NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Meeting Agenda
GO-TO Team

Tuesday, April 14, 2009 | 3–5 p.m. EST
Dial-in Number: 1-281-540-4943
Conference Code: 940288
Chairperson Code: 9402880227

WebEx Information:
Topic: GOTO Team WebEx
Password: standards
https://nerc.webex.com/nerc

1. **NERC Antitrust Guidelines**
2. **Approve March 31, 2009 Meeting Minutes**
3. **Ground Rules: Analysis of Requirements**
4. **Analysis of Owner Requirements**
5. **Potential Change of Date for April 28, 2009 Conference Call**
6. **In Person Meeting — May 21–22, 2009**
7. **Adjourn**

Next Conference Call:
April 28, 2009 — 3–5 p.m. EDT (Tentative)
Analysis of Operator Requirements

Next In-Person Meeting
May 21–22, 2009 (Pending Discussion)

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Attachment 1
Problem Statement
Adopted March 31, 2009

Problem Statement:
Certain equipment owned and/or operated by generators may be defined as part of the Bulk Electric System. As such, the team needs to determine which owner and operating requirements are needed for reliability purposes for these facilities and then identify the functional entity[1] accountable for compliance to those requirements.

Assumptions:

1. There are pieces of equipment at 100 kV and above currently owned and operated by generators that may fall under the definition of Bulk Electric System and therefore are under the purview of the NERC Reliability Standards.
2. For pieces of equipment identified in assumption No. 1 above, at least one functional entity must be identified to be responsible for each standard requirement applicable to these facilities at an ownership and operating level, understanding that multiple ownership and operating arrangements exist.[2]
3. Separate the ownership expectations from the operating expectations in the discussion.
4. Current standard requirements assigned to Generator Owners and Generator Operators are appropriate.

Process to Address Identified Problem

1. Review the list of standard requirements applicable to Transmission Owners and/or Transmission Operators that are not currently applicable to Generator Owners and/or Generator Operators.
2. Determine which of the Transmission Owner standard requirements not assigned to Generator Owners should always be, never be, or could possibly be assigned to address potential reliability gaps based on the equipment owned by the Generator Owner.
3. Determine which of the Transmission Operator standard requirements not assigned to Generator Operators should always be, never be, or could possibly be assigned to address potential reliability gaps based on the equipment operated by the Generator Operator.
4. Determine if these requirements are already covered by other existing reliability standard requirements.
5. If not, determine a strategy for identifying the functional entity that should be assigned the responsibility for these requirements, not necessarily limited to the current list of functional entities.

[1] The use of the term "functional entity" is not intended to limit team consideration to those functional entities currently utilized in NERC's Reliability Standards. If in its deliberation, the team identifies a new functional entity that should be defined, the team can make such a proposal.
[2] The goal is to assign responsibility for these requirements to a single functional entity but recognize that clear delineation of these responsibilities must be identified when multiple entity arrangements apply.

6. Perform sensitivity analyses using the list of “parking lot” questions/issues to determine further activities for the team.
7. Finalize recommendations within a final report that includes potential SARs.

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NERC Antitrust Compliance Guidelines

I. GENERAL

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. PROHIBITED ACTIVITIES

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

III. ACTIVITIES THAT ARE PERMITTED

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and

adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation and Bylaws are followed in conducting NERC business. Other NERC procedures that may be applicable to a particular NERC activity include the following:

- Reliability Standards Process Manual
- Organization and Procedures Manual for the NERC Standing Committees
- System Operator Certification Program

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

Approved by Board of Trustees: June 14, 2002 — Technical revisions: May 13, 2005

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DRAFT Minutes

Ad Hoc Group for Generator Requirements at the Transmission Interface ("GO TO Team")

March 31, 2009
Conference Call and WebEx

Attendees:

Scott Helyer — Tenaska, Chair
Steve Cobb — Salt River Project
Keith Daniel — Georgia Transmission Corporation
Tony Jankowski — We Energies
Greg Mason — Dynegy
Eric Mortenson — Exelon
Tim Ponseti — Tennessee Valley Authority
Kent Saathoff — Electric Reliability Council of Texas
Gerry Adamski — NERC

Introductions

Mr. Helyer convened the call at 4:05 p.m.

NERC Antitrust Guidelines

Mr. Adamski referred the group to NERC's Antitrust Compliance Guidelines contained in the agenda package and summarized the key aspects for the group.

Minutes — March 16–17, 2009 Meeting

On motion of Steve Cobb and seconded by Tony Jankowski, the draft minutes were approved without modification.

Discussion of Problem Statement

Mr. Helyer initiated the discussion by reviewing the activities since the previous meeting. The team agreed to assume that the "status quo" is an appropriate starting point to base its considerations, that is, the current set of generator owner and generator operator reliability standard requirements are appropriately applied. On this basis, the team has a "blank sheet of paper" to consider if and how to apply additional requirements. This assumption was incorporated into the draft problem statement that the team spent the remainder of the call refining and ultimately adopting as its outline for action. (Attachment 1)

In accord with the process identified in the problem statement, the team discussed the next steps. Using the Excel spreadsheet provided in the agenda package as modified per the discussion, the team members committed to reviewing the transmission owner and the transmission operator standards requirements that

currently do not apply to generator owners or generator operators, respectively. By Tuesday, April 7, the team members are to identify the requirements that:

- Should always apply to generator owners or generator operators as written
- Should never apply to generator owners or generator operators as written
- Should possibly apply to generator owners or generator operators as written depending upon conditions, configurations, or other circumstances
- Need to be re-writtten to apply

These results will be compiled and presented to the team by Friday, April 10, 2009 in advance of the April 14th conference call. At the next meeting, a strategy for identifying consensus will be finalized and next steps determined.

Conference Call and Meeting Schedule

Tuesday, April 14, 2009 from 3–5 p.m. EDT (Conference Call and WebEx)
Tuesday, April 28, 2009 from 3–5 p.m. EDT (Conference Call and WebEx)
TBD (Week of May 11 or May 18, 2009) — (In Person)

Adjourn

The meeting was adjourned at 5:55 p.m. on March 31, 2009.

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Attachment 1

Action Items

1. Obtain the criteria used by TRE and WECC to register certain generator owners and operators as transmission owners and operators. (Adamski — 3/17/09)

Issues "Parking Lot"

1. Are the functional definitions and criteria clear in the NERC Glossary and NERC Compliance Registry relative to transmission and generation entities?
2. Should we separate the consideration of Transmission Owner and Transmission Operator requirements in this discussion?
3. Entity vs. asset registration?
4. Are the interconnection facilities part of the generating facility by definition?

Operator Requirements Comments - GO TO Team Working Copy

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
BAL-005-0.1b	R1.2.	Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.		TOP	The GO is required to comply with BAL-005-1, R1.1 which is the same Requirement except it applies to "generator facilities". This Requirement should only be assigned to a GO if a determination is made that the radial line that connects the generating facility to the Point of Interconnection is not part o the generating facility, but is owned o		R 1.1 already covers this issue	BAL-005-0 R1.1 requires a GOP to do this already.				
COM-001-1.1	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information:		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for	Reliable communications for blackstart or back up.	See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-001-1.1	R1.1.	Internally.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?					
COM-001-1.1	R1.2.	Between the Reliability Coordinator and its Transmission Operators and Balancing Authorities.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-001-1.1	R1.3.	With other Reliability Coordinators, Transmission Operators, and Balancing Authorities as necessary to maintain reliability.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-001-1.1	R1.4.	Where applicable, these facilities shall be redundant and diversely routed.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for generators with a single, radial line the		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
COM-001-1.1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-001-1.1	R3.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?					
COM-001-1.1	R4.	Unless agreed to otherwise, each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System. Transmission Operators and Balancing Authorities may use an alternate language for internal operations.		TOP	No such GOP Requirement exists. This is good operating practice that may need to be confirmed as a Requirement in all GOP communications about both the plant and the radial line that connects the plant to the Point of		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-001-1.1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication Requirements in COM-001-1 are oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. These COM-001-1 Requirements are "overkill" for		See COM-002-2. Does that already cover the COM issues for GOPs?				This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
COM-002-2	R1.1.	Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, and all other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.		TOP	GOPs are required to comply with the communication requirements in COM-002-2, R1. The additional, more stringent communication COM-001-1, R1.1 Requirement is more oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. In addition, a generating facility does not serve an "area" or "load". COM-001-1, R1.1 is		See COM-002-2. Does that already cover the COM issues for GOPs?					
COM-002-2	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall issue directives in a clear, concise, and definitive manner; shall ensure the recipient of the directive repeats the information back correctly; and shall acknowledge the response as correct or repeat the original statement to resolve any misunderstandings.		TOP	COM-002-2, R2 is more oriented towards TOPs that operate a true integrated system comprised of multiple generators, ties with other systems, transmission lines and load. In addition, a generating facility that is not a Transmmission Service Provider and does not serve an "load", does not have the authority to issue reliability directives to others, except perhaps itself as the GOP. The adjacent TOP has an "area" perspective and should be issuing any such reliability directives. Requiring the		See COM-002-2. Does that already cover the COM issues for GOPs?	GOP does not issue directives in NERC standards.				

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
EOP-001-0	R2.	The Transmission Operator shall have an emergency load reduction plan for all identified IROLs. The plan shall include the details on how the Transmission Operator will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse would occur. The load reduction plan must be capable of being implemented within 30 minutes.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. In addition, actions taken on a radial line will not affect an IROL. This Requirement should not be assigned to a GOP.		Many EOP requirements for TOPs are duplicated by other EOP standards that apply to GOPs. Also, many EOP requirements lead to load shedding or would require a GOP to have knowledge of transmission system conditions for which knowledge is not allowd for GO/GOPs.	GOP would not have a transmission IROL and would not control load.				
EOP-001-0	R3.	Each Transmission Operator and Balancing Authority shall:		TOP	See comments on sub-Requirements fo EOP-001-0, R3							See Sub-Requirements
EOP-001-0	R3.1.	Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. Therefore, there can be no shortage of generating capacity to supply load. This Requirement should							
EOP-001-0	R3.2.	Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.		TOP	A generating facility with a single, radial line connecting the plant to the Point of Interconnection does not operate a "system". This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to othe			GOP would be issued directives to mitigate transmission emergencies. They should not have a plan for areas outside of their operating responsibility.				
EOP-001-0	R3.3.	Develop, maintain, and implement a set of plans for load shedding.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should not be assigned to a GO.			GOP does not have load				
EOP-001-0	R3.4.	Develop, maintain, and implement a set of plans for system restoration.		TOP	A generating facility with a single, radial line connecting the plant to the Point of Interconnection does not operate a "system". The GOP is already required to comply with the reliability directives o its adjacent TOP and be involved with the adjacent TOP as it coordinates its restoration plan with GOPs within its area (EOP-005-1, R4). The generating facility should follow the restoration plan/directives of its adjacent TOP and requiring the generating facility to			GOP would be directed by others during restoration.				
EOP-001-0	R4.	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:		TOP	If the radial line that connects the generating facility to the Point of Interconnection is considered "material to the reliability of the bulk power system" and is registered by the Regional Entity on that basis under the NERC Statement of Compliance Registry, then it may be appropriate to	Generator Operator should understand the blackstart expectations						
EOP-001-0	R4.1.	Communications protocols to be used during emergencies.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system.	and be able to communicate during a BS						

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
EOP-001-0	R4.2.	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system.			GOP would be directed in this by others.				Customer load reductions don't apply to generators.
EOP-001-0	R4.3.	The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system. TOPs that operate integrated							
EOP-001-0	R4.4.	Staffing levels for the emergency.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating							
EOP-001-0	R5.	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system.			Anything applicable to GO/GOP would already be part of BA's plan.				
EOP-001-0	R6.	The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system.	The generator should understand its par during BS						
EOP-001-0	R7.	The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:		TOP	This Requirement pertains to "emergency plans" for integrated sytems, not for a single radial line. In this regard, the elements of an emergency plan listed in Attachment 1-EOP-001-0 do not apply because the generating facility has no load , only one radial line and no integrated transmission system.							This requirement should be excluded based on the elements that require reduction of customer load. The communications requirement is taken care of in COM-001.
EOP-001-0	R7.1.	The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.		TOP	A generating facility with a single, radial line connecting the plant to the Point of Interconnection does not operate a "system". This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to othe			Already covered in COM-002				
EOP-001-0	R7.2.	The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.		TOP	A generating facility does not have the authority refrenced in EOP-001-0, R7.2 and R7.4.			GOP doesn't have interchange.				

