Greg Woessner	Kissimmee Utilities Authority		FRCC					1, 3, 5						
4.	Lynne Mila	Clewiston		FRCC					1, 3, 4						
5.	Joe Stonecipher	Beaches Energy Services		FRCC					1, 3, 4						
6.	Cairo Venegas	Fort Pierce Utilities Authority		FRCC					1, 3, 4, 5						
12.	Individual	Thomas Glock	Arizona Public Service Company			X		X	X						
13.	Individual	Chip Turner	Tampa Electric Company	X		X		X	X						
14.	Individual	Stephen Mizelle	Southen Company	X											
15.	Individual	Silvia Parada Mitchell	TO/TOP	X		X		X	X						
16.	Individual	John Buckley	Omaha Public Power District	X				X							
17.	Individual	Howard Gugel	NERC Staff (12 staff members)												
18.	Individual	Gary Cox	Tucson Electric Power Co.	X											
19.	Individual	Edward Bedder	Orange and Rockland Utilities, Inc.	X		X									
20.	Individual	Greg Lange	GCPD				X								
21.	Individual	Christopher M. Crane	Westchester County Board of Legislators											X	
22.	Individual	Robert Beadle	North Carolina EMC			X	X	X							
23.	Individual	Mary Hetz	Ameren	X											
24.	Individual	James W. Smith	ITC Holding	X											
25.	Individual	Alan Gale	City of Tallahassee (TAL)					X							
26.	Individual	Virginia Cook	JEA	X		X		X							
27.	Individual	Weston Davis	Central Maine Power, Iberdrola USA	X											
28.	Individual	Eric Senkowicz	FRCC Manager of Operations												X

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

		Commenter	Organization	Industry Segment										
				1	2	3	4	5	6	7	8	9	10	
29.	Individual	Samuel Stonerock	Southern California Edison Company	X		X		X	X					
30.	Individual	Jon Kapitz	Xcel Energy	X		X		X	X					
31.	Individual	Chris Scanlon	Exelon	X		X		X	X					
32.	Individual	Jody Nelson	Ga Transmission Corp	X										
33.	Individual	Kasia Mihalchuk	Manitoba Hydro	X		X		X	X					
34.	Individual	Greg Rowland	Duke Energy	X		X		X	X					
35.	Individual	Laura Zotter	ERCOT ISO		X									X
36.	Individual	Gerald T. Paulson	Western Area Power Administration - Upper Great Plains Region	X										
37.	Individual	Louis C. Guidry	Cleco	X		X		X	X					
38.	Individual	Tom Hayes	East Kentucky Power Cooperative, Inc.	X		X		X						
39.	Individual	Jack Gardner	Progress Energy Carolinas	X		X		X	X					
40.	Individual	Kevin Howard	Western Area Power Administration	X									X	
41.	Individual	James Sharpe	South Carolina Electric and Gas	X		X		X	X					
42.	Individual	George Czerniewski	Consolidated Edison Company of New York, Inc.	X										
43.	Individual	Michael Pakeltis	CenterPoint Energy	X										
44.	Individual	Darryl Curtis	Oncor Electric Delivery	X										
45.	Individual	Thad Ness	American Electric Power (AEP)	X		X		X	X					
46.	Individual	Dan Rochester	Independent Electricity System Operator		X									
47.	Individual	Richard Dearman	Tennessee Valley Authority	X		X		X						
48.	Individual	Jim Fulton	BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	X										
49.	Individual	Edward Davis	Entergy Services	X		X		X	X					
50.	Individual	Jason Shaver	American Transmission Company	X										

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

		Commenter	Organization	Industry Segment											
				1	2	3	4	5	6	7	8	9	10		
51.	Individual	David Rocchio	Utility Risk Management Corporation												
52.	Individual	Earl Burnside	PPL Electric Utilities Corporation (NCR00884)	X		X									
53.	Individual	Jianmei Chai	Consumers Energy			X	X	X							
54.	Individual	John Humphrey	Nebraska Public Power District	X		X		X							
55.	Individual	Christopher M. Crane	Westchester County Board of Legislators												
56.	Individual	Mike Gammon	KCPL												

1. In response to comments received regarding potential for “double jeopardy” and to provide differentiation between transmission lines designated as having IROLs and Major WECC transfer paths from those that are not, the SDT consolidated requirements R4 through R8 found in the August 2009 draft of FAC-003-2 into two requirements in the latest draft of FAC-003-2 (new requirements R1 and R2). Do you agree? Please explain.

Summary Consideration: There were 43 comment forms indicating agreement with the proposed Requirement R1 and R2 and 8 comment forms indicating disagreement.

The major comment issues covered:

- The differentiation of IROL/WECC Major Transfer Path and other lines subject to this standard is defensible in the context of VRF. While vegetation outages to lines covered in R2 are preventable and as such violations, the practical impact to the BES is no different than an outage caused by other factors
- WECC Transfer Path criteria should not be included in a national standard.

The VMSDT considerations for the major comment issues are:

- The new R1 and R2 requirements have eliminated the double jeopardy problem. NERC’s Standards don’t allow two VRF’s for the same requirement so the SDT created two requirements with different VRF’s.
- The VM SDT believes that WECC criteria for Major Transfer Paths is not applicable in other RE’s and assumed this to be common knowledge.

Some minor comment issues are:

- Encroachment of the MVCD should not be a violation. A sustained outage should be the grounds for a violation.
- MVCD should be defined.
- Lines which cannot impact the BES, regardless of voltage, should be exempted from the standard

The VM SDT considerations for the minor issues are:

- The team has concluded encroachment into the MVCD or ‘spark-over’ distance is a clear indication of improper or negligent vegetation management and further that such encroachment creates an imminent threat condition.
- MVCD is defined in both the Requirement and the Rationale.

FERC has directed the ERO to develop a methodology or test to designate “operationally significant” facilities in the March 18, 2010 Order 733. The test is intended for application in PRC-023-1; however it can be extended for FAC-003-2 use.

Organization	Yes or No	Question 1 Comment
Westchester County Board of Legislators		Do not have enough knowledge on this to provide response.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 1 Comment
Nebraska Public Power District	No	Although it does provide some flexibility to the TO, it will be difficult to determine an encroachment into the MVCD. It would easier to implement if R1 and R2 were only applicable when there was an outage on the transmission system.
Dominion	No	Dominion does not agree with the inclusion of facilities that WECC designates as 'major transfer paths' in a continent-wide standard. We suggest that, if the SDT wishes to include such reference and these facilities are meant to be treated or synonymous with either IROL or SOL, that the SDT add a proposal to adopt and define a suitable term for inclusion into the Glossary of Terms
Cleco	No	Encroachment into the MCVD should require the owner to take immediate corrective action to mitigate the threat. Such an encroachment should not be reportable as a violation. Owners may be hesitant to communicate possible vegetation threat conditions to the TOP or proper authority if they believe it will be reported as a violation. We recommend the SDT consider modifying the measure for R1 and R2 to be applicable only in the interruption of the transmission facility.
NERC Staff (12 staff members)	No	NERC Staff does not see a need to have two requirements (R1 and R2) which differentiation between transmission lines designated as having IROLs and Major WECC transfer paths from those that are not with two different Violation Risk Factors. The standard as drafted applies to all 200kv and above lines. The Violation Risk Factor for all 200 kV and above lines should be "High". R2 should be deleted and R1 should be rewritten to be:R1. The Transmission Owner shall prevent vegetation from encroaching within the Minimum Vegetation Clearance Distance (MVCD) of applicable Transmission line conductors to avoid a Sustained Outage.
Xcel Energy	No	Requirements 1 & 2 are identical except for their applicability (R1 for IROL elements and elements in the WECC Transfer Paths; R2 for all other lines =>200 KV). It is not readily apparent as to why there is a need to distinguish between the two. Referencing the Table 2 "VRF" and "VSL" matrix indicates that R1 has a "High" VRF and R2 has a "Medium" VRF. If this is the only reason, then consider adding, at a minimum, a "Rationale" box explaining that reasoning.Also, the definition of MVCD needs to be a defined term or included in R 1 & 2, e.g., "Minimum Vegetation Clearance Distance is the calculated minimum distanced stated in feet (meters) to prevent spark-over between conductors and vegetation for various altitudes and operating voltages as set forth in Table 2." See comments to # 7 and # 13.
Arizona Public Service Company	No	This is a reliability standard for 230 kV and above and those lower voltages designated by the RRO. An outage is an outage and the utility should be held accountable no matter if they are or are not designated.
SERC OC Standards Review	No	While we agree with the development of a second requirement to provide for the distinction between line segments that are critical for reliability, in R1, a regional distinction should not be embedded in a national

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 1 Comment
Group		<p>standard. We also strongly disagree that perfect compliance with R2, as stated, would improve reliability. If a line is operated to avoid projected post contingent overloads, then the tripping thereof due to any cause has no effect on BES reliability. A more prudent approach for the lines covered by R2 could be the requirement to achieve 3 sigma or 4 sigma performance over a year's time. Requirement 2, as stated, is not cost effective, and may produce an unjust and unreasonable outcome to rate payers. While this draft clarifies (from version FAC-003-1) that sustained outages are compliance violations and eliminates the "double jeopardy" which was errantly introduced in the last draft of FAC-003-2 (when sustained outages were clearly defined as compliance violations), we suggest that the team adjust R2 as previously mentioned. This draft provides a mechanism to address the difference in outages that have impact to grid reliability from those that have an impact only to local lines and associated customer reliability. The use of observed MVCD as a violation and in the violation severity level matrix: o drives the right behaviors for improving reliability (by proactively identifying and removing vegetation before it can become an imminent threat or cause an outage) o eliminates the need to perform detail engineering/surveying/theoretical calculations before cutting vegetation, o formalizes the informal interpretations that have resulted from FAC-003-1 enforcement and o allows the vegetation field operations to focus on facts and remain practical rather than theoretical.</p>
KCPL	No	<p>The measures for R1 and R2 are zero tolerance for encroachments into the MVCD that did not result in a "contact" with the transmission facility. Considering the substantial number of miles of transmission involved, the complexities in anticipation of vegetation growth with numerous growth variables, vegetation management limitations imposed by other regulations or requirements, and unexpected transmission events that require substantial efforts regarding physical restoration, it is not reasonable or practical for the measures here to include encroachments that do not result in an interruption of transmission service. Recommend the SDT consider modifying the measures for R1 and R2 to be applicable only in the interruption of a transmission facility.</p>
American Transmission Company	Yes	
Bonneville Power Administration	Yes	
Central Maine Power, Iberdrola USA	Yes	
City of Tallahassee (TAL)	Yes	
Consumers Energy	Yes	

Organization	Yes or No	Question 1 Comment
Duke Energy	Yes	
Florida Municipal Power Agency (FMPA) and Some Members	Yes	
FRCC Manager of Operations	Yes	
Ga Transmission Corp	Yes	
GCPD	Yes	
ITC Holding	Yes	
Manitoba Hydro	Yes	
Omaha Public Power District	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Southen Company	Yes	
TO/TOP	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
MRO's NERC Standards Review Subcommittee	Yes	1. NSRS agrees with the revisions that the drafting team has made and agrees with the combining of four requirements into two. NSRS prefers the MVCD methodology to the minimum clearance distance

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 1 Comment
		methodology due to the fact that there is only one measurement to contend with versus two.2. If a company has a line with a standing IROL could they be found in violation of both the requirements R1 and R2? If so, the NSRS recommends combining R1 and R2.3. Please clarify the need for R1 and R2. Why were lines with IROL separated out from lines without IROLs?
American Electric Power (AEP)	Yes	American Electric Power agrees with this change.
IRC Standards Review Committee	Yes	Because real-time observation in Measurement 1 would require an actual measurement for comparison to Table 2 to be defensible as a violation, the SRC suggests replacing observation with measurement. The SRC would suggest deleting the phrase "to avoid a sustained outage" as that phrase does not add any clarity to either of the two requirements. There do not seem to be any encroachments that the SDT will allow. If there are encroachments that are considered allowable, who is responsible for making that consideration? And what would be considered a "sustained" outage? Minimum Vegetation Clearance Distance (MVCD) is a capitalized term used in Requirements 1, 2 and 7 but is not defined in the NERC Glossary of Terms Used in Reliability Standards nor is a definition proposed in this standards action. Either a definition should be proposed or the capitalization should be removed.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees with the consolidation of R4 through R8 into two requirements in the FAC-003-2 draft.
Ameren	Yes	Creating two specific requirements removes the potential for double jeopardy.
Southern California Edison Company	Yes	SCE agrees that the consolidation of Requirements R4-R* resolves the "double jeopardy" issue.
Tampa Electric Company	Yes	The change in the draft serves to consolidate, clarify and remove the "double jeopardy" as stated above. This is an improvement in the standard.
CenterPoint Energy	Yes	The differentiation in the Violation Risk Factor for R1 versus R2 seems appropriate.
Consolidated Edison Company of New York, Inc.	Yes	The elements that comprise IROLs must be clearly communicated to each Transmission Owner and must be consistent across North America.
Orange and Rockland Utilities, Inc.	Yes	The elements that comprise IROLs must be clearly communicated to each Transmission Owner and must be consistent across North America.

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	Yes	<p>The most recent draft of the standard consolidated R4-R8 results in clearer requirements that meet the results based criteria and addresses the “double jeopardy” issue. However, there is concern with the differentiation of lines designated as having IROLs and Major WECC transfer paths from those that are not, as is proposed in the Applicability section 4.2 and subsequently in requirements R1 and R2. As stated in the background section: “This Standard focuses on transmission lines to prevent those vegetation related outages that could lead to Cascading. It is not intended to prevent customer outages due to tree contact with lower voltage distribution system lines. For example, localized customer service might be disrupted if vegetation were to make contact with a 69kV transmission line supplying power to a 12kV distribution station. However, this Standard is not written to address such isolated situations which have little impact on the overall Bulk Electric System.” It must be recognized that in some systems, outages on lines operated at voltages greater than 69 kV, 200 kV for example, have localized impact only and do not lead to Cascading. Concurring with the background, a line should be subject to this standard only if a vegetation related outage “could lead to Cascading”, or could have a “significant impact” on the system. It does not depend on whether it is an IROL line or not. A performance based methodology is used in NPCC to determine if an outage on a line can cause a “significant impact” on the system. The lines identified by this methodology are not identified according to their voltages, but rather by their impact on the system, regardless of the voltage. The introduction of “two” subcategories of BES - an IROL and a non-IROL - appears to just differentiate between high VRF and medium VRF. Furthermore, in the Applicability section, the IROL “variable” is mentioned only for lines operated below 200 kV. What about lines operated at or above 200 kV lines? Why not have a single Application item stating: overhead transmission lines operated at any voltage whose outages have a significant impact on the system? A Table could define what is considered “significant”. There are standards for vegetation management on the distribution system, and there are standards for higher voltage systems. This standard should focus on lines with high impact on the system when a vegetation outage occurs. Utilities will not let the vegetation encroach on other lines, but an importance will be given to vegetation management on “critical” lines for the reliability of the whole system. On other lines, if an outage occurs, it will have localized impact. A “Results-Based Reliability Standard” should first focus on the “critical” lines. If it is the intent of NERC or the industry to ensure that a vegetation outage causes no more than a fixed level of load loss, it should say so in a requirement. If the IROL “variable” is retained, identification of the transmission elements that comprise IROLs must be officially communicated to the Transmission Owners. This must be done either through a requirement in this, or another standard.</p>
Progress Energy Carolinas	Yes	<p>The previous version (FAC-003-1) was not developed with individual outages listed as a requirement or a violation. The previous drafts of version 2 (FAC-003-2) have improved on FAC-003-1 by defining sustained outages from within the Right-of-Way as violations. However, the recent drafts of FAC-003-2 also introduced a potential for ‘double jeopardy’ when clarifying that sustained outages and MVCD encroachments were (‘binary’) requirements/violations. This latest draft clarifies the expected performance into two concise requirements that provide for differentiation in severity levels and risk factors, eliminating the unintended</p>

Organization	Yes or No	Question 1 Comment
		<p>'double jeopardy'. The inclusion of the use of observed MVCD as a violation of R1/R2 and in the violation severity level matrix drives the right behaviors for improving reliability (by proactively identifying and removing vegetation before it can become an imminent threat or cause an outage) , eliminates the need to perform detail engineering/surveying/theoretical calculations before cutting vegetation, formalizes the informal interpretations that have resulted from FAC-003-1 and allows the vegetation field operations to focus on facts (and remain practical rather than theoretical). Progress Energy believes that the R1 and R2 changes to this draft are a significant improvement over FAC-003-1. This version draft: clarifies real-time MVCD and sustained outages as a requirement; provides for differentiation between grid impacting outage events and outage events to lines primarily associated with customer reliability; introduces a performance barrier/defense that is fact based - eliminating the need to determine compliance through theoretical calculations that rely on design assumptions (e.g., mechanical behavior of aged conductor), prior design criteria/code versions (i.e., code clearances in effect at time of design) and detail site measurements (e.g., "survey" quality measurements and local environmental conditions at time of measurement/event).</p>
JEA	Yes	<p>The simplification and clarification improves the ability of Registered Entities to comply thereby enhancing reliability.</p>
Independent Electricity System Operator	Yes	<p>This change addresses the perceived "double jeopardy" risk.</p>
Oncor Electric Delivery	Yes	<p>This does not reduce the Standards effectiveness on the cascading issue or discount any outage on applicable lines subject to this Standard in the electric Transmission system.</p>
East Kentucky Power Cooperative, Inc.	Yes	<p>This draft adequately addresses the "double jeopardy" issue. The use of the Minimum Vegetation Clearance Distances simplifies recommended maintenance process for field personnel and eliminates the need to perform costly and time consuming engineering studies prior to trimming or removing vegetation.</p>
SERC Vegetation Management Sub-committee	Yes	<p>This draft clarifies (from version FAC-003-1) that sustained outages are compliance violations and eliminates the "double jeopardy" which was errantly introduced in the last draft of FAC-003-2 (when sustained outages were clearly defined as compliance violations). This draft provides a mechanism to address the difference in outages that have impact to grid reliability from those that have an impact only to local lines and associated customer reliability. The use of observed MVCD as a violation and in the violation severity level matrix: o drives the right behaviors for improving reliability (by proactively identifying and removing vegetation before it can become an imminent threat or cause an outage) o eliminates the need to perform detail engineering/surveying/theoretical calculations before cutting vegetation, o formalizes the informal interpretations that have resulted from FAC-003-1 enforcement and o allows the vegetation field operations to focus on facts and remain practical rather than theoretical.</p>

Organization	Yes or No	Question 1 Comment
Western Area Power Administration	Yes	This is a very efficient and logical consolidation of requirements.
Western Area Power Administration - Upper Great Plains Region	Yes	This is not a critical issue for the WAPA - UGPR.
Tennessee Valley Authority	Yes	This method effectively recognizes the difference in reliability risks among various lines based on their value to the transmission grid.
Entergy Services	Yes	We agree that R1 and R2 are beneficial, but believe that they should be explained in greater detail for much greater clarity to reflect their intent. Our understanding is that R1 applies to ALL IROL's and ALL Major WECC Transfer Path lines, regardless of voltage, and R2 is centered around ALL lines operated at voltages 200 kV and above but are not classified as IROL/WECC lines. Our understanding of the term "applicable line conductor" in R2 refers back to the facilities defined in Facilities - Section 4.2 and as modified by the phrase in R2: "which are not elements of an IROL and are not a Major WECC transfer path, (operating within Rating and Rated Electrical Operating Conditions)". However the appropriateness of our assumed reference back to Section 4.2 and the modification contained in R2 is not clear. It also is not clear that the term "applicable line conductor" in R2 is the same as "applicable line conductor" in R6. We suggest the term "applicable line conductor" be specifically defined as that term is intended to be applied in R2, and the term "applicable line conductor" be defined as that term is intended to be applied in R6.
FirstEnergy	Yes	We agree that the new R1 and R2 alleviate the potential double jeopardy issue as well as differentiate the high and medium risk factor transmission lines. However, we offer the following comments and suggestions for improvement: It is not clear how the Transmission Owner (TO) will determine which lines are associated with IROLs. Upon reviewing standard FAC-014 Req. R5, which requires the communication of SOLs and IROLs, the required communication of IROLs to the TO is not specified. There needs to be a tie between this standard and the FAC-014 standard, which will require a revision to FAC-014. Unfortunately, this issue will create a gap if FAC-014 is not revised and submitted to FERC in parallel with the submittal of FAC-003-2 to FERC. This may require immediate action such as an urgent action SAR or other appropriate actions. If our suggestion to revise FAC-014 is not possible at the present time, then we suggest an alternative course of action to include language in R1 of FAC-003 to aid the TO in obtaining the information regarding lines associated with IROLs. We propose adding the following sentence to R1: "The Transmission Owner can request information regarding transmission lines associated with an IROL from its Planning Coordinator."
Ad Hoc Group subteam formed to	Yes	We understand the differentiation to be around the intent that those transmission lines designated as having IROLs and Major WECC transfer paths pose a more significant threat to the reliability of the BES and that

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 1 Comment
review draft standard		encroachment of the MVCD in these cases are relatively more significant. We suggest that this be clarified in the rationale.

2. **The results-based reliability standard criteria focus on striving to achieve a portfolio of performance-based, risk-based, and competency-based mandatory reliability requirements that provide an effective defense-in-depth strategy for achieving an adequate level of reliability of the bulk power system in lieu of prescriptive requirements. Consequently, the SDT revised R1 and its subparts found in the August 2009 draft of FAC-003-2 in favor of the text in the latest draft of FAC-003-2 (new requirement R3). Do you agree? Please explain.**

Summary Consideration: There were 41 comment forms that indicated agreement with revising Requirement R1 found in the August 2009 draft of FAC-003-2 in favor of the text in the latest draft (new requirement R3) and 12 forms indicating disagreement.

The major comment issues covered:

- Several respondents felt R3 lacked clarity and needed more definition. However there were a large number of commenters who specifically pointed out an appreciation for the requirement being less prescriptive and allowing the Transmission Owner flexibility in developing its program.
- Several respondents felt encroachment of the MVCD should not be a violation.
- There were several concerns raised with citing the Rating and Rated Conditions to describe the conditions the Transmission Owner should use to develop its clearances and avoid encroaching into the MVCD.
- The term “Bulk Power System” should not be used in this Requirement.

The VM SDT considerations for the major comment issues are:

- Due to the large number of respondents who expressed a positive opinion of eliminating prescriptive items in R3 using the Results-based approach the SDT felt R3 is appropriate as written.
- The team has concluded encroachment into the MVCD or ‘spark-over’ distance is a clear indication of improper or negligent vegetation management and further that such encroachment creates an imminent threat condition.
- The team has further described Rating and Rated Conditions in the Guideline and Technical Basis Section under Requirement R3.
- This term “Bulk Power System” has been removed from every instance in the Standard.

Some minor comment issues are:

- Make Standard dependant on R1 and R2 only. Remove all other requirements.
- Add NESC clearance requirements to R3.

The VMS SDT considerations for the minor comment issues are:

- One of the tenets of the Results-based framework is a set of building blocks which support each other. While R1 and R2 are the ultimate test of reliability they are an insufficient number of building blocks for an Results-based Standard.
- While adding NESC clearance requirements to R3 may clarify what is needed to develop the document, the SDT felt that Rating and Rated Conditions adequately cover this.

