

Questions and Tentative Answers about NERC/WECC Entity Registration based on the NERC Reliability Functional Model

Updated December 21, 2006

New material added since September 21 is highlighted in red.

CAVEAT: The answers provided to the questions below are based on information the WECC Registration Task Force has at this point. Because NERC and WECC are still developing the rules and the process, the answers below may change. Each utility must make its decisions based on information available to it at the time and based on advice from its own staff and attorneys. Nothing in this document is intended to be, or should be construed as, business or legal advice.

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Introduction - Why must utilities register with WECC and/or NERC?

The Energy Policy Act of 2005 (EPAAct'05) gives FERC responsibility for the reliability of the bulk power system and directs FERC to approve an Electricity Reliability Organization (ERO) to develop and enforce standards. NERC was certified July 20, 2006 as the ERO. In order to enforce its new requirements and standards, NERC will compile a registry of users, owners, and operators of the bulk power system and record their responsibilities (vis à vis its standards and requirements.) For the Western Interconnection, WECC is responsible for assuring that all entities are registered appropriately.

The ERO's authority under EPAAct'05 to require registration and to develop and enforce reliability standards applies to all users, owners, and operators of the bulk power system regardless of whether or not they are otherwise exempted from FERC's authority. This means that all of BPA's customers are potentially subject to these requirements.

NERC Reliability Functional Model

1. What is the NERC Reliability Functional Model?

A few years ago, NERC determined that the industry needed a better description of the roles that each of the participants in the bulk power system play in maintaining the system's reliability. With new market entrants such as merchant generators and marketers, and the new markets for power, traditional control area operations functions had become inadequate. The Reliability Functional Model is NERC's categorization of reliability-related functions, the entities responsible for each function, and the relationships among responsible entities.

2. What are "functions" and "responsible entities" under the NERC Reliability Functional Model?

In this context, "function" refers to all reliability-related functions listed below. For each function, NERC has provided a definition and list of "tasks" encompassed within the function. The corresponding "entity" responsible for each function is also listed. "Responsible entities" are users, owners, and operators of the bulk power system. For each entity, NERC provides a description of the entity's role and relationships with other entities.

A utility or other organization may perform more than one function. For example, a utility may be a Purchasing-Selling Entity (because it purchases or sells energy, capacity, and reliability-related services), a Load-Serving Entity (because it serves load and acquires energy and transmission for that purpose), a Distribution Provider (because it operates a distribution system that is connected to the bulk power system and used to serve end-use consumers), and a Generation Owner (because it owns a generating resource).

<i>Function</i>	<i>Responsible Entity</i>
<i>Standards Development</i>	<i>Standards Developer</i>
<i>Compliance Monitoring</i>	<i>Compliance Monitor</i>
<i>Regional Reliability Assurance</i>	<i>Regional Reliability Org. (RRO)</i>
<i>Planning Reliability</i>	<i>Planning Coordinator</i>
<i>Transmission Planning</i>	<i>Transmission Planner</i>
<i>Resource Planning</i>	<i>Resource Planner</i>
<i>Operating Reliability</i>	<i>Reliability Coordinator</i>
<i>Balancing</i>	<i>Balancing Authority (BA)</i>
<i>Interchange</i>	<i>Interchange Authority</i>
<i>Transmission Service</i>	<i>Transmission Service Provider</i>
<i>Transmission Ownership</i>	<i>Transmission Owner</i>
<i>Transmission Operations</i>	<i>Transmission Operator</i>
<i>Distribution</i>	<i>Distribution Provider</i>
<i>Generation Ownership</i>	<i>Generation Owner</i>
<i>Generation Operations</i>	<i>Generation Operator</i>
<i>Load-Serving</i>	<i>Load-Serving Entity (LSE)</i>
<i>Purchasing-Selling [over bulk power system]</i>	<i>Purchasing-Selling Entity (PSE)</i>
<i>Market Operations</i>	<i>Market Operator (or Resource Dispatcher)</i>

NERC Reliability Functional Model Definitions

Following are entity definitions and page references from NERC's Reliability Functional Model for the functions most likely to be performed by utility customers of BPA. For the complete listing of NERC Reliability Functional Model function definitions, task descriptions, responsible entities, and entity relationships, see: ftp://www.nerc.com/pub/sys/all_updl/oc/fmrtg/Functional_Model_Version_3_051206.pdf

Note: NERC has issued Compliance Registry Criteria establishing thresholds exempting very small utilities from registration requirements for certain functions.