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
EOP-001-0	R7.3.	The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)		TOP	A generating facility with a radial line that connects the plant to the Point of Interconnection, would only have the ability to coordinate maintenance schedules with itself. The generating facility is also already required to coordinate generator maintenance outages (with the line being considered as part of the genearing facility) with its adjacent TOP under TOP-003-0, R3. Establishing a Requirement to coordinate maintenance schedules with itself and coordinate such actions with it	Clear rules around outage schedules should be required.						
EOP-001-0	R7.4.	The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.		TOP	A generating facility does not have the authority refrenced in EOP-001-0, R7.2 and R7.4.			Anything applicable to GO/GOP would already be part of BA's plan.		fuel???		
EOP-003-1	R1.	After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R2.	Each Transmission Operator and Balancing Authority shall establish plans for automatic load shedding for underfrequency or undervoltage conditions.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R3.	Each Transmission Operator and Balancing Authority shall coordinate load shedding plans among other interconnected Transmission Operators and Balancing Authorities.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R4.	A Transmission Operator or Balancing Authority shall consider one or more of these factors in designing an automatic load shedding scheme: frequency, rate of frequency decay, voltage level, rate of voltage decay, or power flow levels.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R5.	A Transmission Operator or Balancing Authority shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R6.	After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing Authority shall shed additional load.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
EOP-003-1	R7.	The Transmission Operator and Balancing Authority shall coordinate automatic load shedding throughout their areas with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should not be assigned to a GOP	Underfrequency generator trip coordination		Possibly the generator frequency trip part.				
EOP-003-1	R8.	Each Transmission Operator or Balancing Authority shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
EOP-005-1	R1.	Each Transmission Operator shall have a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system, including necessary operating instructions and procedures to cover emergency conditions, and the loss of vital telecommunications channels. Each Transmission Operator shall include the applicable elements listed in Attachment 1-EOP-005 in developing a restoration plan.		TOP	A generating facility with a single, radial line connecting the plant to the Point of Interconnection does not operate a "system". The GOP is already required to comply with the reliability directives o its adjacent TOP and be involved with the adjacent TOP as it coordinates its restoration plan with GOPs within its area (EOP-005-1, R4). The generating facility should follow the restoration plan/directives of its adjacent TOP and requiring the generating facility to			GOP would be directed by others during restoration.				
EOP-005-1	R2.	Each Transmission Operator shall review and update its restoration plan at least annually and whenever it makes changes in the power system network, and shall correct deficiencies found during the simulated restoration exercises.		TOP	Same comments as EOP-005-1, R1.			GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R3.	Each Transmission Operator shall develop restoration plans with a priority of restoring the integrity of the Interconnection.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R4.	Each Transmission Operator shall coordinate its restoration plans with the Generator Owners and Balancing Authorities within its area, its Reliability Coordinator, and neighboring Transmission Operators and Balancing Authorities.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R5.	Each Transmission Operator and Balancing Authority shall periodically test its telecommunication facilities needed to implement the restoration plan.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R6.	Each Transmission Operator and Balancing Authority shall train its operating personnel in the implementation of the restoration plan. Such training shall include simulated exercises, if practicable.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R7.	Each Transmission Operator and Balancing Authority shall verify the restoration procedure by actual testing or by simulation.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by				
EOP-005-1	R8.	Each Transmission Operator shall verify that the number, size, availability, and location of system blackstart generating units are sufficient to meet Regional Reliability Organization restoration plan requirements for the Transmission Operator's area.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R9.	The Transmission Operator shall document the Cranking Paths, including initial switching requirements, between each blackstart generating unit and the unit(s) to be started and shall provide this documentation for review by the Regional Reliability Organization upon request. Such documentation may include Cranking Path diagrams.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R10.	The Transmission Operator shall demonstrate, through simulation or testing, that the blackstart generating units in its restoration plan can perform their intended functions as required in the regional restoration plan.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R10.1.	The Transmission Operator shall perform this simulation or testing at least once every five years.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R11.	Following a disturbance in which one or more areas of the Bulk Electric System become isolated or blacked out, the affected Transmission Operators and Balancing Authorities shall begin immediately to return the Bulk Electric System to normal.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R11.1.	The affected Transmission Operators and Balancing Authorities shall work in conjunction with their Reliability Coordinator(s) to determine the extent and condition of the isolated area(s).		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R11.2.	The affected Transmission Operators and Balancing Authorities shall take the necessary actions to restore Bulk Electric System frequency to normal, including adjusting generation, placing additional generators on line, or load shedding.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R11.4.	The affected Transmission Operators shall give high priority to restoration of off-site power to nuclear stations.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	The TOP coordinates it's plan with the GOP.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
EOP-005-1	R11.5.	The affected Transmission Operators may resynchronize the isolated area(s) with the surrounding area(s) when the following conditions are met:		TOP	Same comments as EOP-005-1, R1.		See EOP-009.					
EOP-005-1	R11.5.1.	Voltage, frequency, and phase angle permit.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP participation in restoration drills would be good but there would be				
EOP-005-1	R11.5.2.	The size of the area being reconnected and the capacity of the transmission lines effecting the reconnection and the number of synchronizing points across the system are considered.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-005-1	R11.5.3.	Reliability Coordinator(s) and adjacent areas are notified and Reliability Coordinato approval is given.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by				
EOP-005-1	R11.5.4.	Load is shed in neighboring areas, if required, to permit successful interconnected system restoration.		TOP	Same comments as EOP-005-1, R1.		See EOP-009.	GOP doesn't have system restoration plan. Its actions would be directed by others.				
EOP-008-0	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements:		TOP	This Requirement is oriented toward TOPs that operate an integrated system from a central location (Control Center). Many generating facilities that have a radial line that connects the plant to the Point of Interconnection do not have a "Control Center" so the Plant Control Room becomes the "Control Center". If an event rendered the Plant Control Room inoperable, the Plant would be shutdown to protect both personnel and equipment and there would be no furthe	This does not make sense. If the control room of a generator becomes unavailable, the unit is off.						It's unreasonable to require a GOP to have a BUCC if it is acting as TOP for a radial generator connection. Limited BUCC capabilities should be required, such as communications facilities.
EOP-008-0	R1.1.	The contingency plan shall not rely on data or voice communication from the primary control facility to be viable.		TOP	Same comments as EOP-008-0, R1.							
EOP-008-0	R1.2.	The plan shall include procedures and responsibilities for providing basic tie line control and procedures and for maintaining the status of all inter-area schedules, such that there is an hourly accounting of all schedules.		TOP	Same comments as EOP-008-0, R1.			GOP doesn't have tie lines or interchange.				
EOP-008-0	R1.3.	The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The plan shall list the critical facilities.		TOP	Same comments as EOP-008-0, R1.	If identified as a critical asset						
EOP-008-0	R1.4.	The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other areas.		TOP	Same comments as EOP-008-0, R1.							
EOP-008-0	R1.5.	The plan shall include procedures and responsibilities for conducting periodic tests at least annually, to ensure viability of the plan.		TOP	Same comments as EOP-008-0, R1.							
EOP-008-0	R1.6.	The plan shall include procedures and responsibilities for providing annual training ensure that operating personnel are able to implement the contingency plans.		TOP	Same comments as EOP-008-0, R1.							
EOP-008-0	R1.7.	The plan shall be reviewed and updated annually.		TOP	Same comments as EOP-008-0, R1.							
EOP-008-0	R1.8.	Interim provisions must be included if it is expected to take more than one hour to implement the contingency plan for loss of primary control facility.		TOP	Same comments as EOP-008-0, R1.			The BA would be directing the generation. This would be excessive.				
FAC-014-1	R2.	The Transmission Operator shall establish SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator Area that are consistent with its Reliability Coordinator's SOL Methodology.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
FAC-014-1	R5.2.	The Transmission Operator shall provide any SOLs it developed to its Reliability Coordinator and to the Transmission Service Providers that share its portion of the Reliability Coordinator Area.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission.				
INT-004-1	R2.3.	A Reliability Coordinator or Transmission Operator determines the deviation, regardless of magnitude, to be a reliability concern and notifies the Purchasing-Selling Entity of that determination and the reasons.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection has nothing to do with Dynamic Interchange Schedules.			GOP doesn't have interchange		INT-004-2 ?		
IRO-002-1	R3.	Each Reliability Coordinator - or its Transmission Operators and Balancing Authorities - shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing Authorities via a secure network.		TOP	This Requirement is oriented towards TOPs that operate an integrated system and have a reliability need to ensure secure data exchange with other simlar entities. There is no such reliability need for a generating facility with a radial line			It probably already exists due to cyber security so this might not be necessary for GOP.		Requirement not clear as to under what conditions it applies to TOs		
IRO-004-1	R3.	Each Reliability Coordinator shall, in conjunction with its Transmission Operators and Balancing Authorities, develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or IROLs on the radial line.			GOP doesn't have transmission.		Depends on scope of control GO has over transmission system		
IRO-004-1	R7.	Each Transmission Operator, Balancing Authority, and Transmission Service Provider shall comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real tim operating events.		TOP	As a GOP, the generating facility already needs to comply with all RC reliability directives per IRO-001-1, R8.	Must run…						
IRO-005-2	R12.	Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows. The Transmission Operator shall immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.		TOP	This Requirement would only be applicable to the GO if all existing SPS were not being monitored by other TOPs. To add such a Requirement to the GOP would be redundant. Also, an SPS for a radial line would not be expected to have "inter BA or TOP" impact.	Communication could be from the generator to the TO to make sure the TO has the same understanding that the SPS is armed.		Even though a GOP may be part of a TOP's SPS this notification should be from the TOP.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
IRO-005-2	R8.	Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS an DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.		TOP	As a GOP, the generating facility already needs to comply with all RC reliability directives per IRO-001-1, R8.			GOP's actions would be directed by others.				
PER-001-0	R1.	Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.		TOP	No such Requirement currently applies to the GOP. Although GOP operating personnel likely have the stated authority, it may be better to make it explicit to GOPs operating the radial line that connects the plant to the Point of Interconnection. The Requirement wording should not reference "Transmission Operators", but should		PER standards appear to be covered in Interconnection Agreements.	NO!! GOP should not take independent action. IT will be directed by others.				
PER-002-0	R1.	Each Transmission Operator and Balancing Authority shall be staffed with adequately trained operating personnel.		TOP	This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to other systems, multiple transmission lines and load. To maintain system reliability, this type of a formal training program is not required to direct the operation and			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R2.	Each Transmission Operator and Balancing Authority shall have a training program for all operating personnel that are in:		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R2.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				