Organization	Yes or No	Question 2 Comment
Tampa Electric Company	No	A more in-depth technical review of this requirement is required. Our response is predicated upon the following quote from the draft standard; "...considering all possible locations the conductor may occupy assuming operation within Rating and Rated Electrical Operating Conditions."
NERC Staff (12 staff members)	No	<p>As written, R3 does not provide enough clarity as to what should be included in a documented transmission vegetation management program. R3 should be expanded to include what should be included in the transmission plan. Such as:R3. Each Transmission Owner shall have a documented transmission vegetation management program that describes how it conducts work on its Active Transmission Line Rights of Way to avoid Sustained Outages due to vegetation, considering all possible locations the conductor may occupy assuming operation within Rating and Rated Electrical Operating Conditions. The transmission vegetation management program shall:</p> <p>3.1 Specify the methodologies that the Transmission Owner uses to control vegetation.[1]</p> <p>3.2 Specify a Vegetation Inspection frequency of at least once per calendar year that takes into account local[2] and environmental factors.</p> <p>3.3 Require an annual work plan that identifies the applicable lines to be maintained and associated work to be performed during the year. It shall be flexible to adjust to changing conditions and to findings from Vegetation Inspections. Adjustments to the plan within the year are permissible. The plan shall take into consideration permitting and scheduling requirements from landowners or regulatory authorities. It shall support the objectives of the transmission vegetation management program and utilize the methodologies outlined in the transmission vegetation management program.</p> <p>3.4 Require a process or procedure for response to imminent threats[3] of a vegetation-related Sustained Outage. The process or procedure shall specify actions which shall include immediate communication of the threat to the Transmission Operator or proper operating authority. The process or procedure shall specify what conditions warrant a response.</p> <p>3.5 Specify an interim corrective action process for use when the Transmission Owner is constrained from performing vegetation maintenance as planned.</p> <p>3.6 Specify the maintenance approach used (such as minimum vegetation-to-conductor distance or maximum vegetation height) to ensure that Table 1 clearances in Attachment 1 are never violated. The maintenance approach shall consider the sag and sway of the conductor throughout its operating range under rated conditions.[1] ANSI A300, Tree Care Operations - Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices, while not a requirement of this standard, is considered to be an industry best practice.[2] Local factors include treatment cycle, extent and type of treatment, and their relationship to the normal growth rate.[3] The term "imminent threat" refers to a vegetation condition which is placing the transmission line at a significant risk of a Sustained Outage. Refer to Technical Reference for examples of imminent threat procedures and conditions for implementation.</p>
Consumers Energy	No	Consumers Energy strongly disagrees with the MVCD as presented in this version of the standard. These distances do not provide an adequate safeguard to prevent outages since the conductor position relative to the vegetation is sensitive to electric load and wind at any particular moment while vegetation height is not. Measurements M1 and M2 require real-time observation of a violation of MVCD to be reportable. As

Organization	Yes or No	Question 2 Comment
		<p>presented, vegetation growing beneath the conductor with a clearance of MVCD + 1 foot is not reportable. However, this same conductor may sag due to load increase or move due to wind displacement within hours of the real-time observation. If great enough, the sag or displacement may move the conductor in contact with the vegetation resulting in an outage just hours after being deemed compliant. At a minimum the MVCD should be designed to provide the Gallet clearance distance at maximum sag or wind displacement (whichever is greater) at all times. No matter when the line is cleared of vegetation or inspected for vegetative conditions, if the enhanced MVCD is being met an outage cannot occur until further vegetative growth occurs. Furthermore, for line clearing operations, tree crews do not and cannot determine in the field the maximum potential sag or wind displacement to know how much vegetation to clear. They require much clearer instructions with a set amount of clearing distance to obtain at the time of work. This distance must account for maximum sag, wind displacement and the Gallet distance at a minimum.</p>
Cleco	No	<p>Encroachment into the MCVD should require the owner to take immediate corrective action to mitigate the threat. Such an encroachment should not be reportable as a violation. Owners may be hesitant to communicate possible vegetation threat conditions to the TOP or proper authority if they believe it will be reported as a violation. We recommend the SDT consider modifying the measure for R1 and R2 to be applicable only in the interruption of the transmission facility.</p>
GCPD	No	<p>Grant believes that R1 and R2 should be the entire standard and the rest of the requirements should be in guidelines and supplementary materials to assist in meeting the two results based requirements. We understand that some risk-based and competency based requirements are necessary for some standards. Not this one. No grow-in caused outages is the objective. Requiring a specific plan does not show competency, it just shows you have a plan. Feels very much like the existing standards. "Show us your Documentation".</p>
Northeast Power Coordinating Council	No	<p>R3 specifies "...considering all possible locations the conductor may occupy assuming operation within Rating and Rated Electrical Operating Conditions." Although both "Rating" and "Rated Electrical Operating Conditions" appear in the NERC Glossary, inspection of these definitions shows that they are very vague, and "Rated Electrical Operating Conditions" uses the word "reasonably", a term FERC has previously indicated as being unacceptable. From a practical standpoint this seems to allow too much latitude to an entity to do the least amount of trimming and not consider the extra sag and swing caused by some of the more extreme operating conditions that "may" occur, such as loading to an STE or DAL limit during a higher velocity wind than normal, coupled with a higher ambient temperature. An entity could potentially claim that vegetation was trimmed to normal load levels, normal facility loading sag, and minimum velocity wind speed swings, and be within the tolerance of the standard as we interpret it. The Drafting Team should clarify what the expectation is with regard to line loading, sag, and swing due to wind speed and the types of operating conditions it deems to be justified to create a more exact requirement.</p>

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 2 Comment
Nebraska Public Power District	No	same concern as item 1.
Central Maine Power, Iberdrola USA	No	The TVMP must include clearances between trees and conductors at time of vegetation management work. Suggest that the TVMP require the use of qualified personnel to manage this program.
Arizona Public Service Company	No	This standard lacks accountability and transparency. This is a reliability standard and the industry is to prevent outages within the active ROW. It doesn't matter if the vegetation grows-in, blows-in or falls into the conductor these are all outages. One is no less of an outage than the other one. They should be treated equally and the utility should be held accountable for lack of maintaining the transmission system.
FirstEnergy	No	We agree that the previous R1 was too prescriptive and are in favor of the new Requirement R3. However, we do not agree with all the wording of R3 as well as the Rationale box for R3. 1. Requirement R3 - The phrase "considering all possible locations the conductor may occupy assuming operation within Rating and Rated Electrical Operating Conditions" is confusing. We like the wording from the previous (Draft 2) of FAC-003-2 and suggest the following rewording of this phrase: "considering all possible locations the conductor may occupy throughout its operating range under all rated conditions." 2. Rationale box for Req. R3 - We suggest removing the first sentence in the Rationale box for R3. The need to provide a basis on the intent and competency of the TO in maintaining vegetation is not explicitly stated in the requirement. Also, we are not sure what is meant by "competency". If it is referring to minimum required competencies for personnel performing vegetation management, that is outside the scope of this standard.
Ameren	Yes	
Bonneville Power Administration	Yes	
City of Tallahassee (TAL)	Yes	
Consolidated Edison Company of New York, Inc.	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
Exelon	Yes	

Organization	Yes or No	Question 2 Comment
FRCC Manager of Operations	Yes	
Ga Transmission Corp	Yes	
Manitoba Hydro	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Orange and Rockland Utilities, Inc.	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Tennessee Valley Authority	Yes	
TO/TOP	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Xcel Energy	Yes	
MRO's NERC Standards Review Subcommittee	Yes	<p>1. NSRS agrees with the revisions to R3. With regard to operations within Ratings and Rated Conditions, are operations after a contingency considered to be within Ratings and Rated Conditions?2. Could wording be added to R3 to specify rated conditions include National Electric Safety Code conditions or assumptions?</p>

Organization	Yes or No	Question 2 Comment
Florida Municipal Power Agency (FMPA) and Some Members	Yes	Although FMPA agrees with the intent of the Measures, FMPA is concerned that the measures M1 and M2 may not meet the purpose of the measures as stated in the latest draft version of the Standard Processes Manual, which states that that a Measure “(p)rovides identification of the evidence or types of evidence needed to demonstrate compliance with the associated requirement.” Instead, M1 and M2 provide examples of evidence that would be used to determine non-compliance, not used to determine compliance.
American Electric Power (AEP)	Yes	American Electric Power agrees with this change.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees with the R3 text in the latest draft of FAC-003-2.
Dominion	Yes	Dominion agrees and finds this approach superior to existing which sometimes appears to be more administratively focused.
JEA	Yes	Given the basic performance required in R1 and R2 of this version, I agree that specifics about what is included in the plan are not needed. Each entity should be encouraged to write their plan so that the occasional human errors and failures that are inevitable still lead to compliance with the performance aspects of this standard. The team should be sure that the measures do not require unfailing perfect execution of this procedure so that entities are encouraged to minimize this document.
ITC Holding	Yes	ITC feels that this draft is an improvement by clarifying the action expected by this requirement (“competency-based” program specific methodology documentation) and separating other implementing (“risk based”) actions from FAC-003-1 as new requirements within this draft version. ITC also agrees with results-based reliability, a standard principle that is driven by relevant reliability requirements and measureable results rather than prescriptive requirements driven by documentation. The term “bulk power system” should not be used in the comment form or any other documentation associated with FAC-003-2.
Independent Electricity System Operator	Yes	Old Requirement R1 has been distilled down to its essential elements with the removal of the detailed sub-requirements that were previously included. This places the onus of developing an effective transmission vegetation management program (TVMP) on the asset owners where it ought to be, since they have the requisite expertise. Guidance is however provided in the Technical Reference document to assist Transmission Owners in developing a TVMP that in their view works for them, and achieves the overall objective of preventing those vegetation related outages that could lead to Cascading. By specifying the “what” appropriately and leaving the “how” to the entity, the entity is now in the best position to determine the most effective deployment of its resources for meeting the goals of the standard.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 2 Comment
CenterPoint Energy	Yes	R3 focuses on its intended impact on Sustained Outages without being overly prescriptive.
Southern California Edison Company	Yes	SCE prefers the results-based approach to crafting reliability standards because it provides utilities with the necessary flexibility to develop internal criteria based on widely accepted best practices and industry innovations.
Western Area Power Administrtaion	Yes	The old Draft 2 version of R1 was developed to give the regulatory entities substantial and tangible information from which to judge the adequacy of a TO's overall approach to program management. The old Draft 2 version of R1 was purposely crafted in this detailed manner as an alternative to attempting to manage the problematic CCZ concepts contained in Draft 1. Industry strongly rejected the CCZ management concepts contained in Draft 1 in the first comment period. It appears that the current Draft 3 version of R3 has lost some of the content needed to fully substitute for the management of Draft 1 CCZ concepts. The addition of an implementation requirement intended to measure the full execution and success of the overall management approach identified by a TO in response to the new R3 may help to address this shortcoming. As currently worded, the requirement to simply execute a flexible annual work under the new R7 in Draft 3 does appear extensive enough to fulfill this need.
Oncor Electric Delivery	Yes	The RBS defense-in-depth strategy for this Standard does provide an adequate level of reliability. The Standards purpose statement refers to the electric Transmission system and corresponding applicable lines not the BPS or BES as currently defined in the NERC glossary or being proposed (NOPR) RM09-18-000. Removing prescriptive requirements allows utilities flexibility to document their program and perform their vegetation management to achieve the goal of no outages that lead to cascading.
IRC Standards Review Committee	Yes	The SRC agrees with the intent of R3, but questions the need for inspection postponements to be limited to natural "disasters". A well-planned inspection may be delayed by a common lighting storm. While there is a need to conduct the inspections and those inspections could be done anytime within the TO's own plans - the SDT may want to modify the exception to be natural disasters or other conditions that are reported within 5 business days and agreed to as an excused condition by the Regional Reliability Organization.
Southen Company	Yes	The term "bulk power system" should not be used in the comment form or any other documentation associated with FAC-003-2.
Progress Energy Carolinas	Yes	This separates implementing actions such as inspections, annual plans and imminent threat procedures from TVMP methodology (which proves competency of the program).This draft is an improvement by clarifying the action expected by this requirement ("competency-based" program specific methodology documentation) and separating other implementing ("risk based") actions from FAC-003-1 as new requirements within this draft

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 2 Comment
		version.
SERC OC Standards Review Group	Yes	This separates implementing actions such as vegetation inspections, performing annual work plans and responding to imminent threats from the required documentation of the TVMP methodology (which proves competency of the program). This draft is an improvement by clarifying the action expected by this requirement (program specific methodology documentation requirement) and separating other implementing actions from FAC-003-1 as new requirements in this draft version.
SERC Vegetation Management Sub-committee	Yes	This separates implementing actions such as vegetation inspections, performing annual work plans and responding to imminent threats from the required documentation of the TVMP methodology (which proves competency of the program). This draft is an improvement by clarifying the action expected by this requirement (program specific methodology documentation requirement) and separating other implementing actions from FAC-003-1 as new requirements in this draft version.
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR agrees with a reliability based standard. In the plains states, we have fewer trees than many utilities, so having prescriptive requirements that assume we have lines running through forested areas seems to mandate an excessive amount of detail. We prefer to keep our program very simple -- perform periodic inspections to identify vegetation problems and then direct applicable resources in to take care of the problem. Our hope is that a results-based reliability standard will provide some flexibility for those utilities with smaller scale vegetation encroachments.
Ad Hoc Group subteam formed to review draft standard	Yes	While the new R3 is less prescriptive than the old R1, it appears to stray from criteria #4 for developing results-based standards, as described in this comment form. It appears to require only the development of a document. We understand that in some cases this cannot be avoided. We believe that this is one of those cases where the reliability objective of building competency in considering all possible locations the conductor may occupy and assuming operation within Rating and Rated Electrical Operating Conditions over-rides our reluctance in requiring a registered entity to produce a document rather than a result. We suggest that in a future revision to standard that this can be combined with R7 to create a comprehensive requirement that the entity have a vegetation management program that demonstrates it is able to perform those actions necessary to keep vegetation out of the MVCD.
KCPL	No	The measures for R1 and R2 are zero tolerance for encroachments into the MVCD that did not result in a "contact" with the transmission facility. Considering the substantial number of miles of transmission involved, the complexities in anticipation of vegetation growth with numerous growth variables, vegetation management limitations imposed by other regulations or requirements, and unexpected transmission events that require substantial efforts regarding physical restoration, it is not reasonable or practical for the measures here to include encroachments that do not result in an interruption of transmission service. Recommend the SDT

Organization	Yes or No	Question 2 Comment
		consider modifying the measures for R1 and R2 to be applicable only in the interruption of a transmission facility.

3. Do you agree with the overall layout of the proposed template? If not, please suggest an alternative layout.

Summary Consideration: Most comment forms (43 out of 53) indicated agreement with the overall layout of the proposed template. However, some expressed concerns over individual parts of the template. The Vegetation Management SDT and the Standards Committee Process Subcommittee (SCPS) appreciate the commenters' comments and suggestions.

Some commenters do not agree with grouping Measures and Requirements together on the basis that Measures are compliance related elements and hence should be grouped with the compliance elements. This suggestion was not adopted. The SCPS asked a specific question about putting the requirements and measures together, and 50 of the 52 comment forms indicated support for this change.

Some commenters proposed that the Text Boxes are not needed if standards are written clearly; others expressed a concern that the material in the text boxes may be taken as mandatory, or used by the auditors as guidelines for assessing compliance. Some suggested that it is necessary to have a clear declaration on which parts/elements in the standards are mandatory. While the rationale for a requirement may be clear to most people who are familiar with the topic addressed by the standard, as the industry grows and people unfamiliar with the industry try to understand each requirement, documenting the rationale for each requirement is expected to be useful. The Text Boxes that provide the "rationale" for each requirement and other explanatory information will remain in the body of the standard until it is balloted, but will be removed from the approved version of the standard. Their content will be moved to the Guideline and Technical Basis Section.

The subcommittee will ask that NERC's legal department to write a statement for addition to each standard to clarify which parts/elements of the standard are mandatory and enforceable and which are provided only as information.

Some commenters raised a concern over the administrative elements. Some are unsure whether or not these elements are mandatory and asked if they are mandatory, then why they are not included in the Requirement Section. These commenters suggested that if the administrative reporting is not mandatory, does it belong in the standard, or should the Rules of Procedure Section 1600 be used to collect the data or document.

Some suggested that the Guideline and Technical Basis Section does not belong to a standard; others suggested that the material in the Guideline and Technical Basis Section be moved to appendices. Some suggested that the materials in the text boxes can also be regarded as providing the 'technical basis' and as such, can also be moved to appendices. Some commenters suggested moving the Guideline and Technical Basis Section to immediately after the Requirements and Measures section for ease of reference and this suggestion was not adopted. The compliance elements of the standard include evidence retention as well as other information that is mandatory, and the SCPS believes this should appear before the elements of the standard that aren't mandatory.

Some commenters do not support moving VRFs and Time Horizons away from the Requirements to be grouped together with the VSLs. They expressed a desire to be able to see the VRF associated with each Requirement to know the violation impact. The SCPS will modify the format to put the information in both places – adjacent to the requirement and in a separate table.

Some commenters expressed a concern with putting the Development Plan, Definitions, Effective Dates and Revision History at the front end since the readers must screen through 4-5 pages before getting to the standard itself. Some commenters suggested that these housekeeping items be moved to the end, other commenters suggested putting the Background Section before the Applicability Section in the Introduction. The

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

table with effective dates was removed as this will be challenging to keep up to date, however the other sections of the standard will remain where proposed with the exception that the Definitions Section will be moved ahead of the Background Section.

Some commenters indicated that there appears to be some redundant verbiage in the Background Section and the Guideline and Technical Basis Section. The SCPS will bring this to the attention of the VM SDT. These two sections were intended to have two distinctly different purposes – the Background Section identifies “why” the standard exists, and the Guideline and Technical Basis Section provides information that may be useful to entities in applying the standard.

Some commenters suggested using color code to differentiate between the information that is meant to be temporary and the information that is expected to stay with the standards. This suggestion was not adopted.

Organization	Yes or No	Question 3 Comment
American Transmission Company	No	a.) ATC believes that the “Guideline and Technical Basis” section does not belong within the NERC Standard. ATC feels there are parts of this section that appear to obligate the TO with additional mandatory requirements. (please refer to additional details in Question #8 below) b.) ATC believes the “Measures” section immediately following the Requirement is helpful and placement is appropriate, however, the introductory statement in R1 and R2 is poorly worded. For example, M1 currently states: “ Evidence of violation of Requirement R1 is limited to:” ATC feels this is a negative approach and recommends that it be stated in a positive manner such as” Evidence of compliance to R1 would be to: o Not have any vegetation-related Sustained Outages due to a grow-in.” c.) ATC would like to clarify whether the “Rational” boxes remain within the final standard. It seems appropriate to have this information but that it would be better to have this information appear in the “Guideline and Technical Basis” section.
GCPD	No	Don't need all the extra requirements beyond R2.
Florida Municipal Power Agency (FMPA) and Some Members	No	FMPA appreciates the improvements and has additional suggestions. Please see responses to the remainder of the questions, and below, for suggestions:The evidence retention should be grouped with the Measures for ease of creating a records retention schedule for the standards and requirements.Do we really need a “Compliance Monitoring and Enforcement Processes” section of the standards? Are there any standards that don't have all of these activities?
City of Tallahassee (TAL)	No	I would delete the Rationale in favor of keeping the Guideline and Technical Basis. The Guideline appears to be more in-depth than the Rationale. This makes the Rationale unnecessary.
Northeast Power Coordinating Council	No	NPCC participating members want to thank the drafting team for the hard work devoted to developing this standard, and recognize the difficult issues of producing the first “results based” proof of concept standard and offer the following, not as criticism, but as helpful suggestions for their consideration based on a cross section of stakeholder reactions to the draft. 1) Measures are compliance related elements and should not

Organization	Yes or No	Question 3 Comment
		<p>appear immediately after the requirements. The older template had the compliance elements grouped together in a separate section, and we suggest this continues. In the past there have been instances of RSAW (Reliability Standards Audit Worksheets) not clearly matching the standard’s requirements or measures. We suggest that this initiative with a results based requirement consistently involve the development of the associated RSAWs to ensure coordination, and also that the requirement results in a performance based, competency, or risk based reliability criterion. 2) Effective dates have become a complex issue. We suggest that rather than having an effective date table in the standard, this type of information be restricted to the implementation plan and ultimately reside in a NERC relational database which is currently under discussion/development. NPCC participating members suggest that the “Effective Dates” section be replaced with “NERC BOT Adopted Date”. Due to their complexities, FERC and Provincial approvals are something best left to implementation plans and databases. 3) “Rationale” boxes appearing in the Requirements section are problematic. If a “Rationale” box is required to explain part of the requirement then the requirement needs to be revised. For example, in R7 the requirement states that a TO shall execute a flexible annual vegetation management plan. Flexible in this context could have many different interpretations, yet in the “Rationale” box the use of the word flexible is clearly delineated to mean work may be deferred if not an imminent threat. In general we believe these boxes add little value, and if the requirement can’t be understood without the “Rationale” then the requirement needs to be worded appropriately. Suggest these types of explanatory statements go into guidance documents, or supporting technical documents, and do not appear in the “Requirements” sections. 4) Also, there seems to be some confusion regarding the Administrative Procedure section. There seems to be requirements embedded within it, e.g. “The Transmission Owner will submit a quarterly report to its Regional Entity, or the Regional Entity’s designee, identifying all Sustained Outages of transmission lines determined by the Transmission Owner....” Is this an enforceable aspect of the standard? If so, are there any other documents such as the NERC Rules of Procedure “ROP” or compliance related documents such as the CMEP that have to be changed? NPCC participating members recognize that this is a results based standard. Administrative requirements should be removed from the standards, and dealt with elsewhere (such as the ROP). 5) The Guideline and Technical Basis section contains valuable information, but this adds to the volume of the document. The Drafting Team should consider moving this to a separate document. In viewing the standards as a whole, the FAC-003 standard is relatively straightforward when compared to the developing of other standards such as the TPL standard. A similar approach, if applied to the TPL would result in a standard with potentially hundreds of pages. If the type of work appearing in this section is envisioned for other more complex standards such as TPL, the DT should consider separating out this section as a single supporting document. 6) Do FERC and the Provincial governmental authorities approve just the requirements in the Standard, or the whole package?</p>
FRCC Manager of Operations	No	See responses to #8, 10, 11 and 13.
IRC Standards Review	No	The proposal to move the time horizon and the VRF to a separate independent section is not useful. Take for example R1 and R2 of the proposed standard. A careful read of the two requirements and measurements

Organization	Yes or No	Question 3 Comment
Committee		would indicate that there is no difference between them and that it would be better to have one requirement for all conductors. It is not until the reader gets to the compliance section does the VRF difference show up. There is no savings to removing the previous format's parenthetical inclusion of time horizon and VRF at the end of the requirement. The Independent Section can contain all of the proposed information but don't remove it from the requirement. The format of the standard would not be an issue if NERC would develop a standards database. Then, the database could be queried in any format the user desires.
ERCOT ISO	No	The Standard itself is several pages into the document. The VRFs/VSLs should be in the Requirements/Measures Section. The Background, Rationale, Administrative Procedures are additional information and should be located in an Appendix so it doesn't clutter the Standard.
CenterPoint Energy	No	We suggest combining and moving the Rationale, Background, Guideline and Technical Basis, and Technical Reference to a consolidated appendix because there is much duplication in the wording within each of these sections, and independently they may be misinterpreted as being an integral part of the Requirements and Measurements which they are not. The Requirements and Measurements should stand clearly on their own. The appendix should contain examples of how to meet the requirements under various circumstances. The appendix should be supplementary and optional to the Standard. It is also not clear if the Administrative Procedure is a mandatory activity. It would be helpful if the intent of this section was stated within the Standard.
NERC Staff (12 staff members)	No	We suggest using two colors for explanatory information - yellow for information that is temporary - such as the information explaining the difference between the approved and proposed definitions of "Vegetation Inspection" - and using blue for all boxes that are intended to remain in the approved standard. We feel that the Standards Committee Process Subcommittee should pursue adding a statement from NERC's legal department indicating which parts of the standard are enforceable. In the meantime, we suggest using the standard template in order to clearly define the enforceable parts of the standard. The section identified as "Guideline and Technical Basis" is not really a guideline (typically a proposed process for completing work) and is not really a "technical basis" (typically a summary of research or engineering judgment, etc. used to explain the reasoning for something). The information in this section is explaining how the drafting team expects compliance with the requirements to be measured. We suggest revising the heading to "Application Guidelines." This is the term that was originally proposed by the Results-based team and is the heading identified in the proposed Standard Processes Manual.
Ad Hoc Group subteam formed to review draft standard	Yes	
Arizona Public Service Company	Yes	

Organization	Yes or No	Question 3 Comment
Bonneville Power Administration	Yes	
Central Maine Power, Iberdrola USA	Yes	
Cleco	Yes	
Consumers Energy	Yes	
Duke Energy	Yes	
Entergy Services	Yes	
Exelon	Yes	
Independent Electricity System Operator	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Orange and Rockland Utilities, Inc.	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	

Organization	Yes or No	Question 3 Comment
Southen Company	Yes	
Southern California Edison Company	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Xcel Energy	Yes	
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE is supportive of the proposed template.
JEA	Yes	Coupling the measures and rationale with each requirement make the standard easier to follow and to implement.
Dominion	Yes	Dominion agrees, but suggests that reference(s) to figure(s) and table(s) contain links that can take reader to that section of the document. This is superior to having to scroll through document. If the reference(s) is external to this standard document, links may be harder to manage but should at least reference a common webpage(s) used by NERC for the posting of such documents.
ITC Holding	Yes	ITC feels that the overall layout of the standard (a) improves readability, (b) clarifies expectations, (c) reduces confusion associated with referencing between pages, and (4) allows for background information and the SDT rationale to accompany the standards but we would suggest locating Guideline and Technical Basis after Requirements and Measures for better reference accessibility.
MRO's NERC Standards Review Subcommittee	Yes	N/A
Tampa Electric Company	Yes	None
Western Area Power Administration - Upper Great	Yes	None

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 3 Comment
Plains Region		
FirstEnergy	Yes	Overall, we like the layout of the standard, especially the Effective Date table in the front of the standard, the combination of Requirements and Measures, and the grouping of the VRF, Time Horizons, and VSL into one table. However, we would like to see a clearer delineation between the mandatory requirements and the guidance and rationale information. The standard should explicitly be clear as to what is mandatory and what is not, which may even require moving the "Rationale" text boxes out of the Requirements and Measures section. FE believes the information presented in the Rationale text boxes can be effectively covered in the "Guidelines and Technical Basis".
Western Area Power Administrtaion	Yes	The format could be enhanced by moving the Guidelines and Technical Basis section forward to be included with the corresponding Requirement, Measure, and Rationale. This would be helpful because it is awkward flipping back and forth between these two sections when trying to fully understand a requirement.
Pepco Holdings, Inc. - Affiliates	Yes	The general layout is quite effective. Still, it would be good to keep the VRFs and time horizons within the text of the requirement.
Ga Transmission Corp	Yes	The layout is adequate but many things are needing further explanation such as the MVCD.
Progress Energy Carolinas	Yes	The overall layout improves readability, clarifies expectations, reduces confusion associated with referencing between pages, and allows for background information and SDT rationale to accompany the standards (reducing the need for interpretation).
SERC OC Standards Review Group	Yes	The overall layout improves readability, clarifies expectations, reduces confusing references between pages, and allows for background and rationale to accompany standards.
SERC Vegetation Management Sub-committee	Yes	The overall layout improves readability, clarifies expectations, reduces confusing references between pages, and allows for background and rationale to accompany standards.
East Kentucky Power Cooperative, Inc.	Yes	The overall layout is greatly improved. This draft is easier to read and understand and clarifies the expected actions required in the standard.
American Electric Power (AEP)	Yes	The overall template layout is acceptable
Tennessee Valley Authority	Yes	This aids the understanding of the standard.

