

## Summary

The drafting team welcomes any constructive feedback for improving its proposal to ensure that the responsibilities of Generator Owners and Generator Operators at the interface to the interconnected grid are covered under NERC's Reliability Standards. Consider using the following questions to focus your comments:

- How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?
- The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?
- The Ad Hoc group originally proposed the new terms "Generator Interconnection Facility" and "Generator Interconnection Operational Interface" as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

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## **COMMENTS:**

Dominion agrees this is a good overall approach to identify specific TO/TOP requirements associated with a qualifying generator and address an important registration and potential reliability gap.

Minor suggestions include the following:

(1) The timeframe in R4 of 45 days could be increased to at least 90 days before a GO is required to become compliant after it receives an interconnection request. This additional time will allow proper coordination within other groups that should stay in coordination.

(2) Need clarity in the white paper on page 3, 3rd paragraph that states *“When the transmission Elements and Facilities owned and operated by Generator Owners and Generator Operators are non-network/non-integrated transmission, applying all standards applicable to Transmission Owners and Transmission Operators would have little effect on the overall reliability of the Bulk Electric System when compared to the operation of the equipment that actually produces electricity – the generation equipment itself.”*

This statement seems to make sense when looked at from the GO/GOP perspective. However what happens if the TO owns these transmission elements and facilities? Would the TO be required to adhere to a smaller set of standards or *all* TO/TOP standards for this subset of elements? This matter should be clarified.

### **Dominion has also answered the below questions posed by NERC below.**

- How can the proposal outlined in the White Paper be improved?

Is the drafting team heading in the right direction? **Yes**

- The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

- The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System Under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? **YES**  
If not, please explain.

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**COMMENTS:**



Adobe Acrobat  
Document

**Doug Hohlbaugh, FirstEnergy Corp.**  
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## COMMENTS:

### **Re: Project 2010-07 Generator Requirements at the Transmission Interface Informal Comment Period Ending April 4, 2011**

Mallory Huggins

North American Electric Reliability Corporation

NERC Coordinator, Project 2010-07 Generator Requirements at the Transmission Interface (“GOTO Project”)

FirstEnergy (“FE”) appreciates the opportunity to provide comments on Project 2010 -07 Generator Requirements at the Transmission Interface. FirstEnergy generally supports the Standard Drafting Team’s (“SDT’s”) March 2011 [“White Paper Proposal for Informal Comment”](#) (“White Paper”) and its recommended approach to scale back or eliminate many of the reliability standard revisions previously proposed by the [Ad Hoc team’s Final Report](#). The SDT’s White Paper largely aligns with prior comments offered by FE on the GOTO Project. In comments filed in March 2010 in response to the Ad Hoc team’s work and supported by FE, the ISO RTO Council Standards Review Committee stated as follows:

*These SAR and associated draft standards changes go beyond what is needed to resolve the GO/TOP GOP/TOP registration issue. The only real changes that are needed are to include adding GO and GOP applicability in the FAC-003 standard so that vegetation management can be enforced for lines built to interconnect generators without registering the GO/GOP as a TO/TOP. All additional changes just add confusion and cause significant coordination issues with other draft standard changes. This proposed SAR and associated standards’ modifications does not appear to have been coordinated with any other drafting team. There are many standards and requirements that are in various states of change. For instance, the TOP standards have been significantly modified and are nearing the ballot phase. Coordination needs to occur before these changes are balloted.*

We applaud the drafting team for carefully considering comments submitted by our company and other industry stakeholders.

#### **FE Disagrees with the proposed FAC-001 Changes:**

As the White Paper acknowledges, Generator Owners (“GOs”) and Generator Operators (“GOPs”) “should not be subject to the same level of standards applicable to Transmission Owners and Transmission Operators who own and operate transmission Facilities and Elements that are part of the integrated bulk power system.” Further, the White Paper properly states that subjecting GOs and GOPs to all standards applicable to TOs and TOPs would do little to improve the reliability of the Bulk Electric System (“BES”).

The proposed FAC-001-0 Requirement 4 would impose TO requirements on a GO simply because it “receives an interconnection request for its (transmission) facility.” However, the White Paper is premised on the assumption that GOs that receive interconnection requests are required to allow such interconnection to go forward. The simple fact is that not every transmission facility that is owned by a GO is subject to FERC’s “open access” requirements. FERC’s “open access” requirements apply only if the line is used to provide FERC-jurisdictional transmission service. Many lines are not so used, and therefore a decision to allow a third party to interconnect may lie entirely within the GO’s discretion.

We offer the following suggested revisions to the proposed requirement R4 and the corresponding measure M4:

R4. Generator Owner that is required to or elects to permit an interconnection request for its facility shall make available to the requesting party its facility connection requirements addressing items detailed in Requirement R2 above.

M4. The Generator Owner that is required to or elects to permit an interconnection request for its facility shall make available (to its Compliance Monitor) for inspection evidence that it met the requirements stated in Reliability Standard FAC-001-0 R4.

We appreciate NERC's careful consideration of the comments provided. Should you have any questions or require clarification please do not hesitate to contact me at 330-384-4698.

**Laura Beane, Iberdrola Renewables**

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**COMMENTS:**

Iberdrola Renewables fully supports the recommendations in the “Project 2010-07: Generator Requirements at the Transmission Interface White Paper Proposal”.

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## COMMENTS:

SERC OC Standards Review Group

Comments on Project 2010-07: Generator Requirements at the Transmission Interface

How can the proposal be improved?

1. Make the language clearer on the concept of a GO/GOP interconnection request to an established GO/GOP that has an existing interconnection to the BES. It would be beneficial to include a diagram(s) of interconnection examples.
2. We feel that the GO/GOP should not be forced into registration as a TO/TOP based on having a radial connection (single point of connection) to the BES, provided that the loss of that radial connection is included in the set of study contingencies by the TP and TOP.
3. The team should consider addressing exceptions to the typical (radial connection – single point of connection) generator connections to the BES on a case-by-case basis involving the appropriate parties, such as the GO/GOP/TO/TOP/TP and Regional Entity, rather than creating requirements that apply to all GO/GOPs.

Is the drafting team headed in the right direction?

1. We applaud the team for seeking informal direction from the industry and believe the direction that the team is taking is appropriate.

SERC OC standards Review Group Participation

Gerry Beckerle	Ameren
Jerry Hereen	MEAG
Jim Peterson	Santee Cooper
Shaun Anders	CWLP
Hamid Zakery	Dynegy
Scott McGough	OPC
David Plauck	Calpine
Pat McGovern	GTC
Melinda Montgomery	Entergy
Shardra Scott	Gulf Power
Doug White	NCEMC
JakeMiller	Dynegy
Larry Rodriquez	Entegra Power
Jim Case	Entergy
Ray Phillips	AMEA
John Troha	SERC

***“The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Standards Review group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers.”***

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## **COMMENTS:**

### **PSEG Registered Entities Comments on March 2011 White Paper on Generator Requirements at the Transmission Interface**

The PSEG Registered Entities (“REs”) support the work of the *Ad Hoc Group for Generator Requirements at the Transmission Interface* subsequently placed under the aegis of the Standard Development Team (“SDT”) for Project 2010-07. We appreciate this opportunity to provide informal comments on the March 2011 White Paper on Generator Requirements at the Transmission Interface (“White Paper”).

The PSEG REs support the concepts advocated in the White Paper, principally, that:

- Subjecting Generator Owners (“GOs”) or Generation Operators (“GOPs”) to all of the standards applicable to Transmission Owners (“TOs”) or Transmission Operators (“TOPs”) would do little if anything to improve the reliability of the Bulk Electric System;
- The goals of Project 2010-07 can be accomplished by making GOs and GOPs responsible for complying with a limited number of reliability standard requirements, namely certain requirements in FAC-001 and FAC-003; and
- Creating new definitions for generator interconnection facilities and/or interfaces which would be formalized in the NERC Glossary.

The PSEG REs also agree that ability to implement the concepts advocated in the White Paper are inexorably linked to the work of the SDT assigned to Project 2010-17 (Definition of the Bulk Electric System [“BES”]). We therefore recommend the two project teams coordinate their efforts.

We are concerned by the suggestion that the requirements of FAC-001 are applicable within forty-five days of receiving an interconnection request. There are a host of regulatory and commercial activities and assessments that must be completed before the interconnection occurs. In its role as the Regional Transmission Organization, PJM acts as the Transmission Planner and coordinates and evaluates transmission interconnection requests. Furthermore, experience shows that many of these interconnection requests are subsequently withdrawn from the interconnection queues at PJM. Requiring GOs to be fully compliant with FAC-001 within 45 days of the receipt of such request for projects that may never be constructed would not improve the reliability of the BES, but could result in an inefficient use of resources. Therefore, we ask the SDT to consider alternatives to receipt of an interconnection request for triggering FAC-001 applicability to GOs.

With regard to the requirement for GOs related to FAC-003, the PSEG REs support an exemption for transmission facilities on the property of the GO. The SDT has acknowledged this concept in paragraph 4.2.4 of FAC-003-02, but it is unclear exactly which facilities are excluded by this exemption. Since PSEG believes that it is the intent of the SDT to include all

transmission lines on the generating station property as well as the some portion of the transmission line that leaves the station property, we ask the SDT to adopt the approach advocated by the Ad-Hoc Group. Under that approach, the vegetation management standards in FAC-003-02 apply to GOs owning a Generator Interconnection Facility that operates at 200 kV and above, or are otherwise deemed critical to the BES, but provides for an exclusion from FAC-003-02 for Generation Interconnection Facilities that reside within the GOs property line. We also support an exemption for generator lead lines that leave the GO's property but do not exceed two spans (generally one-half mile from the generator property).

The PSEG Companies also acknowledge the efforts of the Electric Power Supply Association ("EPSA") to provide guidance and build consensus on this effort.

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**COMMENTS:**

As stated, the purpose of Project 2010-07 is to clearly identify the appropriate generation facilities and the standards requirements that should apply to such generation Facilities to ensure that the reliability of the Bulk electric system is maintained. In pursuit of this purpose judgment and discretion of the Registered Entities should be recognized.

The white paper proposes a role for Generator Owners well outside that of the existing NERC Reliability Functional Model. BES facilities at which an entity may logically request interconnection should be covered by a Transmission Owner and Transmission Operator. We believe many of the concerns raised should be addressed by the registration process rather than push Transmission Owner standards to the Generator Owner.

Specific comments to the white paper follow:

- How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?

The drafting team can improve its approach by limiting the applicability of those standards in which the drafting team believes a reliability gap may exist for specific type of facilities. This will help to ensure that interconnection requests or vegetation management is applied only to those locations where network or integrated transmission exist.

The drafting team should spend more time on considering the comments provided to the ad hoc team when it developed its final report. Specifically, as stated in the SAR, the drafting team needs to “add particular focus on the operation of the interface point at which operating responsibility shifts from the Generator Operator to the Transmission Operator.” The drafting team appears to have sidestepped the action by what appears to be unilaterally dismissing the work of the ad hoc Team.

The drafting team proposal is not adequately addressing the interface issue in its proposal. The drafting team did recognize that while elements owned by entities who are registered as Generator Owner appear to fit the definition of elements owned by Transmission Owners, the elements need not be subject to the same level of standards applicable to Transmission Owners. The drafting team also recognized that those elements are generally non network or non integrated transmission elements. Simply put they are not used to transmit power other than from the specific Generator Owner. The proposal submitted for comment does not recognize the non network/non integrated transmission nature of the elements when it proposes to apply FAC-001 to Generator Owners. The purpose of FAC-001 is for facilities where network or integrated transmission exists. By applying FAC-001, the Generator Owner “transmission’ type elements,

would be de facto considered network transmission and would then require the Generator Owner to develop interconnection requirements at Generator facilities. Since the Generator Owner now would have a recognized network facility, it would also be subject to FERC Order 888 and be required to develop rates for the use of its facilities.

Finally, the drafting team recognized that the definition of BES would drag certain GO into a TO arena with little if any improvement in reliability of the Bulk Electric System. The drafting team should recognize that if the Generator Owners are in fact required to register as Transmission Owners, the proposed changes to the standards would open the Generator Owner to interconnection requests at other than transmission system voltage levels.

- The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

The drafting team should build upon the work of the ad hoc Team which encompasses much of the industry feedback on the subject. The suggestion to modify FAC -001 and FAC-003 do not get to the root of the concerns and do not address the interface issue addressed raised by industry.

- The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

This action is not supported. The industry spent a great deal of time responding to the white paper drafts which resulted in the recommendation for the new terms. Without defining the interface issues and where they exist, modification of the standards cannot hope to deal with the true reliability issue.

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## **COMMENTS:**

**Chris Cambridge, Engineering Manager and GO GOP Subject Matter Expert submits the following comments on behalf of Arizona Public Service (AZPS).**

The Standards Drafting Team (SDT) for this project is trying to address the Reliability Standards required for a Generator Owner and Operator who has interconnection facilities (referred to as a GOTO). The SDT has provided various approaches for industry comment and AZPS is providing comments on the following two approaches:

Requiring any classification that subjects Generator Owners and Generator Operators to all the standards applicable to Transmission Owners and Transmission Operators would do little, if

anything, to improve the reliability of the Bulk Electric System (see page 3).

To maintain an adequate level of reliability in the Bulk Electric System, a clear delineation of responsibilities and authority at the interface between Generator Owners/Operators and Transmission Owners/Operators is needed. This can be accomplished by properly applying selected standards or specific standard requirements to Generator Owners and Generator Operators (see page 3).

Taking this approach the SDT has done an admirable job of trying to address requirements for this special group of Generator Owners and Operators with generator interconnection facilities without requiring them to comply with all the Transmission Owner and Operator Reliability Standards. However, it does not appear that they have looked at the impact of adding the Generator Owner and Operator to select reliability standards applicable to Transmission Owner and Operator and how this will add additional compliance requirements to the rest of Generator Owners and Operators in the industry. It may be more appropriate to consider the creation of another entity as a Generator Interconnect to clarify the distinction from having full TO/TOP responsibilities. Then the specific requirements could be distinguished between the TO/TOP and GO/GOP.

The SDT has also made the following statements which although understandable do not provide the confidence this is the correct approach in extending the requirements of a Generator Owner and Operator into certain Transmission Owner and Operator standards. The second statement below, as indicated, will considerably alter the SDT previous direction and may limit this approach.

The SDT recognizes that its work alone may not eliminate all reliability gaps with respect to generator-owned Facilities like generator interconnection facilities (see page 7). As noted above, Project 2010-17—Definition of Bulk Electric System may have an enormous impact on the work of this SDT. We are confident that these changes we have proposed to a small number of standards, in coordination with changes to the Bulk Electric System definition, can achieve the necessary reliability (see page 7).

AZPS's ultimate recommendation is to consider adding a new entity to address the specific standards and requirements needed by a Generator Interconnect Facility versus adding additional requirements for a Generator Owner and Operator which are applicable to the Transmission Owner and Operator.

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## **COMMENTS:**

TransAlta Centralia Generation LLC (TransAlta) appreciates the opportunity to provide comments on Project 2010-07 Generator Requirements at the Transmission Interface White Paper Proposal for Informal Comment.

TransAlta strongly encourages the continued progress on Project 2010-07. Completion of this project is important to bring resolution to the industry regarding not only the "go forward approach" but also for those generators that have already been registered as Transmission Owners and Transmission Operators.

TransAlta offers the following specific comments:

1. Overall TransAlta agrees with this more simplified approach. The white paper proposal describes the analysis undertaken by the Standard Drafting Team (STD) to arrive at the shorter list of standard which would require SARs - FAC-001 and FAC-003. We believe this approach is appropriate and logically puts some of the larger issues into forums that are already addressing those issues.