Primary threshold criteria are:

- Load Serving Entity - Peak load >25 MW*
- Distribution Provider - System serving peak load >25 MW*
- Generation Owner/Operator - Generating unit >20 MVA (or gen. facility >75 MVA)*
- Transmission Owner - Equipment >100kV (or other bulk power system equipment)*

NERC issued the latest revision of these criteria on December 13, 2006. For the complete text, see

ftp://www.nerc.com/pub/sys/all_updl/ero/Entity_Registration_Criteria-NERC_Statement_revised_060706.pdf

Purchasing Selling Entity (PSE) Purchases or sells energy, capacity, and necessary reliability-related services over the bulk power system. Pages 49 & 50

Load Serving Entity (LSE) Secures energy and transmission service (and reliability-related services) to serve the End-use Customer. LSE is directly connected to the bulk power system. Certain small utilities are exempt. Pages 51 & 52

Distribution Provider (DP) Delivers electrical energy to the End-use Customer. DP is directly connected to the bulk power system. Certain small utilities are exempt. Pages 43 & 44

Generation Owner (GO) Owns and maintains generating facilities. Certain small generators are exempt. Pages 47 & 48

Generation Operator (GOp) Operates generating unit(s) to provide real and reactive power. Certain small generators are exempt. Pages 45 & 46

Transmission Owner (TO) Owns and maintains transmission facilities. Pages 41 & 42

Transmission Operator (TOp) Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area. Pages 34 & 35

3. What is the distinction between a PSE and an LSE? The wording is very similar.

A PSE takes an active role in the purchasing and selling of power for its customers. An LSE purchases power from its wholesale provider for sale to its end use customers. The Task Force has proposed that only those customers that actively purchase and sell power are PSEs. The Task Force believes that full requirements customers of BPA are not PSEs because they do not purchase and sell at wholesale or schedule and tag their transactions. BPA used this interpretation of PSE in its preliminary entity assessment provided to WECC on December 1, 2006. If WECC or NERC provide further clarification, this response will be updated.

Entity Registration

4. What is the purpose of NERC entity registration?

Registration documents the reliability obligations for which each registered entity is responsible under the NERC Reliability Functional Model. Registration is intended to ensure that all reliability requirements are addressed across the bulk power system.

5. What constitutes the bulk power system?

For the purpose of registration, the bulk power system is defined as the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100kV or higher. Other lower voltage facilities may be included if they have a material impact on the bulk power system. Radial transmission facilities serving only load

with one transmission source are generally not included in this definition.

Other definitions of bulk power system are in wide use for other purposes. This definition is currently the subject of debate.

6. Who are the system's users, owners, and operators?

NERC's definition of users, owners, and operators of the bulk power system is any entity that sells, purchases, or transmits electric power directly over the bulk power system or is directly connected to the bulk power system; maintains facilities or control systems that are part of the bulk power system; or is a system operator. This definition excludes customers that receive service at retail; that do not otherwise sell, purchase, or transmit power over the bulk power system; or do not own, operate, control, or maintain facilities or systems that are part of the bulk power system.

7. Do all utilities have to register with WECC under the NERC Reliability Functional Model?

Based on FERC Order 672, we anticipate that utilities (even those under 25 MW) will have to register as Purchasing Selling Entities unless they are full requirements customers of BPA. Utilities that exceed threshold criteria established by NERC will also have to register as Load Serving Entities and Distribution Providers. (For threshold criteria, see [NERC Criteria](#) and question #16.) Additional registration requirements apply to owners and operators of generation and transmission facilities.

Limited exceptions may apply to members of generation or transmission cooperatives or similar joint action agencies. Subject to NERC review and acceptance, such entities may register on behalf of and upon the authorization of their members, in lieu of each member registering individually.

8. What is WECC's role in registration?

WECC is expected to become the Regional Reliability Organization (RRO) for the Western Interconnection and, as such, be delegated the tasks of enforcing NERC's reliability standards and of developing regional variations where allowed. WECC is assisting NERC in creating the registry. WECC submitted its draft RRO delegation agreement to NERC August 8, 2006.

*WECC requested that Balancing Authorities (formerly control areas) such as BPA identify all entities in the Western Interconnection that fit into the various definitions of entities under the NERC Reliability Functional Model. **BPA submitted its preliminary response to WECC on December 1, 2006. WECC compiled all submittals it had received to date and conveyed its preliminary non-binding information to NERC on December 15, 2006.***

9. What is BPA's role in registration?

BPA has already registered for functions it performs under the NERC Reliability Functional Model.