Organization	Yes or No	Question 3 Comment
Ameren	Yes	This draft is much more user friendly and easier to follow; appreciate the follow up information.
Consolidated Edison Company of New York, Inc.	Yes	We do believe the overall layout is effective but the SDT should consider putting the Background Section before the Applicability Section in the Introduction and also try to reduce any redundant verbiage in the Background Section and the Guideline and Technical Basis Section. A twenty-one page Standard is too lengthy and the supporting Technical Reference document properly addresses many of the issues mentioned in the Guideline and Technical Basis Section.
KCPL	Yes	

4. Do you agree with grouping the standard development timeline (previously called roadmap) with the revision history, and the effective date(s) and putting this administrative information up front before the Introduction Section? Please explain.

Summary Consideration: A vast majority of the comment forms (48 out of 52 who responded to this question) indicated support for grouping the Development Timeline, Revisions History and Effective Dates and putting them up front before the introduction Section.

Some commenters suggested moving this group of information to the end, other commenters suggested that the Definition Section be taken out of the group and placed just before Introduction. The SCPS does not think that moving the grouped information to the end will result in much improved readability. Readers can get to the beginning of a standard as quickly by scrolling or flipping through the pages.

The SCPS agrees with moving the Definition Section to just before the Introduction Section since Definitions are part of the balloted materials and the team adopted this suggestion. Note that after the standard is balloted, the definitions, if approved, are moved out of the standard and into the Glossary of Terms Used in Reliability Standards.

Some commenters suggested adding a table of contents. The SCPS will consider this in the next posting.

Organization	Yes or No	Question 4 Comment
IRC Standards Review Committee	No	For this standard one must read through 7 pages before getting to the reason for the posting. The administrative information should be relegated to the end of the posting not the beginning. Under exceptions in the Effective Dates section of the standard, IROLs are referenced as only being created by the Planning Coordinator. Because Reliability Coordinators must also establish IROLs per FAC-011 and FAC-014, we suggest that reference to the Planning Coordinator should be redacted and IROLs should be discussed regardless of whether the Planning Coordinator or Reliability Coordinator creates them.
Consolidated Edison Company of New York, Inc.	No	The only issue we have with the administrative information being before the Introduction Section is with the Definition of Terms Used in the Standard Section. We feel this should be part of the Introduction and not a stand alone section.
Orange and Rockland Utilities, Inc.	No	The only issue we have with the administrative information being before the Introduction Section is with the Definition of Terms Used in the Standard Section. We feel this should be part of the Introduction and not a stand alone section.
ERCOT ISO	No	This information should be located at the end so that it doesn't distract from the main purpose of the Standard. It is cumbersome to read through several pages before getting to the actual language of the Standard.
Ad Hoc Group subteam formed to	Yes	

Organization	Yes or No	Question 4 Comment
review draft standard		
American Transmission Company	Yes	
Arizona Public Service Company	Yes	
Bonneville Power Administration	Yes	
Central Maine Power, Iberdrola USA	Yes	
City of Tallahassee (TAL)	Yes	
Cleco	Yes	
Consumers Energy	Yes	
Duke Energy	Yes	
Exelon	Yes	
GCPD	Yes	
JEA	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
NERC Staff (12 staff members)	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	

Organization	Yes or No	Question 4 Comment
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Southen Company	Yes	
Tennessee Valley Authority	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Western Area Power Administrtaion	Yes	
Ameren	Yes	Appreciate the ability to reference up front.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees with the proposed grouping and placement of these items.
Dominion	Yes	Dominion agrees that the new format is superior to the old. However, we suggest a table of contents be added to include at a minimum, sections for (1) Definitions of Terms Used in Standard (2) Effective dates, (3) Introduction, (4) requirements and measures (5) Compliance (6) Time Horizons, VRF and VSLs (7) Administrative (8+) guidelines, technical basis, tables or figures referenced in standard.
Entergy Services	Yes	Easy to follow.
Ga Transmission Corp	Yes	I do not see a problem with this change.

Organization	Yes or No	Question 4 Comment
Xcel Energy	Yes	It is acceptable to do so, however it is not clear as to how the effective date portion will be incorporated in a final version of the standard. Will there be some kind of cover page to at least indicate the standard or will it just be a small title bar at the top? (i.e. - what does page 1 of the standard look like?)
ITC Holding	Yes	ITC agrees with locating the revision history and administrative information before the introduction. This alignment improves clarity and readability by providing a single location for this information.
Florida Municipal Power Agency (FMPA) and Some Members	Yes	Just a question, when the standard becomes effective, how will it be posted? FMPA assumes that this section will move to the end of the standard instead of the front when approved.
CenterPoint Energy	Yes	No preference.
Tampa Electric Company	Yes	None
Northeast Power Coordinating Council	Yes	NPCC participating members believe this is acceptable. However our previous response to question 3 above still applies regarding the Effective Date section. It should be removed from the standard, and either appear in an implementation plan, or more effectively in a NERC relational database.
Independent Electricity System Operator	Yes	Since in this case the effective dates of all requirements are all the same, we believe the effective dates table could be significantly condensed.
East Kentucky Power Cooperative, Inc.	Yes	The format provides for better clarification and is easier to read and comprehend.
MRO's NERC Standards Review Subcommittee	Yes	The NSRS likes the way the standards is now formatted and finds it more user friendly.
American Electric Power (AEP)	Yes	These changes make sense to American Electric Power.
SERC OC Standards Review Group	Yes	This format adds clarity and improves readability.
SERC Vegetation Management Sub-committee	Yes	This format adds clarity and improves readability.

Organization	Yes or No	Question 4 Comment
Progress Energy Carolinas	Yes	This grouping improves clarity and readability by providing a single location for this information.
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR is neutral on location of these items.
Southern California Edison Company	Yes	We agree that grouping the administrative information up front is logical and makes for a cleaner presentation.
FirstEnergy	Yes	We agree with having a detailed table showing the effective dates of each requirement. However, we would like to see NERC go back into the table and specify the dates of NERC and FERC effective dates once they are known. Having the statement "1st day of the 1st quarter one year after applicable regulatory approval" in the standard does not help the user of the standard when they are working towards compliance, and requires them to go elsewhere to find when the approvals took place. All this information should be in the standard when available and NERC staff should be afforded the latitude to do so even without needing to use its Errata process. Placing the dates directly within the standard is more convenient for the end user.
KCPL	Yes	

5. Do you agree with grouping the Requirements and Measures together, in one Section now called Requirements and Measures? Please explain.

Summary Consideration: A vast majority of the comment forms (50 out of 52) indicated support for grouping the Requirements and Measures in one Section.

Some commenters suggested moving the Measures back to the Compliance Section and adding a reference to each Measure stating which Requirement it refers to. The SCPS does not think that moving the Measures back to the Compliance Section will result in any improvement in readability. Keeping the Measures together with the Requirements provides readers with a clear and easy view of what evidence needs to be provided to demonstrate compliance with the Requirements.

Organization	Yes or No	Question 5 Comment
Xcel Energy		We are indifferent as to the placement of the Measures, however it does appear to create awkward shaped paragraphs when Requirements and Measures are place around Rationale boxes.
Northeast Power Coordinating Council	No	As commented earlier in question 3, this is a compliance related issue and should be in the Compliance section. NPCC participating members believe clear concise requirements should be the focus, and inserting measures immediately after the requirements adds little value. In addition, RE compliance staffs who use the metrics find no value to moving it as well. This format would ease working with the document as a working draft, but should not be in an adopted document. Consider moving Measures back to the compliance section, and add a reference to a Measure’s wording stating which requirement the measure refers to. Only adding a statement when the Requirement and Measure numbering don’t line up could be considered.
Bonneville Power Administration	Yes	
Cleco	Yes	
Duke Energy	Yes	
IRC Standards Review Committee	Yes	
Manitoba Hydro	Yes	
Nebraska Public Power District	Yes	
NERC Staff (12 staff members)	Yes	

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 5 Comment
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Southen Company	Yes	
Southern California Edison Company	Yes	
TO/TOP	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Western Area Power Administrtraion	Yes	
Central Maine Power, Iberdrola USA	Yes	Adds clarity between requirements and measures .
Arizona Public Service Company	Yes	APS doesn't agree with all of the requirements.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG,	Yes	BGE agrees it makes sense to group these two sections together.

Organization	Yes or No	Question 5 Comment
CNE & CENG)		
JEA	Yes	Coupling the measures and rationale with each requirement make the standard easier to follow and to implement.
Dominion	Yes	Dominion finds this format improved over the existing as reader can more easily correlate the requirement (process/procedures) to the measure (evidence).
Exelon	Yes	Exelon agrees this is a good practice that will help ensure Requirements and Measures are aligned
Florida Municipal Power Agency (FMPA) and Some Members	Yes	FMPA agrees that grouping the Requirements and Measures together in one section is a great idea; however, to realize even more benefit, we now have the opportunity to eliminate redundant wording, e.g., M3 can be shortened to: "A documented transmission vegetation management program" and eliminate the rest of the words that are redundant with R3.
Entergy Services	Yes	Great addition and improvement!! Much clearer and easier to follow.
City of Tallahassee (TAL)	Yes	However, if you keep the Rationale text boxes, keep the Measures in the same column as the requirement. This will result in a more consistent "look and feel" to all the requirements (M3 for R3 is the example).
FRCC Manager of Operations	Yes	In addition the DT could also eliminate redundant wording in the standard requirement, e.g., M3 can be shortened to: "A documented transmission vegetation management program" and eliminate the rest of the words that are redundant with R3 or use words in the measure that refer back "to the requirement above".
ERCOT ISO	Yes	Including a specific measure with each requirement adds clarity; however, it isn't clear whether each measure is exclusive to the requirement that it follows. Is it possible that some requirements will have multiple measures that are not listed immediately following the requirement?
ITC Holding	Yes	ITC agrees with Requirements and Measures grouped together
GCPD	Yes	Makes the standard template much easier to read and use.
Consumers Energy	Yes	Much easier to follow in this format.
Ameren	Yes	Much more user friendly to be able to see the requirement and the measurement together for clarification.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 5 Comment
CenterPoint Energy	Yes	No preference.
MRO's NERC Standards Review Subcommittee	Yes	NSRS prefers to have the requirements, measures, VRFs, VSLs and Time Horizons together instead of referencing to another page or part of the standard.
American Transmission Company	Yes	See ATC's comment on "Measures" in Question #3 above.
Tennessee Valley Authority	Yes	This aides in understanding of the standard. Grouping the VSL and VRF for each requirement along with the measurement could be beneficial too.
Ga Transmission Corp	Yes	This also is OK no problem with the layout.
Progress Energy Carolinas	Yes	This change also improves readability and improves understanding of the requirement.
SERC OC Standards Review Group	Yes	This format adds clarity and improves readability.
SERC Vegetation Management Sub-committee	Yes	This format adds clarity and improves readability.
East Kentucky Power Cooperative, Inc.	Yes	This format provides for better readability and clarification.
Tampa Electric Company	Yes	This improves the clarity and understanding to the requirements.
Independent Electricity System Operator	Yes	This is useful to avoid having to move back and forth between separate sections to find out what is needed to show that a requirement is met. We do not have a strong preference for this re-grouping however.
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR believes this makes it easier to identify the requirement and what we need to provide to demonstrate with are in compliance with the requirement.
FirstEnergy	Yes	We agree that grouping the Requirements and Measures together is convenient when utilizing the document for compliance.

Organization	Yes or No	Question 5 Comment
Consolidated Edison Company of New York, Inc.	Yes	We agree with grouping the Requirements and Measures together since it does add another level of clarifying description for our field forces who are ensuring compliance during vegetation management activities. The Measures for R1 and R2 describe evidence of violation while the Measures for the remaining Requirements R3 - R7 describe evidence of compliance. All Measures should be written consistently as either evidence of compliance or evidence of violation.
Orange and Rockland Utilities, Inc.	Yes	We agree with grouping the Requirements and Measures together since it does add another level of clarifying description for our field forces who are ensuring compliance during vegetation management activities. The Measures for R1 and R2 describe evidence of violation while the Measures for the remaining Requirements R3 - R7 describe evidence of compliance. All Measures should be written consistently as either evidence of compliance or evidence of violation.
Ad Hoc Group subteam formed to review draft standard	Yes	We agree with the understanding that the specific requirements of the standard are the enforceable elements of the standard. The rationale and measures add clarity to support a results-based requirement.
American Electric Power (AEP)	Yes	Yes, this is a more readable format.
KCPL	Yes	

6. Do you agree with grouping VRFs, Time Horizons and VSLs together, and putting them in a table separate from the Requirements and Measures Section? Please explain.

Summary Consideration: A vast majority of the comment forms (47 out of 54) indicated support with grouping VRFs, Time Horizons and VSLs together.

Some commenters suggested moving the VERs and Time Horizon back to the Requirements.

Some commenters agree with grouping VRFs, VSLs and Time Horizons together, but expressed a desire to also see the VRFs and Time Horizons in the Requirements as well. The SCPS adopted this suggestion in the next posting.

Some commenters suggested listing the applicable table rows with each requirement to consolidate all pertinent information with the requirement. The SPCS believes that this will convolute the Requirements and Measures Section with little added value.

Some suggested adding the penalty matrix to facilitate discussions with property owners/agencies resisting maintenance activates. The SCPS does not believe the penalty matrix is a standard element or technical reference material. This suggestion was not adopted.

Some commenters indicated that although a non-binding poll is taken of the VRFs and VSLs, it appears that the Time Horizons are part of the standard that is still subject to stakeholder ballot. Commenters suggested that the SDT should explain how this will be made clear to balloters and asked if there is an intent to modify the standards process to remove the time horizons from the portions of the standard that are subject to ballot.

In response to the above suggestions, the SCPS will retain the grouping as proposed, but will also put Time Horizons and VRFs adjacent to their associated Requirements.

Organization	Yes or No	Question 6 Comment
Pepco Holdings, Inc. - Affiliates	No	Agree that the grouping of the subject material is appropriate, but it is not necessary to also remove the VRFs and time horizons from the requirement.
JEA	No	I would prefer to have the VRF's and time horizons together with the requirements and measures section. The VSL's separate is appropriate as that is not information needed while complying, but only after a failure.
Manitoba Hydro	No	If the VRF's Time Horizons and VSLs were listed in with each requirement and measure section, it would eliminate the need for cross referencing 2 sources of information.
Oncor Electric Delivery	No	It would be nice to see the associated VRF's and Time Horizon with the requirements. No text, but referenced.
ERCOT ISO	No	The associated VRFs/Time Horizons/VSLs should be identified alongside each Requirement so that all relevant criteria for a given Requirement are organized together.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 6 Comment
IRC Standards Review Committee	No	While we agree that the grouping of the subject material is appropriate, it is not necessary to also remove the VRFs and time horizons from the requirement.
Duke Energy	No	While we like grouping VRFs, Time Horizons and VSLs together in a table, we would also like to see each VRF and Time Horizon listed with its requirement. It's a small amount of information that we think adds value in both places.
Ad Hoc Group subteam formed to review draft standard	Yes	
Ameren	Yes	
American Transmission Company	Yes	
Arizona Public Service Company	Yes	
Bonneville Power Administration	Yes	
Central Maine Power, Iberdrola USA	Yes	
Cleco	Yes	
Consolidated Edison Company of New York, Inc.	Yes	
Consumers Energy	Yes	
Dominion	Yes	
East Kentucky Power Cooperative, Inc.	Yes	
Exelon	Yes	

Organization	Yes or No	Question 6 Comment
FRCC Manager of Operations	Yes	
Independent Electricity System Operator	Yes	
Nebraska Public Power District	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Orange and Rockland Utilities, Inc.	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Southern California Edison Company	Yes	
TO/TOP	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Western Area Power Administration	Yes	
Xcel Energy	Yes	
MRO's NERC Standards Review	Yes	Again it is good to have this information together in place of referencing some other page or part of the

Organization	Yes or No	Question 6 Comment
Subcommittee		Standard.
Tennessee Valley Authority	Yes	Also please consider parsing out a copy of each VSL/VRF with in each individual requiremnt and measure part of the standard as mentioned in question 5 above.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE supports grouping VRFs and VSLs together in a separate table.
Southen Company	Yes	Consider putting the appropriate line from the table with each requirement in the body of the standard in addition to the table format. This does make the standard longer and does introduce some redundancy, but it would make each requirement easier to read and interpret on a “standalone” basis.
City of Tallahassee (TAL)	Yes	I believe this makes it easier to follow the Requirements.
ITC Holding	Yes	ITC Agree's
Florida Municipal Power Agency (FMPA) and Some Members	Yes	Much easier to find and understand
CenterPoint Energy	Yes	No preference.
Entergy Services	Yes	This grouping helps to clarify the manner in which the violations will be ranked.
Progress Energy Carolinas	Yes	This grouping improves the template used by previous versions by providing a single view of the impact and risk that has been associated with each requirement. Progress Energy believes that this change would also be improved if the applicable VRF/VSL/Time Horizon table rows were also listed with each requirement (consolidating pertinent info with the requirement). Another improvement would be including the penalty matrix (or including a URL link) to facilitate Transmission Owner discussions with property owners and other governmental agencies.
SERC OC Standards Review Group	Yes	This improves the template used by previous versions by providing a single view of the impact consideration of each requirement. An improvement would be also listing the applicable table rows with each requirement which consolidates all pertinent info with the requirement. Also, adding the penalty matrix would facilitate discussions with property owners/agencies resisting maintenance activates.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 6 Comment
SERC Vegetation Management Sub-committee	Yes	This improves the template used by previous versions by providing a single view of the impact consideration of each requirement. An improvement would be also listing the applicable table rows with each requirement which consolidates all pertinent info with the requirement. Also, adding the penalty matrix would facilitate discussions with property owners/agencies resisting maintenance activates.
GCPD	Yes	This is audit stuff that does need to stay together.
Northeast Power Coordinating Council	Yes	This is consistent with FERC's determination that these are compliance elements and not part of the standard requirements. It will also assist with compliance determinations.
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR is neutral on location of these items.
FirstEnergy	Yes	We agree with grouping these items together. It may also be beneficial to include links directly in the table to explanations of VRFs, Time Horizons, and VSLs so that someone unfamiliar with, for instance, what a "Long-Term Planning" horizon means, they could look it up.
NERC Staff (12 staff members)	Yes	We agree with the idea behind the grouping. However, according to the Reliability Standard Development Procedure - Version 7, although a non-binding poll is taken of the VRFs and VSLs, it appears that the Time Horizons are part of the standard that is still subject to stakeholder ballot. The SDT should explain how this will be made clear to balloters. Is there intent to modify the standards process to remove the time horizons from the portions of the standard that are subject to ballot? This issue needs to be addressed by the Standards Committee Process Subcommittee.
Tampa Electric Company	Yes	With all of the VRFs, Time Horizons and VSLs grouped together it facilitates the overall understanding of these factors as they relate to the standard.
Ga Transmission Corp	Yes	Yes this was a good change.
American Electric Power (AEP)	Yes	Yes; this format is more user-friendly.
KCPL	Yes	

7. Do you agree with the insertion of text boxes, where necessary, to help readers better understand the basis of the Definitions and Requirements? Please explain.

Summary Consideration: The majority of comment forms (43 out of 54) agree with the insertion of text boxes. Some commenters disagree with the insertion as the material in the text boxes will be subject to FERC’s review and approval. Other commenters raised a concern that the materials may become pseudo requirements; others are concerned that the material in the text boxes is also mandatory, or may be used by auditors as guidelines to assess compliance. Some believed that text boxes are not necessary given there is a Guideline and Technical Basis Section. Some suggested removing the text boxes and moving the material to the Guideline and Technical Basis Section. Some commenters indicated that some text boxes can be temporary (for example, those associated with a definition). More clarity is needed to distinguish this type of text box in the drafting stage, with the expectation that they will be removed after a standard is approved and the definition becomes effective (and removed from the standard). The SCPS appreciates these comments and the commenters’ concerns. The SCPS agreed to post the text boxes with the working document but move the text boxes into the Guideline and Technical Basis Section to support the standard until it is balloted, but will be removed from the approved version of the standard before it is submitted for adoption and filing with regulatory and governmental authorities. Their content will be moved to the Guideline and Technical Basis Section. The material in the Guideline and Technical Basis Section is intended to provide guidance but is not intended to expand on any of the requirements and is not intended to include any mandatory performance. A legal statement will be added to the standard to make this clear.