2. One of the recommendations in the white paper proposal is to follow Project 2010-17 Definition of Bulk Electric System and ensure that the responsibility for generator interconnection line leads is appropriately and clearly assigned to Generator Owners and Operators. TransAlta recognizes that Project 2010-017 is likely the more appropriate forum to deal with the definition of Bulk Electric System and the associated impact on the definition of generator interconnection line leads. TransAlta would recommend not only following Project 2010-07, but also active involvement in the project by the SDT to ensure that the responsibility for generator line leads is properly assigned.

3. Under the Section "Summary and Discussion of Other Options" the white paper proposal outlines a number of different options that are available to an entity to manage compliance responsibility. While TransAlta agrees that these options are available, what is important to note is that in many cases these options are difficult, costly and time consuming to implement, resulting in compliance risk for those generators that are registered by a regional entity and NERC for the Transmission Owner and Transmission Operator functions. The compliance risk placed on a generator after registration is one of the reasons we encourage the continued progress on Project 2010-07.

Thank you for considering our comments.

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**COMMENTS:**

Bonneville Power suggests that the following phrase be included:  
"the GO shall coordinate with the TO to ensure that all interconnection facilities are included in the vegetation management plan". This phrasing would leave it up to the GO and TO to determine how to coordinate most effectively.  
We appreciate your consideration of our comment.

**Andy Puzstai, American Transmission Company**  
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**COMMENTS:**

American Transmission Company LLC (ATC) wishes to thank NERC for providing an opportunity to comment on the NERC Project 2010-07 “Generator Requirements at the Transmission Interface” White Paper as requested in the NERC posting dated March 4, 2011.

ATC reviewed the subject White paper using the recommended focus questions in the NERC posting and has a couple comments. They are summarized in the attached document.

Thanks again for providing an opportunity to comment.

1. How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?

**Improvements:**

Next Step #1 - According to FERC Docket #ER10-1117, if a Generator Owner receives a request for service over their facilities; they have 60 days to file a tariff for processing the request for service. ATC believes that the proposed Requirement R4 of FAC-001 should give the Generator Owner 60 days, rather than 45 days, to provide its interconnection requirements.

Next Step #3 – NERC has not clearly defined wind farms to be generating plants. The words, “directly connected via a step-up transformer(s) to Transmission Facilities operated at voltages of 100 kV or above”, in the latest Project 2010-17 concept paper may not be interpreted as applicable to wind farms. The generating units of wind farms are typically directly connected to sub-transmission facilities, which in turn are directly connected to Transmission Facilities operated at voltages of 100 kV or above.

**ATC agrees the drafting team is heading in the right direction.**

2. The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

**No**

3. The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

**Yes, ATC supports the approach.**

**John Troha, SERC OC Standards Review Group**  
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## COMMENTS:

SERC OC Standards Review Group

Comments on Project 2010-07: Generator Requirements at the Transmission Interface

How can the proposal be improved?

4. Make the language clearer on the concept of a GO/GOP interconnection request to an established GO/GOP that has an existing interconnection to the BES. It would be beneficial to include a diagram(s) of interconnection examples.
5. We feel that the GO/GOP should not be forced into registration as a TO/TOP based on having a radial connection (single point of connection) to the BES, provided that the loss of that radial connection is included in the set of study contingencies by the TP and TOP.
6. The team should consider addressing exceptions to the typical (radial connection – single point of connection) generator connections to the BES on a case-by-case basis involving the appropriate parties, such as the GO/GOP/TO/TOP/TP and Regional Entity, rather than creating requirements that apply to all GO/GOPs.

Is the drafting team headed in the right direction?

2. We applaud the team for seeking informal direction from the industry and believe the direction that the team is taking is appropriate.

### SERC OC standards Review Group Participation

Gerry Beckerle	Ameren
Jerry Hereen	MEAG
Jim Peterson	Santee Cooper
Shaun Anders	CWLP
Hamid Zakery	Dynegy
Scott McGough	OPC
David Plauck	Calpine
Pat McGovern	GTC
Melinda Montgomery	Entergy
Shardra Scott	Gulf Power
Doug White	NCEMC
Jake Miller	Dynegy
Larry Rodriguez	Entegra Power
Jim Case	Entergy
Ray Phillips	AMEA
John Troha	SERC

***“The comments expressed herein represent a consensus of the views of the above named members of the SERC OC Standards Review group only and should not be construed as the position of SERC Reliability Corporation, its board or its officers.”***

**Jack Cashin, Electric Power Supply Association**

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**COMMENTS:**

**EPSA Comments on Generation Requirements at the Transmission Interface – Project 2010-07**

The Electric Power Supply Association (EPSA)<sup>1</sup> endorsed the initial recommendations of the *Ad Hoc Group for Generator Requirements at the Transmission Interface*, and appreciates the opportunity to offer these informal comments on the March 2011 White Paper Proposal for Project 2010-07. Since NERC's creation of the "GOTO Team" in February of 2009, EPSA has supported the efforts of Ad-Hoc Group and now the Project 2010-07 Standards Drafting Team (SDT). While EPSA members' compliance registration includes several functional entity types, the bulk of competitive suppliers' registrations are as Generator Owners (GOs) and Generator Operators (GOPs).

EPSA's comments herein will focus on the following points for the Project 2010-07 SDT to consider concerning the White Paper Proposal:

- The definitions included in the currently underway Bulk Electric System (BES) definition Standard drafting effort and Generator Requirements at the Transmission Interface need to be aware of each SDT's work. Thus, the Project 2010-07 SDT should regularly consult with the Project 2010-17 SDT so that the two projects work as coordinated efforts.
- So that the Interface between generation and transmission can be clearly demarcated, correctly defining generator interconnection facilities is crucial to the successful completion of Project 2010-07.
- EPSA largely supports the White Paper's correct assessment about how Project 2010-07 will either require slight or no modification of other Standards to maintain reliability.
- Competitive Suppliers agree that FAC-001-1 and FAC-003-2 should apply to GOs, but suggest that the SDT revisit and revise the criteria that would trigger compliance for these two Standards.

**BES Definition and Exemptions – Working with Project 2010-17**

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<sup>1</sup> EPSA is the national trade association representing competitive power suppliers, including generators and marketers. These suppliers, who account for 40 percent of the installed generating capacity in the United States, provide reliable and competitively priced electricity from environmentally responsible facilities serving power markets. Each EPSA member typically operates in four or more NERC regions, and members represent over 700 registered entities in the NERC registry. EPSA seeks to bring the benefits of competition to all power customers. The comments contained in this filing represent the position of EPSA as an organization, but not necessarily the views of any particular member with respect to any issue.

Importantly, Project 2010-07 seeks to work in a coordinated way with the Definition of Bulk Electric System (BES) and Related Rules of Procedure Development Team – Project 2010-17 to appropriately designate facilities that would be included as part of the BES. The BES definition standard and associated exemption criteria need to be clear and widely understood so that BES generation and transmission facilities know their reliability responsibilities. The Project 2010-17 SDT needs to develop a crisp BES definition that can meld with the exemption criteria that will be developed. Importantly, the White Paper in stating Project 2010-07 Purpose, notes the Project's intent to have all generator BES facilities identified and integrated with other NERC Standards to ensure reliability. From the Paper:

The purpose of Project 2010-07—Generator Requirements at the Transmission Interface is to ensure that all generator-owned Facilities that are considered part of the Bulk Electric System are identified and that the level of reliability needed to operate such Facilities is appropriately covered under NERC's Reliability Standards.<sup>2</sup>

While the two efforts need to move forward in a coordinated way, neither project should impede the other's efforts or be stalled by the other's timetable.

EPSA supports the SDT's Purpose because it will eliminate the current conundrum when GO & GOPs are registered as TO & TOPs. This creates an untenable situation where GO & GOPs must comply with TO & TOP applicable standards despite not participating in the drafting of those Standards, because there was no evidence at the time that they would ever be registered as TO & TOPs. Project 2010-07 begins the process to change this situation and ensure against potential BES reliability gaps. By identifying the Standards that are appropriate for specific GO & GOPs the White Paper sets the course for the ERO to properly give GO & GOPs the due process accorded them under Section 215 of the Federal Power Act (FPA). Hence, generators can be engaged in the Project 2010-07 process so that those GO & GOPs that need additional responsibilities typically applicable to TO & TOPs will understand their full compliance obligations and ensure BES reliability. Moreover, coordination among Project 2010-07 and Project 2010-17 will ensure that the Standards will eliminate potential BES reliability gaps.

### **The Need for a Generator Interconnection Facilities Definition**

EPSA supports the SDT assertion that generating elements and facilities should be classified as part of the BES. Moreover, a clear BES definition will only be successful if the point of interconnection and associated functional registration is properly defined. The White Paper notes the need for good definitions for appropriate classification:

While not all power plants are considered part of the Bulk Electric System, ultimately, all the plants are interconnected to the bulk power system via their generator interconnection facilities. Of concern is how to classify all such

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<sup>2</sup> Project 2010-07: Generator Requirements at the Transmission Interface, White Paper Proposal for Informal Comment, March 2011, Page 2.

generating facilities, including their generator interconnection facilities, to determine what level of reliability is needed for such facilities.<sup>3</sup>

Generally, EPSA agrees with the SDT's conclusion that, "new definitions, modifying other definitions, and making changes to dozens of standards was no longer necessary." Much as the White Paper discusses (and is addressed later in these comments) many of the changes occurring through the BES revision will obviate the need for some of the definitional and standard modifications anticipated by the Ad-Hoc Group in 2009. EPSA agrees with this White Paper conclusion with the exception of generator interconnection facilities. A definition for generation interconnection facilities is necessary in Project 2010-07 Standard so that the interface between generators and transmission system can be clearly established and any ambiguities about reliability responsibilities for GOs & GOPs and TO & TOPs are eliminated.

The Ad-Hoc Group Report recommended the following definitions for incorporation into the existing standard:

#### **Generator Interconnection Facility**

*Sole-use facility for the purpose of connecting the generating unit(s) to the transmission grid. In this regard, the sole-use facility only transmits power associated with the interconnecting generator, whether delivered to the grid or delivered to the generator for station service or auxiliary load, or delivered to meet cogeneration load requirements.*

#### **Generator Interconnection Operational Interface**

*Location at which operating responsibility for the Generator Interconnection Facility changes between the Transmission Operator and the Generator Operator.<sup>4</sup>*

These definitions were developed with due consideration for varying configurations, outages, and generators materiality to the BES. The Facility definition defines the purpose of the facility, while the Generator Interconnection Operational Interface definition provides the functional lines of demarcation between the GO and the TO. The definitions were developed based on the purpose of generator interconnection facilities, their usage and how their usage differs from transmission facilities that comprise the interconnected grid. EPSA believes this is a sound basis for distinguishing BES facilities.

EPSA encourages the Project 2010-07 SDT to consider fitting the above definitions into the current White Paper for inclusion in the NERC Glossary. In addition, the other definitional changes proposed in the Ad-Hoc Group Report<sup>5</sup> should be retained and be considered for Glossary modification.

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<sup>3</sup> *Id* at Page 1.

<sup>4</sup> Generator Requirements at the Transmission Interface Final Report – Ad Hoc Group, November 16, 2009, Pages 17-18.

<sup>5</sup> *Id* at Pages 16-17.

Provided that there have been several FERC appeals<sup>6</sup> associated with this issue, EPSA encourages the SDT to include the above definitions so that registration can be based on a sound definition for generator interconnection facilities on which complying entities can rely. By providing the above definitions and changes to the NERC Glossary will add needed clarity. Including a generator interconnection facility definition in the Standard and in turn the NERC Glossary will appropriately set the stage for compliance registry criteria changes. EPSA believes the Project 2010-07 SDT should provide the definition changes for compliance registry amendment at the earliest date available so that any perceived registration reliability gaps can be corrected. Subsequently, as Regional Entities are considering new registrations they will have stronger criterion on which to base their decisions, which will make it so that NERC can “measure twice and cut once,” avoiding unnecessary resources expenditure on appeals.

### **Project 2010-07 and Other Relevant Reliability Standards**

EPSA generally supports proposed next steps and recommendations provided in the White Paper. This section of the paper updates (since the Ad-Hoc Group Report) the review of Standards and their requirements that should apply to appropriate generation facilities. Competitive suppliers agree with the SDT's conclusions that the Standards list beginning on page 5 of the White Paper<sup>7</sup> already apply to GO & GOPs due to changes since the Ad-Hoc Group Report and therefore do not need to be addressed further in Project 2010-07. The further White Paper discussion about how the circumstances for the EOP and PER and TOP (including considerations of PRC-001-2) Standards on pages 6 and 7 provides sound reasons that make EPSA believe that any reliability gaps perceived in 2009 that have since been closed.

### **Actions that Trigger Applicability of the FAC Standards**

The first recommendation in the White Paper is to include GOs in the applicability section of FAC-001-0, an assertion with which EPSA agrees. Appropriate generation facilities that would be identified as needing to comply with FAC-001-0 would need to comply with the Standard to ensure the reliability of the BES. However, EPSA is concerned with the White Paper's proposal that Requirement 4 be added to the applicability section of FAC-001-1. The proposed Requirement reads:

R4. Generator Owner that receives an interconnection request for its facility shall, within 45 days of such request, be required to comply with requirements R1, R2, R3 for the facility for which it received the interconnection request.

EPSA cautions the SDT about inadvertently commingling commercial issues with reliability issues. The interconnection requests involve other tariff issues for both GOs and TOs that need to be resolved before compliance can be established. Reliability will not be degraded if the triggering event for Standard compliance is set after the completion of other commercially

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<sup>6</sup> New Harquahala Generating Company, LLC, 123 FERC 61,173 (“New Harquahala”), order on clarification, 123 FERC 61,311 (2008); Cedar Creek Wind Energy, LLC, RC11- 1-000, appeal, 2010; Milford Wind Corridor Phase I, LLC, RC11-2-000.

<sup>7</sup> Project 2010-07: Generator Requirements at the Transmission Interface, White Paper Proposal for Informal Comment, March 2011, Page 5.

related regulatory obligations. Examples of commercial obligations that would need to be resolved include the need for an Open Access Transmission Tariff (OATT) to be filed with respect to the interconnection. During the proposed 45 day and potentially beyond, issues regarding transmission upgrades and financial responsibility for those upgrades would need to be resolved. Until upgrade issues are resolved, facility ownership and operation and maintenance responsibilities will not be specifically known. Additionally, if transmission owner and the interconnecting generator are affiliates, waivers with FERC acceptance will be required. The OATT and associated upgrade and affiliate waiver issues would need time to be sorted out prior to a registered GO being required to meet the requirements of FAC-001-0. Consequently triggering reliability compliance 45 days after the interconnection request is not feasible and does not enhance BES reliability. EPSA believes the SDT should ensure that reliability compliance should not be required before OATT changes and potential waivers are completed. Hence the criteria for triggering GO compliance with FAC-001-0 should only come into play after all commercial OATT issues are resolved.