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PER-002-0	R2.2.	Positions directly responsible for complying with NERC standards.		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R3.	For personnel identified in Requirement R2, the Transmission Operator and Balancing Authority shall provide a training program meeting the following criteria:		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R3.1.	A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies needed to apply those standards, procedures, and		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R3.2.	The training program must include a plan for the initial and continuing training of Transmission Operator and Balancing Authority operating personnel. That plan shall address knowledge and competencies required for reliable system operations.		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R3.3.	The training program must include training time for all Transmission Operator and Balancing Authority operating personnel to ensure their operating proficiency.		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R3.4.	Training staff must be identified, and the staff must be competent in both knowledge of system operations and instructional capabilities.		TOP	Same comments as PER-002-0, R1			Training and training requirements should be less than for BA, RC, TOP.				
PER-002-0	R4.	For personnel identified in Requirement R2, each Transmission Operator and Balancing Authority shall provide its operating personnel at least five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.		TOP	This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to other systems, multiple transmission lines and load. To maintain system reliability, this level of training is not required to direct			5 days may be too much.				
PER-003-0	R1.	Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:		TOP	This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to other systems, multiple transmission lines and load. To maintain system reliability, NERC-certified Operators are not required to direct the switching of a			Certification may be overkill.				
PER-003-0	R1.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		TOP	This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to other systems, multiple transmission lines and load. To maintain system reliability, NERC-certified Operators are not			Certification may be overkill.				
PER-003-0	R1.2.	Positions directly responsible for complying with NERC standards.		TOP	This Requirement is oriented towards TOPs that operate an integrated transmission system with multiple generating facilities, ties to other systems, multiple transmission lines and load. To maintain system reliability, NERC-certified Operators are not			Certification may be overkill.				
PRC-001-1	R2.2.	If a protective relay or equipment failure reduces system reliability, the Transmission Operator shall notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. The Transmission Operator shall take corrective action as soon as possible.		TOP	As a GOP, the generating facility must comply with PRC-001-1, R2.1 and notify its BA and TOP of any such events. This Requirement requires the TOP to notify the RC. Requiring direct notification to the RC and other TOPs does not provide reliability value. This Requirement would only be applicable if a determination was made that the		See R 2.1	Covered in PRC-001-1 R2.1				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
PRC-001-1	R3.2.	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.		TOP	As a GOP, the generating facility must comply with PRC-001-1, R3.1 and coordinate all new protection system and protection system changes with its BA and TOP. Coordination with adjacent BAs and TOPs is already required of adjacent TOPs and BAs by this Requirement. This Requirement would only be applicable if a determination was		See R 3.1	Covered in PRC-001-1 R3.1		Covered in R2.1		
PRC-001-1	R4.	Each Transmission Operator shall coordinate protection systems on major transmission lines and interconnections with neighboring Generator Operators, Transmission Operators, and Balancing Authorities.		TOP	As a GOP, the generating facility must comply with PRC-001-1, R3.1 and coordinate all new protection system and protection system changes with its BA and TOP. Coordination with adjacent BAs and TOPs is already required of the adjacent TOP by this Requirement. In addition, as a generating facility with a radial line that connects the plant to the Point of Interconnection it would have nothing to coordinate with regard to			GOP does not have transmission lines.				
PRC-001-1	R5.2.	Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems.		TOP	As a GOP, the generating facility must comply with PRC-001-1, R5.1 and notify its BA and TOP of any such events. This Requirement requires the TOP to notify other adjacent TOPs. Reliability is not improved by requiring direct contact with neighboring TOPs. This Requirement would only be applicable if a determination was made that the radial		See R 5.1			Covered in R5.1		
PRC-001-1	R6.	Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.		TOP	As a GO, the generating facility is required under PRC-016-0, R1-3, to the extent that it owns a SPS, to monitor and take corrective actions when SPS mis-operations occur. In addition, this Requirement would only be applicable to the GO/GOP if all existing SPS were not being monitored as part of other TOP areas. This is highly unlikely, and if mad	Only affecting the generator not "their area"		SPS that affects generation.				
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.		R 1 and 3 NA as well		
PRC-009-0	R1.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-009-0	R1.1.	A description of the event including initiating conditions.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-009-0	R1.2.	A review of the UFLS set points and tripping times.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is			GOP does not have load.				
PRC-009-0	R1.3.	A simulation of the event.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is			GOP does not have load.				
PRC-009-0	R1.4.	A summary of the findings.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is			GOP does not have load.				

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PRC-009-0	R2.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R1.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) an		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R1.1.	This assessment shall include, but is not limited to:		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R1.1.1.	Coordination of the UVLS programs with other protection and control systems in th Region and with other Regional Reliability Organizations, as appropriate.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R1.1.2.	Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R1.1.3.	A review of the voltage set points and timing.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-010-0	R2.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.	Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall analyze and document all UVLS operations and Misoperations. The analysis shall include:		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.1.	A description of the event including initiating conditions.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.2.	A review of the UVLS set points and tripping times.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.3.	A simulation of the event, if deemed appropriate by the Regional Reliability Organization. For most events, analysis of sequence of events may be sufficient and dynamic simulations may not be needed.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.4.	A summary of the findings.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
PRC-022-1	R1.5.	For any Misoperation, a Corrective Action Plan to avoid future Misoperations of a similar nature.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
PRC-022-1	R2.	Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program shall provide documentation of its analysis of UVLS program performance to its Regional Reliability Organization within 90 calendar days of a request.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
TOP-001-1	R1.	Each Transmission Operator shall have the responsibility and clear decision-makin authority to take whatever actions are needed to ensure the reliability of its area ar shall exercise specific authority to alleviate operating emergencies.		TOP	No such Requirement currently applies to the GOP. This Requirement is similar to PER-001-0,R1. Although GOP operating personnel likely have the stated authority, it may be better to make it explicit to GOPs operating the radial line that connects the plant to the Point of Interconnection. The Requirement wording should not			Authority to protect its generation.				
TOP-001-1	R2.	Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.		TOP	No such specific requirement applies to a GOP. Certainly a GOP would need to take actions to alleviate operating emergencies on its radial line that connects the plant to the point of Interconnection. However, the wording needs to be revised because the example actions stated in the Requirement do not apply since the			GOP would be directed by others for transmission emergencies.				
TOP-001-1	R5.	Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real-time or anticipated emergency conditions, and take actions to avoid, when possible, or mitigate the emergency.		TOP	No such specific requirement applies to a GOP. Certainly a GOP would need to take actions to alleviate operating emergencies on its radial line that connects the plant to the point of Interconnection and make the required contact to the RC.However, it might be			GOP wouldn't have transmission emergency conditions.				
TOP-001-1	R7.2.	For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.		TOP	As a GOP, it must comply with TOP-001 0, R7.1 for generator outages. R7.1 requires the GOP to coordinate with the TOP and the TOP coordinates with other TOP's and the RC. Requiring direct contact with the RC as required in R7.2 adds no reliability value. This Requirement would only be applicable if a determination was made that the radial line is not part of the generating		See R 7.1. If the interconnection line is out of service, then so is the generator. It appears that there are TOP standards applicable to both TOPs and GOPs in parallel standards.	TOP-001-1 R7.1 and R7.3 already appliy to a GOP.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-001-1	R8.	During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it cannot take actions to restore real and reactive power "balance".			GOP would be directed by others.				
TOP-002-2a	R1.	Each Balancing Authority and Transmission Operator shall maintain a set of curren plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained.	t	TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not have any "transmission options" to evaluate and its radial line does not influence "interconnected system reliability".			GOP would be taking actions as directed by others in their plans.				
TOP-002-2a	R10.	Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP would be taking actions as directed by others in their plans.				
TOP-002-2a	R11.	The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
TOP-002-2a	R16.	Subject to standards of conduct and confidentiality agreements, Transmission Operators shall, without any intentional time delay, notify their Reliability Coordinat and Balancing Authority of changes in capabilities and characteristics including bu not limited to:		TOP	TOP-001-1, R7 and R7.1 and TOP-002-2a, R 14, R14.1 and R14.2 are similar Requirements for the GOP about reporting changes in facility status, except the specific wording about reporting the transmission line status an any change in line rating is not explicitly			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-002-2a	R16.1.	Changes in transmission facility status.		TOP	TOP-001-1, R7 and R7.1 and TOP-002-2a, R 14, R14.1 and R14.2 are similar Requirements for the GOP about reporting changes in facility status, except the specific wording about reporting the transmission line status an any change in line rating is not explicitly			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-002-2a	R16.2.	Changes in transmission facility rating.		TOP	TOP-001-1, R7 and R7.1 and TOP-002-2a, R 14, R14.1 and R14.2 are similar Requirements for the GOP about reporting changes in facility status, except the specific wording about reporting the transmission line status an any change in line rating is not explicitly included. Wording needs to be changed			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-002-2a	R17.	Balancing Authorities and Transmission Operators shall, without any intentional tin delay, communicate the information described in the requirements R1 to R16 above to their Reliability Coordinator.		TOP	Currently the GOP reports its information to its TOP and the TOP reports it to the RC. Requiring information be sent directly to the RC			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.				
TOP-002-2a	R19.	Each Balancing Authority and Transmission Operator shall maintain accurate computer models utilized for analyzing and planning system operations.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not operate an integrated transmission system so it should not be required to maintain the tools and models needed to analyze			No. Others aree doing this.				
TOP-002-2a	R2.	Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are aware of the planning purpose.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not plan or operate an integrated transmission system so it should not be required to have system planning and design study processes	This along with planning interconnection standards to allieviate all reliability gaps.		This might be a good thing.				
TOP-002-2a	R4.	Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.		TOP	As a GOP, the generating facility must comply with TOP-002-2a, R3 which has the same Requirement except the information is coordinated with the BA and TSP who coordinate with the TOP who the coordinates with adjacent TOP's and the RC. Requiring direct coordination with the TOP and RC adds no reliability value.This Requirement would only be applicable if a determination was made that the radial			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.		Isn't there an existing comparable requirement elsewhere for GOs?		
TOP-002-2a	R5.	Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not have "system configuration, generation dispatch, interchange scheduling and demand patterns" to plan to meet.			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.		Isn't there an existing comparable requirement elsewhere for GOs?		

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TOP-002-2a	R6.	Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and local reliability requirements.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not have "unscheduled changes in system configuration and generation dispatch and N-1 contingency plannning" to plan to meet.			GOP doesn't have transmission. GOP already does its part in TOP-002-2 R3, R14, R15.				
TOP-003-0	R1.2.	Each Transmission Operator shall provide outage information daily to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. The Reliability Coordinator shall establish the outage reporting requirements.		TOP	As a GOP, the generating facility must comply with TOP-003-0, R1.1 which has the same Requirement except the information is coordinated with the TOP who coordinates with the RC. Requiring direct coordination with the RC adds no reliability value.This Requirement would only be applicable if a determination was made that the radial line is not part of the generating facility, but rather a			GOP already gives this information to the TOP and BA in TOP-002-2 R3, R14, R15.		Covered in R1.1	This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-004-2	R1.	Each Transmission Operator shall operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs).		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R2.	Each Transmission Operator shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it cannot comply with this Requirement because it does not operate an integrated system and there will be no instability, uncontrolled			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R3.	Each Transmission Operator shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by its Reliability Coordinator.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it cannot comply with this Requirement because it does not operate an integrated system and there will be no instability, uncontrolled			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R4.	If a Transmission Operator enters an unknown operating state (i.e. any state for which valid operating limits have not been determined), it will be considered to be in an emergency and shall restore operations to respect proven reliable power system limits within 30 minutes.		TOP	As the GOP for a generating facility with a radial line that connects the plant to the Point of Interconnection that has no load, it does not operate an integrated system and it cannot "enter an unknown operating state" because the radial line is not impacted by interconnected			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R5.	Each Transmission Operator shall make every effort to remain connected to the Interconnection. If the Transmission Operator determines that by remaining interconnected, it is in imminent danger of violating an IROL or SOL, the Transmission Operator may take such actions, as it deems necessary, to protect its area.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or IROLs on the radial line.			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R6.	Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including:		TOP	As written this Requirement pertains to "inter and intra-Regional reliability". It is doubtful that a radial line connecting the plant to the Point of Interconnection can have such an impact. However, it may make sense to require these procedures for reliability. Also the word "transmission" needs to be		Not clear whether this is already covered.	GOP does not have transmission. It will be directed by others.				
TOP-004-2	R6.1.	Monitoring and controlling voltage levels and real and reactive power flows.		TOP	As written this Requirement pertains to "inter and intra-Regional reliability". It is doubtful that a radial line connecting the plant to the Point of Interconnection can have such an impact. However, it may make sense to require these procedures for reliability. Also the word			GOP does not have transmission. It will be directed by others.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
TOP-004-2	R6.2.	Switching transmission elements.		TOP	As written this Requirement pertains to "inter and intra-Regional reliability". It is doubtful that a radial line connecting the plant to the Point of Interconnection can have such an impact. However, it may make sense to require these procedures for reliability. Also the word "transmission" needs to be		Not clear whether this is already covered.	GOP does not have transmission. It will be directed by others.				
TOP-004-2	R6.3.	Planned outages of transmission elements.		TOP	As a GOP, the generating facility must comply with TOP-003-0, R1.1 which pertains to outage coordination. This Requirement would only be applicable if a determination was made that the radial line is not part of the generating			GOP does not have transmission. It will be directed by others.				
TOP-004-2	R6.4.	Responding to IROL and SOL violations.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP does not have transmission. It will be directed by others.				
TOP-005-1.1	R1.	Each Transmission Operator and Balancing Authority shall provide its Reliability Coordinator with the operating data that the Reliability Coordinator requires to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.		TOP	As a GOP, the generating facility must comply with TOP-002a-2, R14. R14.1 and R14.4, TOP-001-1, R7, R7.1 and R7.3, and TOP-003-0, R1 which are anologous Requirements that require the GOP to provide this information to its TOP who in turn provides it to the RC. Requiring this data to be sent directly to the RC adds no reliability value. This Requirement would only be applicable if a determination was made that the radial line is not part of the generating			GOP already gives this information to the TOP and BA in TOP-002-2 R3, R14, R15.				
TOP-006-1	R1.	Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.		TOP	As a GOP, the generating facility must comply with TOP-006-1, R1.1 which requires the GOP to notify its BA and TOP of all generation resources available for use. This Requirement would only be applicable if a determination was made that the radial			GOP should know the status of generation.				
TOP-006-1	R1.2.	Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.		TOP	As a GOP, the generating facility must comply with TOP-006-1, R1.1 which requires the GOP to notify its BA and TOP of all generation resources available for use. The adjacent TOP makes this notification to the RC today. Requiring that this notification go directly to the RC adds no reliability value. This Requirement would only be applicable if a determination was made that the			GOP already gives this information to the TOP and BA in TOP-002-2 R3, R14, R15.				
TOP-006-1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.		TOP	As a GOP, the generating facility must comply with TOP-002a-2, R14. R14.1 and R14.4, TOP-001-1, R7, R7.1 and R7.3, and TOP-003-0, R1 which are Requirements that require the GOP to provide current and forecasted status and capabilities of its facilities. To make these notifications the GOP must monitor its facilities and the radial line is part of the generating facility. This Requirement would only be applicable if a determination was made that the			GOP should already be monitoring generator status. Should not be required to monitor the others.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
TOP-006-1	R3.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.		TOP	As a GOP, the generating facility must comply with PRC-001-1, R1 which has essentially the same Requirement and requires the GOP to be familiar with the purpose and limitations of protection systems applied in its area. This Requirement would only be applicable if a determination was made that the radial line is not part of the generating	Should coordinate to allieviate any reliability gaps.		GOP should know generator protective relaying.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-006-1	R4.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP does not have load.				
TOP-006-1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.		TOP	As a GOP, the generating facility must comply with TOP-002-2a, R14. R14.1 and R14.4, TOP-001-1, R7, R7.1 and R7.3, and TOP-003-0, R1 which are Requirements that require the GOP to provide current and forecasted status and capabilities of its facilities. To make these notifications the GOP must monitor its facilities and the radial line is part of the generating facility. This Requirement would only be applicable if a determination was made that the			Yes, but this requirement is way too vague the way it is. GOP monitors the generators mainly.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-006-1	R6.	Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.		TOP	As a GOP, the generating facility must comply with TOP-002-2a, R14. R14.1 and R14.4, TOP-001-1, R7, R7.1 and R7.3, and TOP-003-0, R1 which are Requirements that require the GOP to provide current and forecasted status and capabilities of its facilities. To make these notifications the GOP must monitor its facilities and the radial line is part of the generating facility. This Requirement would only be applicable if	Ability to monitor what is required for Blackstart						
TOP-006-1	R7.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.		TOP	As the GOP for a generating facility that has a radial line that connects the plant to the Point of Interconnection, it does not operate an integrated system or serve any load. As a result, it cannot take any steps to react to changes in load and generation which impact system frequency. Thus , requiring the	or islanding		There should not be the same accuracy and calibration requirements that apply to others.				
TOP-007-0	R1.	A Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission.				
TOP-007-0	R2.	Following a Contingency or other event that results in an IROL violation, the Transmission Operator shall return its transmission system to within IROL as soon as possible, but not longer than 30 minutes.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission. GOP would be directed by others.				
TOP-007-0	R3.	A Transmission Operator shall take all appropriate actions up to and including shedding firm load, or directing the shedding of firm load, in order to comply with Requirement R2.		TOP	Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1, the existence of any such load on the line is highly unlikely. This Requirement should			GOP doesn't have load.				
TOP-008-1	R1.	The Transmission Operator experiencing or contributing to an IROL or SOL violation shall take immediate steps to relieve the condition, which may include shedding firm load.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission, should not be taking independent action for transmission system problems.				