Organization	Yes or No	Question 7 Comment
Exelon	No	Additional clarifications should be included in appendices or reference documents. Including them with the requirements and measures will cause confusion concerning what the compliance obligation is. This will introduce uncertainty to the compliance monitoring process.
American Transmission Company	No	Although the test boxes provide some addition help, ATC believes that these text boxes should appear in the Guideline and Technical Basis section and that whole section should appear in a companion document to the standard but not be included as part of the standard. Also, see ATC’s comment on Rational in Question #3 above. ATC believes that guidance information should not be reviewed and approved by FERC and the inclusion of such information within the standard opens this language up to FERC’s oversight and approval.
Northeast Power Coordinating Council	No	As stated in question 3 above, NPCC participating members believe crisp, clear results based requirements require no further explanation. Requirements must be written so they are clearly understood. Text boxes clutter up the standard. Questions could arise if these add “pseudo” requirements to the standards, and there is any inconsistency in what is stated about requirements. NPCC strongly suggests their removal in favor of

Organization	Yes or No	Question 7 Comment
		clear, measurable, and high quality results based requirements.
City of Tallahassee (TAL)	No	I would delete the Rationale in favor of keeping the Guideline and Technical Basis. The Guideline appears to be more in-depth than the Rationale. This makes the Rationale redundant and unnecessary.
CenterPoint Energy	No	It is not clear how the information in the text boxes will be used to determine compliance with the Requirements and Measures. It appears that in the Definition of Terms Used in Standard section that the text boxes add to the definitions or are footnotes to historical information. The Definitions should stand on their own and be robust enough to ensure they are helpful in determining compliance with the Requirements and Measures. In the Requirements and Measures section, the text boxes appear to contain partial information from the Guideline and Technical Basis, and Technical Reference. In all cases the information is not helpful and provides incomplete information. The text boxes should be deleted and pertinent information to compliance should be incorporated into the Definitions, Requirements, and Measures. Any explanatory text or examples should be moved to an appendix as supplementary and optional to the Standard.
ERCOT ISO	No	It is not clear whether the information in the text boxes is “For Information Only.” While the additional information may be helpful, it appears to add sub-requirements within the Standard. This information could be included under a “Rationale” section in an Appendix. However, if the information clouds the purpose of the Requirements or dictates how to comply, then it should be eliminated completely.
Consumers Energy	No	Not necessary given the “Guidelines and Technical Basis”.
Nebraska Public Power District	No	Text boxes and other supporting information are a benefit to the reader as a clarification guide, but should be placed in something other than the Standard.
IRC Standards Review Committee	No	The concept of text boxes needs further discussion. The idea of using text boxes for clarity and explanation is valuable, but is the material in the text box mandatory? If it includes mandatory material than it is not a good idea - all mandatory requirements must be in the requirement. If the text boxes are retained to explain how a phrase is being used (e.g. to make clear what compound actions apply to what compound time frames), then yes, this approach can be invaluable.
Cleco	No	The inclusion of the text implies additional requirements. Keep guidance to a separate paper.
Arizona Public Service Company	Yes	
Bonneville Power Administration	Yes	

Organization	Yes or No	Question 7 Comment
Consolidated Edison Company of New York, Inc.	Yes	
Duke Energy	Yes	
FRCC Manager of Operations	Yes	
Manitoba Hydro	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Orange and Rockland Utilities, Inc.	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
Southen Company	Yes	
Tennessee Valley Authority	Yes	
TO/TOP	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
MRO's NERC Standards Review Subcommittee	Yes	1. We agree. The rationale boxes will cut down on interpretations. 2. Are the rationale boxes part of the approved standards for which registered entities will be audited. Are the rationale boxes federal law?3. Under R3, a reference to the National Electric Safety Code in the rationale box would be helpful. (The goal is to

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 7 Comment
		verify that utilities will not be held in violation of this standard when operating beyond the NESC conditions.)
North Carolina EMC	Yes	Additional background in the test boxes is very helpful.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees this would help clarify the basis of the Definitions & Requirements.
Dominion	Yes	Dominion agrees, but suggests that reference to figure(s) and table(s) contain links that can take reader to that section of the document. This is superior to having to scroll through document. If the reference(s) is external to this standard document, links may be harder to manage but should at least reference a common webpage(s) used by NERC for the posting of such documents.
Xcel Energy	Yes	However, the boxes should be adding clarity, not "defining" terms or stipulating further requirements/criteria that must be met. See MVCD in R1 & R2 and the incorporated Table 2, and comments to #1 & #13 in this form. The standard should be able to convey the requirements without the text boxes or, if the text boxes are used, the purpose and legal import of such boxes should be clarified. Further, it should be clarified that for text boxes that provide examples (e.g., the boxes on page 2 in the definitions section), such boxes should clearly state that the examples are in no way limitations.
Ga Transmission Corp	Yes	I do like the text boxes.
ITC Holding	Yes	ITC agrees, but would like to suggest that the text boxes include additional pertinent information from the Technical Reference that would be helpful as reliability talking points to the public. Example: (R3): The following is a sample description of one combination of strategies which may be utilized by a Transmission Owner. A Transmission Owner's basic maintenance approach could be to remove all incompatible vegetation from the right of way if it has the right to do so and has no constraints
Ameren	Yes	It's helpful to understand the SDT's logic for requirements, clarification is always appreciated.
GCPD	Yes	May help in cutting down the volume of SAR interpretation requests.
Central Maine Power, Iberdrola USA	Yes	R3 - this may be a good place to describe clearances at time of vegetation management work
Florida Municipal Power Agency	Yes	The clarification is important and will reduce the number of requests for interpretation if interpretation is already provided to some extent. Just a caution about how the text boxes will be used in the audit process,

Organization	Yes or No	Question 7 Comment
(FMPA) and Some Members		clarification concerning their use during compliance monitoring would be great.
NERC Staff (12 staff members)	Yes	The explanatory information posted with the proposed definitions, like the definitions, is only relevant to this standard, and some of the information is only relevant to the point where the definition becomes enforceable. What is the expectation for what will happen to this information in the future? We suggest that the text boxes associated with requirements include a reference to that requirement. (Change "Rationale" to "Rationale for R1")
Western Area Power Administrtaion	Yes	The format could be enhanced by moving the "Guidelines and Technical Basis" section forward to be included with the corresponding Requirement, Measure, and Rationale. Perhaps the "Guidelines and Technical Basis" could also be combined with the corresponding "Rationale" text box. This would be helpful because it is awkward flipping back and forth between these two sections when trying to fully understand a requirement.
SERC OC Standards Review Group	Yes	This format adds clarity and improves readability.
SERC Vegetation Management Sub-committee	Yes	This format adds clarity and improves readability.
East Kentucky Power Cooperative, Inc.	Yes	This format is simpler, easier to read, understand and implement.
Progress Energy Carolinas	Yes	This format provides clarity and improves readability. Progress Energy believes that having SDT basis information for a requirement in the standard will reduce the need for interpretation and improve the interpretation process for a requirement, if necessary.
Tampa Electric Company	Yes	This improves the clarity and understanding to the requirements.
American Electric Power (AEP)	Yes	This is a good change.
JEA	Yes	This is extremely helpful in understanding the intent of the requirement
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR believes that the expansions within the text boxes provided additional useful information.

Organization	Yes or No	Question 7 Comment
Entergy Services	Yes	<p>We agree that text boxes being used for additional clarity is a benefit if used in a correct and clear manner. It needs to be specifically stated in the document that the text boxes are to be used for reference only, entities will not be required to specifically follow the language in the Rationale box, and that each utility should specify their own process for addressing each Requirement. For example....the Rationale box for R4 states that "Verified knowledge includes observations by journeyman lineman, utility arborist, or other qualified personnel.....". Our process will specify exactly who that qualified personnel is (Transmission Specialist or another qualified Entergy Employee in the Transmission Vegetation Group, for example). We will specify this in our internal processes.</p>
FirstEnergy	Yes	<p>We agree that text boxes can be useful for requirements and definitions. However, the SDT may want to consider eliminating the text boxes since this information is already provided in the Guidance and Technical Basis section. Also, we have the following additional comments:General:1. With respect for the rationale text boxes for definitions, it is not clear if these boxes will be retained once the definitions are moved out of the standard and added to the NERC Glossary.2. The rationale text boxes can be beneficial for the requirements, but some of the text boxes in this current draft of FAC-003-2 seem to include prescriptiveness that is not found in the requirement. An example is in the text box for Req. R4, which implies timeliness of notification of an imminent threat with the use of the word "rapid". In the case of R4, the requirement should state that notification be carried out immediately (see our suggested rewording of R4 in Question 13). 3. Although these text boxes are not enforceable for compliance, we are not convinced that an auditor will view this as simply guidance.Specific:1. Definition for Active Transmission Line ROW - Example 3 of Inactive ROW - Consider removing this example; situations where vegetation is left unmanaged on portions of the ROW where double-circuit structures exist with only one circuit strung with conductors poses an unnecessary increased risk for vegetation related outages. 2. Rationale box for Req. R3 - See our comments in Question 23. Rationale box for Req. R4 should be revised to state: "To ensure rapid notification of the responsible control center when an occurrence of an imminent threat condition is verified. Evidence of verified knowledge includes observations by journeyman, lineperson, utility arborist, or other qualified personnel, or a report verified by these personnel. This notification allows the responsible control center to take the appropriate action until the threat is relieved. Appropriate actions may include a temporary reduction in the line loading or switching the line out of service."4. Rationale box for Req. R5 - (1) The last statement of this box seems incomplete. It should be revised to state: "This requirement is not intended to address situations where the transmission line is not at immediate risk and the work event can be rescheduled or re-planned using an alternate work methodology."; and (2) We suggest revising the first statement to "Legal actions filed by property owners, easement restrictions and other events...."</p>
Southern California Edison Company	Yes	<p>We agree that the insertion of text boxes aids readers in understanding the basis for the Definitions and Requirements.</p>

Organization	Yes or No	Question 7 Comment
Independent Electricity System Operator	Yes	We agree that the side-bars give useful contextual information that is not part of standard. This is good and avoids the reader's attention being completely redirected to a reference document when seeking clarification of the intent of a requirement. We believe however that these text boxes should be used sparingly and the content should also be brief to minimize possible distractions to the reader. It should also be made clear in the standard that these text boxes are not intended to impose additional requirements and in the event of any perceived conflict, the text of the requirement will take precedence.
South Carolina Electric and Gas	Yes	We agree, however we would like clarification on whether entities can be held accountable for rationale portions of the standard as they are for interpretations that are added to a standard.
Ad Hoc Group subteam formed to review draft standard	Yes	We understand this question to refer to the "rationale" text boxes in this standard. Additional information such as this is useful to the entity in explaining and clarifying the understanding of the drafting team in articulating the requirement and thus supports a fuller understanding of the entity in achieving compliance with the requirement.
KCPL	No	I like information that helps to "guide" and "provide guidance", however, we already having trouble with information from FAQ's, White Papers, and other guiding documents creeping into the requirements by auditing teams. The inclusion of "guiding information" in the text of the Standard itself may promote adding to requirements. Although helpful, I recommend removing this text from within the body of the Standard.

8. Do you agree with the addition of a Guideline and Technical Basis Section to place technical materials and other related information that assists entities in understanding how to comply with the standard but does not contain mandatory actions/activities? Please explain.

Summary Consideration: Most of the comment forms (38 out of 54) indicated agreement with the addition of the Guideline and Technical Basis Section.

Some commenters expressed a concern over how the materials contained in this Section may be used in compliance monitoring and enforcement.

Some commenters suggested that it should be expressly stated that this section is for information purposes only and is not part of the Standard Requirements. They further suggested compiling all of the “Information Only” materials into an Appendix as a preferred alternative. Others suggested that guideline materials be moved into a separate document.

Some commenters suggested that while this Section contains useful materials, NERC should consider developing a separate set of Guideline documents to afford the industry a knowledge base that is not directly sanctionable for non-compliance.

Some commenters expressed a concern that being located within the standard, the Guideline Section will imply additional requirements for mandatory compliance, or get used by auditors as compliance issues.

The SCPS assesses that the industry likes the idea of having technical guidelines for standards. Guideline materials, whether they are put in a separate document or included in a standard, can be used by anyone to assess compliance with standards. Putting them outside of the standard does not eliminate this possibility.

The material in the Guideline and Technical Basis Section is intended to provide guidance but is not intended to expand on any of the requirements and is not intended to include any mandatory performance. A legal statement will be added to the standard to make this clear. The SCPS believes that as long as it is made clear that only the requirements and provision of evidence are mandatory, any supporting materials can be provided in a standard to aid readers better understand the standard without binding them to complying with the supporting materials. The intent of the description of the elements of a standard in the proposed Standard Processes Manual is to make it clear that there is a distinction between the enforceable sections of the standard and the compliance and supporting information sections of the standard.

Organization	Yes or No	Question 8 Comment
Florida Municipal Power Agency (FMPA) and Some Members	No	Although FMPA agrees that a Guideline and Technical Basis document is important, FMPA has concerns about how this section might be used in compliance monitoring and enforcement. For instance, R4 has a time requirement somewhat embedded in the Guideline and Technical Basis that is not in the requirement in the standard: “The imminent threat process should be implemented in terms of minutes or hours as opposed to a longer time frame for interim corrective action plans”. How many minutes or hours? This adds ambiguity to the standard. If a time limit is desired, it should be in the requirement. There are other examples of items that could be interpreted as requirements in the Guidelines. It should be made clear what the purpose of the Guidelines is in compliance monitoring and enforcement. FMPA suggests publishing two documents in the same fashion that the Functional Model has two documents, one for the standards (e.g., the requirements), and another for technical guidance to the standards (e.g., the Guideline and Technical Basis section) to

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 8 Comment
		parallel the structure of the Functional Model and Functional Model Technical Document, which will help make the distinction between CMEP and guidance more distinct.
American Transmission Company	No	ATC disagrees with the above statement that it only assists in understanding how to comply. ATC believes that parts of this section are written so they could be interpreted to contain mandatory actions/ activities. To demonstrate, see example on pg.15, R4, 2nd paragraph states...Two key elements of an acceptable imminent threat procedure are outlined below:.....) It should not be more than a preferred method for implementation or supporting how the TO can meet the standard. NERC needs to clarify how this section was intended to be used. (This as written could become part of a Compliance Audit process)Also, refer to ATC’s comment on this section in Question #3 above.
Bonneville Power Administration	No	Consider referencing ANSI A300 part 7 as best management practices for R3. It is currently referenced in the White Paper, and would lend more credibility to the standard if it was inserted in the text box for R3.
ERCOT ISO	No	For the same reasons stated in the comments to Question 7, it should be expressly stated that this section is for information purposes only and is not part of the Standard Requirements. Compiling all of the “Information Only” materials into an Appendix would be the preferred method of organization.
Northeast Power Coordinating Council	No	NPCC participating members do not believe that publishing more information as part of the standard is appropriate. For the same reasons as stated in the preceding response related to “Text Boxes” in question 7, any inconsistency may result in a conflict with a requirement. The information in the Guideline and Technical Basis section is valuable, however, and should be available to the industry in the form of guidelines. NPCC participating members suggest that NERC assemble a comprehensive set of “Guideline” documents into one bookmarked pdf publication to be updated as standards change. This will afford the industry a knowledge base that is not directly sanctionable for non-compliance, but a set of industry best practices, background, and reference for the standards development activities. Also, concern exists that FERC and Provincial governmental authorities will have jurisdiction over “Guidelines”, and when the standard is approved it will become a mandatory “rule”.
Nebraska Public Power District	No	Same as item 7.
CenterPoint Energy	No	See answer to Q3.
GCPD	No	Should be separate documents. If located with the standard it will get used by the auditors as compliance issues. NO matter how much text you provide to the contrary it will become part of the standard over time.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 8 Comment
Consolidated Edison Company of New York, Inc.	No	Since the SDT has developed a complete Technical Reference Document for this Standard, there seems to be redundancy with the Guideline and Technical Basis Section. This Standard has become too lengthy with all of the additional details and information that has been added. We prefer to have a shorter Standard and a more detailed stand alone supporting reference document.
Orange and Rockland Utilities, Inc.	No	Since the SDT has developed a complete Technical Reference Document for this Standard, there seems to be redundancy with the Guideline and Technical Basis Section. This Standard has become too lengthy with all of the additional details and information that has been added. We prefer to have a shorter Standard and a more detailed stand alone supporting reference document.
Cleco	No	The inclusion of the text implies additional requirements. Keep guidance to a separate paper.
IRC Standards Review Committee	No	This change also requires some additional explanation. What level of importance will be given to such materials? If an SDT inserted a Best Practices document, does that allow auditors to refer to that document for purposes of holding an entity non-compliant? Are these materials there to help entities who do not know how to comply? If these materials are self-help guides, then it would be better to include them as URL references that are stored in the NERC library. That way there can be not confusion about whether the material is there as a self-help guide, or as a reference for auditors.
FRCC Manager of Operations	No	We agree that this is valuable information and important to convey with the standard. This should be a separate companion document balloted, approved and posted with the standard but not be a part of the standard.
TO/TOP	No	We agree that this is valuable information and important to convey with the standard. This should be a separate companion document balloted, approved and posted with the standard but not as part of the standard.
SERC OC Standards Review Group	No	We recommend that the text “grid reliability” be substituted for “Bulk Electric System” on page 6 of the draft. The inclusion of non-mandatory guidelines in a standard that will ultimately be approved by FERC gives undue credence to “guidelines” that will lead undoubtedly to mis-application by future compliance auditors. We suggest separation of this information from the mandatory reliability standard that will be filed at FERC. It could be held in a repository on the NERC website.
Arizona Public Service Company	Yes	
Central Maine Power, Iberdrola	Yes	

Organization	Yes or No	Question 8 Comment
USA		
Consumers Energy	Yes	
Duke Energy	Yes	
Exelon	Yes	
Manitoba Hydro	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Tennessee Valley Authority	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Tampa Electric Company	Yes	Aids in improved understanding of FAC-003-2.
FirstEnergy	Yes	Although we agree that guidelines are good to have and agree that having them in the body of the standards is convenient, we question how this section will be viewed from a compliance standpoint. We understand this section is not intended to be mandatory, but does that mean that regulatory authorities will only approve the other sections of the standard and not this section? Also, it should be clear and explicitly stated in the lead-in

Organization	Yes or No	Question 8 Comment
		to this section that this is guidance which is not mandatory and enforceable. Additionally, terms such as "shall", "should", and "require" should not be used in the guidance section because the information presented in this section could be construed as mandatory by an auditor. An example of this is in the guidance information for Requirement R7 which states "Documentation is required when the annual work plan is adjusted...". This mandatory-type language should not be included in the Guidelines section.
MRO's NERC Standards Review Subcommittee	Yes	Another good addition to the standard and will help clarify parts of the standard without referring to another document or set of guidelines.
Southern California Edison Company	Yes	Assuming that the "Guideline and Technical Basis Section" will be retained and revised in future revisions to the standard, such information should prove very useful.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees with the addition of a Guidance & Technical Basis section.
JEA	Yes	Having the information in the same document makes the information more accessible to the entity attempting to comply with the standard.
Ga Transmission Corp	Yes	I do however believe that each utility should have the flexibility to manage there program the way they feel is the most effective method. I do not want the technical basis section to limit options. Should this be in a white paper format?
East Kentucky Power Cooperative, Inc.	Yes	I have no preference one way or the other on this issue.
ITC Holding	Yes	ITC agrees with Guidelines and Technical Basis section, but recommend including useful Technical Reference actions and activities that would support defense-in-depth strategy. We also feel that to avoid any confusion with the applicability section and interpretations in the future, any references to the Bulk Electric System in the standard sections and guidance/technical reference document should be reviewed and changed.
Entergy Services	Yes	Language should be added to the Guideline and Technical Basis Section to clarify or re-state that this section is for assisting entities in understanding how to comply with the standard but does not contain mandatory actions/activities, and a statement that entities are not required to use the information in the Guideline and Technical Basis Section.

Organization	Yes or No	Question 8 Comment
Western Area Power Administrtaion	Yes	The format could be enhanced by moving the "Guidelines and Technical Basis" section forward to be included with the corresponding Requirement, Measure, and Rationale. Perhaps the "Guidelines and Technical Basis" could also be combined with the corresponding "Rationale" text box. This would be helpful because it is awkward flipping back and forth between these two sections when trying to fully understand a requirement.
NERC Staff (12 staff members)	Yes	There is no language in the body of the standard to clarify that the information in the Guideline and Technical Basis Section of the standard is not subject to enforcement. We suggest revising the heading to "Application Guidelines." This is the term that was originally proposed by the Results-based team and is the heading identified in the proposed Standard Processes Manual.
SERC Vegetation Management Sub-committee	Yes	This format adds clarity and improves readability.
Xcel Energy	Yes	This is all good information to add a depth of understanding for the user. It's not clear as to how modifications to the Guideline and Technical Basis would come about - it is the same as the standards revision process? Does this section replace the white paper? Will it actually be deemed to be part of the Standard? We are curious as to the legal weight if this is not part of the Standard and believe that key provisions are in this section. It seems it should be part of the Standard.
Ameren	Yes	This is helpful information to have that does not clutter up the requirements and measurements. Under R6, the third paragraph, there is a typo: ..."230kv transmission lines at least once 'line' during the calendar year".
City of Tallahassee (TAL)	Yes	This is very useful information and will minimize misinterpretations by the entities and the compliance teams.
Progress Energy Carolinas	Yes	This new section provides additional information and SDT rationale that is critical to understanding how to comply with the requirements in the standard and will also provide SDT intent/basis for the interpretation process when necessary. Progress Energy believes that any references to the Bulk Electric System in the standard sections and guidance/technical reference document should be reviewed and changed (e.g. "grid reliability") to avoid confusion with the applicability section in this draft and avoid the potential for applicability interpretations once this version is adopted.
Independent Electricity System Operator	Yes	This section should be placed in an appendix preceded by a statement that clearly states the purpose of the Section and indicates that the Guideline and Technical Basis Section does not in any way add to the requirements of the standard. Also, this section appears to be a summary of the Technical Reference Document but we could find no reference to the Technical Reference within the standard. This reference should be cited for the benefit of anyone seeking further detail.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 8 Comment
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR agrees with the concept of placing the background technical information in a separate section. We were a bit concerned with the Guideline for R7 because it seems to mandate many more items than were called for in the actual requirement in the body of the standard. Our belief is that the Guideline section should not infer or list any more requirements than the actual requirement dictates.
Ad Hoc Group subteam formed to review draft standard	Yes	We agree with the additional material as an aide to entities to further understand the basis for the requirements. In this spirit the information should support compliant behavior and thus the reliability objectives of the standard.
Dominion	Yes	While we agree that these can be useful, we are concerned about the 'last minute' change (March 24th) to the technical reference — document being used by those reviewing the materials for this project.
Southen Company	Yes	Would it be better to have an official white paper associated with the standard rather than having this information in the standard? A white paper can be changed without seeking industry comments and approval from NERC, while information in the standard must go through the entire approval process. As it is structured now, information-only updates to the Technical Basis Section would require the entire standards approval process to be completed.
American Electric Power (AEP)	Yes	Yes, although American Electric Power does question whether auditors will be able to avoid reading and applying such text.
KCPL	No	I like information that helps to “guide” and “provide guidance”, however, we already having trouble with information from FAQ’s, White Papers, and other guiding documents creeping into the requirements by auditing teams. The inclusion of “guiding information” in the text of the Standard itself may promote adding to requirements. Although helpful, I recommend removing this text from within the body of the Standard.

9. Do you prefer putting URL links to reference materials in the Guideline and Technical Basis Section, or do you prefer putting the additional technical/information materials in appendices, where needed, to supplement the Guideline and Technical Basis Sections? Please explain.

Summary Consideration: Out of the 52 comment forms received, 28 forms indicated a preference for use of URLs, 22 indicated a preference for appendices and 5 indicated no preference. These results indicate that either approach would be acceptable. The SCPS agreed to put the information in an appendix rather than in a URL because it is difficult to maintain the accuracy of URLs over time, and because keeping the information in the body of the standard is less work for end users as all information would be in one place.

Organization	Yes or No	Question 9 Comment
MRO's NERC Standards Review Subcommittee		If there is background information contained in a URL link pertaining to a particular Requirement, that link should be with the Requirement that it pertains to.
Ad Hoc Group subteam formed to review draft standard		Judicious and correct use of citations should allow the proper documentation of references without the hazard of expired URLs or expansion from using appendices.
Tennessee Valley Authority		No preference, either way will work.
Consumers Energy	Prefer appendices	
Exelon	Prefer appendices	
PPL Electric Utilities Corporation (NCR00884)	Prefer appendices	
South Carolina Electric and Gas	Prefer appendices	
TO/TOP	Prefer appendices	
Tucson Electric Power Co.	Prefer appendices	
Western Area Power Administration	Prefer appendices	

Organization	Yes or No	Question 9 Comment
Xcel Energy	Prefer appendices	
GCPD	Prefer appendices	Actually we prefer that they are separate from the standard entirely. See question 8.
Cleco	Prefer appendices	An appendix ensures the information is available and original at the time the document it supports was prepared.
ERCOT ISO	Prefer appendices	An Appendix would probably be easier to use, but either type of reference would suffice. Regardless of which is used, it should include a footnote that the information is “For Information Purposes Only” and are not a part of the Standard’s Requirements. If the information causes confusion, then it should be eliminated completely. Also, what types of materials are contemplated to be “reference materials”?
Oncor Electric Delivery	Prefer appendices	Appendices would memorialize documents vs URL links to reference materials that may change over time. This Standard was crafted from “today’s” point of view and background information. Reference material might change and the URL would point to material not validating the current form, logic, and background of the Standard.
Entergy Services	Prefer appendices	Appendices, or reference to a single site for all referenced material, would be the most helpful from the standpoint of keeping the information together and more readily available.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Prefer appendices	BGE prefers that such materials be included in the appendices.
NERC Staff (12 staff members)	Prefer appendices	It is not clear what part of the standard is being balloted and what part is not. In addition, it is not clear what process will be used to modify the guideline/technical basis section of the standard. This needs to be determined before this standard can be balloted.
FRCC Manager of Operations	Prefer appendices	Links can get broken - official records (ie. standards) need to stand alone.
City of Tallahassee (TAL)	Prefer appendices	The fewer places I have to navigate to the better I like it. I find too many “broken” URLs. This will also make it easier when I download a “complete set” of standards from the NERC website.
Dominion	Prefer appendices	Unless a ‘failsafe’ process is developed to insure URL links are keep up-to-date, preference is to locate all referenced materials within the standard (same URL). However, there are a number of ways that

Organization	Yes or No	Question 9 Comment
		<p>URL linkage could be done. One would be to locate all Guideline and Technical Basis documents on a webpage dedicated to such documents. This would allow URL linkage at a higher level than if there is URL linkage for each Guideline or Technical Basis document. This is probably the easiest to maintain. Another would be to link each Guideline or Technical Basis document referenced in a standard to the same URL as that standard. Maintaining URL linkage is probably medium. Yet another is to have the URL link to a webpage created specifically for that Guideline or Technical Basis document. This is likely to be the hardest (require most effort) to maintain.</p>
CenterPoint Energy	Prefer appendices	<p>URL links tend to change over time due to administrative requirements. Moving them to the appendix will avoid revisions to the Standard. See also answer to Q3 regarding the Guideline and Technical Basis Section.</p>
Florida Municipal Power Agency (FMPA) and Some Members	Prefer appendices	<p>URLs can break</p>
Nebraska Public Power District	Prefer appendices	<p>URLs change periodically.</p>
North Carolina EMC	Prefer appendices	<p>Will need to put something in place to make sure that the links get properly updated if they change.</p>
Ameren	Prefer the inclusion of URL links	
Arizona Public Service Company	Prefer the inclusion of URL links	
Bonneville Power Administration	Prefer the inclusion of URL links	
Consolidated Edison Company of New York, Inc.	Prefer the inclusion of URL links	
Duke Energy	Prefer the inclusion of URL links	
Ga Transmission Corp	Prefer the inclusion	

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 9 Comment
	of URL links	
IRC Standards Review Committee	Prefer the inclusion of URL links	
Manitoba Hydro	Prefer the inclusion of URL links	
Omaha Public Power District	Prefer the inclusion of URL links	
Pepco Holdings, Inc. - Affiliates	Prefer the inclusion of URL links	
Southern California Edison Company	Prefer the inclusion of URL links	
Utility Risk Management Corporation	Prefer the inclusion of URL links	
Progress Energy Carolinas	Prefer the inclusion of URL links	Additional reference documents provide additional information that may be needed to understand how to comply and the basis of requirements, but they should not be included as appendices. The use of appendices could result in a SDT process/effort for minor revisions to the reference document.
American Transmission Company	Prefer the inclusion of URL links	Also see ATC's comment on "Guideline and Technical Basis Section" in Question #3 above.
Independent Electricity System Operator	Prefer the inclusion of URL links	In general the additional reference materials may make the document extremely voluminous so we prefer URL links.
Northeast Power Coordinating Council	Prefer the inclusion of URL links	Links are preferable to alleviate the concerns expressed in question 8 above, especially with respect to FERC approval.
JEA	Prefer the inclusion of URL links	No strong preference.