The White Paper also proposes that the Generator Owner be added to all the requirements and measures that mention Transmission Owner for FAC-003-2. FAC-003-2 should apply to appropriate GOs, however EPSA asserts that the current proposal, which suggests applying the Standard to all generator interconnection facilities needs to have a more specific criteria to distinguish the specific GOs that need to comply with FAC-003-2. This would be consistent with the approach that was used by the Ad-Hoc Group in its Report where the “two-span test was supported for determining which GOs that FAC-003 should apply to:

In reaching this conclusion, the team considered other options that included inclusion of Generator Owners as applicable entities to FAC-003 based on a test for criticality, or to include Generator Owners as applicable entities in the existing version of FAC-003 without modification to the applicability criteria. The team, supported by a majority of industry commentators [sic] indicated the two-span test presented a simple and objective method to determine responsibilities for Generator Owners. Additionally, the “200 kV and above, or otherwise deemed critical to the Bulk Electric System” threshold is consistent with the current applicability of FAC-003 to Transmission Owners.<sup>8</sup>

EPSA supports the approach endorsed during the development of the Ad-Hoc Group Report and believes that FAC-003-2 need only apply to GOs with significant voltages and distances. Only Generator Owners of a Generator Interconnection Facility whose facilities operate at 200 kV and above or are otherwise deemed critical to the BES and whose Generation Interconnection Facility exceeds two spans (generally one-half mile from the generator property line) should need to comply with the vegetation management Standard. Therefore, the SDT should reexamine if FAC-003-2 should apply to all GOs only based on the generator interconnection facility. This must be done in conjunction with revising the definition of generator interconnection facilities.

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<sup>8</sup> Generator Requirements at the Transmission Interface Final Report – Ad Hoc Group, November 16, 2009, Pages 15.

## **Conclusion**

In summary, EPSA endorses SDT's work and appreciates the posting of the White Paper for an informal comment period. The White Paper provides an important bridge for Stakeholders to weigh current recommendations with the 2009 Ad-Hoc Group Report. Generally, EPSA agrees with the SDT's recommendations but still feels that to ensure that there are no BES reliability gaps requires coordination with the current BES SDT Project 2010-17; a definition for generator interconnection facilities needs to be included in the Standard; the Standards that no longer require changes since the 2009 Ad-Hoc Report have been correctly assessed; and, the compliance triggers and criteria for the FAC Standards need to be revised. Therefore, EPSA respectfully requests that the SDT for Project 2010-07 consider the recommendations herein.

**Natalie Mazey, Texas Reliability Entity, Inc.**  
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 512-583-4928

**COMMENTS:**

**Comments of the ERCOT Region NERC Standards Review Subcommittee (NSRS) on NERC Project 2010-07 White Paper Proposal on Generation Requirements at the Transmission Interface (GRTI)**

Submitted by: Group – ERCOT Region NERC Standards Review Subcommittee

Participating Members:

Name	Organization	Region
Bruce Wertz (Chair)	Independent Consultant	ERCOT
Pamela Zdenek (Vice Chair)	BP Products North America, Inc.	ERCOT
Brenda Hampton	Luminant	ERCOT
Tim Soles	Independent Consultant	ERCOT
Tom Foreman	LCRA	ERCOT

Contact: Natalie Mazey, Standards Development Coordinator, Texas Reliability Entity, Inc.

1. Coordination between Standard Drafting Teams. Based on the current status of the Bulk Electric System Standard Drafting Team (BESSDT) proposed BES definition, the White Paper Proposal (“Proposal”) does not provide a clear demarcation between generator interconnection facilities and the interconnected transmission facilities of the Transmission Owner/Operator.

The current BES definition makes no mention of what are or are not considered generation interconnection facilities, but merely includes “generating units greater than 20 MVA (aggregated 75 MVA at one site) from the generator terminals through the GSU which has a high side voltage of 100 KV or above.” Many registered generators own an additional interconnection line that is above 100 KV that, in turn, connects the generator to the transmission owner’s facilities and is also part of the generator interconnection. The currently proposed BES “core definition” would classify this line as a Transmission Element and could conceivably subject the GO to the full array of TO/TOP standards for this interconnection line.

According to its scope, the BESSDT is looking to the GRTISDT to define this demarcation through a definition, as proposed by the Ad Hoc group. As we interpret its scope, the BESSDT is defining what is or is not part of the BES without specifying what standards apply to different parts of the BES, or, for that matter, what standards apply to non-BES facilities.

**The NSRS asks for clarity of the definition, “generation interconnection facility” and for that definition to be included in the NERC Glossary. This subcommittee has no preference as to which committee takes ownership of this definition; however, we are substantially interested in expediting the completion of the review of this definition.**

2. Generation Interconnection Lines. The NSRS disagrees that generation interconnection lines are transmission lines from a functional standpoint. The function of the interconnection line is to interconnect the generator with the transmission system in a similar manner to the connectivity of a local distribution system to the transmission system (i.e., generally radial in nature). These lines only carry the output power or auxiliary power for that generation unit and are not for public use. The transmission system function is to deliver the generation to the load. That is not to say that some standards related to higher voltage lines may apply. Merely that, from a functional standpoint, the two are not the same and the reliability requirements are not the same.

**The NSRS agrees with the approach the SDT is taking involving the addition of a GO function to FAC-003. In the ERCOT Protocols, the definition of “Power Generation Company” (“PGC”) states that the PGC does not own a transmission or distribution Facility in this state other than an essential interconnecting Facility...” Therefore, by definition, a PGC cannot be TO/TOP.**

3. Proposed FAC-001 Revisions. The proposed FAC-001 revisions should not apply in the ERCOT region. In the ERCOT region, generation interconnection lines are private facilities that are not subject to third party interconnection requests. This revision only applies to a generation interconnection line that is considered part of the transmission network and for which the GO receives compensation for making this transmission line available.

**The FAC-001 revisions should include a regional difference exempting Generation Owners in the ERCOT region.**

4. Proposed FAC-003 Revisions. The NSRS agrees with the Ad Hoc Group’s Proposal 2, which provides for exclusions for short distance interconnections (i.e. - interconnection lines that do not exceed a distance that can be reasonably monitored), from the generator property line. In addition, there should be a process for demonstrating to the Regional Entity that the interconnection line has no vegetation around it to manage, i.e. in arid locations. Each entity should be allowed to develop this process based on their circumstances at their facility.

**Dan King, Sempra Generation**  
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## COMMENTS:

### **Comments of Sempra Generation on the Project 2010-07 Generator Requirements at the Transmission Interface White Paper**

Sempra Generation is the parent company of several generation-owning subsidiaries in the Western Electricity Coordinating Council region, including Mesquite Power, LLC (Mesquite), which is currently registered as both a Generator Owner/Generator Operator (GO/GOP) as well as a Transmission Owner/Transmission Operator (TO/TOP) due to the ownership of generator interconnection facilities.

Sempra Generation commends the work of the Project 2010-07 Standards Drafting Team (SDT) and believes the team is heading in the right direction, as evidenced by the March 2011 White Paper currently open for comment. Sempra Generation supports the position of the SDT that generator interconnection facilities should not trigger registration as a TO or TOP simply because the GO owns and/or operates transmission elements or facilities. Having said that, Sempra Generation agrees that, in order to maintain an adequate level of reliability in the Bulk Electric System, selected standards and requirements should apply to GO/GOPs in order to establish and maintain a clear delineation of responsibilities with respect to their generator interconnection facilities.

In the brief comments below, Sempra Generation provides feedback to the SDT on specific proposals in the White Paper.

- **Applicability of FAC-001-0 to the Generator Owner**

The SDT's proposed approach to FAC-001-0, which would require a GO to fully implement the R1 – R3 requirements within 45 days in the event the GO receives an interconnection request, may pose some difficult practical hurdles for GOs. A third-party request to interconnect to the GO's facilities would most likely occur in the circumstance where an existing radial transmission facility is sufficiently sized to accommodate additional generation, as is sometimes the case for renewable generation in particular, given that these facilities are also often sited many miles from the grid.

Third-party interconnection requests notwithstanding, if a GO is not also registered as a TO/TOP, it is because, as recognized at p. 3 of the White Paper, that GO's interconnection facilities are radial in nature, rather than "integrated." Adding an interconnecting third-party generator user to the GO's radial gen-tie facility does not automatically make that facility an "integrated" transmission element. If the GO's transmission facilities are not "integrated," it is generally going to be infeasible for the GO to fully implement the R1 - R3 requirements, since those requirements are clearly designed for owner/operators of integrated transmission facilities. In all actuality, the most appropriate entity to coordinate the process from the technical standpoint of facility connection requirements would be the BAA/TSP to whom the

GO is interconnected, since the BAA/TSP would invariably be an “Affected System” under the FERC’s pro forma Large Generator Interconnection Procedures.

Some of the practical difficulties facing GOs were recently highlighted by participants and panelists at the FERC Technical Conference on participant-funded transmission (Docket No. AD11-11-000, et al., March 15, 2011), where FERC is considering how to better implement the OATT requirement for participant-funded transmission facilities (including gen-tie facilities). In light of the discussion at the Technical Conference, it is reasonable to assume that FERC may be making adjustments to its policies in the future regarding how to address third-party access to GO interconnection facilities.

In addition, the seeming impracticality of a generator complying with FAC-001-0 R1-R3 was acknowledged and documented in 2008 by NERC and WECC in the Harquahala “Compliance Protocol” document, which was recently filed at FERC in the Cedar Creek Wind/Milford Wind Corridor proceeding (FERC Docket No. RC11-1-000 et al., filed December 28, 2010). With respect to compliance with FAC-001-0 R1-R3, the Compliance Protocol provides as follows:

Because Harquahala does not know what equipment would be required for a specific interconnection to the Harquahala transmission facilities, to satisfy these Requirements, Harquahala will generally describe the factors it will consider if interconnection is requested, including any necessary coordination with SRP, and the necessity of installing certain equipment for measuring interconnection capability. Harquahala will not be required to publicly publish its facility connection requirements, but Harquahala will provide them upon request, as required in R3. If Harquahala were to receive a request for interconnection, Harquahala will work with the requesting entity to develop full interconnection requirements in a timely manner.

Instead of requiring the GO to comply with the full panoply of FAC-001-0 R1– R3 requirements (all within 45 days of the third-party interconnection request), Sempra Generation encourages the SDT to consider R4 language that recognizes the practical hurdles associated with implementing the requirements for radial facilities, and that takes an approach more akin to the Harquahala Compliance Protocol with respect to this Standard. Specifically, the SDT should consider R4 language that would require the GO receiving the interconnection request (i) to implement the requirements of R1 – R3 only to the extent those requirements are applicable to radial facilities; and (ii) to coordinate with its BAA/TSP on such implementation. In terms of timing, the SDT should consider whether the proposed 45 days is realistic, and whether a 90-day deadline would be more appropriate. The flexibility inherent in the above approach would likely avoid potential conflicts with any revised FERC policies resulting from the aforementioned Technical Conference.

- **Applicability of FAC-003-2 to the Generator Owner**

Sempra Generation supports the addition of “Generator Owner” to the Applicability section of FAC-003-2.

- **Project 2010-17—Definition of Bulk Electric System**

Sempra Generation supports the need for the coordination between the Project Teams for Project 2010-07 and Project 2010-17 (Definition of Bulk Electric System), and agrees that changes made to the BES definition will be instrumental in covering the reliability gap with respect to generator requirements at the transmission interface. However, because the Project 2010-17 BES work may take a significantly slower track than the SDT's progress, Sempra Generation encourages the SDT to weigh the risks and benefits of including of a definition of "Generator Interconnection Facility" in the NERC Glossary and associated clarifications to the standards, as proposed in the *Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface*.

- **Other Solutions**

As referenced in the White Paper, the standards outlined will likely not take effect for a year or more. In the meantime, GOs such as Mesquite will continue to be under increased risk of non-compliance due to their registration as TO/TOPs, and will need to incur substantial compliance costs for TO/TOP requirements that are clearly not an appropriate fit. Accordingly, Sempra Generation encourages consistent application of responsibilities under the Standards in all NERC regions, and urges NERC to adopt the necessary changes to the NERC Glossary, Registration Criteria, and/or Standards to ensure consistency exists throughout the regions.

- **Conclusion**

The Final Report and White Paper are obviously products of detailed analysis and thoughtful consideration of the myriad issues surrounding the reliability implications of ownership and operation of generator interconnection facilities. It is noteworthy – though hardly surprising – that, after many months of study, the GO/TO Task Force and the SDT, balanced groups comprised of members from a broad spectrum of functional categories, have concluded that only modest changes to the Reliability Standards would be required in order to ensure that no gaps exist and that generator interconnection facilities are operated reliably. When implemented, the recommendations included in the White Paper should go a long way toward providing the regulatory and compliance certainty needed by generators who own or operate generator Interconnection facilities. Accordingly, Sempra Generation encourages the continued work of the Project 2010-07 team.

Sempra Generation is not the same company as the utility, SDG&E or SoCalGas, and the California Public Utilities Commission does not regulate the terms of Sempra Generation's products and services.

**Amir Hammad, Constellation Power Generation**

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**COMMENTS:**

Dear Drafting Team Members:

Thank you for the opportunity to offer input at this stage of the standard development. Below, please find comments from Constellation Power Generation and Constellation Commodities Group (collectively CPG):

1. How can the proposal outlines in the White Paper be improved? Is the drafting team heading in the right direction?

CPG agrees with many of the aspects discussed in the White Paper such as on page 3 “...qualifying generator interconnection facilities should be classified as transmission. That does not, however, mean that a Generator Owner or Generator Operator should be required to automatically register as a Transmission Owner or Transmission Operator simply because it owns and/or operators transmission Elements or Facilities” and that “requiring any classification that subjects Generator Owners and Generator Operators to all the standards applicable to Transmission Owners and Transmission Operators would do little, if anything, to improve the reliability of the Bulk Electric System.” CPG also agrees with the limited number of proposed reliability standard changes that this drafting team has identified in the White Paper.

However, the White Paper also states that any potential reliability gaps can be closed by “properly applying standards or specific standard requirements to Generator Owners and Generator Operators.” CPG does not agree with that statement. Applying selected requirements or standards to all GOs and GOPs when any potential reliability gaps only apply to a minority of GOs and GOPs is not the correct approach.

The proposed White Paper departs from some of the valuable concepts within the Ad Hoc Group report from November 2009, which CPG would like to see reconsidered. The drafting team should revisit the Ad Hoc report recommendation to define “Generator Interconnection Facility”. Because generator interconnection facilities are distinctly different from the traditional transmission function understood within the Bulk Electric System, generator interconnection facilities should be independently defined. Once clearly defined, the drafting team should consider the subset of transmission geared standards useful to address reliability issues at the subset of applicable GOs and GOPs.

The draft definition language in the Ad Hoc Report offers a good starting point:

***Generator Interconnection Facility***

*Sole-use facility for the purpose of connecting the generating unit(s) to the transmission grid. In this regard, the sole-use facility only transmits power associated with the interconnecting generator, whether delivered to the grid or delivered to the generator for station service or auxiliary load, or delivered to meet cogeneration load requirements.*

***Generator Interconnection Operational Interface***

*Location at which operating responsibility for the Generator Interconnection Facility changes between the Transmission Operator and the Generator Operator.*

2. The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

Constellation supports use of informal feedback opportunities as part of the development process. This allows for constructive input early in the process without the response obligations of the formal steps which will take place later in the process. In addition, informal settings offer industry members the chance to better understand the issues and decision making behind the standard development and encourage greater familiarity with the proposal before it reaches formal ballot.

3. The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-07 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

CPG disagrees with this approach. The BES team is currently standardizing the definition of BES using input from the regions and NERC. Its scope does not include creating new functional models and changing standards to close any perceived gaps in reliability. The Ad Hoc team’s proposal of creating new terms such as “Generator Interconnection Facility” is a much better approach. By clearly defining that term, the small subset of GOs and GOPs that may have these facilities can be made subject to the select TO requirements or standards to address the potential reliability question.

Thank you for your consideration. Please contact me with any questions.