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TOP-008-1	R2.	Each Transmission Operator shall operate to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the Transmission Operator shall always operate the Bulk Electric System to the most limiting parameter.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or IROLs on the radial line. In addition, as a GOP, the generating facility is also required to operate facilities to the most			GOP doesn't have transmission, should not be taking independent action for transmission system problems.				
TOP-008-1	R3.	The Transmission Operator shall disconnect the affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered. In doing so, the Transmission Operator shall notify its Reliability Coordinator and all neighboring Transmission Operators impacted by the disconnection prior to switching, if time permits, otherwise, immediately thereafter.		TOP	This Requirement is not covered by a GOP requirement. It may be good practice to assign it to the GOP, although the radial line is not subject to interconnected system flow and will not be overloaded from the plant output. The notification should be done with the			GOP doesn't have transmission, should not be taking independent action for transmission system problems.			This should apply only if a Generation Owner operates protection equipment that is integrated with the bulk transmission system.	
TOP-008-1	R4.	The Transmission Operator shall have sufficient information and analysis tools to determine the cause(s) of SOL violations. This analysis shall be conducted in all operating timeframes. The Transmission Operator shall use the results of these analyses to immediately mitigate the SOL violation.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or			GOP doesn't have transmission, should not be taking independent action for transmission system problems.				
VAR-001-1a	R1.	Each Transmission Operator, individually and jointly with other Transmission Operators, shall ensure that formal policies and procedures are developed, maintained, and implemented for monitoring and controlling voltage levels and Mva flows within their individual areas and with the areas of neighboring Transmission Operators.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system		VAR-002 explains GOP responsibilities. If a GOP is also a TOP, then the GOP would receive instructions from itself.	GOP doesn't have transmission, should not be taking independent action for transmission system problems.				
VAR-001-1a	R10.	Each Transmission Operator shall correct IROL or SOL violations resulting from reactive resource deficiencies (IROL violations must be corrected within 30 minutes) and complete the required IROL or SOL violation reporting.		TOP	A generating facility with a radial line connecting the plant to the Point of Interconnection cannot experience interconnected system flow or SOLs or IROLs on the radial line.			GOP doesn't have transmission, should not be taking independent action for transmission system problems.				
VAR-001-1a	R11.	After consultation with the Generator Owner regarding necessary step-up transformer tap changes, the Transmission Operator shall provide documentation the Generator Owner specifying the required tap changes, a timeframe for making the changes, and technical justification for these changes.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			VAR-002-1 requires the generator to maintain voltage as directed by the TOP.				
VAR-001-1a	R12.	The Transmission Operator shall direct corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have procedures, etc. to just "pass along" the			GOP acts as directed. GOP does not have load.				
VAR-001-1a	R2.	Each Transmission Operator shall acquire sufficient reactive resources within its area to protect the voltage levels under normal and Contingency conditions. This includes the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system			Generator provides VARS as directed by the TOP in VAR-002-1.				

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
VAR-001-1a	R3.	The Transmission Operator shall specify criteria that exempts generators from compliance with the requirements defined in Requirement 4, and Requirement 6.1		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. If the GOP was assigned this Requirement, it would end interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harm system reliability.Requiring a GOP to have			No. This is a TOP requirement. The generator shouldn't exempt itself.				The GOP/TOP reactive requirements may need to be rewritten in the Standard. The transmission area of the GOP/TOP may be too small to base compliance.
VAR-001-1a	R3.1.	Each Transmission Operator shall maintain a list of generators in its area that are exempt from following a voltage or Reactive Power schedule.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. If the GOP was assigned this Requirement, it would end interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harm system reliability.Requiring a GOP to have			No. This is a TOP requirement. The generator shouldn't exempt itself.				
VAR-001-1a	R3.2.	For each generator that is on this exemption list, the Transmission Operator shall notify the associated Generator Owner.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			No. This is a TOP requirement. The generator shouldn't exempt itself.				
VAR-001-1a	R4.	Each Transmission Operator shall specify a voltage or Reactive Power schedule 1 at the interconnection between the generator facility and the Transmission Owner's facilities to be maintained by each generator. The Transmission Operator shall provide the voltage or Reactive Power schedule to the associated Generator Operator and direct the Generator Operator to comply with the schedule in automatic voltage control mode (AVR in service and controlling voltage).		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			Generator provides VARS as directed by the TOP in VAR-002-1.				
VAR-001-1a	R6.	The Transmission Operator shall know the status of all transmission Reactive Power resources, including the status of voltage regulators and power system stabilizers.		TOP	As a GOP, the generating facility must comply with VAR-002-1, R3 which are requires the GOP to provide current and forecasted status and capabilities of its reactive reources, including AVR'a and power system stavbilizers. To make these notifications the GOP must monitor its facilities. This Requirement	The generator must be able to give this information to the TO		GOP should know generator status.				
VAR-001-1a	R6.1.	When notified of the loss of an automatic voltage regulator control, the Transmission Operator shall direct the Generator Operator to maintain or change either its voltage schedule or its Reactive Power schedule.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system			GOP acts as directed.				
VAR-001-1a	R7.	The Transmission Operator shall be able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system			GOP acts as directed.				

					MASON	GILLEN	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GOP**	**TOP**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
VAR-001-1a	R8.	Each Transmission Operator shall operate or direct the operation of capacitive and inductive reactive resources within its area - including reactive generation scheduling; transmission line and reactive resource switching; and, if necessary, load shedding - to maintain system and Interconnection voltages within established limits.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			GOP acts as directed.				
VAR-001-1a	R9.	Each Transmission Operator shall maintain reactive resources to support its voltag under first Contingency conditions.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			GOP acts as directed.				
VAR-001-1a	R9.1.	Each Transmission Operator shall disperse and locate the reactive resources so that the resources can be applied effectively and quickly when Contingencies occur.		TOP	The operator of the integrated transmission system in the area (i.e adjacent TOP) should have this responsibility. The GOP has no "area". I the GOP was assigned this Requirement, it would end up interacting/directing itself as the GOP, undermining the reliability role of the adjacent TOP and harming system reliability.Requiring a GOP to have			This is a TOP task.				

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BAL-005-0.1b	R1.2.	Each Transmission Operator with transmission facilities operating in an Interconnection shall ensure that those transmission facilities are included within the metered boundaries of a Balancing Authority Area.		TOP	3	5	0	0
COM-001-1.1	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide adequate and reliable telecommunications facilities for the exchange of Interconnection and operating information:		TOP	2	2	3	0
COM-001-1.1	R1.1.	Internally.		TOP	3	3	2	0
COM-001-1.1	R1.2.	Between the Reliability Coordinator and its Transmission Operators and Balancing Authorities.		TOP	2	3	3	0
COM-001-1.1	R1.3.	With other Reliability Coordinators, Transmission Operators, and Balancing Authorities as necessary to maintain reliability.		TOP	2	3	3	0
COM-001-1.1	R1.4.	Where applicable, these facilities shall be redundant and diversely routed.		TOP	3	2	3	0
COM-001-1.1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.		TOP	3	2	3	0

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COM-001-1.1	R3.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall provide a means to coordinate telecommunications among their respective areas. This coordination shall include the ability to investigate and recommend solutions to telecommunications problems within the area and with other areas.		TOP	2	3	3	0
COM-001-1.1	R4.	Unless agreed to otherwise, each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use English as the language for all communications between and among operating personnel responsible for the real-time generation control and operation of the interconnected Bulk Electric System. Transmission Operators and Balancing Authorities may use an alternate language for internal operations.		TOP	3	1	4	0
COM-001-1.1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have written operating instructions and procedures to enable continued operation of the system during the loss of telecommunications facilities.		TOP	3	2	3	0
COM-002-2	R1.1.	Each Balancing Authority and Transmission Operator shall notify its Reliability Coordinator, and all other potentially affected Balancing Authorities and Transmission Operators through predetermined communication paths of any condition that could threaten the reliability of its area or when firm load shedding is anticipated.		TOP	3	3	2	0
COM-002-2	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall issue directives in a clear, concise, and definitive manner; shall ensure the recipient of the directive repeats the information back correctly; and shall acknowledge the response as correct or repeat the original statement to resolve any misunderstandings.		TOP	2	6	0	0
EOP-001-0	R2.	The Transmission Operator shall have an emergency load reduction plan for all identified IROLs. The plan shall include the details on how the Transmission Operator will implement load reduction in sufficient amount and time to mitigate the IROL violation before system separation or collapse would occur. The load reduction plan must be capable of being implemented within 30 minutes.		TOP	0	7	1	0
EOP-001-0	R3.	Each Transmission Operator and Balancing Authority shall:		TOP	0	6	1	0
EOP-001-0	R3.1.	Develop, maintain, and implement a set of plans to mitigate operating emergencies for insufficient generating capacity.		TOP	0	8	0	0