Organization	Yes or No	Question 9 Comment
Tampa Electric Company	Prefer the inclusion of URL links	None
Western Area Power Administration - Upper Great Plains Region	Prefer the inclusion of URL links	None
Orange and Rockland Utilities, Inc.	Prefer the inclusion of URL links	Prefer the inclusion of URL links
East Kentucky Power Cooperative, Inc.	Prefer the inclusion of URL links	Provides for clarity and readability.
Southen Company	Prefer the inclusion of URL links	See answer to number 8.
American Electric Power (AEP)	Prefer the inclusion of URL links	The use of URL links is probably most appropriate for an increasingly web-based reference repository.
SERC OC Standards Review Group	Prefer the inclusion of URL links	This format adds clarity and improves readability.
SERC Vegetation Management Sub-committee	Prefer the inclusion of URL links	This format adds clarity and improves readability.
ITC Holding	Prefer the inclusion of URL links	URL links provide immediate access, are less cumbersome, and usually provide additional research material when accessed.
FirstEnergy	Prefer the inclusion of URL links	We prefer URL links. Although, we are not clear what this question is asking regarding "additional technical/information materials". Is the team referring to "supplemental" reference documents such as the technical reference white paper that was recently posted for stakeholder review on March 24, 2010? If so, we agree that supplemental reference material be included through URL links, perhaps at the end of the "Guidelines and Technical Basis" section of the standard.
KCPL	Prefer appendices	Although a good idea generally, too many times URL links change name or something else that makes the imbedded link unusable or takes you to the wrong place. Having an appendix ensures the

Organization	Yes or No	Question 9 Comment
		information is available and original at the time the document it supports was prepared.

10. Do you agree with the addition of the Background Section to allow provision of background information, and to elaborate on the reliability-related drivers for the standard/change? Please explain.

Summary Consideration: Most of the comment forms (42 out of 54) indicate agreement with the addition of the Background Section.

Some commenters expressed similar concerns as those for Text Boxes and the Guideline and Technical Basis Section that the information should not be subject to FERC’s review and approval, and that the Background may contain Requirement material that is enforceable. Other commenters suggested that this Section is not needed given the addition of the Guideline and Technical Basis Section.

The SCPS believes that the Background Section serves a different purpose than the Guideline and Technical Basis Section. The Background Section provides the background that led to the development of the standard, tying it to the reliability drivers and principles. In essence, the Background Section gives readers the reasons for and the events that led to the development of the standard. The Guideline and Technical Basis Section serves a very different purpose as it provides readers with the technical background, general guidelines, and general practices or technical merits that the responsible entities could take or consider to help them meet the reliability requirements. The Guideline and Technical Basis Section can also be used to provide some examples to illustrate the coverage or intent of the requirements.

On this basis, the SCPS believes it is in the interest of the majority of commenters to keep the Background Section. The SCPS will communicate to the standard drafting team that the Background Section must not contain requirement material, and should not include any technical information that should be provided in the Guideline and Technical Basis Section. The Background Section will remain at the front of the standard. As noted in response to other questions, a legal statement will be added to clarify which sections of the standard are mandatory and enforceable.

Organization	Yes or No	Question 10 Comment
ERCOT ISO	No	Again, it is preferable to include this type of information in an Appendix as long as it is made clear that this is additional information and is not a part of the Standard’s Requirements. However, if there is a chance that the additional information included in the Appendix is going to cloud the Requirements spelled out in the Standard, then our preference is to eliminate the additional information completely.
SERC OC Standards Review Group	No	Inclusion of a background section in a document that will be approved wholly by FERC give undue credence and weight to statements which may be included that are not necessarily factual 100% of the time. For example, the first sentence of the last paragraph of the background section reads as follows: “Since vegetation growth is constant and always present, unmanaged vegetation poses an increased outage risk, especially when numerous transmission lines are operating at or near their Rating.” Obviously, woody stems do not grow during the dormant season, yet the background asserts that it does. There are other areas in this sentence that are not completely factual and should not be in a reliability standard. We recommend that the text “grid reliability” be substituted for “Bulk Electric System” on page 6 of the draft.
Consumers Energy	No	Not necessary.

Organization	Yes or No	Question 10 Comment
Northeast Power Coordinating Council	No	NPCC participating members believe this is more informational and appropriate on the individual standard's NERC Website "Under Development" page, in an announcement, cover letter, or to be distributed with the standard drafts.
Nebraska Public Power District	No	Same as item 7.
CenterPoint Energy	No	See answer to Q3.
Florida Municipal Power Agency (FMPA) and Some Members	No	The background belongs in the Guidelines and not as part of the standard.
FRCC Manager of Operations	No	The background section should be re-named "Technical Basis". Trim content and leave only the first and last paragraphs. In addition, all 5 paragraphs of the section as written should be moved to the front of the Guidelines and Technical Basis document as a "Background" section of that separate document. NERC should limit its use of "background" information within the reliability standard itself.
TO/TOP	No	The background section should be re-named "Technical Basis". Trim content and leave only the first and last paragraphs. In addition, all 5 paragraphs of the section as written should be moved to the front of the Guidelines and Technical Basis document as a "Background" section. NERC should limit its use of "background" information in reliability standards.
Cleco	No	The inclusion of the text implies additional requirements. Keep guidance to a separate paper.
Exelon	No	This information should be in appendices or reference documents available on the NERC standards site.
Ameren	Yes	
Arizona Public Service Company	Yes	
Bonneville Power Administration	Yes	
Central Maine Power, Iberdrola USA	Yes	
City of Tallahassee (TAL)	Yes	

Organization	Yes or No	Question 10 Comment
Duke Energy	Yes	
East Kentucky Power Cooperative, Inc.	Yes	
Ga Transmission Corp	Yes	
JEA	Yes	
Manitoba Hydro	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
North Carolina EMC	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Southen Company	Yes	
Tennessee Valley Authority	Yes	
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	

Organization	Yes or No	Question 10 Comment
Western Area Power Administration	Yes	
SERC Vegetation Management Sub-committee	Yes	Allows for a more informed interpretation of the standard.
American Electric Power (AEP)	Yes	American Electric Power agrees with this change.
American Transmission Company	Yes	ATC agrees that the Background Section is helpful; however, NERC should define its purpose and goal. What is currently written is more than necessary to be included in this standard.
Dominion	Yes	Dominion agrees but suggests it be moved towards end (suggest between Administrative and Guideline/Technical basis sections).
Ad Hoc Group subteam formed to review draft standard	Yes	Great help in showing intent and reliability goal of the standard.
Southern California Edison Company	Yes	Including a background section should prove useful for future editions. However, at some point such information could be made accessible through URL links.
ITC Holding	Yes	ITC agrees with the addition of Background Section
GCPD	Yes	May help in interpretations and in explaining to stakeholders in our organizations.
Tampa Electric Company	Yes	None
Western Area Power Administration - Upper Great Plains Region	Yes	None
Progress Energy Carolinas	Yes	Progress Energy agrees and believes that the background section will allow relevant background information that provided direction/guidance for the SDT to be readily available after the standard revision is adopted.
Entergy Services	Yes	The Background Section is helpful, but the last sentence states....."Thus, this Standard's emphasis is on vegetation grow-ins.". This statement seems to conflict with the outage Category 2 "Fall In" classification,

Organization	Yes or No	Question 10 Comment
		even though it is a fall in from within the ROW.
Xcel Energy	Yes	The Background section should be moved to the back, in front of the Guideline and Technical Basis.
IRC Standards Review Committee	Yes	This background is important for insertion at the beginning of a SAR. But for a standard-posting, it is suggested that this section is redundant and better inserted after the requirement and measures with the other Administrative materials.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	This makes sense to BGE.
NERC Staff (12 staff members)	Yes	This provides a context for the requirements and is very beneficial in understanding the intent of the standard.
Independent Electricity System Operator	Yes	This section expands on the purpose statement and will promote a uniform understanding of the fundamental drivers for the standard and its requirements, as well as its philosophy and scope.
Consolidated Edison Company of New York, Inc.	Yes	We agree but believe the Background Section should be situated before the Applicability Section in the revised Standard and redundant verbiage should be removed.
Orange and Rockland Utilities, Inc.	Yes	We agree but believe the Background Section should be situated before the Applicability Section in the revised Standard and redundant verbiage should be removed.
FirstEnergy	Yes	We agree that a Background section is beneficial. However, we believe it may be more appropriate to move this information to the Guidelines section as a lead-in. Also, we suggest a rewording of the first sentence of the first paragraph on Pg. 2 which states: "Major outages and operational problems have resulted from interference between overgrown vegetation and transmission lines located on many types of lands and ownership situations". We agree that vegetation can contribute to outages, but it cannot be the sole cause of major outages. Major outages can be prevented if other measures required by other NERC standards are implemented when vegetation causes a line or other equipment to malfunction. We suggest a rewording of this statement as follows: "Interference between vegetation and transmission lines located on many types of land have contributed to significant outages and operational challenges."
KCPL	No	I like information that helps to "guide" and "provide guidance", however, we already having trouble with information from FAQ's, White Papers, and other guiding documents creeping into the requirements by auditing teams. The inclusion of "guiding information" in the text of the Standard itself may promote adding to

Organization	Yes or No	Question 10 Comment
		requirements. Although helpful, I recommend removing this text from within the body of the Standard.

11. Do you agree with the addition of an Administrative Procedure Section to place administrative/procedural requirements that are contained in the existing standards but which do not meet the results-based or risk-based criteria? Please explain.

Summary Consideration: Most comment forms (36 out of 52) indicated agreement with this addition.

Some commenters questioned whether or not these Administrative Procedures are mandatory and if so, why they are not placed in the Requirements and Measures Section or at least renamed “Administrative Requirements”. They asked, if the administrative requirements are mandatory, are they subject to compliance audit and if so, would a monetary penalty be applied?

Some suggested that if the administrative procedures are not mandatory requirements, they should not be included in standards and proposed the alternative approach of collecting data/reports through the Rules or Procedure Section 1600.

The intent of creating the Administrative Procedure Section is to separate the procedural and administrative requirements from the results-based reliability requirements since not performing the former tasks does not adversely affect BES control or performance or expose the BES to reliability risks. The SCPS will provide further clarity to the intent of this Section, and consider the use of Rules of Procedure Section 1600 for data/report collection as an alternative.

Organization	Yes or No	Question 11 Comment
Consumers Energy	No	
Nebraska Public Power District	No	Administrative requirements should not be included in the Standard, they may be construed unintentionally as a requirement.
GCPD	No	Anything not directly associated with the compliance requirements or for help with interpretations should not be in the standard.
Northeast Power Coordinating Council	No	As stated earlier, NPCC participating members don’t understand if this section holds sanctionable requirements, and if so under what authority. Administrative items are best left to the ROP or Compliance documents. A results based standard’s primary focus should be on the requirements, and the goal or reliability objective. Taking administrative requirements out of the formal requirements section, adding them to another section, and still deeming them to be requirements is of no value to reducing the administrative burden on the industry. This makes the implementation of the standard more burdensome due to the fact that these additional “requirements” now reside in different places in the standard document. NPCC participating members suggest if these are truly valid requirements they need to be together with the other requirements. If they do not meet the results based criteria, and were included in this “Administrative Procedure” section strictly because of that, then they need to reside in another document. Their continued appearance in the document dilutes the integrity of the results based standard initiative.

Organization	Yes or No	Question 11 Comment
Exelon	No	Exelon is concerned this will raise questions concerning what criterion separates an administrative requirement from a results or risk based requirement. How are administrative requirements to be treated in the CMEP?
CenterPoint Energy	No	It is not clear if the Administrative Procedure is a mandatory activity. It would be helpful if the intent of this section was stated within the Standard. Also, this section is not parallel with the Rating and Rated Electrical Operating Conditions exception contained in R1 and R2. We recommend the following parallel wording for the first paragraph of this section: "The Transmission Owner will submit a quarterly report to its Regional Entity, or the Regional Entity's designee, identifying certain Sustained Outages of the categories defined below, while operating within the Rating and Rated Electrical Operating Conditions, determined by the Transmission Owner to have been caused by vegetation that includes, as a minimum, the following:" Also, the categories listed in this section do not have parallel language to M1 and M2. We recommend that this section should adopt the wording in M1 and M2 for the Sustained Outages to be reported. Currently, Category 2 and Category 4 do not distinguish between an IROL and Major WECC Transfer Path. This may become a tracking problem since they have different Violation Risk Factors. If this is not important, then Category 1A and 1B can be combined.
Consolidated Edison Company of New York, Inc.	No	It is somewhat confusing to have sanctionable requirements located in other sections of the Standard outside of 'Requirements and Measures.' The section title 'Administrative Procedure' is somewhat misleading; if it was renamed 'Administrative Requirements' we feel it would be clearer to the industry.
Orange and Rockland Utilities, Inc.	No	It is somewhat confusing to have sanctionable requirements located in other sections of the Standard outside of 'Requirements and Measures.' The section title 'Administrative Procedure' is somewhat misleading; if it was renamed 'Administrative Requirements' we feel it would be clearer to the industry.
SERC OC Standards Review Group	No	Reporting Outages is not a part of Vegetation Mgmt. Therefore, this reporting belongs in an Administrative Section or possibly via a NERC 1600 request. In no circumstance should it be a Requirement of the standard. In the last paragraph this section appears to place a requirement on a regional reliability entity: "The Regional Entity will report the outage information provided by Transmission Owners, as per the above, quarterly to NERC, as well as any actions taken by the Regional Entity as a result of any of the reported Sustained Outages." Was this really intended? What if the RE fails to make a report?
IRC Standards Review Committee	No	Some additional explanation is needed. If the requirement is to do inspections, and compliance is measured on that basis only then the Administrative Section is OK. If the entity is mandated to also meet the actions specified in the Administrative Section, then the change is not acceptable. This standard's example administrative section is introducing new requirements into the standard, and those requirements should be in the standard. In short, if there is a reliability requirement than that is what should be mandated.

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 11 Comment
		The idea of mandating administrative items that are often designed to make auditing (not operations or planning) simpler should not be mandated.
FRCC Manager of Operations	No	The "Administrative" section needs to be streamlined - remove the first 2 paragraphs - quarterly reporting is no longer required and would be an administratively redundant process to the self-reporting of outages. Leave the outage categories to support consistent self-reports. Delete last paragraph - reporting by the Regional Entities to NERC is a delegated function that should be governed by the delegation agreements, rules of procedure or other internal ERO process, not within a reliability standard since REs and the EROs are not users, operators, etc of the BPS.
TO/TOP	No	The "Administrative" section needs to be streamlined - remove the first 2 paragraphs - quarterly reporting is no longer required and would be an administratively redundant process to the self-reporting of outages. Leave the outage categories to support consistent self-reports. Delete last paragraph - reporting by the Regional Entities to NERC is a delegated function that should be governed by the delgation agreements, rules of procedure or other internal ERO process, not a reliability standard.
Ad Hoc Group subteam formed to review draft standard	No	The administrative procedure section is appropriate under results-based requirements. However, we believe that reporting requirements established under other methods, such as the CMEP, may be confused by including it. It is unclear how non-conformance with administrative procedures would be handled. Perhaps administrative procedures would be better handled under ROP Section 1600 data requests or other Rules.
Cleco	No	The inclusion of the text implies additional requirements. Keep guidance to a separate paper.
Florida Municipal Power Agency (FMPA) and Some Members	No	The reporting requirements really boil down to a self-reporting or self-certification process since the only items to report would be violations to the standard. If such quarterly reporting is desired, it is really a self-certification process and should be governed by that process and not through a separate Administrative Procedure.FMPA recommends deleting the last paragraph - reporting by the Regional Entities to NERC is a delegated function that should be governed by the delegation agreements, rules of procedure or other internal ERO process, not within a reliability standard since REs and the EROs are not users, operators, etc of the BPS, and are not designated in the Applicability section.
Ameren	Yes	
Arizona Public Service Company	Yes	
Bonneville Power Administration	Yes	

Organization	Yes or No	Question 11 Comment
Central Maine Power, Iberdrola USA	Yes	
City of Tallahassee (TAL)	Yes	
Dominion	Yes	
Entergy Services	Yes	
Ga Transmission Corp	Yes	
Manitoba Hydro	Yes	
MRO's NERC Standards Review Subcommittee	Yes	
NERC Staff (12 staff members)	Yes	
Omaha Public Power District	Yes	
Oncor Electric Delivery	Yes	
Pepco Holdings, Inc. - Affiliates	Yes	
PPL Electric Utilities Corporation (NCR00884)	Yes	
South Carolina Electric and Gas	Yes	
Souther Company	Yes	
Southern California Edison Company	Yes	
Tennessee Valley Authority	Yes	

Organization	Yes or No	Question 11 Comment
Tucson Electric Power Co.	Yes	
Utility Risk Management Corporation	Yes	
Xcel Energy	Yes	Are we to understand that the requirements listed in the Administrative section are not sanctionable from a NERC compliance perspective?
American Transmission Company	Yes	ATC feels this adds good will on the part of the entity to submit necessary reports, however, ATC requests clarification whether this section is subject to NERC violations. (Currently not listed in Table 1 Time Horizons, VRFs and VSLs)
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	BGE agrees with addition of an Administrative Procedure section.
Duke Energy	Yes	During the WEBINAR, a question was raised regarding how failure to meet an Administrative/Procedural requirement would be addressed by the Regional Entity. Can the Standard Drafting Team prepare a response to the question?
JEA	Yes	However, it needs to be made clear whether this is subject to audit, and whether failure to meet the requirement is subject to the same or different enforcement procedures as the numbered requirements in the standard.
East Kentucky Power Cooperative, Inc.	Yes	I do not believe that reporting of outages is a part of development and implementation of a Vegetation Management Plan. I fail to see how it brings value to the standard.
ITC Holding	Yes	ITC agrees that the “administrative role” such as outage reporting; shouldn’t be a reliability requirement and are more appropriately defined as an administrative procedure. We would also like some clarification on whether this section of the standard is subject to NERC violations. Currently it’s not listed in Table 1 Time Horizons, VRFs and VSLs
Western Area Power Administration - Upper Great Plains Region	Yes	None

Organization	Yes or No	Question 11 Comment
Tampa Electric Company	Yes	Not sure why separating 1.A & 1.B is preferred over 1,2,3,4?
Progress Energy Carolinas	Yes	Progress Energy agrees that “Administrative” functions such as outage reporting should not be listed as a reliability requirement and are more appropriately defined as an administrative procedure. (Outage reporting is an administrative function that does not directly improve reliability which should be the focus of reliability standard requirements.)NERC has other formal information request procedures in place (such as a NERC 1600 request), if that becomes necessary to ensure outage reporting.
SERC Vegetation Management Sub-committee	Yes	Reporting Outages is not a part of Vegetation Mgmt. Therefore, this reporting belongs in an Administrative Section or possibly via a NERC 1600 request. In no circumstance should it be a Requirement of the standard.
Western Area Power Administration	Yes	The Administrative Procedure section could be moved forward following the Background section to better introduce the general administrative overview for what would then become the following Requirements, Measures, etc. These general administrative and procedural requirements are more easily overlooked when they included at the back of the Standard.
American Electric Power (AEP)	Yes	This addition is acceptable
Independent Electricity System Operator	Yes	This section imposes an additional reporting requirement but there is no associated VRF or VSL. Is this intentional? How will failure to report on time be treated? This is unclear as is the significance of any such Administrative “Requirements” within the standard, in general. Is the intention to establish separate procedures to govern the administrative and reporting obligations of registered entities under the Rules of Procedure?
FirstEnergy	Yes	We agree with the Administrative Procedure Section. Monetary fines should not be imposed for noncompliance with administrative requirements.
KCPL	No	It is too easy to unintentionally infer or introduce something that is not intended to be a requirement, but gets interpreted as a requirement in this section. Standards should be clear in what is a requirement and what is helpful information. If these are requirements, then propose them as requirements. If not, then remove to another guiding document.

12. Is there any other information that should be included in the standard document? If so, please explain why you feel that this information should be included.

Summary Consideration: None of the commenters offered any suggestions for including additional information that has not already been suggested in one or more of the comments provided in Questions 3 to 11.

Some commenters provided comments on the standard content itself.

Some commenters commented on the “Informal Comment” process. While this process may be useful in speeding up the process of developing standards, it introduces a potential for a given Team to ignore valuable comments (either because the issue is unknown to them, or because the proposal does not agree with the team’s ideas). They suggested that all comments (both formal and informal) be posted immediately for all to review. The SCPS agrees with the suggestion however the software currently used to collect stakeholder feedback doesn’t format the data collected in a manner that is easy to understand. NERC staff is exploring alternatives that would make it easier for stakeholders to view comments as they are submitted. The informal commenting process is meant to collect industry views in the same manner as the formal commenting process; it differs only in not requiring the SDTs to provide a response to each comment. Notwithstanding this provision, the SDT is still obligated to post all comments and provide summary responses to the comments.