**Kurtis B. Chong, Independent Electricity System Operator**  
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905-855-6282

## **COMMENTS:**

### **IESO Comments on Project 2010-07**

#### **“Generator Requirements at the Transmission Interface”**

We thank the Project 2010-07 SDT for the opportunity to comment on the posted white paper and attachments. IESO supports the effort to properly determine which TO/TOP reliability standards requirements ought to apply to GO/GOPs to promote BES reliability, while at the same time not burdening GOs/GOPs with the obligation of complying with other requirements that are not relevant to their operation. We offer these comments:

The introduction to the white paper raised the question of classifying generating facilities, including their generator interconnection facilities, to determine what level of reliability is needed for such facilities. Further, on page 2, the SDT referred to “qualifying” generator interconnection facilities. However, it is not clear what are the qualifying criteria. Are the qualifying criteria for Elements and Facilities the BES definition criteria? If so, this should be stated explicitly.

We agree with the proposed changes to FAC-001-0. An alternative approach would have been to include the GO in each of requirements R1 to R3. That would however have meant that the GO would have to document, maintain and publish facility connection requirements even in cases where requests for same are unlikely. The proposed approach makes compliance with R1 to R3 mandatory only upon receipt of a request and avoids potentially unnecessary upfront work by the GO.

In FAC-001-0, we suggest that R4 be modified as follows: Start the sentence with “The” and delete “be required to”.

We agree with the proposed changes to FAC-003. The last sentence of footnote 2 of FAC-003 should also be modified to include the Generator Owner.

The proposed definition of Generator Interconnection Operational Interface was “Location at which operating responsibility for the Generator Interconnection Facility changes between the Transmission Operator and the Generator Operator.” We do not understand the SDT’s rationale for removing this definition since it does not refer to Elements and Facilities rated at 100 kV and above. It is also unclear how the original objective meant to be achieved by the proposed change to EOP-008-0 R1.3 would be met. Please clarify.

**Sandra Shaffer, PacifiCorp**  
[Sandra.Shaffer@PacifiCorp.com](mailto:Sandra.Shaffer@PacifiCorp.com)

## **COMMENTS:**

**PacifiCorp respectfully submits the following comments with respect to Project 2010-07: Generator**

**Requirements at the Transmission Interface: White Paper for Informal Comment:**

PacifiCorp generally agrees with the objective and purpose of Project 2010-07, namely, to ensure that all generator-owned facilities that are considered part of the bulk electric system (“BES”) are identified and that the level of reliability needed to operate such facilities is appropriately covered under NERC’s Reliability Standards.

However, PacifiCorp believes that certain of the standard drafting team’s proposals are not consistent with this objective.

Specifically, in “Proposed Next Steps and Review of Reliability Standards,” item #3, the standards drafting team proposes to ensure that the responsibility for generator interconnecting line leads is appropriately and clearly assigned to Generator Owners and Generator Operators. PacifiCorp believes that this step is not necessary at this time and is inconsistent with the purpose of Project 2010-07. The purpose of the project is to ensure that the facilities considered part of the BES are properly identified. The definition of “BES” should define the facilities that are part of the BES; it should not define responsibility or ownership of those facilities. Although typically generator lead lines are owned and operated by the Generator Owner or Generator Operator, they may also be owned or operated by the Transmission Owner or Transmission Operator. The BES definition should remain broad enough to take this difference into account.

PacifiCorp disagrees that a requirement should be added to FAC-001-0 to require a Generator Owner that receives an interconnection request for its facility to comply with requirements R1, R2, and R3. First, it is not clear to PacifiCorp that the lack of this requirement could result in gaps. The standards drafting team provides no support for the existence of such a gap and rather simply makes an assumption that it could result in reliability gaps. PacifiCorp is not aware of many generating facilities that, given FERC’s open access requirements, receive interconnection requests. That said, PacifiCorp would admit that it is theoretically possible that a Generator Owner would receive an interconnection request. If such a thing were to occur, PacifiCorp believes that is unreasonable to require the Generator Owner to have facility connection requirements in place within 45 days of such request. The Generator Owner should only be obligated to develop such facility connection requirements if the interconnection request will be granted and new third-party facilities will actually be interconnected to the Generator Owner’s facilities. In this manner, the burden of developing such facility connection requirements will only apply when necessary to enhance reliability.

**Annette M. Bannon, PPL Generation, LLC**

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610-774-2064

**COMMENTS:**

The following NERC registered entities have reviewed and endorse the EPSA comments on this project.

NCR00882 Lower Mount Bethel Energy, LLC

NCR00883 PPL Brunner Island, LLC

NCR00886 PPL Holtwood, LLC

NCR00887 PPL Martins Creek, LLC

NCR00888 PPL Montour, LLC

NCR05329 PPL Montana, LLC

Thank you for considering the industry's comments on the Generator Requirements at the Transmission Interface White Paper.

**Natalie McIntire, American Wind Energy Association**  
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651-964-2599

## **COMMENTS:**

### **American Wind Energy Association Informal Comments on NERC Project 2010-07 Generator Requirements at the Transmission Interface**

The American Wind Energy Association (AWEA) appreciates the opportunity to submit comments on the NERC Project 2010-07 white paper (White Paper), "Generator Requirements at the Transmission Interface." AWEA supports the proposed plan from the Generator Requirements at the Transmission Interface Ad Hoc Group (GOTO Ad Hoc Group), which concludes that:

1. If Generator Interconnection Facilities operate at 100 kV or greater or are deemed critical to the Bulk Electric System, it would make the Generator Interconnection Facility part of the Bulk Electric System with respect to Generator Owner and Generator Operator requirements but not for Transmission Owner or Transmission Operator requirements.
2. A Generator Owner or Generator Operator that owns and/or operates a Generator Interconnection Facility (that is, a sole-use facility that interconnects the generator to the grid) need not be registered as a Transmission Owner or Transmission Operator by virtue of owning or operating its Generator Interconnection Facility.
3. A Generator Interconnection Facility is considered as if it is part of the generating facility specifically for purposes of applying Reliability Standards to a Generator Owner or Generator Operator.<sup>1</sup>

The NERC Standard Development Team's (SDT) White Paper appears to be generally consistent with the recommendations of the GOTO Ad Hoc Group. While the SDT explains that generator interconnection facilities should be classified as part of the Bulk Electric System (BES), it also states that "(this) does not mean, however, that a Generator Owner or Generator Operator should be required to automatically register as a Transmission Owner or Transmission Operator simply because it owns and/or operates transmission Elements or Facilities. ... [T]hese are most often not part of the integrated bulk power system, and as such should not be subject to the same level of standards applicable to Transmission Owners and Transmission Operators who own and operate transmission Facilities and Elements that are part of the integrated bulk power system."

AWEA supports the SDT's conclusion that "[w]hen the transmission Elements and Facilities owned and operated by Generator Owners and Generator Operators are nonnetwork/non-integrated transmission, applying *all* standards applicable to Transmission Owners and Transmission Operators would have little effect on the overall reliability of the Bulk Electric System."

AWEA also supports the SDT effort to rework the proposal from the GOTO Ad Hoc Group, not because of significant differences between ultimate goals, but to simplify this

modification process by limiting the number of standards that need to be changed.

<sup>1</sup> NERC, "Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface", November 16, 2009, Page 3.

We note, however, that the SDT does not clarify how, or under what circumstances, a Generator Owner or Operator will be exempted from registration as a Transmission Owner or Operator and the corresponding requirements. The new proposed definitions for the BES from Project 2010-17, Definition of Bulk Electric System, include the interconnection facilities along with the facilities of individual generators or generation plants. If these proposed changes are adopted, we think there needs to be clarification as to whether that would exempt GO/GOPs from the requirements that TO/TOPs. Therefore, AWEA requests greater clarification of how, by definition or through registration criteria, the SDT intends to implement the recommendation that a GO/GOP should not be registered as a TO/TOP solely due to its interconnection facilities. AWEA reads the White Paper to state there are few requirements that currently apply to TO/TOPs that the SDT believes are critical enough that they should also apply to GO/GOPs who have related interconnection facilities that qualify as part of the BES. These include requirements related to registration of facilities that receive interconnection requests, as well as vegetation management requirements that typically apply to transmission facilities. AWEA details our concerns about both of these requirements below.

#### FAC-001-0 – Facility Connection Requirements

Given the inconsistent understanding of which interconnection facilities are required to offer interconnection or transmission service, AWEA urges the SDT to watch how this issue unfolds at FERC,<sup>2</sup> and to ensure that the additional requirements proposed in FAC-001 apply only to generators who are required to accept interconnection requests. Our concern is that a generator owner of interconnection facilities would be required to incur costs and devote staff time to developing the facility connection requirements as stated in FAC-001, even though a submitted request might not result in another party interconnecting.

#### FAC-003-02- Transmission Vegetation Management

Given that this standard applies to lines 200kV and higher, it will apply only to the largest interconnection facilities. Still, AWEA believes the vegetation requirements the SDT has proposed in FAC-003 may be excessive for interconnection facilities that are of limited length. Wind generators by their very nature are intermittent and, therefore, are not relied upon in the same way as other generators with regard to the reliability of the grid. Vegetation issues that cause problems with wind generator interconnection facilities will not threaten reliability, but will only limit the ability for the generator to deliver its output to market, which is no different than the situation when the wind is not <sup>2</sup> A recent FERC Technical Conference on Priority Rights to New Participant-Funded Transmission Projects, on March 15, addressed the question of when and how a generator owner of an interconnection facility must receive an interconnection. It is possible that additional rules may come out of this process to clarify these issues.

blowing. AWEA urges the SDT to consider limiting application of this requirement to longer interconnection facilities, such as those that of . mile or more.

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## **COMMENTS:**

### **Comments of Kelson Energy, Inc. (“Kelson”) on White Paper Proposal for Informal Comment in Project 2010–07: Generator Requirements of the Transmission Interface (“White Paper”)**

Kelson supports the proposition set forth in the White Paper that a Generator Owner (GO) or Generator Operator (GOP, collectively GO/GOP) should not be required to automatically register as a Transmission Owner (TO) or Transmission Operator (TOP) “simply because it owns and/or operates transmission Elements or Facilities.”<sup>1</sup> However, the White Paper does not address this important registration issue. Kelson understands that this is the result of the procedural limitations of the Project 2010–07 Standards Drafting Team (SDT), meaning that the SDT cannot propose changes to the *NERC Statement of Compliance Registry Criteria (Registry Criteria)*, but may only propose changes to Reliability Standards. However, the result is that this registration issue is still not being resolved by NERC in any public process. The SDT makes proposals to add GO requirements, yet it remains uncertain how GO/GOPs will be treated with respect to the TO/TOP requirements. Kelson believes this should be addressed as a whole. For this reason, Kelson provides comments on how the registration issue should be addressed, in addition to providing specific comments on the SDT’s proposals.

#### **I. Registration**

Kelson recommends that the SDT propose a new definition to the NERC Glossary for “Generator Interconnection Facility” (GIF), as was proposed in the *Final Report from the Ad Hoc Group for Generator Requirements at the Transmission Interface (GO/TO Final Report)* as follows:

Sole-use facility for the purpose of connecting the generating unit(s) to the transmission grid. In this regard, the sole-use facility only transmits power associated with the interconnecting generator, whether delivered to the grid or delivered to the generator for station service or auxiliary load, or delivered to meet cogeneration load requirements.<sup>2</sup>

In addition, Section III of the *Registry Criteria* should be revised to exclude an entity that owns and/or operates GIF as their only transmission facilities from registration as a TO and/or TOP as follows:

<sup>1</sup>White Paper at 3.

<sup>2</sup>GO/TO Final Report at 17.2

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Section III of the *Registry Criteria* states that the entities that meet the definition of the different registration categories, including TO and TOP, should be excluded from registration if they do not meet any criteria listed in Section III. The criteria listed for TO and TOP in Section III is currently set forth as follows:

III.d.1 An entity that owns/operates an integrated transmission element associated with the bulk power system 100 kV and above, or lower voltage as defined by the Regional Entity necessary to provide for the reliable operation of the interconnected transmission grid; or

III.d.2 An entity that owns/operates a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity.

Kelson recommends that this be changed as follows:

III.d.1 An entity that owns/operates an integrated transmission element associated with the bulk power system 100 kV and above, or lower voltage as defined by the Regional Entity necessary to provide for the reliable operation of the interconnected transmission grid, and not including a Generator Interconnection Facility; or

III.d.2 An entity that owns/operates a transmission element below 100 kV associated with a facility that is included on a critical facilities list that is defined by the Regional Entity.

These changes would prevent entities being registered as TO and/or TOP solely due to their Generator Interconnection Facilities. At the same time, the *Registry Criteria* always gives a Regional Entity the ability to register entities that do not otherwise fit within the *Registry Criteria* if it reasonably demonstrates that the entity is a bulk power system owner, or operates, or uses bulk power system assets and is material to the reliability of the bulk power system.<sup>3</sup> Thus, if there is a unique situation that indicates a GIF must comply with all of the TO and/or TOP requirements, a mechanism is available for registration.

<sup>3</sup>*Registry Criteria*, Note 1.

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## II. FAC-001

Kelson does not object to the addition of GO to the applicability section of FAC-001, but objects to the content of R4. FERC requires that when a generator receives an interconnection request from a nonaffiliate,<sup>4</sup> it must file an Open Access Transmission Tariff within 60 days of receiving that request. Kelson recommends that R4 be revised to be more consistent with FERC's policies, at least for those entities regulated by FERC. Generator Owner that receives an interconnection request for its facility from a nonaffiliated entity, as determined by FERC, shall, within 45 days of such a request after its Open Access Transmission Tariff is accepted by FERC, be required to comply with

requirements R1, R2 and R3 for the facility for which it received the interconnection request. If the Generator Owner is not subject to FERC Open Access Transmission Tariff requirements, then it shall be required to comply with the requirements R1, R2 and R3 within 45 days of such a request.

### **III. FAC-003**

While Kelson agrees that vegetation management might need to apply to certain generator interconnection facilities, particularly those of significant length, indiscriminate application of FAC-003 to all GOs is not the appropriate solution. There are significant differences between the facilities that make up part of the integrated transmission grid and interconnection facilities—many, and sometimes all, interconnection facilities are “inside the fence,” where all vegetation will have been cleared as a matter of course. In this case, vegetation would not be an issue and application of a standard like FAC-003 would be an inappropriate and unnecessary burden on the owner of the interconnection facilities. While R4.2.4 might exclude entities with facilities inside the fence, even for facilities that extend beyond the fence, any vegetation management standard must be flexible to accommodate variations since interconnection facilities may consist of generator leads of varying lengths from a few feet to many miles. A one-size-fits-all approach like FAC-003 is not appropriate. The vegetation management standard imposed on GOs should be less prescriptive than the one applicable to TOs. Kelson proposes that a GO vegetation management standard broadly require the GO to ensure that vegetation be maintained, and allowing the GO to develop and implement an appropriate program for vegetation, depending on the extent of vegetation within its right-of-way.

*4Sky River, LLC*, 134 FERC ¶ 61,064, at P 13 (2011).

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### **IV. Definition of Bulk Electric System (BES)**

Kelson has no objection to relying on a new BES definition to ensure that the responsibility for generator interconnection leads appropriately and is clearly assigned to GO/GOPs with respect to the standards listed in the White Paper, so long as the final, approved BES definition actually achieves this end. Otherwise, there will be a need to clarify that the GO/GOP would need to include their generator interconnection facility in their compliance activities for these activities. At the same time, waiting for the final, approved BES definition to address this issue could prolong this process unnecessarily, and therefore, Kelson suggests that the SDT propose to make the needed clarifications. This could be done by changing the definition of GO to be defined as an “[e]ntity that owns and maintains generating units, *including its Generator Interconnection Facility*”, as recommended in the GO/TO Final Report.<sup>5</sup> Alternatively, NERC could issue a Compliance Application Notice clarifying that when a GO and/or GOP is implementing the standards listed on pages 5-6 of the White Paper, its compliance activities should encompass the generator interconnection facilities.