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EOP-001-0	R3.2.	Develop, maintain, and implement a set of plans to mitigate operating emergencies on the transmission system.		TOP	1	6	1	0
EOP-001-0	R3.3.	Develop, maintain, and implement a set of plans for load shedding.		TOP	0	8	0	0
EOP-001-0	R3.4.	Develop, maintain, and implement a set of plans for system restoration.		TOP	1	7	0	0
EOP-001-0	R4.	Each Transmission Operator and Balancing Authority shall have emergency plans that will enable it to mitigate operating emergencies. At a minimum, Transmission Operator and Balancing Authority emergency plans shall include:		TOP	1	4	2	0
EOP-001-0	R4.1.	Communications protocols to be used during emergencies.		TOP	2	4	2	0
EOP-001-0	R4.2.	A list of controlling actions to resolve the emergency. Load reduction, in sufficient quantity to resolve the emergency within NERC-established timelines, shall be one of the controlling actions.		TOP	0	6	1	1
EOP-001-0	R4.3.	The tasks to be coordinated with and among adjacent Transmission Operators and Balancing Authorities.		TOP	2	6	0	0
EOP-001-0	R4.4.	Staffing levels for the emergency.		TOP	2	4	2	0

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EOP-001-0	R5.	Each Transmission Operator and Balancing Authority shall include the applicable elements in Attachment 1-EOP-001-0 when developing an emergency plan.		TOP	1	6	1	0
EOP-001-0	R6.	The Transmission Operator and Balancing Authority shall annually review and update each emergency plan. The Transmission Operator and Balancing Authority shall provide a copy of its updated emergency plans to its Reliability Coordinator and to neighboring Transmission Operators and Balancing Authorities.		TOP	1	4	3	0
EOP-001-0	R7.	The Transmission Operator and Balancing Authority shall coordinate its emergency plans with other Transmission Operators and Balancing Authorities as appropriate. This coordination includes the following steps, as applicable:		TOP	1	5	2	0
EOP-001-0	R7.1.	The Transmission Operator and Balancing Authority shall establish and maintain reliable communications between interconnected systems.		TOP	1	7	0	0
EOP-001-0	R7.2.	The Transmission Operator and Balancing Authority shall arrange new interchange agreements to provide for emergency capacity or energy transfers if existing agreements cannot be used.		TOP	0	8	0	0
EOP-001-0	R7.3.	The Transmission Operator and Balancing Authority shall coordinate transmission and generator maintenance schedules to maximize capacity or conserve the fuel in short supply. (This includes water for hydro generators.)		TOP	1	5	2	0
EOP-001-0	R7.4.	The Transmission Operator and Balancing Authority shall arrange deliveries of electrical energy or fuel from remote systems through normal operating channels.		TOP	0	7	0	0
EOP-003-1	R1.	After taking all other remedial steps, a Transmission Operator or Balancing Authority operating with insufficient generation or transmission capacity shall shed customer load rather than risk an uncontrolled failure of components or cascading outages of the Interconnection.		TOP	0	7	0	0
EOP-003-1	R2.	Each Transmission Operator and Balancing Authority shall establish plans for automatic load shedding for underfrequency or undervoltage conditions.		TOP	0	7	0	0
EOP-003-1	R3.	Each Transmission Operator and Balancing Authority shall coordinate load shedding plans among other interconnected Transmission Operators and Balancing Authorities.		TOP	0	7	0	0

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EOP-003-1	R4.	A Transmission Operator or Balancing Authority shall consider one or more of these factors in designing an automatic load shedding scheme: frequency, rate of frequency decay, voltage level, rate of voltage decay, or power flow levels.		TOP	0	7	0	0
EOP-003-1	R5.	A Transmission Operator or Balancing Authority shall implement load shedding in steps established to minimize the risk of further uncontrolled separation, loss of generation, or system shutdown.		TOP	0	7	0	0
EOP-003-1	R6.	After a Transmission Operator or Balancing Authority Area separates from the Interconnection, if there is insufficient generating capacity to restore system frequency following automatic underfrequency load shedding, the Transmission Operator or Balancing Authority shall shed additional load.		TOP	0	7	0	0
EOP-003-1	R7.	The Transmission Operator and Balancing Authority shall coordinate automatic load shedding throughout their areas with underfrequency isolation of generating units, tripping of shunt capacitors, and other automatic actions that will occur under abnormal frequency, voltage, or power flow conditions.		TOP	1	4	2	0
EOP-003-1	R8.	Each Transmission Operator or Balancing Authority shall have plans for operator-controlled manual load shedding to respond to real-time emergencies. The Transmission Operator or Balancing Authority shall be capable of implementing the load shedding in a timeframe adequate for responding to the emergency.		TOP	0	7	0	0
EOP-005-1	R1.	Each Transmission Operator shall have a restoration plan to reestablish its electric system in a stable and orderly manner in the event of a partial or total shutdown of its system, including necessary operating instructions and procedures to cover emergency conditions, and the loss of vital telecommunications channels. Each Transmission Operator shall include the applicable elements listed in Attachment 1-EOP-005 in developing a restoration plan.		TOP	1	7	0	0
EOP-005-1	R2.	Each Transmission Operator shall review and update its restoration plan at least annually and whenever it makes changes in the power system network, and shall correct deficiencies found during the simulated restoration exercises.		TOP	1	7	0	0
EOP-005-1	R3.	Each Transmission Operator shall develop restoration plans with a priority of restoring the integrity of the Interconnection.		TOP	1	7	0	0
EOP-005-1	R4.	Each Transmission Operator shall coordinate its restoration plans with the Generator Owners and Balancing Authorities within its area, its Reliability Coordinator, and neighboring Transmission Operators and Balancing Authorities.		TOP	2	6	0	0
EOP-005-1	R5.	Each Transmission Operator and Balancing Authority shall periodically test its telecommunication facilities needed to implement the restoration plan.		TOP	2	6	0	0
EOP-005-1	R6.	Each Transmission Operator and Balancing Authority shall train its operating personnel in the implementation of the restoration plan. Such training shall include simulated exercises, if practicable.		TOP	1	7	0	0
EOP-005-1	R7.	Each Transmission Operator and Balancing Authority shall verify the restoration procedure by actual testing or by simulation.		TOP	1	7	0	0
EOP-005-1	R8.	Each Transmission Operator shall verify that the number, size, availability, and location of system blackstart generating units are sufficient to meet Regional Reliability Organization restoration plan requirements for the Transmission Operator's area.		TOP	1	6	0	0
EOP-005-1	R9.	The Transmission Operator shall document the Cranking Paths, including initial switching requirements, between each blackstart generating unit and the unit(s) to be started and shall provide this documentation for review by the Regional Reliability Organization upon request. Such documentation may include Cranking Path diagrams.		TOP	2	6	0	0

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EOP-005-1	R10.	The Transmission Operator shall demonstrate, through simulation or testing, that the blackstart generating units in its restoration plan can perform their intended functions as required in the regional restoration plan.		TOP	1	7	0	0
EOP-005-1	R10.1.	The Transmission Operator shall perform this simulation or testing at least once every five years.		TOP	2	6	0	0
EOP-005-1	R11.	Following a disturbance in which one or more areas of the Bulk Electric System become isolated or blacked out, the affected Transmission Operators and Balancing Authorities shall begin immediately to return the Bulk Electric System to normal.		TOP	1	7	0	0
EOP-005-1	R11.1.	The affected Transmission Operators and Balancing Authorities shall work in conjunction with their Reliability Coordinator(s) to determine the extent and condition of the isolated area(s).		TOP	2	6	0	0
EOP-005-1	R11.2.	The affected Transmission Operators and Balancing Authorities shall take the necessary actions to restore Bulk Electric System frequency to normal, including adjusting generation, placing additional generators on line, or load shedding.		TOP	2	6	0	0
EOP-005-1	R11.4.	The affected Transmission Operators shall give high priority to restoration of off-site power to nuclear stations.		TOP	2	6	0	0
EOP-005-1	R11.5.	The affected Transmission Operators may resynchronize the isolated area(s) with the surrounding area(s) when the following conditions are met:		TOP	2	4	2	0
EOP-005-1	R11.5.1.	Voltage, frequency, and phase angle permit.		TOP	1	4	3	0
EOP-005-1	R11.5.2.	The size of the area being reconnected and the capacity of the transmission lines effecting the reconnection and the number of synchronizing points across the system are considered.		TOP	1	7	0	0
EOP-005-1	R11.5.3.	Reliability Coordinator(s) and adjacent areas are notified and Reliability Coordinator approval is given.		TOP	1	7	0	0
EOP-005-1	R11.5.4.	Load is shed in neighboring areas, if required, to permit successful interconnected system restoration.		TOP	1	7	0	0
EOP-008-0	R1.	Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have a plan to continue reliability operations in the event its control center becomes inoperable. The contingency plan must meet the following requirements:		TOP	1	4	2	1
EOP-008-0	R1.1.	The contingency plan shall not rely on data or voice communication from the primary control facility to be viable.		TOP	2	4	2	0
EOP-008-0	R1.2.	The plan shall include procedures and responsibilities for providing basic tie line control and procedures and for maintaining the status of all inter-area schedules, such that there is an hourly accounting of all schedules.		TOP	0	8	0	0
EOP-008-0	R1.3.	The contingency plan must address monitoring and control of critical transmission facilities, generation control, voltage control, time and frequency control, control of critical substation devices, and logging of significant power system events. The plan shall list the critical facilities.		TOP	1	3	3	1
EOP-008-0	R1.4.	The plan shall include procedures and responsibilities for maintaining basic voice communication capabilities with other areas.		TOP	3	3	2	0
EOP-008-0	R1.5.	The plan shall include procedures and responsibilities for conducting periodic tests, at least annually, to ensure viability of the plan.		TOP	2	3	3	0

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EOP-008-0	R1.6.	The plan shall include procedures and responsibilities for providing annual training to ensure that operating personnel are able to implement the contingency plans.		TOP	2	3	3	0
EOP-008-0	R1.7.	The plan shall be reviewed and updated annually.		TOP	2	3	3	0
EOP-008-0	R1.8.	Interim provisions must be included if it is expected to take more than one hour to implement the contingency plan for loss of primary control facility.		TOP	2	6	0	0
FAC-014-1	R2.	The Transmission Operator shall establish SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator Area that are consistent with its Reliability Coordinator's SOL Methodology.		TOP	1	7	0	0
FAC-014-1	R5.2.	The Transmission Operator shall provide any SOLs it developed to its Reliability Coordinator and to the Transmission Service Providers that share its portion of the Reliability Coordinator Area.		TOP	1	7	0	0
INT-004-1	R2.3.	A Reliability Coordinator or Transmission Operator determines the deviation, regardless of magnitude, to be a reliability concern and notifies the Purchasing-Selling Entity of that determination and the reasons.		TOP	1	7	0	0
IRO-002-1	R3.	Each Reliability Coordinator - or its Transmission Operators and Balancing Authorities - shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing Authorities via a secure network.		TOP	1	5	1	1
IRO-004-1	R3.	Each Reliability Coordinator shall, in conjunction with its Transmission Operators and Balancing Authorities, develop action plans that may be required, including reconfiguration of the transmission system, re-dispatching of generation, reduction or curtailment of Interchange Transactions, or reducing load to return transmission loading to within acceptable SOLs or IROLs.		TOP	1	6	1	0
IRO-004-1	R7.	Each Transmission Operator, Balancing Authority, and Transmission Service Provider shall comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events.		TOP	3	3	2	0
IRO-005-2	R12.	Whenever a Special Protection System that may have an inter-Balancing Authority, or inter-Transmission Operator impact (e.g., could potentially affect transmission flows resulting in a SOL or IROL violation) is armed, the Reliability Coordinators shall be aware of the impact of the operation of that Special Protection System on inter-area flows. The Transmission Operator shall immediately inform the Reliability Coordinator of the status of the Special Protection System including any degradation or potential failure to operate as expected.		TOP	3	4	1	0
IRO-005-2	R8.	Each Reliability Coordinator shall monitor system frequency and its Balancing Authorities' performance and direct any necessary rebalancing to return to CPS and DCS compliance. The Transmission Operators and Balancing Authorities shall utilize all resources, including firm load shedding, as directed by its Reliability Coordinator to relieve the emergent condition.		TOP	2	6	0	0
PER-001-0	R1.	Each Transmission Operator and Balancing Authority shall provide operating personnel with the responsibility and authority to implement real-time actions to ensure the stable and reliable operation of the Bulk Electric System.		TOP	2	4	1	1
PER-002-0	R1.	Each Transmission Operator and Balancing Authority shall be staffed with adequately trained operating personnel.		TOP	3	5	0	0