BPA is working with its customers' representatives, generating partners, other Balancing Authorities, WECC and NERC to develop a comprehensive and consistent approach to registration for responsible entities within the BPA Balancing Authority (Control Area). BPA has formed a joint WECC Entity Registration Task Force (Task Force) that includes customer representatives. The Task Force has been working on identifying all entities affected by registration requirements and documenting their functions. Preliminary results were submitted to WECC on December 1, 2006. For more information, see:

http://www.bpa.gov/corporate/pubs/fact_sheets/06fs/fs0806.pdf

10. What is the registration process?

*Within the BPA Balancing Authority (Control Area), the Entity Registration Task Force worked with BPA to assemble the registration information required by NERC for all affected entities. This registration information was distributed in draft to customer utilities and other affected entities before it was submitted to WECC on December 1, 2006. **If a utility disagrees with the registration information provided to WECC, it should contact WECC and NERC in writing with relevant information to support its position.***

*NERC is still developing the registration process. **Individual utilities may submit their own registration or defer to the registration information provided by NERC to WECC. WECC appears to be relying heavily on the registration information provided by the Balancing Authorities. NERC has asked for final draft regional registration lists from WECC (and other regional entities) by March 2, 2007. NERC plans to post a proposed registration list on March 15, 2007.***

WECC will review all registrations for completeness. If any additional information is required, WECC or NERC will contact the registering entity. Ultimately, NERC will decide whether an entity is properly registered for the functions it performs.

If an affected organization fails to register, NERC can initiate a registration process by notifying the organization that it intends to register it in one or more of the functional categories in the compliance registry. (NERC Rules of Procedure, Section 501.3.3).

11. How do the registration requirements affect BPA customers served via transfer (GTA or OATT)?

A BPA transfer customer would register for the PSE, LSE, DP, and any other functions it performs based on the criteria described above. However, a transfer customer located (partially or entirely) in the transferor's Balancing

Authority (BA) area (formerly Control Area) would coordinate with the transferor BA to meet the requirements of the Reliability Functional Model. In addition, tasks that are performed by the transmission contract holder would be assigned to BPA Power Services in a delegation agreement. The Task Force intends to work with representatives of transferor BA's as part of its registration coordination efforts.

12. What are the next steps and timeline?

Following is an outline of key dates and milestones in the entity registration process.

Date	Milestone
December 1, 2006	BPA submits "Preliminary Non-Binding Entity Assessment" to WECC.
December 15, 2006	WECC submits draft regional registration list to NERC.
January 2007	BPA conducts technical analysis of utilities' "material impact on the reliability of the bulk power system."
Early February 2007	BPA technical workshop to explain "material impact" analysis
February 16, 2007	BPA submits revised "Preliminary Non-Binding Entity Assessment" to WECC.
March 2, 2007	WECC submits final draft regional registration list to NERC.
March 13, 2007	NERC confirms proposed registration with WECC.
Late March 2007	Registered entities are notified of proposed registration.
Mid April* 2007	Deadline for registered entities to file written objection with NERC Director of Compliance (*21 days from notification of proposed registration)
April 2007	NERC Director of Compliance rules on objections.
April 2007	Planned completion of "delegation agreements"
Mid May* 2007	Deadline to file appeal with NERC Compliance Committee
May 2007	NERC Compliance Committee decides appeals. (Registered entity may seek review.)
Upon approval of Reliability Standards	NERC provides registration for applicable entities to FERC.
June 1, 2007	FERC-approved reliability standards expected to be "mandatory and fully enforceable"

13. Is there a registration fee?

No. There is no cost to register.

14. Are there ongoing fees?

Yes. Pursuant to EPA'05, all Load-Serving Entities are expected to pay the costs of development and enforcement of the new reliability standards by NERC and WECC. LSE's will be assessed fees (either directly by WECC or indirectly by their Balancing Authority) to recover those costs.

15. Who should register as a responsible entity for each function?

In general, each organization that is responsible for performing the function and tasks listed under a functional definition should register as a responsible entity for that function.

NERC has issued threshold criteria for Load-Serving Entity, Distribution Provider, Generation Owner, Generation Operator, and Transmission Owner. These criteria exempt small entities that do not materially affect the reliability of the bulk power system. To review these criteria see:

ftp://www.nerc.com/pub/sys/all_updl/ero/Entity_Registration_Criteria-NEERC_Statement_revised_060706.pdf (Note: There are no threshold criteria that apply to Purchasing-Selling Entity.)