**Dale Fredrickson, Wisconsin Electric**  
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## **COMMENTS:**

The efforts of the SDT are appreciated in support of reliable operation at the Generator-Transmission interface. In particular, we believe that the SDT decision not to propose new definitions or to change other existing definitions, and not to make changes to dozens of standards is a good one. In this respect we fully agree with the direction of the SDT.

However, we take issue with other aspects of the white paper. First, we believe that the statement (p. 4, Para. 3) that “requiring any classification that subjects Generator Owners and Generator Operators to all the standards applicable to Transmission Owners and Transmission Operators would do little, if anything, to improve the reliability of the BES”, is not precisely true. Much greater, such a requirement would actually reduce reliability. The costs and efforts to comply with these standards would displace time and money that could have been invested in real reliability enhancements. This entire paragraph needs more clarity. The second sentence appears to say much the same as the first, but it qualifies the Generator Owner/Operators “transmission Elements and Facilities” as those which are nonnetwork/non-integrated. It is unclear just what statement is being made here, especially about whether any Generator Owner/Operators “transmission Elements and Facilities” would indeed be considered network/integrated. Our understanding is that by definition, these Elements and Facilities (generator tie lines) are not network lines in the sense that Transmission Lines are network lines.

As for the Proposal #1 to add the GO to the Applicability section of FAC-001-0, Facility Connection Requirements, we do not support this. The need for this is not apparent. We suggest that there are few, if any, situations where there would be an interconnection request directed to a Generator Owner. It is a unique characteristic of transmission systems that they are the gatekeepers which establish connections for generation and load. We suggest this is an unnecessary extension of a standard to Generator Owners, and is not required for reliability.

Proposal #2 adds the Generator Owner to the Applicability section of FAC-003-2, Transmission Vegetation Management. This is done across the board, with no criteria for circuit length or where the circuit is located. We maintain this is much too broad, and will result in inefficient allocation of resources. The FAC-003-2 standard appears to have very demanding requirements for transmission right-of-way vegetation management and substantial documentation requirements. The reliability risk of vegetation problems on tie lines at the Generator-Transmission interface is almost zero. In cases where the affected “transmission Elements and Facilities” is very short (in one case of ours, from the plant to the switchyard on the opposite side of a street), or in cases where such facilities are on the property of the Generator Owner, the requirement to comply with FAC-003 is not justified by reliability risks, and we strongly object to this proposal. For these cases, the resources required to comply with FAC-003 standard would be considerable. We propose that the SDT implement the Material Impact Test suggested in the Ad Hoc Group’s Final Report

(November 2009) Recommendation #3 (p. 10): “Modify the applicability of FAC-003-1 to apply to Generator Owners when their Generator Interconnection Facility operates at 200 kV or above and exceeds two spans (generally more than one-half mile, see p. 3, #6) from the generator property line...”

We appreciate the work of the SDT, and the opportunity to offer our comments.

**Ed Davis, Entergy Services**  
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## COMMENTS:

### ENTERGY COMMENTS

#### NERC PROJECT 2010-07

#### GENERATOR REQUIREMENTS TO THE TRANSMISSION INTERFACE

Informal Comment Period – Ending April 4, 2011

Ed Davis

504-576-3029

We suggest the following changes and additions to the proposed draft changes to FAC-001.

First, the proposed R4 states “ .. interconnection request for its facility..”. It would be clearer to us if the request was stated as “to” its facility and suggest changing “for” to “to”:

**R4.** Generator Owner that receives an interconnection request ~~for~~to its facility shall,

Second, the proposed change to FAC-001, addition of Requirement 4, will require the generator owner to comply with FAC-001 Requirements 1-3 under certain conditions. Therefore, we suggest the following changes to R1-3 to conform to the addition of R4:

**R1.** The Transmission Owner and/or Generator 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 and/or Generator Owner planning criteria and facility connection requirements. The Transmission Owner’s and/or Generator Owner’s facility connection requirements shall address connection requirements for:

**R2.** The Transmission Owner’s and/or Generator Owner’s facility connection requirements shall address, but are not limited to, the following items:

**R3.** The Transmission Owner and/or Generator Owner shall maintain and update its facility connection requirements as required. The Transmission Owner and/or Generator 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).

**David K Thorne, Pepco Holdings, Inc. - PHI**  
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**COMMENTS:**

Pepco Holding Inc. Comments

PHI supports the general concepts and direction of the proposals as defined in the published white paper.

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## **COMMENTS:**

### **BP Wind Energy North America Inc. Comments on Project 2010-07: Generator Requirements at the Transmission Interface**

On Friday, March 4, 2011, the Project 2010-07 Generator Requirements at the Transmission Interface drafting team posted for a 30-day informal comment period a white paper on proposed concepts to support the modifications of various standards to clarify the reliability standard responsibilities of Generator Owners and Generator Operators at the interface to the interconnected grid.

BP Wind Energy North America Inc. (“BP Wind Energy”) submits the comments set forth below on the white paper. Various BP Wind Energy subsidiaries own and operate wind-powered generating facilities throughout the United States and are registered with NERC as Generator Owners (“GOs”) and Generator Operators (“GOPs”) in RFC, SPP, TRE, and WECC.

BP Wind Energy agrees with, and supports, the approach recommended in the white paper regarding how to address the applicability of NERC reliability standard to GOs and GOPs that own and/or operate generator interconnection facilities. While BP Wind Energy does not agree with the conclusion set forth in the white paper that generator interconnection facilities should be classified as transmission, BP Wind Energy strongly agrees with the white paper’s recommendation that a GO or a GOP that owns and/or operates generator interconnection facilities should not automatically be registered as a Transmission Owner (“TO”) or Transmission Operator (“TOP”) simply because it owns and/or operates such facilities. Generator interconnection facilities are typically not part of the integrated transmission system and, therefore, their reliable operation and maintenance should not require adherence to the same level or scope of standards that are applicable to transmission facilities that are part of the integrated transmission system. Indeed, requiring GOs and GOPs that own and/or operate generator interconnection facilities to adhere to *all* NERC reliability standards that are applicable to TOs and TOPs that own and/or operate transmission facilities that are part of the integrated grid makes little sense as such an approach is likely to do little to increase or ensure reliability of the bulk power system, fails to focus on what is needed to ensure reliable operation and maintenance of generator interconnection facilities, and results in unnecessary increased costs and burdens on GOs and GOPs.

By contrast, BP Wind Energy believes that the targeted approach recommended in the white paper – i.e., to clarify the applicability of a select number of reliability standards to GOs and GOPs by modifying the Purpose, Functional Entity section, requirements, and measures – is a better way to address reliable operation and maintenance of generator interconnection facilities and one that should go a long way toward providing clarity to the industry (and, in particular, GOs and GOPs) regarding GO and GOP reliability obligations.

However, given the targeted nature of the approach, BP Wind Energy strongly urges the drafting team to consider drafting and recommending, or recommending that NERC draft, revisions to the Statement of Compliance Registry Criteria that clarify the criteria for registration applicable to generator entities that own and/or operate generator interconnection facilities to ensure that, going forward, GOs and GOPs that own and/or operate such facilities are not improperly registered as TOs and TOPs. GOs and GOPs need to have the solution documented and applied in a consistent manner across regions.

Moreover, BP Wind Energy disagrees with the changes that the SDT is proposing be made to FAC-001-0. As BP Wind Energy reads the proposed changes, any GO that receives a request for service over a generator interconnection facility in which the GO has an ownership interest would be required to comply, within 45 days of receiving such a request, with the requirements set forth in R.1., R.2., and R.3. of FAC-001-0. Those requirements would obligate a GO to publish facility connection requirements for its generator interconnection facility and to ensure that the requirements address, among other things, procedures for coordination of joint studies of new facilities and their impacts on the interconnected transmission systems.

The Federal Energy Regulatory Commission ("Commission") is in the midst of considering issues related to priority access rights relating to participant-funded transmission projects, including those related to generator interconnection facilities (in particular, generator lead lines), as evidenced by the technical conference held by Commission staff on March 15, 2011 and the Commission's request in Docket No. AD11-11-000 for the submittal of comments by April 21, 2011 on such issues. As a result, the requirements applicable under Commission policy to a generator that receives a request for service over a generator interconnection line are likely to be revised or, at the very least, clarified by the Commission within the next year.

While it is difficult to predict what changes or clarifications the Commission might make, it is very possible that such changes or clarifications will conflict with the requirements set forth in FAC-001-0. For example, the Commission might establish a safe harbor period during which a generator would be permitted to have priority access over the use of the generator interconnection line and would be able to decline to provide service over the generation interconnection line. If the Commission were to adopt this proposal and a generator were to receive a request for service during the safe harbor period, the generator would be permitted to decline service under Commission policy but, under FAC-001-0, would be required to publish facility connection requirements for service that it will not be providing. The Commission could also establish a pro forma tariff governing service over generator interconnection lines with terms and conditions of service that differ significantly from the Commission's current pro forma open access transmission tariff. If the Commission were to adopt this proposal and a generator were to receive a request for service, the requirements of FAC-001-0 could end up requiring a generator to adopt facility connection requirements that are not required under the pro forma generator interconnection tariff and viewed to be more stringent, such as procedures for coordination of joint studies.

In BP Wind Energy's view, neither of these results makes sense from a compliance or reliability perspective. BP Wind Energy therefore urges the SDT to either to not propose to add references to GOs in FAC-001-0 or, alternatively, to ensure that any requirements imposed on a GO under FAC-001-0 are consistent with, and not more stringent or in conflict with, Commission policy. At a bare minimum, the proposed timeframe for imposing the requirements in FAC-001-0 on GOs that receive an interconnection request should be changed to 60 or more days to be consistent with current

Commission policy that requires a generator to file with the Commission an open access transmission tariff within 60 days of receiving a request for service.

**Rebecca Baldwin, Transmission Access Policy Study Group**  
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## COMMENTS:

### **Comments of the Transmission Access Policy Study Group on the White Paper Proposal in Project 2010-07: Generator Requirements at the Transmission Interface**

TAPS appreciates the opportunity to comment on the GO/TO drafting team's White Paper. We generally support the approach proposed in the White Paper but have some specific suggestions.

We suggest that at minimum, this drafting team's goal should be to give guidance as to what Facilities are covered under a GO/GOP registration and therefore do not require TO/TOP registration. For example, radial generator leads, including all Elements radial to the generator, should be included in the entity's GO/GOP responsibility and should not require TO/TOP registration.

#### **A. Framework**

As the White Paper acknowledges in footnotes 1 and 2, it refers to both the "Bulk Electric System" and the "bulk power system." Although, as noted in footnote 2 to the White Paper, "bulk power system" is defined in Section 215 of the Federal Power Act, it is not a NERC Glossary defined term; furthermore, "bulk power system" and "Bulk Electric System" may or may not be synonymous terms. *See* Order 743-A, Paragraphs 61-63. While we recognize that there are existing NERC documents that refer to the bulk power system, we suggest for the sake of clarity and precision that going forward, so long as the contours of the "bulk power system" are not clearly defined, NERC documents should use only the NERC-defined term "Bulk Electric System."

One area in which the bulk *power* system is relevant is that FERC's reliability jurisdiction, and thus NERC's authority, are limited to the bulk power system. Therefore, the following statement on page 3 of the White Paper needs to be revised:

While qualifying Generator Owners and Generator Operators can be classified as owning and operating electric transmission Elements and Facilities, these are most often not part of the integrated bulk power system, and as such should not be subject to the same level of standards applicable to Transmission Owners and Transmission Operators who own and operate transmission Facilities and Elements that are part of the integrated bulk power system.

Mandatory reliability standards—even a lower level of standards—cannot apply to non-BPS elements. It would be more accurate to state that generator leads do not exhibit many of the characteristics, such as integration, that require application of the full set of TO/TOP reliability standards to most transmission.

We believe that generator leads that are needed for reliability are already considered part of the BES because they are not "radials serving only load." Under Order 743, the BES must

include whatever is “necessary for reliable operation of an interconnected transmission grid,” which likely means that those generator leads that connect BES generators will continue to be part of the BES. Therefore, the issue facing the GO/TO team is primarily one of registration, not BES definition: BES generator interconnection facilities should be considered BES Facilities as they are now, but where the generator lead is owned/operated by the GO/GOP (which is not always the case), it should be included in the GO/GOP’s registration and should not subject the GO/GOP to registration as a TO/TOP. Note that BES Definition SDT is not assigning responsibility for BES Facilities to one functional entity or another.

We note in addition that the White Paper’s statement that “[w]hile not all power plants are considered part of the Bulk Electric System, ultimately, all the plants are interconnected to the bulk power system *via their generator interconnection facilities*” (emphasis added) is incorrect due to the italicized language. In fact, some plants are connected to distribution or non-BES sub-transmission and are not connected to the bulk power system or BES through their interconnection facilities.

TAPS’ overarching concern is that a system that only owns a minor component of a generator lead should only be registered and made responsible for those requirements and measures of standards that properly apply to that component.

#### ***B. Standards***

TAPS is comfortable with the White Paper’s elimination of many of the standards revisions that had been included in the GO/TO Ad Hoc Group Final Report. We believe that clarifying that (a) generator leads connecting BES generators are BES Facilities, and (b) such generator leads are included in the GO/GOP responsibilities of the owner and operator of the generator, will eliminate much if not all of any reliability gap that exists.

Furthermore, there is no need to revise FAC-003 so that it applies to generator interconnection facilities. A radial line cannot cascade, so the only effect of the radial generator lead sagging into vegetation is that the generator becomes unavailable. Because generators become unavailable for other reasons that dwarf the incidence of unavailability due to line outages, and the generator’s unscheduled unavailability is therefore planned for, no reliability purpose would be served by applying FAC-003 to generator interconnection facilities.

**Michelle D'Antuono, Occidental Energy Ventures Corp**  
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## **COMMENTS:**

### **Occidental Energy Ventures Corp. Comments on NERC Project 2010-07 White Paper Proposal on Generation Requirements at the Transmission Interface (GRTI)**

Occidental Energy Ventures Corp. ("Oxy:") commends the GRTI Standard Drafting Team (and the previous Ad Hoc GOTO group) for its efforts to define the NERC Standards requirements that should apply to generation interconnection facilities and offers the following answers to the questions posed in the informal comments announcement:

**The Ad Hoc group originally proposed the new terms "Generation Interconnection Facility" and "Generation Interconnection Operational Interface" as part of this project. The Project 2010-07 drafting team believes that the changes in the definition under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.**

1. Coordination Between Standard Drafting Teams. Based on the current status of the Bulk Electric System Standard Drafting Team (BESSDT) proposed BES definition, the White Paper Proposal ("Proposal") does not provide a clear demarcation between generator interconnection facilities and the interconnected transmission facilities of the Transmission Owner/Operator. The current BES definition makes no mention of what is or is not generation interconnection facilities, but merely includes "generating units greater than 20 MVA (aggregated 75 MVA at one site) from the generator terminals through the GSU which has a high side voltage of 100 KV or above." Many such registered generators have an additional interconnection line that is above 100 KV that, in turn, connects the generator to the transmission owner's facilities and is part of the generator interconnection. The currently proposed BES "core definition" would classify this line as a Transmission Element and might be construed as subjecting the GO to the full array of TO/TOP standards for this interconnection line. This outcome would violate the stated purpose of the Proposal. According its scope, the BESSDT is looking to the GRTISDT to define this demarcation either through a definition, as proposed by the Ad Hoc group, or by some other means. As Oxy interprets its scope, the BESSDT is defining what is or is not part of the BES without defining what standards apply to different parts of the BES, or, for that matter, what standards apply to non-BES facilities.