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PER-002-0	R2.	Each Transmission Operator and Balancing Authority shall have a training program for all operating personnel that are in:		TOP	2	5	0	0
PER-002-0	R2.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		TOP	2	6	0	0
PER-002-0	R2.2.	Positions directly responsible for complying with NERC standards.		TOP	2	5	1	0
PER-002-0	R3.	For personnel identified in Requirement R2, the Transmission Operator and Balancing Authority shall provide a training program meeting the following criteria:		TOP	2	5	0	0
PER-002-0	R3.1.	A set of training program objectives must be defined, based on NERC and Regional Reliability Organization standards, entity operating procedures, and applicable regulatory requirements. These objectives shall reference the knowledge and competencies needed to apply those standards, procedures, and		TOP	3	5	0	0
PER-002-0	R3.2.	The training program must include a plan for the initial and continuing training of Transmission Operator and Balancing Authority operating personnel. That plan shall address knowledge and competencies required for reliable system operations.		TOP	2	5	1	0
PER-002-0	R3.3.	The training program must include training time for all Transmission Operator and Balancing Authority operating personnel to ensure their operating proficiency.		TOP	2	6	0	0
PER-002-0	R3.4.	Training staff must be identified, and the staff must be competent in both knowledge of system operations and instructional capabilities.		TOP	2	6	0	0
PER-002-0	R4.	For personnel identified in Requirement R2, each Transmission Operator and Balancing Authority shall provide its operating personnel at least five days per year of training and drills using realistic simulations of system emergencies, in addition to other training required to maintain qualified operating personnel.		TOP	2	6	0	0
PER-003-0	R1.	Each Transmission Operator, Balancing Authority, and Reliability Coordinator shall staff all operating positions that meet both of the following criteria with personnel that are NERC-certified for the applicable functions:		TOP	2	5	0	0
PER-003-0	R1.1.	Positions that have the primary responsibility, either directly or through communications with others, for the real-time operation of the interconnected Bulk Electric System.		TOP	2	6	0	0
PER-003-0	R1.2.	Positions directly responsible for complying with NERC standards.		TOP	2	5	1	0
PRC-001-1	R2.2.	If a protective relay or equipment failure reduces system reliability, the Transmission Operator shall notify its Reliability Coordinator and affected Transmission Operators and Balancing Authorities. The Transmission Operator shall take corrective action as soon as possible.		TOP	3	5	0	0

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PRC-001-1	R3.2.	Each Transmission Operator shall coordinate all new protective systems and all protective system changes with neighboring Transmission Operators and Balancing Authorities.		TOP	2	6	0	0
PRC-001-1	R4.	Each Transmission Operator shall coordinate protection systems on major transmission lines and interconnections with neighboring Generator Operators, Transmission Operators, and Balancing Authorities.		TOP	3	5	0	0
PRC-001-1	R5.2.	Each Transmission Operator shall notify neighboring Transmission Operators in advance of changes in generation, transmission, load, or operating conditions that could require changes in the other Transmission Operators' protection systems.		TOP	2	6	0	0
PRC-001-1	R6.	Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.		TOP	3	3	2	0
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database.		TOP	0	8	0	0
PRC-009-0	R1.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and		TOP	0	8	0	0
PRC-009-0	R1.1.	A description of the event including initiating conditions.		TOP	0	8	0	0
PRC-009-0	R1.2.	A review of the UFLS set points and tripping times.		TOP	0	8	0	0
PRC-009-0	R1.3.	A simulation of the event.		TOP	0	8	0	0
PRC-009-0	R1.4.	A summary of the findings.		TOP	0	8	0	0
PRC-009-0	R2.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.		TOP	0	8	0	0

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Standard Number	Requirement Number	Text of Requirement	GOP	TOP	Should Always Be Assigned to GOP As Written	Should Never Be Assigned to GOP As Written	Should Possibly Be Assigned to GOP As Written	Requirement Needs to Be Rewritten to Apply
PRC-010-0	R1.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and		TOP	0	8	0	0
PRC-010-0	R1.1.	This assessment shall include, but is not limited to:		TOP	0	7	0	0
PRC-010-0	R1.1.1.	Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.		TOP	0	8	0	0
PRC-010-0	R1.1.2.	Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.		TOP	0	8	0	0
PRC-010-0	R1.1.3.	A review of the voltage set points and timing.		TOP	0	8	0	0
PRC-010-0	R2.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).		TOP	0	8	0	0
PRC-022-1	R1.	Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall analyze and document all UVLS operations and Misoperations. The analysis shall include:		TOP	0	8	0	0
PRC-022-1	R1.1.	A description of the event including initiating conditions.		TOP	0	8	0	0
PRC-022-1	R1.2.	A review of the UVLS set points and tripping times.		TOP	0	8	0	0
PRC-022-1	R1.3.	A simulation of the event, if deemed appropriate by the Regional Reliability Organization. For most events, analysis of sequence of events may be sufficient and dynamic simulations may not be needed.		TOP	0	8	0	0
PRC-022-1	R1.4.	A summary of the findings.		TOP	0	8	0	0
PRC-022-1	R1.5.	For any Misoperation, a Corrective Action Plan to avoid future Misoperations of a similar nature.		TOP	0	8	0	0
PRC-022-1	R2.	Each Transmission Operator, Load-Serving Entity, and Distribution Provider that operates a UVLS program shall provide documentation of its analysis of UVLS program performance to its Regional Reliability Organization within 90 calendar days of a request.		TOP	0	8	0	0

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TOP-001-1	R1.	Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.		TOP	3	4	0	1
TOP-001-1	R2.	Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.		TOP	3	4	0	1
TOP-001-1	R5.	Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real-time or anticipated emergency conditions, and take actions to avoid, when possible, or mitigate the emergency.		TOP	3	4	0	1
TOP-001-1	R7.2.	For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.		TOP	2	4	2	0
TOP-001-1	R8.	During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.		TOP	1	6	1	0
TOP-002-2a	R1.	Each Balancing Authority and Transmission Operator shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained.		TOP	2	6	0	0
TOP-002-2a	R10.	Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).		TOP	2	6	0	0
TOP-002-2a	R11.	The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system		TOP	1	7	0	0
TOP-002-2a	R16.	Subject to standards of conduct and confidentiality agreements, Transmission Operators shall, without any intentional time delay, notify their Reliability Coordinator and Balancing Authority of changes in capabilities and characteristics including but not limited to:		TOP	2	3	1	1

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TOP-002-2a	R16.1.	Changes in transmission facility status.		TOP	3	3	1	1
TOP-002-2a	R16.2.	Changes in transmission facility rating.		TOP	3	3	1	1
TOP-002-2a	R17.	Balancing Authorities and Transmission Operators shall, without any intentional time delay, communicate the information described in the requirements R1 to R16 above to their Reliability Coordinator.		TOP	3	5	0	0
TOP-002-2a	R19.	Each Balancing Authority and Transmission Operator shall maintain accurate computer models utilized for analyzing and planning system operations.		TOP	1	7	0	0
TOP-002-2a	R2.	Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are aware of the planning purpose.		TOP	1	5	2	0
TOP-002-2a	R4.	Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.		TOP	3	5	0	0
TOP-002-2a	R5.	Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.		TOP	3	5	0	0
TOP-002-2a	R6.	Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and local reliability requirements.		TOP	2	6	0	0
TOP-003-0	R1.2.	Each Transmission Operator shall provide outage information daily to its Reliability Coordinator, and to affected Balancing Authorities and Transmission Operators for scheduled generator and bulk transmission outages planned for the next day (any foreseen outage of a transmission line or transformer greater than 100 kV or generator greater than 50 MW) that may collectively cause or contribute to an SOL or IROL violation or a regional operating area limitation. The Reliability Coordinator shall establish the outage reporting requirements.		TOP	2	5	1	0

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TOP-004-2	R1.	Each Transmission Operator shall operate within the Interconnection Reliability Operating Limits (IROLs) and System Operating Limits (SOLs).		TOP	2	6	0	0
TOP-004-2	R2.	Each Transmission Operator shall operate so that instability, uncontrolled separation, or cascading outages will not occur as a result of the most severe single contingency.		TOP	2	6	0	0
TOP-004-2	R3.	Each Transmission Operator shall operate to protect against instability, uncontrolled separation, or cascading outages resulting from multiple outages, as specified by its Reliability Coordinator.		TOP	2	6	0	0
TOP-004-2	R4.	If a Transmission Operator enters an unknown operating state (i.e. any state for which valid operating limits have not been determined), it will be considered to be in an emergency and shall restore operations to respect proven reliable power system limits within 30 minutes.		TOP	1	6	1	0
TOP-004-2	R5.	Each Transmission Operator shall make every effort to remain connected to the Interconnection. If the Transmission Operator determines that by remaining interconnected, it is in imminent danger of violating an IROL or SOL, the Transmission Operator may take such actions, as it deems necessary, to protect its area.		TOP	2	6	0	0
TOP-004-2	R6.	Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including:		TOP	2	3	1	1
TOP-004-2	R6.1.	Monitoring and controlling voltage levels and real and reactive power flows.		TOP	3	4	0	1
TOP-004-2	R6.2.	Switching transmission elements.		TOP	3	3	1	1
TOP-004-2	R6.3.	Planned outages of transmission elements.		TOP	3	5	0	0
TOP-004-2	R6.4.	Responding to IROL and SOL violations.		TOP	2	6	0	0

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TOP-005-1.1	R1.	Each Transmission Operator and Balancing Authority shall provide its Reliability Coordinator with the operating data that the Reliability Coordinator requires to perform operational reliability assessments and to coordinate reliable operations within the Reliability Coordinator Area.		TOP	3	5	0	0
TOP-006-1	R1.	Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use.		TOP	3	5	0	0
TOP-006-1	R1.2.	Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.		TOP	3	5	0	0
TOP-006-1	R2.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.		TOP	3	4	1	0
TOP-006-1	R3.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.		TOP	3	2	3	0
TOP-006-1	R4.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern.		TOP	1	7	0	0
TOP-006-1	R5.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action.		TOP	3	3	2	0

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TOP-006-1	R6.	Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.		TOP	3	3	2	0
TOP-006-1	R7.	Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency.		TOP	2	4	2	0
TOP-007-0	R1.	A Transmission Operator shall inform its Reliability Coordinator when an IROL or SOL has been exceeded and the actions being taken to return the system to within limits.		TOP	1	7	0	0
TOP-007-0	R2.	Following a Contingency or other event that results in an IROL violation, the Transmission Operator shall return its transmission system to within IROL as soon as possible, but not longer than 30 minutes.		TOP	1	7	0	0
TOP-007-0	R3.	A Transmission Operator shall take all appropriate actions up to and including shedding firm load, or directing the shedding of firm load, in order to comply with Requirement R2.		TOP	0	8	0	0
TOP-008-1	R1.	The Transmission Operator experiencing or contributing to an IROL or SOL violation shall take immediate steps to relieve the condition, which may include shedding firm load.		TOP	1	7	0	0
TOP-008-1	R2.	Each Transmission Operator shall operate to prevent the likelihood that a disturbance, action, or inaction will result in an IROL or SOL violation in its area or another area of the Interconnection. In instances where there is a difference in derived operating limits, the Transmission Operator shall always operate the Bulk Electric System to the most limiting parameter.		TOP	2	6	0	0
TOP-008-1	R3.	The Transmission Operator shall disconnect the affected facility if the overload on a transmission facility or abnormal voltage or reactive condition persists and equipment is endangered. In doing so, the Transmission Operator shall notify its Reliability Coordinator and all neighboring Transmission Operators impacted by the disconnection prior to switching, if time permits, otherwise, immediately thereafter.		TOP	3	3	1	1
TOP-008-1	R4.	The Transmission Operator shall have sufficient information and analysis tools to determine the cause(s) of SOL violations. This analysis shall be conducted in all operating timeframes. The Transmission Operator shall use the results of these analyses to immediately mitigate the SOL violation.		TOP	1	7	0	0
VAR-001-1a	R1.	Each Transmission Operator, individually and jointly with other Transmission Operators, shall ensure that formal policies and procedures are developed, maintained, and implemented for monitoring and controlling voltage levels and Mvar flows within their individual areas and with the areas of neighboring Transmission Operators.		TOP	3	5	0	0
VAR-001-1a	R10.	Each Transmission Operator shall correct IROL or SOL violations resulting from reactive resource deficiencies (IROL violations must be corrected within 30 minutes) and complete the required IROL or SOL violation reporting.		TOP	2	6	0	0