In addition, there are limited exceptions for members of generation and transmission cooperatives or similar joint action agencies. Subject to NERC approval, and upon the authorization of its member entities, the cooperative may register in lieu of each member registering individually.

16. How is the Task Force interpreting the criteria that would exempt small utilities and other entities that do not materially affect the reliability of the bulk power system from having to register as Load-Serving Entities (LSE) and Distribution Providers (DP)?

a. Peak Load less than or equal to 25 MW

Utilities with peak loads less than or equal to 25MW are exempt from registration requirements for LSE and DP. For the initial registration effort, the Task Force is using electric utility coincident peak demand data for calendar year 2005, contained in BPA's 2005 FERC Form 714 report. This report is submitted to FERC annually in June by all balancing authorities.

b. Peak Load greater than 25 MW

In BPA's December 1 submittal to WECC, utilities with peak loads greater than 25 MW in calendar year 2005 were designated as potential LSEs and DPs. In January and February BPA will be evaluating these utilities to determine

whether they are "material to the reliability of the bulk power system" (See NERC Statement of Compliance Registry Criteria (Revision 2), Note #1, p. 9.) If it can be demonstrated that these utilities do not materially affect the reliability of the bulk power system, then their LSE and DP designation may be removed in BPA's February 16, 2007 revised submittal to WECC and WECC's March 2, 2007 to NERC.

c. Participation in under-frequency or under-voltage load shedding program

If a utility is included in one or more of these programs, it must register as an LSE or a DP no matter what its size. BPA will develop a preliminary list of participants in UFLS and UVLS programs based on BPAT's programs.

Either agreements or practices could be a basis for determining whether a utility's load or system is involved in UFLS or UVLS programs. A utility should look first to any interconnection and operations agreements with transmission owner(s) to see what equipment it may be obligated to install and/or maintain for either purpose. It should also consult with its interconnected transmission owners and Balancing Authority(s).

17. My demand level changes from year to year, and I am right at 25 MW peak load. What does this mean to me?

BPA used its 2005 FERC Form 714 report to identify utilities with peak loads above 25 MW. The FERC-714 is an annual submittal to FERC reporting calendar year utility coincident peak demand. If WECC accepts this approach, BPA may be asked to revise its list each year when the report is released. (BPA has asked for clarification on this point from WECC. NRU has proposed considering using a rolling 5-year average.) If the registry is revised each year, your utility could move into an LSE and DP designation if your peak load grows above 25 MW (if it can be shown that your utility materially affects the reliability of the bulk power system).

18. A number of questions have arisen about the application of NERC's threshold criteria to the LSE and DP functions. BPA's December 1st submittal to WECC highlighted these questions and the assumptions and sought clarification from WECC and NERC. What is the current status?

NERC's threshold criteria for LSE and DP include, among others, "...peak load >25 MW ...directly connected to the bulk power system." The Task Force made assumptions sought clarification about both 'peak load > 25MW' and 'directly connected to the bulk power system.'

- For peak load we used BPA's Calendar Year 2005 data submitted to FERC (FERC-714).*
- For 'bulk power system' we used lines of 100kV and above (based on NERC's definition of "bulk electric system.")*

- *For 'directly connected' we questioned whether interconnection at voltages below 100kV were exempted.*

Questions have arisen about all of these assumptions.

- *We do not yet know whether WECC will accept 2005 FERC-714 data for peak load.*
- *In Revision 2 of its Statement of Compliance Registry Criteria, issued December 13, 2006, NERC explicitly incorporated its bulk electric system definition (>100kV) into the threshold criteria.*
- *We have indications from WECC that facility voltage levels may not be relevant to WECC's determination of whether utilities are "directly connected to the bulk power system." Under this interpretation, all BPA customer utilities would be viewed as "directly connected."*

We have also followed up on questions about the appropriate interpretation of the location of the interconnection point. Based on guidance received, if a voltage test is in fact used to assess whether a utility is "directly connected to the bulk power system," our revised assessment reflects the voltage at the point of delivery rather than at the point of metering.

We encourage you to review these criteria, as well as the functional descriptions, standards, and requirements, as you decide how to register.

19. Questions have also arisen about the interpretation of NERC Compliance Registry Criteria for TO. What is the current status?