2. Generation Interconnection Lines. Oxy basically disagrees that generation interconnection lines are transmission lines from a functional standpoint. The interconnection line's function is to interconnect the generator (i.e., generally radial in nature) with the transmission system. The transmission system function is to deliver the generation to the load. That is not to say that some standards related to higher voltage lines may apply. Merely that, from a functional standpoint, the two are not the same and the reliability requirements are not the same.

**How can the proposal outline in the White Paper be improved. Is the drafting team headed in the right direction?**

In general, the approach outlined in the White Paper needs more clarity concerning exactly what requirements will apply to the essentially radial systems connecting generation to the transmission system. This needs to be very clear. Oxy suggests that the Ad Hoc approach of defining Generation Interconnection Facilities be adopted by the drafting team (although the Ad Hoc definition is probably not adequate). The drafting team will then have to decide whether their proposed definition provides enough clarity such that there will be no doubt that most of the TO/TOP standards do not apply to these facilities. The TO/TOP standards that would apply to interconnection facilities would then be treated individually with new/revised requirements.

1. Proposed FAC-001 Revisions. The proposed addition of R4 and M4 in FAC-001 seems to be stated in reverse. Wouldn't the normal procedure be for the GO to submit an interconnection request to the TO as part of entering into an interconnection agreement? The procedure required of the TO in R1 through R3 specify what the TO's requirements are for interconnection. As an aside, as these procedures are changed or updated, there needs to be some requirement for communication of the changes. Also, Oxy questions the 45 day requirement. How could all the requirements in the interconnection procedure be accomplished in 45 days? The drafting likely has some underlying assumptions that are not apparent and need clarification.
2. Proposed FAC-003 Revisions. Oxy agrees with the Ad Hoc Group's Proposal 2 which provides for exclusions for short distance interconnections, i.e., interconnection lines that do not exceed two spans (or some reasonable distance that can be monitored visually or with cameras) from the generator's property line. In addition, there should be a process for demonstrating to the Regional Entity that the interconnection line has no vegetation around it to manage, i.e., in arid or industrial locations.

**Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?**

Oxy feels the comments on the Ad Hoc group report and the comments on the Proposal provide sufficient information for the drafting team to commence formal development. Although this project is extremely important, the formal process should not be shortened by classification as urgent.

**Greg Rowland, Duke Energy Corporation**  
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## **COMMENTS:**

Below are Duke Energy comments on the currently posted White Paper:

### **Questions posed on the NERC Announcement, and Duke Energy Responses**

1. How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?

Response: Duke Energy agrees with the approach outlined in the White Paper, which is to rely on the definition of Bulk Electric System (now being revised on Project 2010-17) to ensure that all BES facilities are appropriately identified for applicability of reliability standards. This is a much cleaner approach than the previous effort. We appreciate the work of the Standard Drafting Team to use this targeted approach to identifying the specific reliability standards which should be applied to Generator Owners and Generator Operators for their BES interconnection facilities.

2. The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

Response: No further suggestions for seeking industry input.

3. The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

Response: Duke Energy agrees that the previously proposed new defined terms are not needed. Project 2010-17 is developing a definition for Bulk Electric System (BES) that uses a bright-line criteria of 100 kV and above, and an inclusion/exclusion process to address specific facilities. This will ensure that BES interconnection facilities are appropriately identified. If Project 2010-07 then identifies any modifications to the reliability standards needed to address specific responsibilities of Generator Owners and Generator Operators to BES interconnection facilities, then no “reliability gap” will exist.

**Kenneth A. Goldsmith P.E., Alliant Energy**  
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## **COMMENTS:**

We have one comment concerning making a Generator Owner (GO) subject to the requirements of FAC-003 Transmission Vegetation Management. We can understand the need to have long highvoltage radial lines from a generating station to the interconnection point of the BES be included in the requirements for FAC-003. Our concern lies with the lines from a central generating station GSU, normally located just outside the generator building to the substation which may not be directly adjacent to the power block. These lines typically remain within the generating station boundaries, so we believe Article 4.2.4 of FAC-003-2 should be revised to read : “. . . located outside the fenced area of the switchyard, **generating station property** or substation and any portion of the span of the . . .”. This would clarify that only lines outside of the generating station property would be applicable.

**Lee Pedowicz, NPCC**  
 lpedowicz@npcc.org

**COMMENTS:**

Below are NPCC's comments for Project 2010-07 - Generator Requirements at the Transmission Interface - Various BAL, CIP, EOP, FAC, IRO, MOD, PER, PRC, TOP, and VAR Standards. The table lists the NPCC member contributors to these comments.

	<b>Member</b>	<b>Organization</b>	<b>Region</b>	<b>Segment Selection</b>
1	Adamson, Alan	New York State Reliability Council, LLC	NPCC	10
2	Guy Zito	Northeast Power Coordinating Council	NPCC	10
3	Campoli, Gregory	New York Independent System Operator	NPCC	2
4	Chong, Kurtis	Independent Electricity System Operator	NPCC	2
5	Clermont, Sylvain	Hydro-Quebec TransEnergie	NPCC	1
6	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
7	De Graffenried, Chris	Consolidated Edison Co. of New York, Inc.	NPCC	1
8	Dunbar, Gerry	NPCC	NPCC	10
9	Evans-Mongeon, Brian D.	Utility Services	NPCC	8
10	Garton, Mike	Dominion Resources Services, Inc.	NPCC	5
11	Gooder, Brian L.	Ontario Power Generation Incorporated	NPCC	5
12	Goodman, Kathleen	ISO - New England	NPCC	2
13	Haswell, Chantel	FPL Group, Inc.	NPCC	5
14	Kiguel, David	Hydro One Networks Inc.	NPCC	1
15	Lombardi, Michael R.	Northeast Utilities	NPCC	1
16	MacDonald, Randy	New Brunswick Power Transmission	NPCC	1
17	Metruck, Bruce	New York Power Authority	NPCC	6
18	Pedowicz, Lee	NPCC	NPCC	10

19	Pellegrini, Robert	The United Illuminating Company	NPCC	1
20	Saksena, Saurabh	National Grid	NPCC	1
21	Schiavone, Michael	National Grid	NPCC	1
22	Sipperly, Wayne	New York Power Authority	NPCC	5
23	Weaver, Donald	New Brunswick System Operator	NPCC	2
24	Wu, Ben	Orange and Rockland Utilities	NPCC	1
25	Phan, Si Truc	Hydro-Quebec TransEnergie	NPCC	1

It is missing a logistical requirement between FAC-003 and FAC-014. There is nothing in either standard where the PC is informing the TOs and GOs of the applicability of their facilities as outlined in the Facilities section 4.2.2 of FAC-003.

- On page 3 of the White Paper, the SDT referred to “qualifying” generator interconnection facilities. It is not clear what are the qualifying criteria. Are the qualifying criteria for Elements and Facilities the BES definition criteria? If so, this should be stated explicitly.
- The proposed definition of Generator Interconnection Operational Interface was “Location at which operating responsibility for the Generator Interconnection Facility changes between the Transmission Operator and the Generator Operator.” Why was this definition removed? It does not refer to Elements and Facilities rated at 100 kV and above. It is also unclear how the original objective meant to be achieved by the proposed change to EOP-008-0 R1.3 would be met. This needs clarification.
- In FAC-001-0, suggest that R4 be modified as follows: start the sentence with “The” and delete “be required to”.
- The modification in FAC-001 for a Generator Owner is not necessary. It is understood that a generator’s output connection to the transmission system must comply with the “receiver’s” requirements.
- Interconnection request needs to be defined. In R4, why does the Generator Owner receive an interconnection request?
- The last sentence of footnote 2 of FAC-003 should also be modified to include the Generator Owner.
- For FAC-003, this appears to be a standard applicability and registration issue. It may be more appropriate to define transmission in such a way that any generation owner that happens to also own BES transmission must register as such. With the coming of the new BES definition perhaps that would be the opportune time to introduce a fix for this registration issue. It is suggested that with the upcoming changes to the BES definitions this project should be on hold, with the understanding that the registration issue be examined.

**John Bee, Exelon Transmission Strategy & Compliance**  
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john.bee@exeloncorp.com

## COMMENTS:

### Project 2010-07 Exelon Comments

#### FAC-003

1. The SDT should include a unique schedule and guidance specifically for GO implementation of this standard.
2. The standard should provide a clear provision to allow incorporating GO owned facilities within an existing TO's vegetation management program if mutually agreed on by the TO and GO.
3. Please provide more clarification regarding FAC-003 Requirement 4.2.4. The rationale explains that areas within the fenced area of a switchyard, station or substation and any portion of the span of the transmission line that is crossing the substation fence are excluded; however, there is no guidance regarding transmission lines that run between a generator main power step up transformer and an onsite switchyard. Is the intent to include transmission lines on station property that run between a generator main power step-up transformer and an onsite switchyard?
4. Exelon suspects that this standard work is being done due to issues with GOs that have long generator leads running miles rather than feet. The standard should have verbiage stating that the standard is not applicable to GOs with short generator leads. The SDT should define "long leads" based on the length of the conductor and have provisions to exclude generators with "short leads"

#### FAC-001

1. Exelon does not agree that this standard should not be broadly applied to GO. GOs who do not own a switchyard and whose point of interconnection is a disconnect switch associated with the generator leads prior to the switchyard should be excluded from this standard. If a group of GOs share a generator tie line, then the associated Interconnect Agreement that each of the GO has with the applicable TO and/or TOP should address how these shared connections will effect the system. GOs may not have the resources or expertise to conduct the required interconnect studies to meet this standard
2. Exelon has generating stations that have the Main Power Transformer (MPT) disconnect as the point of demarcation. The station owns the short leads from the MPT disconnect back to the generator and the applicable TO owns from the MPT disconnect up to and including the switchyard. It is not practical for another entity to request to interconnect to the MPT disconnect nor should it be allowed. The SDT should consider verbiage to the standard that does not allow requests to interconnect to a MPT disconnect.
3. Exelon is having difficulty determining how this standard would apply to GOs and how GOs would implement the standard; suggest that examples be provided in an implementation document specifically showing where and how this standard would apply.

**Patti Metro, National Rural Electric Cooperative Association (NRECA)**

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patti.metro@nreca.coop

**COMMENTS:**

Drafting Team Members,

The National Rural Electric Cooperative Association (NRECA) thanks the team for this opportunity to provide comments to its white paper. Although, NRECA supports clarifying the responsibilities of entities that own/operate transmission and/or generation intertie/interconnection facilities, until the definition of the Bulk Electric System under Project 2010-17 is developed it is difficult to rectify these issues. The team should carefully monitor the Project 2010-17 activities to ensure that it does not adversely affect the success of the project nor develops requirements or definitions that would contradict the criteria established in Project 2010-17. At this time, NRECA does not have a specific position on these issues, but looks forward to reviewing and commenting on future documents this team posts for stakeholder comment.

**Ramiro Cerecer, Equipower Resources Corporation**  
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[rcerecerr@eqpwr.com](mailto:rcerecerr@eqpwr.com)

## COMMENTS:

Re: Project 2010-07 Generator Requirements at the transmission interface. Informal comment period

EquiPower Resources Corp., its subsidiaries Dighton Power, LLC, Lake Road Generating Company, L.P., MASSPOWER, Milford Power Company, LLC and its affiliate, Empire Generating Co, LLC (collectively "EquiPower") are pleased to submit these informal comments to the Project 2010-07 Standard Drafting Team (SDT). EquiPower own and operates five (5) power plants located in Massachusetts, Connecticut and New York that are individually registered as Generator Owners (GO) and/or Generator Operators (GOP).

EquiPower generally supports the SDT's approach presented in its White Paper and believes the SDT is heading in the right direction. The recommendations appear to be reasonable. In particular, we support the following concepts and recommendations:

- Neither a GO or GOP should be required to automatically register as a Transmission Owner (TO) or Transmission Operator (TOP) simply because it owns and/or operates generator interconnection facilities. Clarification of the fact that generator interconnection facilities are not part of the integrated transmission system or grid is crucial to resolving the treatment of GO/GOP interconnection facilities.
- Subjecting a GO/GOP to all requirements in the TO/TOP standards is impractical and an inefficient use of resources and will not have the desired effect of improving the reliability of the Bulk Electric System (BES).
- We support the recommended plan to modify a selected group of standards to make them applicable to GO/GOP's as they relate to their generator interconnection facilities. Subject to the considerations described below, EquiPower supports the modification of both FAC-001-0 *Facility Connection Requirements* and FAC-003-2 *Transmission Vegetation Management Program*.
- EquiPower agrees that GO/GOP personnel training should be addressed in a future project.

EquiPower has two concerns that it asks the SDT to consider.

- First, as proposed in the GOTO Ad Hoc Group's Final Report, EquiPower feels strongly that including a defined span criteria at FAC-003-2 is important. Many generating plants have a nominal length of overhead tie line extending from the generator step-up (GSU) transformer substation to the interconnection point with the integrated transmission system. Requiring a GO to have a vegetation management plan for such a nominal length of conductor is not practical or efficient, nor does it provide any discernible benefit in terms of improving the reliability of the BES.
- Second, we are concerned about the regulatory implications associated with the identification of generator interconnection facilities as transmission facilities or elements. The proposed addition of Generator Owner to FAC-003-2 is similar to the applicability language found in PRC-023-1 *Transmission Relay Loadability*. Yet in Order 733 FERC concluded that, in the majority of cases, a GO would not be subject to the standard since the GO would also need to be registered as a TO, which FERC acknowledged is uncommon. The reasoning applied in Order 733 seems to focus on the term "transmission lines" and that a transmission line owner, irrespective of integrated versus non-integrated status, would need to register as a TO. EquiPower would encourage the SDT to fully consider the implications of Order 733 as it applies to GOs and clarify the application of the term "transmission lines." It is fundamentally important that the use of the term "transmission lines" clearly distinguish between integrated and non-integrated applications.

EquiPower appreciates the opportunity to submit these comments. The use of informal means of communicating such as stakeholder webinars, meetings and comment submission are effective and efficient tools for communication and standard development.

**Eric Salsbury, Consumer's Energy**  
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## **COMMENTS:**

Following are the comments for Consumers Energy (NCR00740) regarding Project 2010-07. Problems are created with the interchangeable use of "BES" and "transmission." NERC should maintain consistency with the use of BES, Transmission, transmission, distribution, etc. When a capitalized term is used it should be consistent with the NERC Glossary. Maybe a note should also be provided to denote that the use of the term transmission and distribution specifically do not refer to any defined system and are only used as part of the English language. When a term is used in a standard maybe it should be used consistently throughout the standard to avoid confusion. If it changes, even slightly, say to Bulk Power System (BPS) it should be accompanied with an explanation why the term being used is different. Transmission is defined by the FERC Seven Factors and by what has been authorized by the regulating State body and the FERC as being Transmission. The term Transmission defined for rate making purposes and Transmission systems vary significantly across the country to voltage levels much less than 120kV. Therefore, the use of the term Transmission and the word transmission should not be used to define facilities covered under NERC Reliability Standards. Adding Registered Entities (GO/GOP/DP) to standards involving BES facilities should be allowed to ensure the full coverage of BES facilities for the NERC Reliability Standards.