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VAR-001-1a	R11.	After consultation with the Generator Owner regarding necessary step-up transformer tap changes, the Transmission Operator shall provide documentation to the Generator Owner specifying the required tap changes, a timeframe for making the changes, and technical justification for these changes.		TOP	1	7	0	0
VAR-001-1a	R12.	The Transmission Operator shall direct corrective action, including load reduction, necessary to prevent voltage collapse when reactive resources are insufficient.		TOP	1	7	0	0
VAR-001-1a	R2.	Each Transmission Operator shall acquire sufficient reactive resources within its area to protect the voltage levels under normal and Contingency conditions. This includes the Transmission Operator's share of the reactive requirements of interconnecting transmission circuits.		TOP	1	7	0	0
VAR-001-1a	R3.	The Transmission Operator shall specify criteria that exempts generators from compliance with the requirements defined in Requirement 4, and Requirement 6.1.		TOP	0	7	0	1
VAR-001-1a	R3.1.	Each Transmission Operator shall maintain a list of generators in its area that are exempt from following a voltage or Reactive Power schedule.		TOP	0	7	0	1
VAR-001-1a	R3.2.	For each generator that is on this exemption list, the Transmission Operator shall notify the associated Generator Owner.		TOP	0	7	0	1
VAR-001-1a	R4.	Each Transmission Operator shall specify a voltage or Reactive Power schedule 1 at the interconnection between the generator facility and the Transmission Owner's facilities to be maintained by each generator. The Transmission Operator shall provide the voltage or Reactive Power schedule to the associated Generator Operator and direct the Generator Operator to comply with the schedule in automatic voltage control mode (AVR in service and controlling voltage).		TOP	0	6	1	1

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VAR-001-1a	R6.	The Transmission Operator shall know the status of all transmission Reactive Power resources, including the status of voltage regulators and power system stabilizers.		TOP	1	4	2	1
VAR-001-1a	R6.1.	When notified of the loss of an automatic voltage regulator control, the Transmission Operator shall direct the Generator Operator to maintain or change either its voltage schedule or its Reactive Power schedule.		TOP	0	6	1	1
VAR-001-1a	R7.	The Transmission Operator shall be able to operate or direct the operation of devices necessary to regulate transmission voltage and reactive flow.		TOP	3	5	0	0
VAR-001-1a	R8.	Each Transmission Operator shall operate or direct the operation of capacitive and inductive reactive resources within its area - including reactive generation scheduling; transmission line and reactive resource switching; and, if necessary, load shedding - to maintain system and Interconnection voltages within established limits.		TOP	2	5	1	0
VAR-001-1a	R9.	Each Transmission Operator shall maintain reactive resources to support its voltage under first Contingency conditions.		TOP	2	6	0	0
VAR-001-1a	R9.1.	Each Transmission Operator shall disperse and locate the reactive resources so that the resources can be applied effectively and quickly when Contingencies occur.		TOP	2	6	0	0

Owner Requirements Comments - GO TO Team Working Copy

					MASON	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
FAC-001-0	R1.	The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, subregional, Power Pool, and individual Transmission Owner planning criteria and facility connection requirements. The Transmission Owner's facility connection requirements shall address connection requirements for:		TO	The radial line that connects the generating facility to the Point of Interconnection is a facility that was constructed for the sole use of the generating facility. The Interconnection Agreement usually states that the sole use of the line is for the output of the generating facility. The generating facilty is not a Transmission Service Provider, it does not have an OATT, it does not have the authority to allow others to connect to this line and such a connection could jeopardize the EWG status of the generator. The generator would not allow another entity to connect to the line unless ordered to do so by FERC under a Section 210 Order.	None of the TO requirements should apply if the interconnection facilities are radial. Also need to think about whether the the Generator Owner is a "transmitting utility" as defined in the Federal Power Act. If defined as a transmitting utility, then that may change the GO status.	The GO would not dictate connection requirements to the TO.	See Below. It is assumed that the GO/TO must allow the lead to be tapped for the greater good.		My assumption with all of FAC-001-0 is that the Generation Owner is not a transmission service provider and does not have a transmission tariff.	Within the Western Interconnection, and specifically the Southwestern US, there are examples of all three connection types at generation switchyards.It is difficult identify an exception criteria for a generator not to comply with this requirement.
FAC-001-0	R1.1.	Generation facilities,		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.	If the GO's 'Gen' Lead is considered a transmission element, it could be tapped by other entities, necessitating requirements to do so reliably.			
FAC-001-0	R1.2.	Transmission facilities, and		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.	See R1.1 Comment			
FAC-001-0	R1.3.	End-user facilities.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.	See R1.1 Comment			
FAC-001-0	R2.	The Transmission Owner's facility connection requirements shall address, but are not limited to, the following items:		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.1.	Procedures for coordinated joint studies of new facilities and their impacts on the interconnected transmission systems.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.	If the GO's 'Gen' Lead is considered a transmission element, it could be tapped by other entities, necessitating requirements to do so reliably.			
FAC-001-0	R2.1.10.	Power quality impacts.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.11.	Equipment Ratings.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.12.	Synchronizing of facilities.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.13.	Maintenance coordination.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.14.	Operational issues (abnormal frequency and voltages).		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.15.	Inspection requirements for existing or new facilities.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.16.	Communications and procedures during normal and emergency operating conditions.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				

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Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
FAC-001-0	R2.1.2.	Procedures for notification of new or modified facilities to others (those responsible for the reliability of the interconnected transmission systems) as soon as feasible.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.3.	Voltage level and MW and MVAR capacity or demand at point of connection.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.4.	Breaker duty and surge protection.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.5.	System protection and coordination.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.6.	Metering and telecommunications.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.7.	Grounding and safety issues.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.8.	Insulation and insulation coordination.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R2.1.9.	Voltage, Reactive Power, and power factor control.		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-001-0	R3.	The Transmission Owner shall maintain and update its facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Reliability Organization, and NERC on request (five business days).		TO	Same comments as FAC-001-0, R1.		The GO would not dictate connection requirements to the TO.				
FAC-003-1	R1.	The Transmission owner shall prepare, and keep current, a formal transmission vegetation management (TVMP). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work specifications.		TO	Applicability to the GO should depend on the length of the radial line that connects the generating facility to the Point of Interconnection. Perhaps the inability to see the Point of Interconnection from the generating facility could be used to establish applicability. Also, it is likely that little reliability degradation exists by not		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting expense related to trees that would never be in the plant switchyard.	May or may not be important for formal compliance, depending on the risk that line faults and their probability add to system reliability beyond the loss of the generator. This comment applies to all of FAC-003 rqmts.	With the exclusion of radial lines??		
FAC-003-1	R1.1.	The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation and any other environmental or operational factors that		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.2.	The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, and the effects of wind		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.2.1.	Clearance 1 — The Transmission Owner shall determine and document appropriate clearance distances to be achieved at the time of transmission vegetation management work based upon local conditions and the expected time frame in which the Transmission Owner plans to return for future vegetation		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.2.2.	Clearance 2 — The Transmission Owner shall determine and document specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent flashover between vegetation and conductors and will vary		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.2.2.1.	Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.2.2.2.	Where transmission system transient overvoltage factors are known, clearances shall be derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		

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					MASON	HELYER	JANKOWSKI	MORTENSON	SAATHOFF	DANIEL	COBB
Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
FAC-003-1	R1.3.	All personnel directly involved in the design and implementation of the TVMP shall hold appropriate qualifications and training, as defined by the Transmission Owner, to perform their duties.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.4.	Each Transmission Owner shall develop mitigation measures to achieve sufficient clearances for the protection of the transmission facilities when it identifies locations on the ROW where the Transmission Owner is restricted from attaining the clearances specified in Requirement 1.2.1.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R1.5.	Each Transmission Owner shall establish and document a process for the immediate communication of vegetation conditions that present an imminent threat of a transmission line outage. This is so that action (temporary reduction in line rating, switching line out of service, etc.) may be taken until the threat is		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R2.	The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.	The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, sustained transmission line outages determined by the Transmission Owner to have been caused by vegetation.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.1.	Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.2.	The Transmission Owner is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation: (1) Vegetation-related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.3.	The outage information provided by the Transmission Owner to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) outaged, the date, time and duration of the outage; a description of the cause of the outage; other pertinent comments; and any countermeasures taken by the		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.4.	An outage shall be categorized as one of the following:		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.4.1.	Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.4.2.	Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
FAC-003-1	R3.4.3.	Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.		TO	Same comment as FAC-003-1, R1.		For what I have seen in our facilities, crabgrass would have a hard time growing. It would be asinine for us to go through all the paperwork and reporting		With the exclusion of radial lines??		
PRC-004-1	R1.	The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Reliability Organization's procedures developed for Reliability Standard PRC-003 Requirement 1.		TO	The GO is required to comply with PRC-004-1, R2 which is the same Requirement except it applies to a "generator Protection System". This Requirement should only be assigned to a GO if a determination is made that the radial line that connects the generating facility to the Point of Interconnection is not part of the generating facility, but is		The GO also has to analyze and report Generator protective system relay misoperation in PRC-004-1 R2.			This should apply only if a Generation Owner owns protection equipment that is integrated with the bulk transmission system.	
PRC-007-0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the existence of any such load is highly unlikely.		A GO does not supply load so will never have UFLS or UVLS.	UFLS program for a TO is to trip load only. GO has (or will have) separate reuirements to remain on-line during specified frequency excursions. If the 'lead' is tapped by a DP then the TO UFLS requirements may become applicable but the line would be classified differently. (Applies to all UFLS requirements)	Should over-frequency generation tripping be addressed?		It is obviously prudent for a GO/GOP to ensure its generator UF protection relaying is tested and operates correctly. UF genator tripping may be included in some RRO UFLS programs.

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Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-007-0	R3.	The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days).		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-008-0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall include UFLS equipment identification, the schedule for UFLS equipment testing, and the schedule for UFLS equipment maintenance.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-008-0	R2.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R1.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and program effectiveness following system events resulting in system frequency excursions below the initializing set points of the UFLS program. The analysis shall include, but not be limited to:		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the existence of any such load is highly		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R1.1.	A description of the event including initiating conditions.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R1.2.	A review of the UFLS set points and tripping times.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R1.3.	A simulation of the event.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R1.4.	A summary of the findings.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		
PRC-009-0	R2.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should over-frequency generation tripping be addressed?		

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Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
PRC-010-0	R1.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-010-0	R1.1.	This assessment shall include, but is not limited to:		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-010-0	R1.1.1.	Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-010-0	R1.1.2.	Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-010-0	R1.1.3.	A review of the voltage set points and timing.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-010-0	R2.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.	The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.1.	The UVLS system identification which shall include but is not limited to:		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.1.1.	Relays.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.1.2.	Instrument transformers.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		

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Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**	**Comments**
PRC-011-0	R1.1.3.	Communications systems, where appropriate.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.1.4.	Batteries.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.2.	Documentation of maintenance and testing intervals and their basis.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.3.	Summary of testing procedure.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.4.	Schedule for system testing.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.5.	Schedule for system maintenance.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R1.6.	Date last tested/maintained.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-011-0	R2.	The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliability Organization and NERC on request (within 30 calendar days).		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R1.	Each Transmission Owner and Distribution Provider that owns a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall annually update its UVLS data to support the Regional UVLS program database. The following data shall be provided to the Regional Reliability Organization for each installed UVLS system:		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R1.1.	Size and location of customer load, or percent of connected load, to be interrupted.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		

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PRC-021-1	R1.2.	Corresponding voltage set points and overall scheme clearing times.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R1.3.	Time delay from initiation to trip signal.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R1.4.	Breaker operating times.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R1.5.	Any other schemes that are part of or impact the UVLS programs such as related generation protection, islanding schemes, automatic load restoration schemes, UFLS and Special Protection Systems.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		
PRC-021-1	R2.	Each Transmission Owner and Distribution Provider that owns a UVLS program shall provide its UVLS program data to the Regional Reliability Organization within 30 calendar days of a request.		TO	This Requirement should only apply to a GO if there is load connected to the radial line that connects the generating facility to the Point of Interconnection. Because this line is a sole use facility, and for the reasons cited in the comments on FAC-001-0, R1 the		A GO does not supply load so will never have UFLS or UVLS.		Should low voltage ride-through be addressed?		