There is ambiguity in NERC's recent statements about transmission. Revision 2 (December 13, 2006) of the threshold criteria for TO includes the statement: "Ownership of radial transmission facilities serving load centers and transmission connecting generation that supplies electric energy to the system where NERC Reliability Standards are applicable (e.g., vegetation management, system protection maintenance and testing) are included in this definition." However, NERC's definition of "bulk power [electric] system" also states that "radial transmission facilities serving only load with one transmission source are generally not included in this definition."

BPA has conducted a technical review of customer-owned transmission facilities and excluded those entities whose facilities are strictly radial under the definition of bulk electric system and also those that must be operated radially.

20. If more than one organization performs tasks under a functional definition, should both organizations register?

Our earlier understanding was that only one organization should register as the responsible entity under a functional definition. If more than one organization performs tasks within the function, the allocation of responsibilities would be

documented in a delegation agreement.

In Revision 2 of NERC's Statement of Compliance Registry Criteria, dual registration is allowed but not required in the case of joint action agencies registering on behalf of members. NERC states in part, "Both the JAA and the member may choose to register as a Registered Entity." If this provision applies to your utility, the Task Force suggests that you review the criteria and discuss the issue with the JAA.

If BPA performs some of the tasks for which your organization is the responsible entity under the Reliability Functional Model, that division of responsibilities should be contractually documented in a delegation agreement.

21. What is a delegation agreement?

NERC appears to be looking for written documentation of the allocation of reliability responsibility between parties. Delegation agreements between BPA and its customers will be drafted during Phase II to document reliability tasks that BPA has undertaken for which the customer would otherwise be responsible. Delegation agreements are expected to be in place prior to applicability of sanctions for non-compliance with NERC Reliability Standards, currently scheduled to begin in mid-2007.

22. What can a utility do if it registers for a function but finds that one or more of the associated standards do not apply to the utility? (For example, a critical infrastructure standard that applies to facilities or equipment the utility does not own.)

We have found no specific guidance from WECC or NERC addressing this question. Possible approaches include:

- Document your findings and be prepared to provide your justification during a compliance audit.*
- If the standard applies to other entities, provide a copy of your finding to them.*
- Provide a copy of your findings to WECC or NERC.*

23. What if a requirement changes, how will I know?

*Changes to requirements will occur from time to time. It is best to check the standards periodically by referring to NERC's website:
http://www.nerc.com/~filez/standards/Reliability_Standards.html.*

You may want to assign personnel in your organization to keeping up to date on the standards applicable to you. Also, automated tools designed to manage compliance functions are commercially available. You may want to investigate whether such products would be useful to you.

24. What are the consequences of not registering?

At this point, we are not aware of a penalty for failing to register. However, any applicable requirements or sanctions are likely to apply to all responsible entities, whether or not they have registered. In addition, WECC may initiate the registration process for responsible entities that have not registered.

25. What are the consequences of failing to comply with reliability standards?

Once mandatory reliability standards are placed into effect, the entity performing a function will be expected to comply, whether or not it is registered, and may face sanctions for non-compliance. For a description of penalties and sanctions see:

ftp://www.nerc.com/pub/sys/all_updl/ero/application/Appendix-4-ERO-Sanction-Guidelines.pdf

If the responsible entity has delegated performance of tasks to another party, the delegation agreement should include terms regarding payment of sanctions.

26. When will mandatory reliability standards be placed into effect?

Standards will be phased in as requirements and measurements are developed and approved. Many of these standards are the same as those that exist today. Up to 102 standards are scheduled to be effective and fully enforceable June 1, 2007. FERC is not currently proposing an initial six-month trial period when standards would be mandatory but sanctions would be waived. Instead, FERC is proposing that, during the initial six-month period, Regional Reliability Organizations use their discretion in imposing (or reducing or waiving) sanctions on smaller entities that are unfamiliar with the standards. FERC's proposal (Notice of Proposed Rulemaking) is still in a public comment period. A number of entities are expected to comment in support of some sort of trial period.

Additional Information

The following links provide the full text of the source documents used to compile this Q&A:

- [NERC Reliability Functional Model](#)
- [ERO Application Documents](#)
- [Conditional Order](#)
- [NERC Criteria](#)
- [Proposed Mandatory Applicable standards](#)
- [WECC's draft delegation agreement](#)
- [WECC's Compliance Enforcement Plan](#)
- [Task Force August Fact Sheet](#)
- [FERC Order 672 ***](#)
- [Table of Penalties and Sanctions](#)

Glossary of Terms

Attached is a glossary of terms used in Reliability Standards, adopted by the NERC Board of Trustees August 2, 2006.



Glossary_02Aug06.pdf