**Joseph DePoorter, Madison Gas and Electric Company**

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**COMMENTS:**

Within the Project 2010-07's White Paper, it should be noted that many GO's has established and detailed Interface agreement concerning their Transmission Interfaces. This White Paper did not clearly address those in place agreements. Recommend that this fact be highlighted going forward in any such White Paper, Guideline, Rational box, etc.

**Carol Gerou, Midwest Reliability Organization**  
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## COMMENTS:

The Midwest Reliability Organization's NERC Standards Review Subcommittee submits the following comments on the white paper titled "Project 2010-07: Generator Requirements at the Transmission interface":

**SDT Question #1a:** How can the proposal outlined in the White Paper be improved?

### NSRS Responses:

Next Step #1 - According to FERC Docket #ER10-1117, if a Generator Owner receives a request for service over their facilities; they have 60 days to file a tariff for processing the request for service. So, we think that the proposed Requirement R4 of FAC-001 should give the Generator Owner 60 days, rather than 45 days, to provide its interconnection requirements.

Next Step #3 – NERC has not clearly defined wind farms to be generating plants. So, the words, "directly connected via a step-up transformer(s) to Transmission Facilities operated at voltages of 100 kV or above", in the latest Project 2010-17 concept paper may not be interpreted as applicable to wind farms. The generating units of wind farms are typically directly connected to subtransmission facilities, which in turn are directly connected to Transmission Facilities operated at voltages of 100 kV or above.

Other proposed changes – in the paragraph about EOP-003-1 on page 6 we agree that Generator Operators should not be added to EOP-003-01, but for a different reason. When the proposed EOP-003-2 is approved and becomes effective, all of the requirements associated with the UFLS programs will be removed. We don't agree that PRC-001 already properly addresses the coordination of the generator UF protection with the UFLS program. However, we understand that the proposed PRC-024-1 will be the standard that contains the requirements for the Generator Owners to coordinate generator UF with UFLS program.

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**SDT Question #1b:** Is the drafting team heading in the right direction?

**NSRS Response:** Yes, the drafting team is heading in the right direction.

\*\*\*\*\*

**SDT Question #2:** The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

**NSRS Response:** No

\*\*\*\*\*

**SDT Question #3:** The Ad Hoc group originally proposed the new terms "Generator Interconnection Facility" and "Generator Interconnection Operational Interface" as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the

same goal without the need for new definitions. Do you support this approach? If not, please explain.

**NSRS Response:** Yes

**Louis C. Guidry, P.E., Cleco Support Group LLC**  
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## **COMMENTS:**

FAC-003 should not be applicable to Generator Owners / Operators. The intent of all of the standards is to avoid an Adverse Reliability Impact, or as the FPA Section 215(a)(4) defines "reliable operations" as: "operating the elements of the bulk-power system within equipment and electric system thermal, voltage and stability limits so that instability, uncontrolled separation, or cascading failures of such systems will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements." Radial Facilities serving only generating plants when tripped will not threaten an Adverse Reliability Impact or we would be hard pressed to run that generation in the first place. FMPA believes the intent of the standard is to prevent a cascading event where, if a line trips, another line loads heavily increasing the sag of that line, which may sag into un-cleared vegetation, causing the second line to trip, which may in turn cause heavily loading on a third line, etc. If a line trips in the transmission network, radial Facilities from generating plants will not have their loading changed much at all (since they are radial) and will not participate in this sort of "thermal" cascading event. Hence, there is no cause to regulate vegetation management of radial Facilities to generating plants since the system is always planned and operated to that potential contingency anyway and there is no danger of an Adverse Reliability Impact. Regulating vegetation management on radial Facilities is beyond the scope of the Federal Power Act Section 215. Generator Owners / Operators are still incited to perform adequate vegetation management without the need for regulation because any outage of the plant results in lost opportunity costs to the plant.

**Jonathan Hayes, Southwest Power Pool**  
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**COMMENTS:**

**Project 2010-07 Generator Requirements at the Transmission Interface  
 Attendance**

*Participants that Added Their Name to Comment Form*

Group Comments (Complete this page if comments are from a group.)			
<b>Group Name:</b>	<b>SPP Standards Development</b>		
<b>Lead Contact:</b>	<b>Robert Rhodes</b>		
<b>Contact Organization:</b>	<b>Southwest Power Pool (SPP)</b>		
<b>Contact Segment:</b>	<b>2</b>		
<b>Contact Telephone:</b>	<b>501-614-3241</b>		
<b>Contact E-mail:</b>	<b>rrhodes@spp.org</b>		
<b>Additional Member Name</b>	<b>Additional Member Organization</b>	<b>Region*</b>	<b>Segment*</b>
Craig Henry	Oklahoma Gas & Electric	<b>SPP</b>	1,3,5
Michelle Corley	Cleco	<b>SPP</b>	1,3,5
Louis Guidry	Cleco	<b>SPP</b>	1,3,5
Sean Simpson	Board of Public Utilities, City of McPherson, Kansas	<b>SPP</b>	1,3,5
Harold Wyble	Kansas City Power & Light	<b>SPP</b>	1,3,5
Alan Burbach	Lincoln Electric System	<b>MRO</b>	1,3,5
Gary Tarplee	Eddington Mission Marketing & Training	<b>SPP</b>	5,6
Mark Wurm	Board of Public Utilities, City of McPherson, Kansas	<b>SPP</b>	1,3,5
Stephen Layton	Mustang Station	<b>SPP</b>	
Rick Koch	Nebraska Public Power District	<b>MRO</b>	1,3,5
Anthony Cassmeyer	Western Farmers	<b>SPP</b>	1,3,5

Eddie Perez	Wind Capital Group	<b>SPP</b>	

FAC-001: What gaps have been identified? Since Generator Owners do not have a tariff how would a GO determine what a valid interconnection request would be? The generator Owner wouldn't have the jurisdiction to accept an interconnection request any more than a land owner would. What is the basis for making the Generator Owner the valid entity for accepting a request.

FAC-001 R4: This states that the Generator Owner must post within 45 days for an interconnection request but the request should be a valid request. Generation Owners would not be a valid entity to accept a generation interconnection request all requests should be submitted through the TSP. Shouldn't the TSP then provide notification to the GO when interconnection request are received to interconnect with GO's generation facilities? There are processes in place currently that handle valid interconnection requests and this requirement seems to violate those processes. Could the Generator Owner deny the request for interconnection on his behalf? Since interconnection service only provides interconnection to the Bulk Electric System and not transmission service how then will they acquire transmission service? This requirement seems to conflict with current processes already in place.

FAC-003: Would like an expansion in the rationale behind why FAC003-2 should apply to ties outside of the fence. It is in the best interest of the Generator Owner to take care of vegetation from his facility to the BES in order to sell power.

BES Team: Would ask that the SDT would coordinate with the 2010-17's SDT and keep these tied together.

**Cindy Martin, Southern Company**

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## **COMMENTS:**

Mallory, please accept the below comments from Southern Company regarding Project 2010-07 White Paper: **Generator Requirements at the Transmission Interface:**

SoCo Gen Comments to Project 2010-07 White Paper:

### **Generator Requirements at the Transmission Interface**

23 Mar 2011

#### **General**

We commend the effort directed towards the clarification of the application of NERC standards to generation interconnection circuits (“extension cords”).

We agree completely with the following observations made on pages 2 and 3 of the White Paper Proposal:

Power plants come in many sizes and configurations.

The (GOTO Ad Hoc Group) plan of proposing new definitions, modifying other definitions, and making changes to dozens of standards is not necessary.

GOs and GOPs owning and operating electric transmission Elements and Facilities are most often not part of the integrated bulk power system, and as such should not be subjected to the same level of standards applicable to TOs and TOPs. [integrated implies networked, “extension cord” implies radial]

Requiring any classification that subjects GOs and GOPs to all the standards applicable to TOs and TOPs would do little to improve the reliability of the BES.

Applying all standards applicable to TOs and TOPs to non-networked/non-integrated transmission circuits would have little effect on the overall reliability of the BES.

Changes to the definition of the BES and modifications to a select group of standards can accomplish the goal without the need for new definitions.

#### **FAC-001 R4**

Please make it clear that the interconnection request is meant to be addressing a new connection to the high voltage (>100kV) “extension cord” circuit owned by the Generator Owner.

The connection of additional generation or load to the “extension cord” generation interconnection facility (circuit) changes the face of the non-radial nature of these circuits. It is not clear that only FAC-001 and FAC-003 should be applicable to the GO/GOP with this interconnect. Would the GO/GOP with networked transmission facilities be subjected to additional (traditional ) TO/TOP standard requirements? If so, this project should include a review of those standards in the project scope.

Is the TO subject to completing R1, R2, and R3 within 45 days of receiving the interconnection request? If not, should the GO be subject to that time constraint?

### **Project 2010-07 Purpose**

One of the two purposes of the Project 2010-07 is stated as “identify all generator-owned facilities that are considered part of the BES” and “clearly identify the appropriate generation Facilities.”

Please focus on this identification process. This effort should ensure clarity in the scope of application to GOs to avoid confusion and additional work load on GOs that do not contribute to the reliability of the BES. We are concerned that the modified BES definition may make the GO/GOP entities responsible for additional existing standards. A very clear description is needed to identify which GO/GOP owned “extension cord” circuits are included. Also, there is a need for itemizing any additional GO/GOP requirements resulting from a redefinition of the BES or from changes to existing standards. These clear descriptions will help eliminate uncertainty regarding the scope of equipment that is in the scope of NERC reliability standards.

Was any consideration given to creating a comprehensive listing of all NERC reliability standard requirements for owners of these “extension cord” circuits? A document of this type would provide GO/GOP owners of these circuits the ability to determine precisely which standards apply to that equipment.

### **FAC-003-2**

FAC-003-1 R1 should not include GO as generation interconnection facility (“extension cord”) because they are never an IROL circuit.

**Thomas E. Foltz, American Electric Power**

Reliability Standards Compliance  
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**COMMENTS:**

American Electric Power (AEP) appreciates the opportunity to provide input to the draft of "Project 2010-07: Generator Requirements at the Transmission Interface", and offers the following response for consideration.

AEP endorses the collective prior work of this group, however this effort needs to be done in coordination with concurrent efforts already underway within NERC, in defining and re-defining definitions that fall within the scope of the Bulk Electric System. It is unclear if lines are being drawn to somehow delineate between what might be considered as the transmission portion of the bulk electric system and what might be termed the generation bulk electric system.

We believe the group is heading in the right direction, however, in its implied desire to streamline the required changes recommended by the GOTO Ad Hoc Group (by eliminating the definition of Generation Interconnection Facility), it is now less clear where the planning and operational responsibilities reside for the high voltage generator lead from the GSU to the transmission point of interconnection. For example, page 3 of the White Paper states that the SDT believes it is appropriate to classify various generating Facilities and Elements (including generator interconnection facilities) as part of the Bulk Electric System. We agree. The SDT also states that it believes that qualifying generator interconnection facilities should be classified as transmission. We do not agree with leaping to classify the qualifying generator interconnection facilities as transmission absent further clarification, particularly with respect to the definition of Generation plants that is the subject of Project 2010-07 as explained in section 3 of the White Paper. Item 3 of section 3 states the following:

“Generating plants (including GSU transformers and the associated generator interconnection line lead(s)) with aggregate capacity greater than 75 MVA (gross nameplate rating) directly connected via a step-up transformer(s) to Transmission Facilities operated at voltages of 100 kV or above:”

Item 3 helps to clarify what qualifying generation interconnection facilities fit within the Bulk Electric System definition, but it is not at all clear from item 3 that the generation interconnection facility should be classified at transmission. Indeed, the foregoing generating plant definition would appear to be at odds with the SDT view.

This lack of clarity then brings into question the SDT groups conclusion that the “changes listed above mark a significant decrease in changes originally proposed by the GOTO Ad Hoc Group in its Final Report”. In particular, clarifications to the definition of Bulk Electric System eliminate the need for the GOTO Ad Hoc Group’s suggestions to include a reference to the proposed new term “Generator Interconnection Facility” in the following standards referenced in the GOTO Ad Hoc Group Final Report: BAL-005-0.1b, CIP-002-1, EOP-001-0, EOP-004-1, FAC-008-1, FAC-009-1, IRO-005-2, MOD-010-0, MOD-012-0, PRC-004-11, PRC-005-1, TOP-002-2, TOP-003-0, VAR-001-1, and VAR-002-1.

While AEP agrees in principle that it is desirable to reduce the need for modifications to existing Standards, we do not yet agree that the SDT’s White Paper brings enough clarity to reach the conclusion that modifications to one or more of the foregoing Standards are not required. The following comments are directed to the revisions the SDT team recommends to the following Standards.

**FAC-001**

There are substantial reliability issues, as well as additional regulatory, tariff, coordination, and

generator and interconnection facility issues, which need to be dealt with before AEP could agree to such requirements. It is not clear that a generator can receive a request for interconnection. Typically Generation Owners and/or developers make request for generation interconnection but do not have OATT requirements or processes in place to receive requests for generation interconnection. A material matter relating to the R4 requirement as defined by the SDT is whether a generator has any obligation to interconnect a new generation facility to its high voltage generation interconnection facility. This again points back to the SDT's blanket statement that the BES qualified generation interconnection facility be classified as "transmission". We are not convinced this declaratory statement comports with OATT and/or RTO generation interconnection procedures. Furthermore, it would be onerous to expect a generator to agree to R4 since generators are not in a position to comply with R1, R2 and R3.

#### FAC-001 R4

Regarding "Generator Owner that receives an interconnection request for its facility shall, within 45 days of such a request, be required to comply with requirements R1, R2, and R3 for the facility for which it received the interconnection request." Requirements R1, R2 and R3 refer to Transmission Owner's connection requirements. The proposed R4 as written implies the Generation Owner that receives an interconnection request for its facility (what facility?) will comply with the Transmission Owner facility connection requirements. We don't see the linkage between the Generation Owner and the Transmission Owner and how this is enforceable given the barriers to collaboration between new and existing generators and transmission owners.

If an end user facility seeks to be served on the Generation side of an interconnect, shouldn't the request be coordinated through an entity such as the regional transmission entity, or the appropriate transmission owner or transmission operator?

#### FAC-003-2

The SDT recommendation to add the Generation Owner requirement is acceptable.

**Kasia Mihalchuk, P. Eng., Manitoba Hydro**  
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## COMMENTS:

**Manitoba Hydro's Comments on**  
**Project 2010-07 Generator Requirements at the Transmission Interface**  
**Informal Comment Period Open**  
**March 4 – April 4, 2011**

Comments:

**Question:** How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?

**Response:**

Manitoba Hydro (MH) does not agree with the SDT position that qualifying generator interconnection facilities should be classified as part of the BES, but “That does not mean, however, that a Generator Owner or Generator Operator should be required to automatically register as a Transmission Owner or Transmission Operator simply because it owns and/or operates transmission Elements or Facilities”. The premise for adding Generator Owner to the applicability section of FAC-001-0 appears to be based on the presumed need to cover the situation where a generator owner receives a request to interconnect to a line owned by the generator. MH disagrees that this is even a feasible scenario. If the Generator is not a transmission owner or a transmission provider, what is the mechanism to implement such a request? The generator would have to be a transmission provider and offer a transmission tariff. All interconnection requests should be implemented by the Transmission Owner regardless if the interconnection point is within a GO facility or end-user facility. The TO is in the best position to set unbiased connection requirements to ensure the reliability of the BES is maintained. If a mechanism is created to allow interconnection to a BES line owned by Generator, then it is essential for this Generator providing this interconnection service to be a Transmission Owner to ensure all reliability standards, including the protection standards, are met so the reliability of the BES is maintained.