Organization	Yes or No	Question 12 Comment
Ad Hoc Group subteam formed to review draft standard	No	
American Transmission Company	No	
Bonneville Power Administration	No	
City of Tallahassee (TAL)	No	
Cleco	No	
Consolidated Edison Company of New York, Inc.	No	
Consumers Energy	No	
Dominion	No	

Organization	Yes or No	Question 12 Comment
Duke Energy	No	
East Kentucky Power Cooperative, Inc.	No	
Exelon	No	
Florida Municipal Power Agency (FMPA) and Some Members	No	
Ga Transmission Corp	No	
Independent Electricity System Operator	No	
ITC Holding	No	
JEA	No	
Manitoba Hydro	No	
Nebraska Public Power District	No	
NERC Staff (12 staff members)	No	
Northeast Power Coordinating Council	No	
Oncor Electric Delivery	No	
Orange and Rockland Utilities, Inc.	No	
Pepco Holdings, Inc. - Affiliates	No	

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 12 Comment
PPL Electric Utilities Corporation (NCR00884)	No	
South Carolina Electric and Gas	No	
Southern California Edison Company	No	
Tennessee Valley Authority	No	
Tucson Electric Power Co.	No	
Utility Risk Management Corporation	No	
Western Area Power Administration	No	
Tampa Electric Company	No	All areas have been addressed and clarified as needed.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	No	BGE feels no other information is necessary for inclusion.
American Electric Power (AEP)	No	None
Western Area Power Administration - Upper Great Plains Region	No	None
GCPD	No	Too much already.
Omaha Public Power District	Yes	
SERC OC Standards Review	Yes	As suggested in comment six, an improvement would be also listing the applicable table rows with each requirement which consolidates all pertinent info with the requirement. Also, adding the penalty matrix would

Organization	Yes or No	Question 12 Comment
Group		facilitate discussions with property owners/agencies resisting maintenance activates. This standard indicates a lack of recognition that vegetation outages are not necessarily reliability events. In the quest for improved reliability, spending the money necessary to achieve perfect compliance with R2, as stated, either will increase customer rates unnecessarily or cause the misallocation of maintenance funding away from maintenance activities that have a substantially higher impact on reliability.
SERC Vegetation Management Sub-committee	Yes	As suggested in comment six, an improvement would be also listing the applicable table rows with each requirement which consolidates all pertinent info with the requirement. Also, adding the penalty matrix would facilitate discussions with property owners/agencies resisting maintenance activates.
Arizona Public Service Company	Yes	Clearance 1 needs to be put back into this requirement as written. This is a vegetation management standard and there needs to be clear direction on how the system is going to be maintain at the time of maintenance. This ensures a clear direction to the utility the system has to be maintained. ANSI A-300 part 1 and 7 needs to be a requirement within the standard. Following this consensus agreement within the Professional Utility Vegetation Management sector outlines a process for providing a reliable transmission system. At a minimum ANSI A-300 part 1 and 7 should be incorporated into the Guideline and Technical Basis Section as a resource for compliance with this standard. Prudence would dictate that it be adopted into this draft as the foundation of any transmission vegetation management program as it is the accepted standard for professionals who are responsible for managing vegetation for electric utilities. Personnel qualifications need to be included in the standard and should include minimum measures such that there is consistency across the industry. This ensures that personnel are qualified and will have ongoing training and education in utility vegetation management. For example: The person who manages the field operation should have at least 5 years experience in vegetation management be an International Society of Arboriculture Certified Arborist and a Utility Specialist.
Ameren	Yes	In 4.3.1, suggest that "ice" be included in circumstances beyond the reasonable control of a TO in addition to the other "acts of God".
Entergy Services	Yes	More clarifying language throughout the document would be helpful.
Progress Energy Carolinas	Yes	None, other than the comment about potential improvements in question #6.
IRC Standards Review Committee	Yes	Regarding the new format, the idea of using "Informal Comment Periods" may be useful in speeding up the process of developing standards, but it also introduces a potential for a given Team to ignore valuable comments (either because the issue is unknown to them, or because the issue does not agree with their ideas). How will the Standards Committee or others ensure the quality of the process does not suffer in this way? What type of review process is contemplated to detect such behavior? Having the Formal

Organization	Yes or No	Question 12 Comment
		comments at the end of the process may prevent subject matter experts (SME) from seeing the comments and perspectives of other SMEs. The SRC suggests that all comments (both formal and informal) be posted immediately for all to review.
Xcel Energy	Yes	See comments to #1, #7 and #13 of this form
FirstEnergy	Yes	See our other comments.
Central Maine Power, Iberdrola USA	Yes	Table 2 expand footnote - State that table 2 is intended as a buiding block to develop clearance at time of vegetation management work. See TVMP for clearances.
CenterPoint Energy	Yes	The detailed rationale for the required one year inspection cycle in R6 should be included in the Technical Reference. The explanation provided in the Rationale that it “seems to be reasonable” and in the Technical Reference that it is “reasonable based on upon average growth rates across North America and common utility practice” are unfounded and arbitrary without a specific reference to a North American study. The Technical Reference should contain an example diagram of “the portion of the ROW where the corridor edge zones are designated by regulatory bodies for vegetation to exist” taken from the examples in the Definition of Terms Used in Standard section. It is unclear how this example should be interpreted for compliance should a Sustained Outage occur from vegetation growing within this zone. It is common for regulatory bodies to push utilities to plant trees or maintain trees within transmission rights of way to “hide the lines”, and it is unclear if this example is attempting to encourage such practice by regulatory bodies at the sacrifice of reliability.In general, the Technical Reference should contain more specific examples of violations of the Requirements and highlight specific exceptions related to vegetation related outages.The background and basis for adding the term “Active Transmission Line Right-of-Way” should be added to the Technical Reference.The background and basis for 4.2.4 that excludes the Standard from applying to fenced substations should be added to the Technical Reference.Just as the force majeure statement (4.3.1) was moved to the Applicability section of the Standard, the exception for applicability beyond the Rating and Rated Electrical Operating Conditions should be included in the Applicability section as well. Currently, it is only included in R1 and R2. It should be made clear if the other Requirements and Measurements must consider conditions beyond the Rating and Rated Electrical Operating Condition.Within the Requirements and Measures section there should be subheadings for each type of Requirement, performance-based, risk based, and competency-based. This classification is only indicated in the Technical Reference.
MRO's NERC Standards Review Subcommittee	Yes	The NSRS believes a section for definitions and abbreviated terms such as, Active ROW, MVCD, and WECC is needed. Also, See comment above in Question 9 on URL links.
Southen Company	Yes	We feel a definition of Category 3 outages (non reportable outages) should be included under the

Organization	Yes or No	Question 12 Comment
		administrative procedures. Although these outages are not reportable, this would provide a mechanism for classifying these outages so the utility can maintain evidence of its investigation and the rationale for not reporting them.
KCPL	No	

13. Do you have any other comment regarding the draft FAC-003-2 Transmission Vegetation Management standard that have not been addressed above? If yes, please provide a reference to the section, requirement, or subrequirement that you believe should be changed, added or deleted and the rationale for your proposal.

Summary Consideration:

1. **Reasonable control** - Some commenters expressed that the phrase “reasonable control” is difficult to enforce, while others wanted it moved to another section of the standard.

The term “reasonable control” is prevalent in many force majeure clauses. It intends to limit the extent of compliance responsibility to those conditions that are within the sphere of the TO’s ability. The SDT have determined that eliminating the word “reasonable” would not detract from the original intent and have made the change to the standard.

The SDT does not have a preference for the location of the force majeure language. This is within the scope of the Standards Committee Process subcommittee to address.

2. **Differentiate between “human error” versus “human activity”** – Some commenters requested further explanation of these terms.

The SDT intended for the term “human activity” to be used in the Background section of the standard and have removed “human error”. The SDT intends the phrase human activity to describe those human actions that are outside the control of the Transmission Owner such as logging, vehicle contact with tree, removal or digging of vegetation, horticultural or agricultural or arboricultural activity. The SDT proposes the following new Force Majeure text:

“This Standard does not apply to any occurrence, non-occurrence, or other set of circumstances that are beyond the control of a Transmission Owner subject to this reliability standard, including acts of God, flood, drought, earthquake, major storms, fire, hurricane, tornado, landslides, ice storms, vehicle contact with tree, human activity involving, removal of vegetation, installation of vegetation or digging around vegetation, animals severing trees, lightning, epidemic, strike, war, riot, civil disturbance, sabotage, vandalism, terrorism, wind shear, or fresh gales (or higher) that restricts or prevents performance to comply with this reliability standard’s requirements. Nothing in this section should be construed to limit the Transmission Owner’s right to exercise its full legal rights on the Active Transmission Line ROW.”

3. **Competency-based requirement R3:** Some commenters expressed that R3 is deficient in detail.

The SDT determined that the following parameters demonstrate competency:

- Understands the dynamics of conductor movement over its operating range and design conditions, understands the inter-relationship between growth rates and inspection frequency and choice growth control method. And successfully implements the understanding as evidenced by lack of vegetation related outages.
- Conducts inspections on a frequency that accounts for vegetation growth rates and local conditions.
- Considers scheduling and permit lead times.
- Designs work plans that levelizes work load.
- Utilizes best industry practices such as ANSI A300.
- Develops vegetation maintenance plans that account for vegetation growth rates and local conditions.
- Incorporates a feedback mechanism in the program.

- Balancing ROW management with cost and science.
- Establishes wire security zones.
- Documents non-compatible species.
- Exercises full legal rights on the Active Transmission Line ROW to avoid outages.
- Knows the condition of its ROW.
- Gives clear direction to field personnel so that they know what to do to maintain the clearances.
- Addresses an interim corrective action plan.

The SDT proposes the following modification to R3:

“R3. Each TO shall document the procedures, processes, or specifications it uses to prevent the encroachment of vegetation into the MVCD. Such documentation will incorporate the dynamics of a transmission line conductor’s movement throughout its Rating and Rated Electrical Operating Conditions and the inter-relationships between vegetation growth rates, vegetation control methods, and inspection frequency, for the Transmission Owner’s applicable lines.”

4. **Flexible annual work plan** – Some commenter indicated that the word “flexible” in requirement R7 is difficult to enforce without more detail.

The SDT modified the requirement as follows:

“R7. Each Transmission Owner shall complete an annual vegetation work plan to ensure no vegetation encroachments occur within the MVCD. Modifications to the work plan in response to changing conditions or to findings from vegetation inspections may be made provided they do not put the transmission system at risk.”

5. **The SDT revised Section 4.2.2** – The SDT did not agree to the removal of the reference to FAC-014 and have re-inserted it.

“4.2.2. Overhead transmission lines operated below 200kV having been identified as an element of an Interconnection Reliability Operating Limit (IROL) designated in compliance with NERC Standard FAC-014.”

6. **Reporting** – Some commenters recommend keeping the outage reporting language in the technical requirements section.

The Standards Committee Process Subcommittee is the appropriate body to address this issue.

7. **Gallet distances** – Some commenters asked how can reliability be equal or better when Gallet distances are less than IEEE distances.

At the Gallet distance, the probability of Flashover is zero. The current in-force version of the FERC Transmission Vegetation Management Program Standard (FAC-003-1) uses the minimum air insulation distance (MAID) without tools formula provided in IEEE Std. 516-2003 to compute the required minimum vegetation clearance distance between a transmission line conductor and vegetation. The equations and methods provided in IEEE 516 were developed by an IEEE Task Force in 1968 from test data provided by thirteen independent laboratories. The distances provided in IEEE 516 Tables 5 and 7 are based on the withstand voltage of a dry rod-rod air gap,

or in other words, dry laboratory conditions. Consequently, the validity of using these distances in an outside environment application has been questioned.

The current in-force version of FAC-003-01 allowed the TO's to use either Table 5 or Table 7 to establish the absolute lowest value for these minimum clearance distances. Table 5 could be used if the TO knew the maximum transient over-voltage factor for its system. Otherwise, Table 7 would have to be used. Table 7 represented minimum air insulation distances under the worst possible case transient over-voltage factor. These worst case transient over-voltage factors were as follows: 3.5 for voltages up to 362 kV phase to phase; 3.0 for 500 - 550 kV phase to phase; and 2.5 for 765 to 800 kV phase to phase. These worst case over-voltage factors were also a cause for concern in this particular application of the distances.

The SDT sought out a different method of establishing these absolute minimum clearance distances that considers both the outside weather environment and also the realistic maximum transient over-voltages factors for in service transmission lines.

In general, the worst case transient over-voltages occur on a transmission line when the line is open on one end and is opened on the other and then inadvertently re-energized when trapped charge is present. The intent of FAC-003 is to keep a transmission line that is *in service* from becoming de-energized (i.e. tripped out) due to spark-over from the line conductor to nearby vegetation. Thus, the worst case scenarios mentioned above can be ignored.

For the purposes of FAC-003, the worst case transient over-voltage then becomes the maximum value that can occur with the line energized. Typical values of transient over-voltages of in-service lines, as such, are not readily available in the literature because they are negligible compared with the maximums. A conservative value for the maximum transient over-voltage that can occur anywhere along the length of an in-service AC line is approximately 2.0 per unit. This value is a conservative estimate of the transient over-voltage that is created at the point of application (e.g. a substation) by switching a capacitor bank without a pre-insertion device (e.g. closing resistors). At voltage levels where capacitor banks are not very common (e.g. 362 kV), the maximum transient over-voltage of an "in-service" ac line are created by fault initiation on adjacent ac lines and shunt reactor bank switching. These transient voltages are usually 1.5 per unit or less.

Even though these transient over-voltages will not be experienced at locations remote from the bus at which they are created, in order to be conservative, it is assumed that all nearby ac lines are subjected to this same level of over-voltage. Thus, a maximum transient over-voltage factor of 2.0 per unit for transmission lines operated at 242 kV and below is considered to be a realistic maximum in this application. Likewise, for ac transmission lines operated at 362 kV and above a transient over-voltage factor of 1.4 per unit is considered a realistic maximum.

The Gallet Equation is a proven method of computing the required strike distances for proper transmission line insulation coordination. These equations were developed for both wet and dry applications and can be used with any value of transient over-voltage factor.

When one compares the Minimum Air Insulation Distances using the IEEE 516-2003 Table 7 (table D.5 for English values) with the critical spark-over distances computed using the Gallet wet equations, for each of the nominal voltage classes using identical transient over-voltage factors it is clear that the Gallet equations yield a more conservative (larger) minimum distance value.

The following table is an example of this comparison:

Comparison of spark-over distances computed using Gallet wet equations

vs.

**IEEE 516-2003 MAID distances
using realistic transient over-voltage factors**

(AC) Nom System Voltage (kV)	(AC) Max System Voltage (kV)	Transient Over-voltage Factor (T)	Clearance (ft.) Gallet (wet) @ Alt. 3000 feet	IEEE 516 MAID (ft) @ Alt. 3000 feet
765	800	1.4	8.89	8.65
500	550	1.4	5.65	4.92
345	362	1.4	3.52	3.13
230	242	2.0	3.35	2.8
115	121	2.0	1.6	1.4

8. **Definition of Active Transmission Line ROW** – Some commenters indicated that the Active Transmission Line ROW definition is unclear.

The SDT thoughtfully considered FERC staff’s concern regarding the Active Transmission Line Right-of-Way. However, in light of the Commission direction in Order 693, in response to First Energy’s concern about unnecessary expense of managing unused rights-of-way, to include such a provision, the SDT was left with only two practical choices, the current proposed definition or a fill-in-the-blank site-specific TO-designated approach. Acknowledging the desire to eliminate fill-in-the-blank requirements, the SDT opted for the proposed definition. Therefore, the SDT respectfully suggests that no workable change can be made to this definition and still implements Commission direction and thus has opted to retain the current draft language.

9. **R4: “Responsible control center” and “verified knowledge”** – Some commenters remarked that there is no “Local Control Center” entity in Functional Model and that could be an enforcement issue. Other commenters sought clarification for the phrase “verified knowledge”.

The SDT clarified R4, M4 and Rationale text box:

“R4. Each Transmission Owner shall notify the responsible control center without undue delay when qualified personnel confirm the existence of a vegetation imminent threat. A vegetation imminent threat condition is one which is likely to cause a Fault at any moment.”

“M4. Each Transmission Owner that has experienced a confirmed vegetation imminent threat will have evidence that it notified the responsible control center.”

“Rationale

To ensure rapid notification of the correct personnel when an occurrence of a critical situation is observed. Qualified personnel may include line workers and utility arborists. The responsible control center is selected to ensure that the flow of operational information, which includes broken cross-arms and tree issues, will continue to the Transmission Operator (or its delegate).”

10. **R6 and R7** – Several commenters noted that R6 and R7 were assigned High VRFs although they previously were Medium.

SDT changed R6 and R7 from High to Medium. The justification is provided by NERC VRF Worksheet Tool and review of NERC VRF Guideline. (See attached VRF_Tool_R6.pdf and VRF_Tool_R7.pdf documents for the VM SDT consensus response utilizing the VRF Tool.)

11. **Requirements R1 and R2** – some commenters stated:

- i. The MVCD requirements R1 and R2 need more detail to be enforceable and auditable. They do not see how FAC-003-2 addresses sag and sway with the elimination of Clearance 1.
- ii. Concern that the VRF for lines covered in R2 is a Medium.

Consideration:

- i. The SDT understands the commenter’s concern. The SDT worked on addressing the concern by drafting alternate language to be responsive to issues of enforceability and auditability and offer the following as an alternative R1/R2 for industry comment:

“R1. Each Transmission Owner shall manage the floor of its Active Transmission Line ROW in accordance to one of the following at all times:

- A) A fixed maximum vegetation height of 15 feet from the ground at the mid-half of the span and 20 feet in the outside quarters of the span, or,
- B) A calculated maximum vegetation height that is the sum of the minimum conductor height at “max sag” plus MVCD plus cycle growth, or,
- C) A calculated minimum vegetation to conductor clearance that is the sum of “max sag” in the span plus MVCD plus cycle growth, or,

- D) A value determined by the Transmission Owner to provide a separation between the conductor and the vegetation that is comparable to options A, B, or C.
 - E) Any alternative approach that ensures no encroachment occurs within MVCD, considering the sag and sway of the conductor throughout its operating range under rated conditions.
 - F) A value to provide a separation between the conductor and the vegetation that is the sum of MVCD, and a value that considers the sag and sway of the conductor throughout its operating range under rated conditions plus 10 feet.”
- NOTE: The SDT suggests similar language as found in the posted draft for measures M1/M2 may be appropriate with this alternate R1/R2.

ii. The SDT considered the comments that pertain to the assignment of a Medium VRF to R2 on the basis of IROL/Major WECC Transfer Path designation. The SDT determined that the assignment of Medium is justified because the loss of non-IROL or non-Major WECC Transfer Path lines pose a lower reliability risk than those lines that are elements of an IROL or Major WECC Transfer Path.

Organization	Yes or No	Question 13 Comment
American Electric Power (AEP)		American Electric Power suggests replacing the term "Minimum Vegetation Clearance Distance" with "Critical Vegetation Clearance Distance." The use of "minimum" suggests that the minimum is acceptable. However, in dealing with landowners or land managers, we may not be able to negotiate any more than the minimum. "Critical" would help convey the sense that the distance borders on dangerous unacceptability.
Central Maine Power, Iberdrola USA	No	
Consumers Energy	No	
East Kentucky Power Cooperative, Inc.	No	
IRC Standards Review Committee	No	
Manitoba Hydro	No	
Pepco Holdings, Inc. -	No	

Consideration of Comments on Draft 3 of FAC-003-2 — Project 2007-07

Organization	Yes or No	Question 13 Comment
Affiliates		
PPL Electric Utilities Corporation (NCR00884)	No	
South Carolina Electric and Gas	No	
Southern California Edison Company	No	
Tennessee Valley Authority	No	
Tucson Electric Power Co.	No	
Tampa Electric Company	No	None
FRCC Manager of Operations	Yes	- Applicability Section 4.3 - use the term "Exemptions" instead of "Other" as it is more descriptive.- As noted earlier - Applicability Section 5 - use the term "Technical Basis" instead of "Background" and streamline by removing paragraphs 2, 3 and 4.- R
American Transmission Company	Yes	(a) R1 and R2 (pg.7) - What is meant by “to avoid a Sustained Outage”. Could be argued that a grow-in that does not cause a Sustained Outage is acceptable. (Could this be a FERC issue?)(b) R5 (pg.9) - ATC believes the term “temporarily” should be stricken from the requirement. This leaves too much to interpretation and does not add to the requirement(c) R6 (pg.9) - The descriptive timeframe “at least once per calendar year” is used. What does this mean? Every 365 days or a 12 month period within a calendar year? NERC needs to define this.(d) R4 (pg.15 in the Guideline and Technical Basis) - The term “verified knowledge” is used which does not seem consistent with the definition of “Verified Knowledge” in R4 Rationale on pg.8.(e) R4 (pg.16 in the Guideline and Technical Basis) - The term “responsible control center” is used and further defined. ATC believes this is the Transmission Operator. This should either be moved to the “Definitions of Terms” section or to R4 of the standard where the term is used.
Western Area Power Administrtaion	Yes	1) It is suggested that the word "located" in the third bullet in Measure 1 and Measure 2 be replaced with the word "originating". As worded, M1 or M2 could be interpreted to mean that vegetation originating outside of the right-of-way which blows or sways into contact with conductors “located inside the ... right-of-way” would be evidence of a violation of R1 or R2. Utilities generally are very limited in their ability to manage vegetative conditions outside of their right-of-

Organization	Yes or No	Question 13 Comment
		<p>ways.2) Please reference the comments under Question 2 above regarding the incompleteness of requirements R3 and R7 in fully replacing the CCZ management concepts utilized in the Draft 1 version of the proposed FAC-003-2.3) The requirement R4 Guidelines and Technical Basis narrative is inconsistent with requirement R4. Specifically, in the Guidelines and Technical Basis section the second paragraph's introductory sentence identifies a requirement for an imminent threat procedure, and the second bullet in this paragraph identifies a need to identify vegetation related conditions that warrant a response. Neither of these items are a requirement of R4 as currently written. R4 only speaks to the notification of the responsible control center when it has verified knowledge of a vegetation imminent threat condition.4) The requirement R7 Guidelines and Technical Basis section is written with an inappropriate bias towards very extensive or time based vegetation maintenance programs. Comments received from previous draft standard reviews have revealed that there are many other effective program approaches being utilized by the industry. It is suggested that this section be revised to broaden its scope to incorporate these other program approaches.</p>
Ga Transmission Corp	Yes	<p>1) I would like further examples of inactive portions of corridors. For example would a ten foot buffer strip that is in addition to a normal width to stay off a property line but is included in an easement plat but not cleared be considered inactive corridor or not? 2) The MVCD definition may not be realistic in its wording. Many utility companies may not be able to maintain these clearances at "design of Transmission Facility". This needs further definition maybe "NESC moderate wind". Many utilities in coastal areas will design lines for high sustained winds due to hurricanes these clearances may not be possible to maintain under these conditions however the line may be designed to with stand these winds.</p>
FirstEnergy	Yes	<p>1. Requirements R1 and R2 - We do not agree with the "zero tolerance" for real-time observation of encroachments that do not cause an outage. When discovered, most Transmission Owners (TO) take immediate action to alleviate encroachments and it is not appropriate to be fined for taking immediate action when no outage has occurred. Therefore, a violation should only occur when the TO has not immediately alleviated the situation within 24 hours. We suggest the following change to the first bullet in Measures M1 and M2: "Real-time observation of encroachment into the MVCD that is not corrected within 24 hours."2. Measurement M1 and M2 - For additional clarity, we suggest adding the following wording from Guideline and Technical Basis into M1 and M2 - "Brief encroachment by falling vegetation are not considered a violation."3. Requirement R4 - Since the intent of this requirement is the immediate notification of an imminent threat, we suggest adding the word "immediately" between "shall" and "notify".4. Requirement R5 - We suggest removing the term "temporarily" in the requirement. Some constraints faced by Transmission Owners are permanent and appropriate alternate action is permanently implemented. 5. Requirement R7 - Although we agree that the TO should be allowed to adjust the plan, the use of the term "flexible" is subjective. Additionally, the phrase "to ensure no vegetation encroachments occur within the MVCD" is redundant with the other requirements of the standard. Therefore, we suggest revising the wording of Requirement R7 to the following: "Each Transmission Owner shall implement an annual vegetation work plan. Adjustments to the work plan to defer work beyond the calendar year are acceptable and shall be documented."6. Coordination between Project 2007-07 and 2010-07 - Since the TO-GO interface team has identified the need for Generator Owner (GO) applicability in the FAC-003 standard, we believe that these two drafting teams should coordinate the addition of the GO into this Version 2 of</p>