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					TOTAL	TOTAL	TOTAL	TOTAL
Standard Number	**Requirement Number**	**Text of Requirement**	**GO**	**TO**	**Should Always Be Assigned to GO As Written**	**Should Never Be Assigned to GO As Written**	**Should Possibly Be Assigned to GO As Written**	**Requirement Needs to Be Rewritten to Apply**
FAC-001-0	R1.	The Transmission Owner shall document, maintain, and publish facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability Organization, subregional, Power Pool, and individual Transmission Owner planning criteria and facility connection requirements. The Transmission Owner's facility connection requirements shall address connection requirements for:		TO	1	6	1	0
FAC-001-0	R1.1.	Generation facilities,		TO	1	6	1	0
FAC-001-0	R1.2.	Transmission facilities, and		TO	1	6	1	0
FAC-001-0	R1.3.	End-user facilities.		TO	1	6	1	0
FAC-001-0	R2.	The Transmission Owner's facility connection requirements shall address, but are not limited to, the following items:		TO	1	6	0	0
FAC-001-0	R2.1.	Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:		TO	1	6	1	0
FAC-001-0	R2.1.1.	Procedures for coordinated joint studies of new facilities and their impacts on the interconnected transmission systems.		TO	1	6	1	0
FAC-001-0	R2.1.10.	Power quality impacts.		TO	1	6	1	0
FAC-001-0	R2.1.11.	Equipment Ratings.		TO	2	6	0	0
FAC-001-0	R2.1.12.	Synchronizing of facilities.		TO	2	6	0	0
FAC-001-0	R2.1.13.	Maintenance coordination.		TO	2	6	0	0
FAC-001-0	R2.1.14.	Operational issues (abnormal frequency and voltages).		TO	2	6	0	0
FAC-001-0	R2.1.15.	Inspection requirements for existing or new facilities.		TO	2	6	0	0
FAC-001-0	R2.1.16.	Communications and procedures during normal and emergency operating conditions.		TO	2	6	0	0
FAC-001-0	R2.1.2.	Procedures for notification of new or modified facilities to others (those responsible for the reliability of the interconnected transmission systems) as soon as feasible.		TO	2	6	0	0
FAC-001-0	R2.1.3.	Voltage level and MW and MVAR capacity or demand at point of connection.		TO	2	6	0	0
FAC-001-0	R2.1.4.	Breaker duty and surge protection.		TO	2	6	0	0
FAC-001-0	R2.1.5.	System protection and coordination.		TO	2	6	0	0
FAC-001-0	R2.1.6.	Metering and telecommunications.		TO	2	6	0	0
FAC-001-0	R2.1.7.	Grounding and safety issues.		TO	2	6	0	0
FAC-001-0	R2.1.8.	Insulation and insulation coordination.		TO	2	6	0	0

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FAC-001-0	R2.1.9.	Voltage, Reactive Power, and power factor control.		TO	2	6	0	0
FAC-001-0	R3.	The Transmission Owner shall maintain and update its facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Reliability Organization, and NERC on request (five business days).		TO	2	6	0	0
FAC-003-1	R1.	The Transmission owner shall prepare, and keep current, a formal transmission vegetation management (TVMP). The TVMP shall include the Transmission Owner's objectives, practices, approved procedures, and work specifications.		TO	1	4	3	0
FAC-003-1	R1.1.	The TVMP shall define a schedule for and the type (aerial, ground) of ROW vegetation inspections. This schedule should be flexible enough to adjust for changing conditions. The inspection schedule shall be based on the anticipated growth of vegetation and any other environmental or operational factors that		TO	1	4	3	0
FAC-003-1	R1.2.	The Transmission Owner, in the TVMP, shall identify and document clearances between vegetation and any overhead, ungrounded supply conductors, taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, and the effects of wind		TO	1	4	3	0
FAC-003-1	R1.2.1.	Clearance 1 — The Transmission Owner shall determine and document appropriate clearance distances to be achieved at the time of transmission vegetation management work based upon local conditions and the expected time frame in which the Transmission Owner plans to return for future vegetation		TO	1	4	3	0
FAC-003-1	R1.2.2.	Clearance 2 — The Transmission Owner shall determine and document specific radial clearances to be maintained between vegetation and conductors under all rated electrical operating conditions. These minimum clearance distances are necessary to prevent flashover between vegetation and conductors and will vary		TO	1	4	3	0
FAC-003-1	R1.2.2.1.	Where transmission system transient overvoltage factors are not known, clearances shall be derived from Table 5, IEEE 516-2003, phase-to-ground distances, with appropriate altitude correction factors applied.		TO	1	4	3	0
FAC-003-1	R1.2.2.2.	Where transmission system transient overvoltage factors are known, clearances shall be derived from Table 7, IEEE 516-2003, phase-to-phase voltages, with appropriate altitude correction factors applied.		TO	1	4	3	0
FAC-003-1	R1.3.	All personnel directly involved in the design and implementation of the TVMP shall hold appropriate qualifications and training, as defined by the Transmission Owner, to perform their duties.		TO	1	4	3	0
FAC-003-1	R1.4.	Each Transmission Owner shall develop mitigation measures to achieve sufficient clearances for the protection of the transmission facilities when it identifies locations on the ROW where the Transmission Owner is restricted from attaining the clearances specified in Requirement 1.2.1.		TO	1	4	3	0
FAC-003-1	R1.5.	Each Transmission Owner shall establish and document a process for the immediate communication of vegetation conditions that present an imminent threat of a transmission line outage. This is so that action (temporary reduction in line rating, switching line out of service, etc.) may be taken until the threat is		TO	1	4	3	0
FAC-003-1	R2.	The Transmission Owner shall create and implement an annual plan for vegetation management work to ensure the reliability of the system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to		TO	1	4	3	0
FAC-003-1	R3.	The Transmission Owner shall report quarterly to its RRO, or the RRO's designee, sustained transmission line outages determined by the Transmission Owner to have been caused by vegetation.		TO	2	4	2	0
FAC-003-1	R3.1.	Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.		TO	2	4	2	0
FAC-003-1	R3.2.	The Transmission Owner is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation: (1) Vegetation-related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters shall not be considered		TO	2	4	2	0
FAC-003-1	R3.3.	The outage information provided by the Transmission Owner to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) outaged, the date, time and duration of the outage; a description of the cause of the outage; other pertinent comments; and any countermeasures taken by the		TO	2	4	2	0
FAC-003-1	R3.4.	An outage shall be categorized as one of the following:		TO	0	4	2	0
FAC-003-1	R3.4.1.	Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;		TO	2	4	2	0
FAC-003-1	R3.4.2.	Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;		TO	2	4	2	0
FAC-003-1	R3.4.3.	Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.		TO	2	4	2	0

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PRC-004-1	R1.	The Transmission Owner and any Distribution Provider that owns a transmission Protection System shall each analyze its transmission Protection System Misoperations and shall develop and implement a Corrective Action Plan to avoid future Misoperations of a similar nature according to the Regional Reliability Organization's procedures developed for Reliability Standard PRC-003 Requirement 1.		TO	3	4	1	0
PRC-007-0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall ensure that its UFLS program is consistent with its Regional Reliability Organization's UFLS program requirements.		TO	0	8	0	0
PRC-007-0	R2.	The Transmission Owner, Transmission Operator, Distribution Provider, and Load-Serving Entity that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide, and annually update, its underfrequency data as necessary for its Regional Reliability Organization to maintain and update a UFLS program database.		TO	0	8	0	0
PRC-007-0	R3.	The Transmission Owner and Distribution Provider that owns a UFLS program (as required by its Regional Reliability Organization) shall provide its documentation of that UFLS program to its Regional Reliability Organization on request (30 calendar days).		TO	0	8	0	0
PRC-008-0	R1.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall have a UFLS equipment maintenance and testing program in place. This UFLS equipment maintenance and testing program shall include UFLS equipment identification, the schedule for UFLS equipment testing, and the schedule for UFLS equipment maintenance.		TO	0	8	0	0
PRC-008-0	R2.	The Transmission Owner and Distribution Provider with a UFLS program (as required by its Regional Reliability Organization) shall implement its UFLS equipment maintenance and testing program and shall provide UFLS maintenance and testing program results to its Regional Reliability Organization and NERC on request (within 30 calendar days).		TO	0	8	0	0
PRC-009-0	R1.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall analyze and document its UFLS program performance in accordance with its Regional Reliability Organization's UFLS program. The analysis shall address the performance of UFLS equipment and program effectiveness following system events resulting in system frequency excursions below the initializing set points of the UFLS program. The analysis shall include, but not be limited to:		TO	0	8	0	0
PRC-009-0	R1.1.	A description of the event including initiating conditions.		TO	0	8	0	0
PRC-009-0	R1.2.	A review of the UFLS set points and tripping times.		TO	0	8	0	0
PRC-009-0	R1.3.	A simulation of the event.		TO	0	8	0	0
PRC-009-0	R1.4.	A summary of the findings.		TO	0	8	0	0
PRC-009-0	R2.	The Transmission Owner, Transmission Operator, Load-Serving Entity, and Distribution Provider that owns or operates a UFLS program (as required by its Regional Reliability Organization) shall provide documentation of the analysis of the UFLS program to its Regional Reliability Organization and NERC on request 90 calendar days after the system event.		TO	0	8	0	0
PRC-010-0	R1.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall periodically (at least every five years or as required by changes in system conditions) conduct and document an assessment of the effectiveness of the UVLS program. This assessment shall be conducted with the associated Transmission Planner(s) and Planning Authority(ies).		TO	0	8	0	0

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PRC-010-0	R1.1.	This assessment shall include, but is not limited to:		TO	0	7	0	0
PRC-010-0	R1.1.1.	Coordination of the UVLS programs with other protection and control systems in the Region and with other Regional Reliability Organizations, as appropriate.		TO	0	8	0	0
PRC-010-0	R1.1.2.	Simulations that demonstrate that the UVLS programs performance is consistent with Reliability Standards TPL-001-0, TPL-002-0, TPL-003-0 and TPL-004-0.		TO	0	8	0	0
PRC-010-0	R1.1.3.	A review of the voltage set points and timing.		TO	0	8	0	0
PRC-010-0	R2.	The Load-Serving Entity, Transmission Owner, Transmission Operator, and Distribution Provider that owns or operates a UVLS program shall provide documentation of its current UVLS program assessment to its Regional Reliability Organization and NERC on request (30 calendar days).		TO	0	8	0	0
PRC-011-0	R1.	The Transmission Owner and Distribution Provider that owns a UVLS system shall have a UVLS equipment maintenance and testing program in place. This program shall include:		TO	0	8	0	0
PRC-011-0	R1.1.	The UVLS system identification which shall include but is not limited to:		TO	0	7	0	0
PRC-011-0	R1.1.1.	Relays.		TO	0	8	0	0
PRC-011-0	R1.1.2.	Instrument transformers.		TO	0	8	0	0
PRC-011-0	R1.1.3.	Communications systems, where appropriate.		TO	0	8	0	0
PRC-011-0	R1.1.4.	Batteries.		TO	0	8	0	0
PRC-011-0	R1.2.	Documentation of maintenance and testing intervals and their basis.		TO	0	8	0	0
PRC-011-0	R1.3.	Summary of testing procedure.		TO	0	8	0	0
PRC-011-0	R1.4.	Schedule for system testing.		TO	0	8	0	0

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PRC-011-0	R1.5.	Schedule for system maintenance.		TO	0	8	0	0
PRC-011-0	R1.6.	Date last tested/maintained.		TO	0	8	0	0
PRC-011-0	R2.	The Transmission Owner and Distribution Provider that owns a UVLS system shall provide documentation of its UVLS equipment maintenance and testing program and the implementation of that UVLS equipment maintenance and testing program to its Regional Reliability Organization and NERC on request (within 30 calendar days).		TO	0	8	0	0
PRC-021-1	R1.	Each Transmission Owner and Distribution Provider that owns a UVLS program to mitigate the risk of voltage collapse or voltage instability in the BES shall annually update its UVLS data to support the Regional UVLS program database. The following data shall be provided to the Regional Reliability Organization for each installed UVLS system:		TO	0	8	0	0
PRC-021-1	R1.1.	Size and location of customer load, or percent of connected load, to be interrupted.		TO	0	8	0	0
PRC-021-1	R1.2.	Corresponding voltage set points and overall scheme clearing times.		TO	0	8	0	0
PRC-021-1	R1.3.	Time delay from initiation to trip signal.		TO	0	8	0	0
PRC-021-1	R1.4.	Breaker operating times.		TO	0	8	0	0
PRC-021-1	R1.5.	Any other schemes that are part of or impact the UVLS programs such as related generation protection, islanding schemes, automatic load restoration schemes, UFLS and Special Protection Systems.		TO	0	8	0	0
PRC-021-1	R2.	Each Transmission Owner and Distribution Provider that owns a UVLS program shall provide its UVLS program data to the Regional Reliability Organization within 30 calendar days of a request.		TO	0	8	0	0