MH does not understand the SDTs rationale for the statement “Requiring any classification that subjects Generator Owners and Generator Operators to all the standards applicable to Transmission Owners and Transmission Operators would do little, if anything, to improve the reliability of the Bulk Electric System”. This statement is not consistent with the first sentence of the previous paragraph where the SDT states “The SDT believes it is appropriate to classify various generating Facilities and Elements (including generator interconnection facilities) as part of the Bulk Electric System”. If reliability is not impacted, why is it appropriate to classify various Generating Facilities and Elements (including generator interconnection facilities) as part of the BES? It is not logical to allow the Generator to be a

“partial transmission owner”. If the Generator has transmission which is part of the BES, and over which tariff service is provided, the Generator must be a Transmission owner. Consequently, there is no need to change the applicability of FAC-001-0.

**Question:** The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

**Response:**

We believe that the industry resources would be better served by reviewing and responding to a specific draft of a proposed standard rather than providing comments on a direction in which the SDT should proceed. If there is uncertainty as to what needs to be included in the standard, we question the need for the standard given the numerous other standard proposals in the NERC queue.

**Question:** The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

**RESPONSE:**

MANITOBA HYDRO SUPPORTS AN APPROACH WHICH RELIES ON THE DEFINITION OF THE BES, INCLUDING ANY EXCLUSION AND INCLUSION CRITERIA, TO DETERMINE THE FACILITIES THAT SHOULD BE PART OF THE BES. GIVEN THAT MANY GENERATORS ARE RADIAL CONNECTIONS TO THE BES, SPECIFIC CRITERIA NEED TO BE DEVELOPED TO INCLUDE THESE CONNECTIONS IN THE BES.

**Applicability of FAC-003-01**

**Comment:**

Does the SDT have data to quantify the number of miles of transmission lines 100 kV and above that can be attributed to “multiple generating units spread over several thousand acres”? Are these thousands of acres within station fences where vegetation can be completely managed by the Generator? How many vegetation contacts have been experienced on these generator interconnection lines? Vegetation management is more of an issue for a Transmission Owner who has 10’s of thousands of miles of lines and may not be able to inspect/maintain it all without a proper process. MH would recommend that Generator Owner not be added to FAC-003-2. If NERC decides to go in this direction then we question if radial lines connecting Load to the BES should be in the same category. Generator Owner’s may have more underground cables than overhead lines and outages due to cable faults could be more frequent than vegetation contact.

**Dan Roethemeyer, Dynegy**  
Dan.Roethemeyer@dynegy.com

## COMMENTS:

Per the March 4, 2011 email regarding informal comments for Project 2010-07 Generator Requirements at the Transmission Interface, I am submitting the following comments on behalf of Dynegy Inc.:

· **How can the proposal outlined in the White Paper be improved?** Overall, the team has done a good job isolating the possible additional Standards/Requirements to only those which could impact reliability of the BES. However, with respect to FAC-003-2, there should be exclusion criteria based on the length of the generator tie line since short tie lines are commonly inspected as part of regular/routine inspections of generating plant and/or substation facilities. As such, we suggest generator tie lines 1 mile in length or shorter be excluded from FAC-003-2.

· **How can the proposal outlined in the White Paper be improved?** With respect to inclusion in Standard FAC-001-0, Generators typically have no experience dealing with Interconnection requests. As such, we suggest the team consider allowing the generator 45 days to first meet with an appropriate member of the BES (or other applicable expert) to then subsequently develop the applicable documentation in R1, R2, R3 within an agreed to time between the parties.

Thanks for your consideration.

**Dan Duff, Liberty Electric Power**  
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## **COMMENTS:**

First, let me state that the team has done an outstanding job on this White Paper. I believe the proposal will go a long way towards improving the reliability of the BES without imposing undue hardships on GO/GOP registrants.

That being said, I do object to the removal of the “two span” language from the proposal. In my particular circumstances (and I am sure I am not alone in this case) our interface is approximately 30 feet from our step-up transformer – measured horizontally, there is less than ten feet from transformer to interface. To burden us with the entire vegetation management program serves no reliability purpose, but does add a large paperwork burden. Restoring some kind of distance requirement would remove those unnecessary burdens, and increase the chances of this worthy effort being translated into an accepted standard.

**Gary Tarplee, Edison Mission Energy**  
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## **COMMENTS:**

**Thanks for the opportunity to provide comments on the White Paper. EME is very supportive of the direction of the proposed White Paper. It is more efficient to modify the existing Standards as compared to creating new Standards specifically for GO's and GOP's. We offer the following comments;**

- 1. It is imperative that the generation interconnection facilities and associated generation tie lines are not required to register as a TO and TOP regardless of voltage or line length.**
- 2. Generation interconnection tie lines should be identified as being outside the substation fence and should be exempt if less than 0.25 miles in length.**
- 3. The addition of the GO and GOP to IRO-005 may be redundant to TOP-001 R13. Please review. If the TOP has responsibility for the generation interface the GO and GOP should only have responsibility to inform the TOP when the GO's SPS or control equipment is non-automatic or the GOP is not able to implement a TOP operating procedure due to some event at the generating plant.**

**John Hagen, Pacific Gas and Electric Company**  
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JHH4@pge.com

**COMMENTS:**

PG&E as both a Transmission Owner, Transmission Operator, Generator Owner and Generator Operator supports the proposed changes in the white paper.

**Jonathan Appelbaum, The United Illuminating Company**  
[jonathan.appelbaum@uinet.com](mailto:jonathan.appelbaum@uinet.com)

## COMMENTS:

March 24, 2011.

The following comments are submitted by the United Illuminating Company regarding Project 2010-07: Generator Requirements at the Transmission Interface White Paper Proposal .

- ◆ How can the proposal outlined in the White Paper be improved? Is the drafting team heading in the right direction?

UI does not agree with the direction and prefers the Ad hoc Group's approach to defining new terms. There are two base facts that this White Paper does not address. First, the NERC Statement of Registration Criteria establishes the criteria for identifying what entities are required to register for a particular function; and second once registered for a function all requirements for that function apply. The SDT is attempting to split the baby by stating a Generator Owner may own an integrated transmission element but is not required to register as a Transmission Owner.

On page 3 of the White Paper the SDT writes:

*'The SDT believes it is appropriate to classify various generating Facilities and Elements (including generator interconnection facilities) as part of the Bulk Electric System. The SDT also believes that qualifying generator interconnection facilities should be classified as transmission. That does not mean, however, that a Generator Owner or Generator Operator should be required to automatically register as a Transmission Owner or Transmission Operator simply because it owns and/or operates transmission Elements or Facilities. While qualifying Generator Owners and Generator Operators can be classified as owning and operating electric transmission Elements and Facilities, these are most often not part of the integrated bulk power system, and as such should not be subject to the same level of standards applicable to Transmission Owners and Transmission Operators who own and operate transmission Facilities and Elements that are part of the integrated bulk power system.'*

In this paragraph the SDT states that the Generator Owner owns transmission elements. This statement alone is sufficient to require registration per the NERC Statement of Registration Criteria. But the SDT states that contrary to the Registration Statement those owners of these facilities need not register as Transmission Owners. The SDT then argues that the facility is not part of the *integrated* bulk power system without providing any technical justification for the term "integrated transmission facility". These facilities are impacting the reliability of the bulk power system and therefore are integrated into its operation. The SDT has to explain why these elements are not integrated. The SDT then states that because these transmission elements are not integrated into the bulk power system that all reliability requirements should not apply. The SDT is creating rules without reference to prior precedent and NERC activities.

The difficulty lies in the lack of a functional entity identified for these tie-lines. The creation of the functional entity would then allow the Reliability Standards to be applicable to those entities.

To demonstrate the inferiority of the White Paper and its approach let's review PRC-004. The White Paper states that PRC-004 requires no modification because it already is applicable to Generator Owners. PRC-004 utilizes the terms "transmission Protection system" and "generator Protection System" thereby differentiating between the two types of Protection Systems. R1 applies to Transmission Owners and Distribution Providers and their transmission Protection system, while R2 applies to Generator Owners and their generator Protection Systems. A Generator Owner owning and operating a transmission element will not be required to report on misoperations and corrective action plans for misoperations of the transmission Protection System even though the transmission Protection System misoperations will as effectively interrupt the generator as misoperations on the generator Protection System.

- ◆ The drafting team has chosen to use informal means of receiving industry feedback (webinars, presentations before industry stakeholder groups, etc.) prior to expending valuable industry resources to develop specific proposals for reliability standard requirements, measures, VSLs, etc. Do you have any further suggestions for seeking industry input before the project moves into a more formal development phase?

Include Regional Entity Compliance Manager's to provide opinion on this approach.

I agree that the SDT needs to communicate and obtain support for its approach prior to developing Standards. I imagine there are strong advocates for each approach, GOTO and the SDT approach.

- ◆ The Ad Hoc group originally proposed the new terms "Generator Interconnection Facility" and "Generator Interconnection Operational Interface" as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach? If not, please explain.

No. Project 2010-17 will not resolve the problem. The new definition of BES will identify those generator leads that are part of the BES. It will not resolve this issue because once those lines are identified a Transmission Owner and Transmission Operator are required to be assigned. The problem is in the Functional Model, the NERC Statement of Registration Criteria and the requirement that all Reliability Requirements apply to a Registered Entity.

**Steve Alexanders PE, Central Lincoln**  
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## **COMMENTS:**

Please see <http://www.ferc.gov/whats-new/comm-meet/2011/031711/E-4.pdf>, page 30, paragraph 47.

The FERC statement “ The Commission clarifies that it was not our intent to disrupt the NERC Rules of Procedure or the Statement of Compliance Registry Criteria” does not support the SDT’s statement “Follow the Project 2010-17—Definition of Bulk Electric System and ensure that the responsibility for generator interconnecting line leads is appropriately and clearly assigned to Generator Owners and Operators.” While I fail to see how a redefinition of the BES could not affect the registry criteria that references it, I still suggest including a revision to the registry criteria to assure that GO/GOPs with interconnection facilities are not registered as TO/TOPs.

No affect on Central Lincoln, but we support the team’s intent and thought you should be aware of yesterday’s ruling.

**LARRY RODRIGUEZ, Entegra Power Services**  
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## **COMMENTS:**

There is no question that the main focus of the Project 2010-07 SDT should be the assurance that all GIF are appropriately covered by the Reliability Standards. However, I would only ask that SDT members keep the following issues in mind to assure focusing on true reliability instead of possibly diminishing reliability in specific cases with unnecessary documentation and procedures:

1. Regarding FAC-001, many GIF are connected to the BES by very short lateral interconnections off the BES. In many cases we are talking about ¼ mile or less; sometimes only a few hundred feet. In these cases would there even be the physical possibility of an interconnection? Even an SPS or possible reactive device would surely be installed in the substation or switchyard on either side of the line. Therefore, should the SDT consider some qualifiers limiting the application of the FAC-001 requirements?
2. Regarding FAC-003, what if in the same ¼ mile or less mentioned above, the situation is one in which there are no trees, but only scrub brush under those very short interconnections. In addition, the corridor width is only 200ft. and the entire few acres are visible from the plant making for near daily inspection. And, let us not forget these entities have enormous incentives to absolutely assure no vegetation growth into their lines. Should there be the possibility of documenting with pictures such a situation while still providing a limited VMP appropriate to this situation?
3. Many of the GIF we are considering are IPPs whose purpose for existence is to provide reliable, clean, and efficient energy to the marketplace. In the cases of these generators with very short interconnections and very limited staff of operator/maintenance specialists, has the SDT considered that we might actually be “diverting” true reliability efforts like generating MW & MVAR and communication/coordination with the RC, BA, and TOP by burdening them with an unnecessary level of documentation/procedures commensurate with the actual situation?

**Greg Froehling, Green Country Energy**  
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## **COMMENTS:**

• The Ad Hoc group originally proposed the new terms “Generator Interconnection Facility” and “Generator Interconnection Operational Interface” as part of this project. The Project 2010-07 drafting team believes that changes to the definition of Bulk Electric System under Project 2010-17 and modifications to a select group of standards can accomplish the same goal without the need for new definitions. Do you support this approach?

**No let me explain.**

### **Proposed BES definition:**

**Generation plants (including GSU transformers and the associated generator interconnecting line lead(s)) with aggregate capacity greater than 75 MVA (gross nameplate rating) directly connected via a step-up transformer(s) to Transmission Facilities operated at voltages of 100 kV or above.**

**(Looking for “Bright Lines” Leaves an unclear delineation at the GSU end and Transmission facilities end. GSU needs to be addressed as Low and High sides, Transmission Facilities does not identify a responsibility change.)**

### **My Definition:**

**“Generator Interconnection Facility:**

**The Facilities from the high side of the Generation plant GSU operated at 100kV or above, to the point of connection to Transmission Facilities that delineates a responsibility / ownership change from Generator Owner to the Transmission Owner.”**

**( I see this as very bright lines for who is responsible for what)**

**Ken Parker, Entegra Power Group, LLC**  
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## **COMMENTS:**

### **FAC-001**

Consideration should be given for FAC-001 applicability for Generator Owners (registered entity) with  $\frac{1}{4}$  to  $\frac{1}{2}$  mile of transmission interconnection to the BES, serving no load, and without plans to solicit interconnection requests. It serves no reliability purpose to burden those entities with FAC-001 R1, R2 and R3 requirements. Is it correct to assume R4 would only apply when an interconnection request is received?

### **FAC-003-2**

Consideration should be given for FAC-003-2 applicability for Generator Owners (registered entity) with  $\frac{1}{4}$  to  $\frac{1}{2}$  mile of transmission interconnection to the BES and serving no load. For example, we have a  $\frac{1}{4}$  mile interconnection that can be seen in its entirety from the facility administration building, from which visual inspections regularly take place. Does the SDT envision a simple one page TVMP when circumstances are as described here?

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## **COMMENTS:**

### **1. Add “Generator Owner” to the Applicability section of FAC-001-0 and add a requirement and a measure to address the responsibilities specific to the Generator Owner.**

FAC-001-0—Facility Connection Requirements currently applies to Transmission Owners and addresses the need for Transmission Owners to establish facility connection and performance requirements. While the standard requires Transmission Owners to address connection requirements for “generation facilities, transmission facilities, and end-user facilities,” it does not address the requirements for a Generator Owner that has received a request for interconnection. The lack of such requirements for a Generator Owner’s Facility could result in gaps.

Therefore, the SDT proposes that “Generator Owner” be added to the Applicability section of FAC-001-0. It further proposes the addition of Requirement 4 and a corresponding measure:

**R4.** Generator Owner that receives an interconnection request for its facility shall, within 45 days of such a request, be required to comply with requirements R1, R2, and R3 for the facility for which it received the interconnection request.

**M4.** The Generator Owner that receives an interconnection request for its facility shall make available (to its Compliance Monitor) for inspection evidence that it met the requirements stated in Reliability Standard FAC-001-0 R4.

The way I read this proposal is that a GO has no obligation under FAC-001 until it receives an interconnection request then it has 45 days to provide the requestor the elements listed in R1 and R2. The GO should also have an obligation under R3 to maintain the facility connection requirements that it provided to the requestor.

In most cases the GO will be requesting an interconnection with a TO. I think FAC-001 works fine in this case. I also agree that a GO should comply with FAC-003 for longer generator leads between its step up T/F and the interconnection with its TO. The question is how long do the leads have to be before the FAC-003 standard becomes effective. Requiring a GO to have an VMP for a short line with no vegetation issues seems extreme.

I don’t think a GO would want to lose a generator (lose \$\$) due to a vegetation problem so he will have some type of program in place for a longer line. Food for thought.

**END OF SUMMARY**