Organization	Yes or No	Question 13 Comment
		FAC-003. It would not seem sensible to revise Version 1 of FAC-003 to include the GO while Version 2 is developed and approved without applicability to the GO.7. Compliance Section - Under "Additional Compliance Information", we suggest removing the parenthetical phrase "See Administrative Procedure" and replace with "None". Since the Administrative Procedure is not part of the requirements, it is not sanctionable and should not be included in the Compliance Section.
MRO's NERC Standards Review Subcommittee	Yes	1. Need definition for the phrase "Major WECC Transfer Paths".2. In question 2 of the comment form, it refers to the "bulk power system." This standard does not cover the bulk power system, it covers lines above 200kV and certain ones below 200kV.
BGE (on behalf of parent/affiliate companies: CEG, CPSG, CECG, CNE & CENG)	Yes	4.2.4 States that the Standard is not applicable to "...to Facilities located inside the fenced area of a switchyard, station or substation". This implies that anything within the fenced area of a switchyard, substation or power plant does not fall within the jurisdiction of FAC-003-2. Some fenced in areas could be very large and susceptible to vegetation encroachments issues.4.3.1 Suggest including in the Force Majeure government a phrase referencing government interference, such as "Federal, State or other regulatory interference, including legal or other legislative actions, that prevents performance to comply with this reliability standard."M1 & M2 bullet: "Real-time observation of encroachment into the MVCD" implies that real-time observation of vegetation encroachment ensures reliable operation the Bulk Electric System. The reliability standard objective states;"To improve the reliability of the electric Transmission system by preventing those vegetation related outages that could lead to Cascading."However, real time observation of current operating conditions provides no assurance that vegetation will not lead to outages. BGE recommends removing the language. If an inspector finds vegetation encroaching into the MVCD during a visual inspection he / she should immediately initiate an Immediate Threat Notification. Therefore, this measure has no value.Disagree with R6. - Inspection Frequency. Very prescriptive. Please consider allowing TO's to select an annual frequency that best fits their requirements, such as calendar year, every growing season, every non-growing season, etc. BGE currently defines their inspection frequency as annually during the non-growing season, October 1 to May 1. BGE believes inspecting during the dormant season is a best practice due to the ability of the inspector to identify vegetation defects, especially off the ROW, which could be hidden during the growing season due to foliage, canopy cover, etc. Also, if a utility elects to leverage an advance technology, such as LiDAR, it provides the most effective results when LiDAR is utilize during the growing season, therefore allowing the results of the advance technology to enhance the fall to spring inspection cycle. All of the above comments are submitted on behalf of: - Baltimore Gas & Electric Company - Constellation Energy Group, Inc. - Constellation Power Source Generation, Inc. - Constellation Energy Commodities Group, Inc. - Constellation New Energy, Inc. - Constellation Energy Nuclear Group, Inc.
Arizona Public Service Company	Yes	APS objects to number 3 Objectives statement. This is the only reliability standard that has at its Objective to prevent vegetation related outages that could lead to cascading. This is a reliability standard and its objective needs to be: "To improve the electric Transmission system by preventing vegetation related outages." Requirement 6: To ensure reliability the TO's are responsible for doing an annual inspection. You either do it or don't and if you don't finish it you should be held accountable. There shouldn't be a lower VSL because you didn't finish all of it. This is poor

Organization	Yes or No	Question 13 Comment
		<p>planning on the utilities part.Requirement R7: When developing the annual work plan the Transmission Owner should allow time for procedural requirements to obtain permits to work on federal, state, provincial, public, tribal lands. In some cases the lead time for obtaining permits may necessitate preparing work plans more than a year prior to work start dates. Transmission Owners may also need to consider those special landowner requirements as documented in easement instruments. There needs to be parameters for the TO to show they allowed time for procedural requirements. An example, some land agencies will give you permission to perform work in as little time as two weeks and others can take two years. Even within the same land agency the timing of approvals is a moving target. APS recommends the TO must show documentation it submitted their Vegetation Management Plan to the land agency at least 120 days prior to the required start date. If the land agency doesn't respond within this time frame and the utility can not perform the work they shouldn't be held responsible.</p>
JEA	Yes	<p>Generally, I believe this document is a huge improvement. The requirements are much clearer and easier to implement than some versions from the past. I do not understand why R7 is still in this standard however. It appears to be a requirement whose purpose is only to dictate HOW an entity must document its implementation of its vegetation management program. Thus, I believe this requirement should be removed.</p>
Consolidated Edison Company of New York, Inc.	Yes	<p>In R5, the SDT should better define the phrase 'where a transmission line is put at potential risk due to the constraint.' This is rather vague and could lead to inconsistent practices between utilities. Con Edison defines all undesirable species on the full width of the ROW as 'potential risks to the transmission line' regardless of height or location at the time of vegetation management. Interim corrective action should only be required when the potential risk is approaching the imminent threat classification.</p>
Orange and Rockland Utilities, Inc.	Yes	<p>In R5, the SDT should better define the phrase 'where a transmission line is put at potential risk due to the constraint.' This is rather vague and could lead to inconsistent practices between utilities. ORU defines all undesirable species on the full width of the ROW as 'potential risks to the transmission line' regardless of height or location at the time of vegetation management. Interim corrective action should only be required when the potential risk is approaching the imminent threat classification.</p>
Florida Municipal Power Agency (FMPA) and Some Members	Yes	<p>In the Applicability section, the use of the term "Other" should be changed to another term, such as Force Majeure, since its purpose is not to include scope into the standard, but exclude scope from the standard.R4 uses the term "responsible control center", which seems inappropriate. Consider using the term "responsible operating entity". The M4 is simply a restatement of R4 without an example of types of evidence, e.g., such as voice recording, operator logs, etc.R5, consider using a different term than "constrained", which has other transmission related connotations. Possibly "limited" or "hindered".FMPA disagrees with a 3 year retention schedule for all of the Requirements and Measures. R4 and M4 would seem to be supported by operator logs, voice recordings and such and three year retention for such evidence is inconsistent with other standards.</p>

Organization	Yes or No	Question 13 Comment
ITC Holding	Yes	In the previous draft the VRF's R6 and R7 were listed as Medium; and in the latest revision they are listed as High VRF's, what is the reason for this change or is this just a mistake?"Temporarily" should be removed from the requirement (R5 pg.9) this will be an interpretation issue and doesn't add to the requirement.
Northeast Power Coordinating Council	Yes	<p>NPCC participating members recognize the hard work the drafting team has done and appreciate the efforts to address the issues presented. An issue seems to be a recurring theme with the advent of the MVCD. Some believe that the eventual adoption of this standard with MVCD will result in the reduction of current trimming cycles and clearance distances. Opinions have been expressed that this may result in increased vegetation contacts and trips. After reviewing some of the MVCD distances, for example 3.12 feet at sea level for 345kV, some expressed the opinion that this is much less than what typical trim practices are today, and may actually "lower" the bar for trimming practices, and effectively allow a TO to trim less and reduce the margin of clearance. Requirement R1 discusses encroachment. M1 bullet 1 states one way to violate encroachment would be: "Real-time observation of encroachment into the MVCD..." From a practical standpoint what is meant here? Who would determine this and how would it be done? The intent is certainly to avoid a sustained outage. However, if a TO was in the process of trimming after an active growing season, and noticed a slight encroachment while trimming, would it be considered a reportable violation? How would the RE measure compliance with avoiding something, with the absence of a sustained outage reported? A statement should be added to the "Definition of Terms Used in Standard" section to indicate how terms defined in the NERC Glossary and used in the standard are identified (for example capitalizing the first letters of the term or using italics or bold font). To avoid confusion when a term might be used at the beginning of a sentence, bolding or italicizing the term should be considered. The Guideline and Technical Basis section should be a separate document, and not part of the standard (mentioned previously in question 8). It should be included in the Technical Reference Document. Applicability 4.2.4--A fenced area of a switchyard, station or substation can have vegetation that could present a potential risk to facilities. What is the reason for this exclusion, and the exclusion in Applicability Section 5--Background paragraph 3 "...this Standard does not apply...to line sections inside an electric station boundary." Referring to our previous responses to questions 1 and 2 for Requirements R1, R2, and R3, what rating is used? It is possible to operate above a facility's normal rating for a prescribed time (for example a transmission line may be operated above its normal rating but below its LTE rating for up to 4 hours). Operating at emergency ratings should be considered. During emergencies transmission lines might be loaded to their emergency ratings, thus increasing the sag, thus increasing the likelihood of a vegetation caused trip if the required clearances don't take into account the increased loading. Especially in an emergency loading scenario, operating into an avoidable potential risk is very undesirable. Referring to FAC-003 - Table 2 - Minimum Vegetation Clearance Distances (MVCD), for 345kV (line to line), 3.12 foot (assuming to ground) clearance is required at sea level. IEEE Std 516-2003 IEEE Guide for Maintenance Methods on Energized Power Lines dated July 29, 2003, Table 5 (p. 20), lists the MAID (minimum air insulation distance) for 345kV phase to phase equipment at altitudes below 900 meters (2953 feet) to be 2.88 meters (9.45 feet) phase to ground. It is understood that MAID is "The shortest distance in air between an energized electrical apparatus and/or a line worker's body at different potential...", but the clearance differences at the various voltage levels seem very significant. If a figure is referenced in a requirement (R3), it would be preferable to have</p>

Organization	Yes or No	Question 13 Comment
		<p>that figure positioned within that requirement. If that is not possible, it should be explicitly stated where the figure can be found. Requirement R5--Legal actions and other events that prevent vegetation maintenance work be included in the Introduction Section 4.3.1. What does "interim corrective action" mean specifically? The requirement as written needs to be made clearer. Without the Rationale box it loses its meaning (refer to the question 3 response).Interim Corrective Actions are explained on page 28 of the separate Technical Reference Document, with examples such as modifying the inspection interval, or limiting the loading on the line (effectively changing its rating) to minimize sag. "Interim corrective action" should be defined and added to the Glossary.Are voltages referred to in the Standard (Applicability Section) line to line or line to ground for ac systems? (345kV line to line is 199kV line to ground, below the 200kV threshold in the standard). Are the voltages also applicable to DC equipment?</p>
Xcel Energy	Yes	<p>On page 6, in paragraph 5 ("Background"), we suggest enhancing the 3rd paragraph by inserting the words "Active Transmission Right-of-Way", as follows: "...addresses vegetation management in the Active Transmission Right-of-Way along applicable overhead lines..." This change emphasizes that this does not apply to areas outside of the Active Transmission Right-of-Way. Comments to Requirments and Measures Section (pages 7 -9)The term Minimum Vegetation Clearance Distance (MVCD) should be explicitly defined as a new "definition" rather than explained in a "rationale" box. Additionally, formalizing the definition would give weight to how "Table 2" is supposed to be used. As it is currently drafted, the requirements of the standard don't refer to Table 2 at all. (i.e., - our understanding is that the rationale boxes are for clarification and the requirements should be able to convey what is necessary on their own.)MVCD - while we understand this as an 'engineering term', the terminology is difficult to convey since land owners tend to question the need to do anything more than the "minimum". We recommend revising the term to "Critical Clearance Distance (CCD)". M1 & M2 should be revised to insert the concept of "verified knowledge" (that is used in R4). This is because M1 & M2 do not clarify whose real-time obseration it is referencing. As such, we recommend stating "Real time verified knowledge of encroachment into the MVCD..." instead of just the term "observation" to make it clear that a trained, knowledgeable individual is making this determination. Also, it may make sense to turn "verified knowledge" into a defined term since it will be used in M1, M2 and R4. If it is not made a defined term, then the meaning in M1 & M2 must be clarified in those sections (maybe a cross refefrence to as defined in R4 and on page 15 will work). However, we think it is best to make it a defined term.R5: Rationale box: consider enhancing the second sentence by adding the word "significant", to read "...avoid significant risk..."R5: Requirement & Measure: consider adding exception language when the constraint is known to be longer than "temporary". e.g. - stand offs can occur on right of ways that cross federal and tribal lands and the entity cannot force the federal government to do do something.R6: Xcel Energy still believes the requirement in R6 that mandates an annual inspection is too onerous and is at odds with the results-based approach of these revisions. Xcel Energy urges the retention of the provision in the existing standard that allows the Transmission Owner to set the frequency of inspection. In some areas of the country, annual inspections may not be adequate. Yet in other areas, a longer inspection frequency may be perfectly reasonable and practical. Our point is that inspection frequency should not be treated as if it were "one size fits all". If treated this way, we feel this could pose a risk to reliability and is not likely to be cost-effective. The Transmission Owner should be allowed some flexibility. However, if the drafting team disagrees and determines that an annual inspection is to be mandated, Xcel Energy believes that an exception to the</p>

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		annual inspection is appropriate when a non-subjective advanced technology such as LIDAR is utilized to achieve actual clearance distances. This places the Transmission Owner in a situation where it can rationally determine that the objectively measured distances result in a situation where an inspection need not be performed within the next year. It is suggested that R6 be revised to read as follows: Each Transmission Owner shall perform a Vegetation Inspection of all applicable transmission lines at least once per calendar year, unless the Transmission Owner, based on a non-subjective advanced technology, such as LIDAR, determines that a longer inspection period is appropriate.R7: Revise the requirement to eliminate the superfluous language at the end of the sentence that says "... to ensure no vegetation encroachments occur within the MVCD", i.e., R7 would read as "Each Transmission Owner shall execute a flexible annual vegetation work plan."
Independent Electricity System Operator	Yes	Our comments to this point have focussed exclusively on the proof-of-concept for using the results-based criteria for developing a reliability standard. We have one comment on the specifics of Requirement R7 and its Measure M7. The rationale for M7 states that a flexible annual vegetation work plan allows for work to be deferred into the following calendar year provided it does not have the potential to become an imminent threat. This will evidently require some kind of assessment in each case. Will entities be expected to document those assessments as evidence in support of its view that the associated vegetation did not have the potential to become an imminent threat, or would it be sufficient to look at the outcomes of these decisions to defer items in the work plan - i.e. there were no imminent threats and sustained outages? Finally, we applaud the drafting team for its efforts in developing this draft. The industry has often commented about overly prescriptive requirements and I believe this draft has focused on the "what" of the requirements and left the "how" up to the appropriate entities. In our view this draft, with its succinctly stated requirements, represents an important first step in the right direction. Thank you.
Ameren	Yes	Page 9, M7 - what are the limits of flexibility in executing "a flexible annual vegetation work plan"?
Duke Energy	Yes	Please review the VRF Guideline because we believe that the VRF's for R6 and R7 should possibly be changed to "Medium" instead of "High". They were "Medium" in the last draft of FAC-003-2.
Westchester County Board of Legislators	Yes	Please see e-mail sent to sar@nerc.com. Thank you.
Progress Energy Carolinas	Yes	Progress Energy believes that the VRFs for R6 and R7 should be returned to "medium" since no singular "risk-based" requirement in a defense in depth strategy should be depended upon to eliminate/prevent risk to grid reliability. In a defense in depth strategy, no one specific "risk-based" or "competency" requirement should be "high" unless failure to complete that singular requirement will result in an immediate "high" risk to grid reliability (if that is the case, then the standard is not truly employing a defense in depth approach). Also, R6 and R7 (which have a zero tolerance) have no differentiation between grid impacting facilities (IROL) and facilities primary impacting local customer reliability (i.e., radial lines to load, etc).

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North Carolina EMC	Yes	R4: The requirement to notify the responsible control center of an imminent threat may potentially result in confusion at the control center if the transmission lines in question are not part of the control center's actively monitored grid. As an example, NCEMC has a few short radial 230kV lines that fall under the requirements of this standard, but these lines are not shown on the BA's control center system because they are downstream from a protective device located at a tap off networked transmission lines. A vegetation-related outage on these lines would not result in any of the transmission elements continuously monitored by the control center being outaged, and the operator receiving a call notifying the imminent threat may not have any familiarity with the line section being identified, since it is not on their system. If prompt action to respond to any imminent threat is the intended goal, why not consider making it a significant part of the mitigating factors of an actual outage.
City of Tallahassee (TAL)	Yes	Recommend deleting the "to avoid a Sustained Outage" in R1 and R2. Has a violation occurred if a momentary (successful reclose) outage occurs but the TO did not "observe(s) vegetation within the" MVCD? While it may not have to be reported on the quarterly report, Table 1 for the Lower VSL seems to suggest a violation of the MVCD has occurred, even if it was not "observed" as "required" in the Guideline and Technical Basis. In the Guideline and Technical Basis, the final paragraph for R1 and R2, line 3 contains an extra word "...encroachment is not be a violation..." In the Guideline and Technical Basis, the third paragraph for R6, line 2/3 contains an extra word "...230kV transmission at least once line during the calendar year."
Cleco	Yes	Requirement 4: Recommend the SDT consider modifying to make it clear the requirement applies to threats within the right of way (ROW). Requirement 4.3.1: Recommend adding human activities to the list of causes. Logging activities are listed but other human activities such as private property owner tree care operations are not.
Exelon	Yes	See R6. Exelon prefers "annual" to "calendar" but notes the requirement runs counter to the results based approach and could be interpreted to be inconsistent with R7. The Rationale for R6 is ambiguous and without justification suggests shorter but not longer cycles are acceptable. If local factors can shorten a cycle, they could also increase it. The Rationale is in conflict with the prescriptive nature of the requirement.
NERC Staff (12 staff members)	Yes	Standard Development Timeline The Development Steps Completed section of the standard is incomplete. This section should include the dates of previous postings. Draft 1 of revised standard was posted for stakeholder comment from 10/27/08 - 11/25/08. Draft 2 of revised standard was posted for stakeholder comment from 09/10/09 - 10/24/09. Definitions of Terms Used in Standard The definition of Active Transmission Right-of-Way is ambiguous and subject to interpretation. This definition need to be revised to add clarity. It is unclear what "active transmission facilities" are. In the gray box, the SDT should explain what "active portions of corridors" are, and how that is different than the "land that is occupied by active transmission facilities." The terminology should be consistent. The example should state whether the width is the portion that has been cleared or should be cleared and if it was not maintained and should have been. The SDT should explain the reference to the National Electrical Safety Code in the gray box, and how it differs from the IEEE clearances. In addition, the team should explain why the Table 2 clearances set forth

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		<p>in the standard itself are not referenced. The examples in the “inactive portion” suggest that there are active transmission facilities (see references to conductors and circuits). The SDT should provide the rationale for excluded them from vegetation management. While vegetation is permitted to exist at the corridor edge, the SDT should address why there is no obligation to maintain it. The revised definition of Vegetation Inspection does not seem necessary. It appears that the SDT is using the definition to set an expectation for enforcement by adding “which may be combined with a general line inspection.” If both vegetation and general line inspections are to occur concurrently, there should be minimum background requirements to perform such inspections. We recommend that the last portion of the draft definition be moved to the Application Guideline section so the definition of Vegetation Inspection should be “The systematic examination of vegetation conditions on an Active Transmission Line Right of Way.”The team should consider making Minimum Vegetation Clearance Distance a defined term.Effective DatesThe effective date for Ontario needs to be tied to the effective date in the U.S.With respect to the second exception, the team should provide the rationale behind the exception for the effective date for “existing transmission line operated at 200kV or higher that is newly acquired by an asset owner and was not previously subject to this standard”. All existing transmission lines operated at 200 kV or higher are currently subject to vegetation management. Please explain why a new owner would get an exception for this.Based on the wording in the Exceptions section, it appears that some lines in the US could be brought into this standard prior to regulatory approval. (i.e. Lines operated below 200kV, designated by the Planning Coordinator as an element of an IROL or as a Major WECC transfer path, become subject to this standard 12 months after the date the Planning Coordinator or WECC initially designates the lines as being subject to this standard. An existing transmission line operated at 200kV or higher that is newly acquired by an asset owner and was not previously subject to this standard, becomes subject to this standard 12 months after the acquisition date of the line(s))ObjectiveThe purpose of this standard should not be limited to outages that lead to Cascading, but prevention of all vegetation related outagesApplicabilityThis standard should apply to Generation Owners.The term Facilities is defined to exclude those in a fenced area of a switchyard, station or substation. The SDT should provide the basis for the exclusion.Footnote 1 needs to be clarified. It is too cursory.The “Other” section should not be included in this section. It is the expectation that the Compliance Enforcement Authority will not expect the Transmission Owner to prevent tree contacts that the TO could not prevent. This might be better suited in the Application Guideline section.In the “Other” section, the SDT should provide rationale for why the standard is not intended to address “human errors”.The SDT might consider rewording the “Other” section as:”This Standard shall not apply in circumstances where a requirement of this Standard was not complied with due to Acts of God, flood, drought, earthquake, major storms, fire, hurricane, tornado, landslides, logging activities, animals severing trees, lightning, epidemic, strike, war, riot, civil disturbance, sabotage, vandalism, terrorism, wind shear, or fresh gales that restricts or prevents performance to comply with this Reliability Standard's requirements, so long as the non-compliance was not caused by the fault or negligence of the Transmission Owner.”The team should provide justification for the applicability criteria they have selected; specifically why a 200 kV cutoff was chosen.The team should provide justification for eliminating fall-ins from outside the ROW.BackgroundAs a general comment, the background section seems repetitive.The fourth paragraph of the background section notes that this standard is not intended to prevent customer outages due to tree contact with lower voltage distribution systems. It is clear from the applicability section that this pertains to 200 kV and higher, although the standard contemplates that some lower voltage facilities could be subject to the standard. The SDT</p>

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		<p>should address whether this paragraph also address customer outages due to tree contacts with respect to 200 kV or higher facilities. Requirements R1 and R2: R1 If an auditor were to assess compliance with R1, they would need to have the list of conductors that were associated with an IROL or a Transfer Path. This list should be identified in the list of evidence that must be retained. R1 & R2 In the Rationale box, the term “a proven transmission design method” is used. Please describe what this refers to, and whether these refer to the IEEE minimum clearances. The SDT should state what the method was and what changes, if any, were made to it. The SDT should address why the requirements only reference line conductors and not transmission facilities or transmission lines (the VSLs refer to transmission lines). The word “encroaching” should be replaced with another word/phrase that clearly defines the concept for compliance purposes. The word, “encroach” could be interpreted differently by different people (how close can vegetation grow before it enters the MVCD and is it a violation of R1/R2 - is it 2”, 2’, 10”, 10’?), whereas the word “enter” is explicit. Guidance is offered in the Guideline section of the standard that implies that all TOs should retain this evidence, yet the evidence is not identified anywhere in the Measures or evidence retention sections of the standard. We suggest adding the phrase, “of its” to clarify that the TO is only responsible for facilities it owns. “In addition, the Transmission Owner should maintain detailed records of the findings of its planned inspections. This documentation constitutes evidence that the Transmission Owner had no encroachments into the MVCD Table distances.” Immediately after the phrase MVCD, we suggest including the text “as specified in FAC-003-2 Transmission Vegetation Management Table 2 - Minimum Vegetation Clearance Distances (MVCD). Table 2 is not referenced in any of the requirements. If you require entities to use the MVCD as stated in Table 2, then this should be referenced in at least R1 and R2. M1 & M2 Overall, it appears that these measures are asking for evidence of non-compliance. The initial item under M1 & M2 (shown below) should be rephrased with the addition of the words “verbal or written report of a,” otherwise the measure doesn’t seem as though it could be used objectively. In addition, the words Real-time should be removed, as they add confusion to the issue.” Verbal or written report of a observation of encroachment into the MVCD, or” The phrase “Multiple Sustained Outages on an individual line, if caused by the same vegetation, will be reported as one outage regardless of the actual number of outages within a 24-hour period” should be changed to a footnote that reads “Consider Multiple Sustained Outages on an individual line, if caused by the same vegetation, as one outage regardless of the actual number of outages due to the same piece of vegetation” Momentary outages due to vegetation are also a violation of R1. Momentary outages from tree contacts may not result in a sustained outage but are evidence of a tree within the MVCD. The requirement should not be limited to only sustained outages. Consider this scenario: An entity self-reports a violation of the standard. Does that mean that if there is no actual “real-time observation” or a “Sustained Outage” there is no violation? Who must do the observing? Please explain. Requirement R3 Consider this scenario: A Sustained Outage occurs on a location that was not considered and therefore was not part of the TO’s TVMP. Would this result in a violation simply because the location was not considered when the entity developed a TVMP? Requirement R4 Each requirement should identify “who shall do what under what conditions, for what reliability outcome.” R4 has no identified reliability outcome. What is the reason for making a prompt notification? Is it to give the real-time system operator information on which to develop and implement an action plan if there is an outage on the line with the imminent threat? Then that should be stated in the requirement. R4 contains explanatory information. The sentence “A vegetation imminent threat condition is one which is likely to cause a Sustained Outage at any moment” should be moved to the blue box. Please explain what</p>

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		<p>“verified knowledge” means. The Rationale section does not really address this. While this is in the Guidelines and Technical Basis section, it defines it as “implies reliable confirmation.” This should be clarified and put in the measures section.”Imminent threat” should be defined so that it does not evolve into an enforcement issue.”Notify the responsible control center” should be clarified so that it does not evolve into an enforcement issue.Application Guideline for R4 should contain provisions in the imminent threat procedure for notification of the land owner.M4 should provide examples of acceptable evidence.Requirement R5 This requirement does not include a reliability outcome. The requirement should be rewritten to include a reliability outcome.Requirement R6 The Rationale for R6 is that one year “seems to be reasonable.” The SDT should address how this relates to the practice in place now, and whether it is consistent with current practice or is more or less than current practice. If inconsistent, the SDT should provide an explanation.The Rationale states the TOs should consider other factors that could warrant more frequent inspections. If so, the SDT should explain whether we are requiring them to do so if such factors exist.This requirement does not include a reliability outcome. The requirement should be rewritten to include a reliability outcome.Requirement R7 R7 is ambiguous; it is not clear how this could be enforced objectively. The rationale for the “flexible” plan indicates that the owner can delay work as long as it will not pose an “imminent threat.” The SDT should explain what the Compliance Enforcement Authority would look at to determine that the work that was delayed was not causing an “imminent threat.” The SDT should address whether it would ever be acceptable to delay work on a critical line (covered under R1).In Requirement R7, please explain what “execute a work plan” means. Did the SDT mean implement a work plan? As drafted, it could be read to just have one in place. The SDT should explain what “flexible” means. Does it mean there will never be a FAC-003 violation if you fail to implement the plan? The Rationale says the work can be deferred if it does not have the potential to become an imminent threat. Please explain. Corresponding clarification changes should be made to the VSLs for this requirement.Either M7 or the evidence retention for M7 needs to include the annual work plan. Without that the Compliance Enforcement Authority can’t determine if the plan was executed. The VSLs for R7 imply that the entire annual plan will be accomplished. . . not a “flexible” amount of the plan - the VSLs don’t line up with the use of the word “flexible.”According to the VSL Guidelines the VSLs should be stated in language that identifies the degree of noncompliance in language that identifies the amount that was noncompliant, rather than the amount that was compliant. VSLs for R6 and R7 are stated in terms of the % of the required performance that was compliant and should be rephrased. GuidelinesThe following guidance is offered in the Guideline section of the standard:Documentation or other evidence of the work performed typically consists of signed-off work orders, signed contracts, printouts from work management systems, spreadsheets of planned versus completed work, timesheets, work inspection reports, or paid invoices. Other evidence may include photographs, work inspection reports and walk-through reports.Documentation is required when the annual work plan is adjusted or not completely implemented as originally planned. The reasons for the deferrals or changes and the expected completion date of postponed work should be documented.This implies that all TOs should retain this evidence, yet the evidence is not identified in nearly this level of detail in the Measures section of the standard. In addition, no part of the requirement or measure is clear in indicating that documentation is required to support the need for a work plan adjustment. Evidence Retention The evidence retention periods specified don’t reflect the guidance in the SDT Guidelines. Should the evidence retention be the later of three years or three years from the last audit? The second paragraph should be stricken because it seems to contradict the first paragraph</p>

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		<p>retention period.VSLsThe SDT should verify that the VSLs for Requirement 3 are properly calibrated.Administrative ProcedureThe Administrative Procedure does not require prompt reporting of sustained outages; rather it requires only a quarterly report. This appears to be less stringent than the current requirements as employed today.The SDT should explain what “blowing together” means, and how this is different from a tree that grows into a line.FootnotesFootnote 1 should be deleted or modified. It is only relevant in explaining the proposed modifications to the standard. In footnote 4 the word, “substantially” adds ambiguity.Guideline and Technical BasisIn the Guidelines and Technical Basis section, it states “Requirements 1 and 2 state if the TO observes vegetation within the distances prescribed in FAC-003 - Table 2 it is in violation of this Standard.” This is actually in the Measures 1 and 2 and not the requirements.General commentsThere seems to be a lot of information not captured in the Requirements but rather are in various other sections. The SDT should clearly delineate whether these other sections are considered part of the Standard or just informational.With the next posting of the standard, the drafting team should include the following four points for stakeholder review:1. Justification for selection of the applicable lines. 2. Table listing each FERC directive and stakeholder issue (from the Issues Database) associated with the standard and identification of how the team addressed each of these3. Table listing each VRF and identification of how the proposed VRF meets both NERC criteria for setting VRFs and FERC’s five Guidelines for approving VRFs4. Document identifying how the proposed VSLs meet both NERC criteria for setting VSLs and FERC’s four Guidelines for approving VSLs.There is a significant concern with the use of the Gallet equations in this standard. This standard eliminates Clearances 1 and 2 from the previous version and replaces it with a single Minimum Vegetation Clearance Distance (MVCD) based on the Gallet equations. This approach reflects the most basic lowest common denominator and significantly lowers the bar versus the performance expected from the existing standard. Further, it would not appear that responsible entities would use the Gallet equations as the basis for the development of the vegetation management program. Additionally, whereas the multiple clearance zones provide an indicator of proactive vegetation management, the current proposal does not provide an equivalent demonstration of proactive performance. This approach appears inconsistent with Order 693 and the presentation of NERC standards to provide a defense in depth strategy, which is a fundamental outcome of the results-based standards process. Order 693 states in P24 that the “reliability mandate of Section 215 of the Federal Power Act....contemplates the prevention of incidents, acts, and events that would interfere with the reliable operation of the Bulk Power System.” The SDT should consider adding more clarification to the draft standard and white paper describing the building blocks for determining how much vegetation management (trimming) needs to be performed based upon growth rate of vegetation and the time between trimmings to reflect a proactive approach.The SDT should consider the impact of moving the reporting requirement in the existing standard to the compliance section of the new standard. The team should consider the reporting of this activity on an exception basis within a pre-defined timeframe following the event. This approach would provide more timely awareness to the Regional Entity and NERC of an event than the quarterly reporting expectation, and provide opportunities for identification and implementation of mitigating strategies in a more timely manner. While this approach removes an administrative type requirement from the standard that is believed to provide a deterrent to responsible entities, the increased timeliness of reporting in an exception basis would provide greater benefit to the effort to maintain reliability.Transmission Line is a defined term. The SDT should consider using this term in place of “transmission line.”The report identified in the administrative section of draft 3 of FAC-003 is really a “Periodic Data Submittal” used</p>

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		<p>to assess compliance and does not belong in an administrative section of the standard - it belongs in the compliance section of the standard. "Periodic Data Submittals" is one of eight different compliance monitoring and enforcement processes that may be used to monitor and assess compliance. The eight processes are identified in the Uniform Compliance Monitoring and Enforcement Program of the North American Electric Reliability Corporation and should not be mixed in with other processes or procedures. Each standard must list the appropriate processes in the compliance section of the standard so that there is a clear understanding of the purpose of the data submittal. As drafted, FAC-003-2 applies only to Transmission Owners. It also should apply to Generator Owners. The SDT should explain whether the issues brought forward in the GO/TO Report been considered and are addressed as part of this revision. Please update the mapping document so that it compares the last version of the approved standard to the latest proposed version of the standard so that it is easy to compare the proposed standard to the standard that is in force now.</p>
<p>Utility Risk Management Corporation</p>	<p>Yes</p>	<p>Suggested Improvements to M1. and M2. The purpose of Requirements R1 and R2 is to require the prevention of vegetation encroachments within the MVCD. As made clear in the background and remaining FAC 003-2 requirements, the overarching intent of FAC 003-2 is to prevent sustained outages caused by vegetation that could lead to cascading. However, both M1 and M2 include real-time observations of encroachment into the MVCD as an automatic violation of R1 or R2, respectively (even though the violations may not result in penalty or fine). This is inconsistent with the "defense in depth" goal sought by the committee, as a real time observation using new technologies may in fact demonstrate that the Transmission Owner is in fact aggressively managing vegetation to meet the MVDC requirements and is discovering new encroachments and remediating them quickly and effectively and thereby is not in violation of the standard. Similar to imminent threats, remediation procedures should be permitted for encroachments as well and serve to make clear the observation is not automatically a violation. Classifying a real-time observation of an encroachment automatically as a violation of R1 or R2 penalizes a Transmission Owner for identifying vegetation threats, which are less severe than imminent threats. Under Requirement R4, the transmission owner is permitted to take appropriate actions to alleviate an imminent threat through short term corrective actions upon observation of any vegetation that is near to or is encroaching into the MVCD. (See FAC-003-2 Guideline and Technical Basis, Requirement R4). Considering the allowance for remedial action under Requirement R4 when facing a condition that is "likely to cause a Sustained Outage at any moment," it seems excessive to qualify a real-time observation of an encroachment as a violation of R1 or R2. We suggest a better approach is to modify M1 and M2 to allow for remedial action. Or, in the alternative, the standard should clarify that observations of encroachments using software-enabled technology, such as LIDAR coupled with work order management systems, do not constitute a "real time observation of an encroachment." First, by modifying M1 and M2 to allow for remedial action as suggested below will deal with the concern we raise: M1. Evidence of violation of Requirement R1 is limited to: o Real-time observation of encroachment into the MVCD which is not mediated in accordance with R4. o ... M2. Evidence of violation of Requirement R1 is limited to: o Real-time observation of encroachment into the MVCD which is not mediated in accordance with R4. o ... In the Alternative, "Real-Time Observation" Should be Clarified. As noted above, a real-time observation of an encroachment is evidence of a violation of Requirements R1 and R2. Observations in real time mean "an actual field observation or measurement of the conductor-to-vegetation distance and not a calculated</p>

Organization	Yes or No	Question 13 Comment
		<p>determination of relevant positions.” (See FAC-003-2 Guidelines and Technical Basis, Requirements R1 and R2) Given the current definition, it is not clear observations using software-enabled LiDAR would trigger violations and thereby would discourage the Standard’s emphasis on preventing sustained outages or Cascading due to grow-ins. This may result in penalties for registered entities that are engaged in good faith activities to prevent sustained outages. The meaning of “real-time observation” should be clarified as to remove any adverse incentives for vegetation inspection and management. To implement this suggestion as an alternative to allowing remediation to prevent an observation from being an automatic violation, the definition could be reworded to state:”Real-time observation” means an actual field observation or measurement of the conductor-to-vegetation distance which is not performed under the regular Vegetation Inspection of Requirement R6 or annual vegetation work plans in accordance with Requirement R7. Such observations do not include calculated determinations of relative vegetation positions. Conclusion:Adopting one or both of these proposed changes would help R1 and R2 measures more fully meet the goal of preventing overgrown vegetation and systemic failures triggered by flash over, as stated in the background section on page 6 of FAC-003-2. The current M1 and M2 use of real-time observations conflicts with the expectation that utilities engage in “defense in depth” measures. As the guidelines conclude regarding Requirements R1 and R2, the Transmission Owner is expected to have a cohesive vegetation management program for managing vegetation in such a manner as to maintain separation between conductors and vegetation. This is to function in conjunction with the imminent threat procedure to facilitate interim corrective action. “However, brief encroachments by falling vegetation are not considered to be a violation.” Making the changes suggested above - coupled with the existing requirement that the utility mitigate an observation in accordance with the utility TVMP through a response schedule - thereby advance the goals of the standard and take away an impediment to aggressive defense in depth.</p>
SERC OC Standards Review Group	Yes	<p>The requirements (R6 and R7) for inspections and the performance of work plans are part of a defense-in-depth approach and as such the TO is not depending on singular requirements to prevent sustained outages, therefore, the VRF for R6 and R7 should remain medium not high. We applaud the attempt to improve the readability and ultimate comprehension of reliability standards by changing to this new template. We have included some comments also made by the SERC Vegetation Management Subcommittee (VMS).”The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Standards Review group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers.”</p>
SERC Vegetation Management Subcommittee	Yes	<p>The requirements (R6 and R7) for inspections and the performance of work plans are part of a defense-in-depth approach and as such the TO is not depending on singular requirements to prevent sustained outages, therefore, the VRF for R6 and R7 should remain medium not high.</p>
GCPD	Yes	<p>The standard should include only R1, R2 and the Clearance Table. Everything else should be in guidelines as to how you might comply with the standard. If R3 thru R7 remain in the standard then it is virtually the same as it exists today, just put in a different order.</p>

Organization	Yes or No	Question 13 Comment
CenterPoint Energy	Yes	<p>The term "Active Transmission Line Right-of-way" (ATLROW) is not defined in sufficient detail in the Definition of Terms Used in the Standard section to know how to apply it to the Requirements and Measures. The Technical Reference merely depicts the relative position of energized conductors, but it does not show a graphical determination of the limits of the ATLROW. The ATLROW is missing a definable and determinable width in its current definition within the Standard which makes it an arbitrary term and does not allow for a clear and measurable expected outcome of each requirement. In several sections, the Standard relies on the specific determination of the physical width of the ATLROW to determine applicability of the requirements. The Vegetation Inspection definition refers to "on" an ATLROW. The Background section refers to "outside" the ATLROW. Table 1 refers to "within" and "on" the ATLROW. M1 and M2 refer to "inside" the ATLROW. R3 and M3 refer to "on" the ATLROW. The Administrative Procedure refers to "inside and/or outside" and "within" the ATLROW. The Guideline and Technical Basis section refers to "on or near" the ATLROW and the "limited" ATLROW "width". It also says that, "The Transmission Owner should, therefore, endeavor to maintain its ATLROW to the full extent of its legal rights at all times in all cases." Since the Standard does not currently define how a Transmission Owner is to determine the specific boundaries of the ATLROW, it would appear that the Transmission Owner is to make that determination on a case by case basis at its discretion. Should that not be the intent, we recommend the definition for the ATLROW to be, "A strip or corridor of land or aerial space that is occupied by energized transmission conductors with its operational clearance limits defined by the Transmission Owner's specific legal rights but in no case less confining than the MVCD applied to the movement of the conductors within their Rating and Rated Electrical Operating Conditions." This definition contains sufficient detail to determine the physical limits of the ATLROW, and it allows for vegetation management to apply within the full extent of the legal rights of the Transmission Owner while requiring a minimum area for vegetation management in undefined ROW's to ensure Sustained Outages are minimized. M1 contains a reference to "real-time observation of encroachment into the MVCD" but does not explain who is to make the observation and where it is to be documented. If this is to be done by the Transmission Owner, then perhaps it should be a Measurement under R6 and recorded under M6. The language in R6 refers to inspecting "transmission lines" and Table 1 for R6 refers to inspecting "ROW". Both areas should use consistent terminology. M1 and M2 have the potential for double jeopardy when a Sustained Outage occurs because the Violation Severity Level has an entry for an MVCD encroachment (which causes the outage) and another sister entry for the type of Sustained Outage. Some additional clarity in the application of M1 and M2 is necessary. R5 should include the exception stated in the Rationale text box to add clarity to the Requirement. R5 should read, "Each Transmission Owner shall take interim corrective action when it is temporarily constrained from performing planned vegetation work, where a transmission line is put at potential risk due to a constraint, except where the risk is avoided by implementing an alternate work methodology." In the Guideline and Technical Basis section for R1 and R2 (page 15), there is a reference to records of "planned inspections" and "evidence" for no encroachment into the MVCD. This reference should be moved to R6 where the inspections are required. If R6 is intended to provide evidence for M1, then that should be stated in R6. In the Guideline and Technical Basis section for R6, the reference to the VSL calculation units and the example units should be consistent-the example should use "line miles", not just "miles". Table 2 contains several "*" in the voltage column that are not defined. In the Technical Reference on page 21, the following sentence should be deleted, "If constraints cannot be</p>

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		<p>overcome and if design clearances are sufficient, an exception to the Transmission Owner's 10-foot guideline might be made." The Technical Reference should not provide examples of granting exceptions as they may be misinterpreted as an endorsement by NERC to increase the planting of trees near and under transmission lines without taking into account several other factors such as ROW access, changing design conditions, future line additions and rebuilds. The inclusion of modifications to the wire zone on page 24 regarding the wire-border zone model should be re-examined to be sure they are specific to an environmental conservancy requirement while allowing for construction and inspection access as needed. In the Technical Reference on page 22 under Planning and Implementation, delete the sentence, "While designed primarily with transmission systems in mind, it is also applicable to distribution projects." The Standard should not imply its applicability to distribution systems since it is intended only as a transmission standard. In the Technical Reference, the last sentence on page 26 starting with "Appropriate actions..." should be moved to R5 where it applies. In general, the proposed FAC-003-2 has gone FAR beyond what was contemplated by the Commission in FERC Order 693 and equates to a total re-writing of the Standard for no apparent reason. The Commission's determination dealt with the following areas: (1) applicability; (2) inspection cycles; and (3) minimum clearances on National Forest Service lands. For instance in Paragraph 729, the Commission states, "As proposed in the NOPR, the Commission approves Reliability Standard FAC-003-1 with no proposed modification on the issue of clearances. The Commission reaffirms its interpretation that FAC-003-1 requires sufficient clearances to prevent outages due to vegetation management practices under all applicable conditions..." Rewriting the minimum clearances introduced a new set of confusing definitions, and further burdens the Transmission Owners with new documentation requirements with little if any benefit when compared to the Clearance 2 concept in the existing Standard. A preferred approach would have been to incorporate the following few items into the existing Standard: (1) the RC versus the RRO; (2) the designation of a specific inspection frequency; (3) the Gallet equation; and (4) the applicability to National Forest Service lands.</p>
<p>Ad Hoc Group subteam formed to review draft standard</p>	<p>Yes</p>	<p>The wording in R7 is troublesome. We believe that the process for developing the annual work plan is imbedded in R3. As discussed in question 2, demonstrating capability to actually perform those actions necessary to ensure no vegetation encroachments occur within the MVCD is the primary concern. Deferring such work into the next calendar year appears contrary to this concern and neutralizes the defense-in-depth concept by diminishing the imminent threat requirement of R4 to a primary means of defense. While we don't want to incent vague annual work-plans, we also don't want to remove the imperative that the work must be done.</p>
<p>Nebraska Public Power District</p>	<p>Yes</p>	<p>Under section 4.3.1 add in ice storms as one of the force majeure events. This type of event may impact many TOs and should be included.</p>
<p>Oncor Electric Delivery</p>	<p>Yes</p>	<p>Use of the Gallet equation to determine the minimum gap between vegetation and conductor to prevent sparkover seems to be appropriate. No utility should be managing to this distance but developing a distance beyond this would be arbitrary. This is a reliability standard not a worker safety or vegetation management practices standard. As Federal agencies and other entities are interpreting the Standard to limit normal vegetation management efforts, the FERC should develop and adopt an overarching memo allowing utilities to maintain vegetation under any agency</p>

Organization	Yes or No	Question 13 Comment
		jurisdiction as a utility manages vegetation along the entire right-of-way corridor.
Western Area Power Administration - Upper Great Plains Region	Yes	WAPA - UGPR would like to see "ice storms" specifically mentioned in Section 4.3.1. Having additional clarification as to what is considered a "major storm" would also be helpful.
Bonneville Power Administration	Yes	We believe the minimum vegetation distances are very granular and nearly un-measurable in real life. When a person considers the table to be a list of minimums it seems that the regulated entities, or land owners would want the distances to be as close to the wire as possible. We would not want a non-technical manager to believe that any small distance outside of the noted distances is ok.
Omaha Public Power District	Yes	We have concern over establishing proof an outage is exempt due to fresh gale. A fresh gale, or even a localized thunderstorm, can easily produce wind gusts that exceed the lines rated capacity for blow out. If an outage occurs under these conditions, the standard provides an exemption under Section 4.3.1, but there is often no way to empirically prove conditions exceeded the lines normal operating conditions. How should a utility handle these situations?
Southen Company	Yes	We have concern over establishing proof an outage is exempt due to fresh gale. A fresh gale, or even a localized thunderstorm, can easily produce wind gusts that exceed the lines rated capacity for blow out. If an outage occurs under these conditions, the standard provides an exemption under Section 4.3.1, but there is often no way to empirically prove conditions exceeded the lines normal operating conditions. How should a utility handle these situations? Please note there is a typographical error in the third paragraph on page 15, "...encroachment violation is not be a violation..."We would like to thank the Standard Drafting Team for their hard work. The time and effort they have put into developing this standard is obvious.
Dominion	Yes	While not related solely to this standard, we suggest that no future standard be effective until approval has been granted by the applicable regulatory authority. Having an effective date that differs from the mandatory date is causing confusion/chaos on the part of the applicable registered entity(ies). With the current process, it is possible to have a standard that is mandatory conflict with a superseding newer version (or a new standard that contains requirements meant to supersede those in the mandatory standard). Applicable entity(ies) may not be able to comply with both when this is true, and may not be able to take steps necessary to transition from mandatory requirement to superseding requirement without becoming non-compliant.
Westchester County Board of Legislators		1. <u>Bulk Electricity System NOPR</u> – FERC recently issued a notice of proposed rulemaking to revise the definition of “bulk electric system” (BES) to include all transmission facilities with a rating of 100 kV or above. 130 FERC ¶ 61,204 (Mar. 18, 2010). If approved, such revision might significantly increase the amount of transmission facilities subject to standard FAC-003. In areas with dense residential and commercial development, this revision will exacerbate

Organization	Yes or No	Question 13 Comment
		<p>existing conflicts between homeowners, municipalities, affected transmission owners (TOs), and regulating agencies. As described in comments below, compliance with the existing or perceived requirements in FAC-003 has produced numerous conflict in areas of dense development and narrow rights-of-way between homeowners, TOs, and regulating agencies because of economic, environmental, and aesthetic impacts. If FERC adopts the proposed BES definition, then the FAC-003 standard (current 001 and draft 002) should be extensively reviewed by the drafting team to evaluate the amount of affected facilities and the need for standard revision to avoid as far as possible further conflicts.</p> <p>2. <u>“Background” Section 5</u> – The draft adds a new section titled “Background” (Section 5). The existing standard FAC-003-1 does not include a similar section. This narrative section appears to provide interpretation on the rationale for a vegetation management reliability standard and to clarify the standard applicability. This discussion may be more appropriate in the accompanying technical reference, which describes and clarifies standard FAC-003. While identifying overgrown vegetation as cause of major outages and operational problems, this section fails to state that many other causes can lead to Cascading events. Indeed, of the many NERC reliability standards, only one, FAC-003, concerns vegetation management. While the August 2003 blackout was initiated by a tree contact, there were numerous other factors that caused this power outage to spread to over a dozen states. Section 5 should therefore be revised to clarify that FAC-003 is only one of many factors that can lead to a large-scale grid failure.</p> <p>3. <u>Standard Applicability Across Land Uses</u> – Standard FAC-003-1 and the proposed draft do not vary in applicability, even though the types of land uses within and adjacent to transmission facilities vary widely. Among certain land uses, such as dense residential development, this can lead to substantial conflict between the TO and adjacent landowners, especially concerning environmental, aesthetic, and economic impacts. The Westchester County Board of Legislators identified such problems in its recent resolution, available at http://meetings.westchesterlegislators.com/Citizens/FileOpen.aspx?Type=4&ID=2828&AgencyName=WestchesterCounty .</p> <p>Notwithstanding the reliability imperative expressed by Congress in enacting Section 1211 of the 2005 Energy Policy Act, the implementation of reliability standard FAC-003 has produced significant challenges for all parties in suburban areas. In particular, suburban area homeowners, often on small parcels, that abut or are near to transmission rights-of-way have experienced dramatic impacts upon their properties and property values when TOs exercise their “full extent of legal rights at all times and in all cases”, as stated on page 18 of the draft. Therefore, the development of standard FAC-003 must consider this backdrop and select requirements and accompanying text that provide some balancing of electric reliability with environmental and economic impacts. As presently written, the draft does not acknowledge such balance.</p> <p>4. <u>Varying Conditions</u> – Requirement R1.2.1 of Standard FAC-003-1 identifies numerous local conditions that should be considered in determining appropriate clearance distances. This balanced evaluation of factors should be retained in FAC-003-2.</p> <p>5. <u>Full Legal Rights</u> – The draft encourages TOs to exercise full legal rights at all times and in all cases. This language</p>

Organization	Yes or No	Question 13 Comment
		<p>is not included in present standard FAC-003-1. As noted above, electric reliability and TO compliance with FAC-003 must not preclude other important societal factors. The language encouraging full exercise of legal rights should be removed from the draft.</p>
<p>KCPL</p>	<p>Yes</p>	<p><u>Requirement 4:</u> Recommend the SDT consider modifying R4 to make it clear the requirement applies to that which is within the Right Of Way (ROW) for the transmission facility. Obviously, the Transmission Owner has no authority or control beyond the ROW. This is also an audit concern regarding “triggering” this requirement on a subjective evaluation of “imminent threat”. How does a Registered Entity, Regional Entity or Auditor determine what constitutes an “imminent threat”? This will be a matter of opinion and makes this a difficult requirement regarding compliance when a difference of opinion arises.</p> <p>In addition, as proposed, this requirement does not address the need to take immediate corrective actions to mitigate an imminent threat. The previous FAC-003 Standard included taking action to remove the “imminent threat” which is not included in this proposed version 2. What was the intention of the SDT in this regard? Recommend the SDT consider language to include taking action to remove the imminent threat.</p> <p><u>In the “Guideline and Technical Basis” section:</u></p> <ol style="list-style-type: none"> 1. Under R6: believe the word “per” is missing in the first sentence of the third paragraph between “once (per) line”. 2. Under R7: concerned regarding the use of words such as “never”, “at all times”, and “in all cases” in the bulleted items with paragraph 6 in this section as a guiding document. This is the kind of material that is creeping into compliance audits and recommend softening this language. <p><u>Violation Severity Levels</u></p> <ol style="list-style-type: none"> 1. Do not agree with the zero tolerance for encroachments that do not result in a service interruption for R1 and R2. 2. Not notifying the Control Center should be a HIGH and not removing the imminent threat should be a SEVERE.