• Purpose and Background
• Organization Certification
  ▪ New Entity, Provisional Certification, Change/Expanding Footprint
• Registration Options
  ▪ Individual Registration, Joint Registration Organization (JRO), Coordinated Functional Registration (CFR)
• Industry Question and Answer
• Completing a Master Matrix (List)
• Recent NERC Compliance Operations Postings
Purpose and Background

• Purpose: To provide an update on Registration and Certification processes, procedures, and responsibilities
  ▪ ROP Section 500 and Appendices 5A & 5B

• Background: Industry Feedback requesting
  ▪ Additional guidance regarding certification processes for Balancing Authorities (BA), Reliability Coordinators (RC) & Transmission Operators (TOP)
  ▪ Additional guidance regarding registration options (JRO/CFR/Individual)
    o Recent changes to the NERC Rules of Procedure Section 500 and Appendices 5A & 5B address these issues
Organization Certification
• Scope is for BA, RC, or TOP

• New entity must certify before going operational per ROP 500 and Appendix 5A
  ▪ Entity must submit application to the Region(s)
  ▪ No compliance issues because the entity is not operating
  ▪ Process takes 1-9 months to complete
  ▪ Entity must go operational within 1 year after being certified
The Organization Registration & Certification Subcommittee (ORCS) established a process:

- Already operating RC, BA, or TOP;
- Has completed a compliance audit in the applicable function(s); and
- Has completed a readiness assessment in the applicable function(s)
  - Readiness assessments are no longer being performed by the ERO

If the entity has not completed both the above, a certification review will be completed by the Regional Entity with NERC.
• Entity is already certified as an RC, BA, or TOP
• Per ROP Appendix 5A, items to consider when this entity may need to certify:
  ▪ Changes to an entity’s footprint or operational challenges (i.e., TLRs) due to the changes
  ▪ Organizational restructuring that could impact the BPS reliability
  ▪ Relocation of the control center(s)
  ▪ Changes to entity ownership requiring major operating procedure changes
• Items to consider (continued)
  ▪ Significant changes to JRO/CFR assignments or agreements
    o Such as addition of a member to a CFR
  ▪ Complete replacement of a SCADA/EMS

• The decision to certify this entity is a collaborative decision between NERC and the Regional Entity
  ▪ It could be an aggregate of the above
  ▪ Focus will be on the changes
Registration Options
Individual Registration

• “Organizations will be responsible to register and to comply with approved reliability standards to the extent that they are owners, operators, and users of the Bulk Power System(...)”

• That entity must fully comply with the applicable NERC Reliability Standards
  - Note that an entity may delegate Reliability Tasks however, the entity is still responsible for compliance
  - NERC Bulletin 2010-004 provides guidance... “Guidance for Entities that Delegate Reliability Tasks to a Third Party Entity”

Guidance Recommendations

• Ensure that non-Registered Entities performing reliability tasks on its behalf comply with the applicable NERC Reliability Standard Requirements;

• Ensure that non-Registered Entities provide evidence of such compliance; and

• Registered Entity must ensure that NERC and the Regional Entity are aware of 3rd party performing reliability tasks in its behalf
  ▪ Compliance Responsibilities cannot be delegated
Joint Registration Organization

- Identified in ROP 507
  - Entity may register for itself and one or more of its members for one or more functions
  - Takes full compliance responsibility for itself and its member(s)
  - Application made to the Regional Entity(s)
  - The JRO must have a written agreement with its member(s)
  - JROs are posted on NERC Web (Formerly Type I JRO)
  - The JRO is responsible for all CMEP activities

- Typically a Coop, G&T, or JAA
Coordinated Functional Registration

- CFR: Identified in ROP 508 (Formerly Type II JRO)
  - Entity may register with one or more entities for a single function
  - Allocating or assigning compliance responsibility amongst entities
  - Application made to the applicable Regional Entity(s)
  - Application must identify the CFRs single Point of Contact (POC)
  - The written agreement clearly allocates compliance responsibilities (typically an attached list/matrix)
  - List must be kept up to date by the POC
Coordinated Functional Registration

• Identified in ROP 508 (continued)
  ▪ CFRs are posted on NERC’s Website
  ▪ CFRs do not change compliance responsibilities for other function(s) for which each entity in the CFR may be registered
  ▪ Region is to ensure no unnecessary duplication or areas lacking in the CFR
    o We want to emphasize the value in working closely with the Regional registration manager
Coordinated Functional Registration

Entity A (POC)

Balancing Authority

Entity B, C, & D

Owns ACE - BA

Owns Meter - TO/TOP
Coordinated Functional Registration

Entity A
(POC)

Balancing Authority

Entity B, C, & D

Owns ACE
-BA

Owns Meter
-TO/TOP

CFR Agreement
Entity A is the BA for Entity B, C, & D
  • BAL-001-0 R1  Entity A Only (Area Control Error-ACE)
Coordinated Functional Registration

Entity A is the BA for Entity B, C, & D
- BAL-001-0 R1  Entity A Only (Area Control Error-ACE)
- BAL-005-0.1b R13  Split (Entity A owns ACE & Members own Meters)
Entity A is the BA for Entity B, C, & D

- BAL-001-0 R1  
  Entity A Only (Area Control Error-ACE)
- BAL-005-0.1b R13  
  Split (Entity A owns ACE & Members own Meters)
- After CFR is approved by the region and posted on the NERC Compliance Registry, all will be registered as a BA under the CFR
Compliance Registry Criteria

• Provides the criteria for registration of a user, owner, or operator of the Bulk Power System

• That entity may appeal its registration per the NERC Rules of Procedure Section 500 and Appendices 5A & 5B
  ▪ Work closely with the Regional registration manager if you think you should be deregistered
References

- FERC Order #672, #693, and #706

- NERC Bulletin #2010-004

- Statement of Compliance Registry Criteria
  - [http://www.nerc.com/files/Statement_Compliance_Registry_Criteria_V5-0.pdf](http://www.nerc.com/files/Statement_Compliance_Registry_Criteria_V5-0.pdf)
• NERC Rules of Procedure
  ▪ Section 500 “Organization Registration and Certification”
  ▪ Appendix 5A “Organization Registration and Certification Manual”
  ▪ Appendix 5B “Statement of Compliance Registry Criteria”

http://www.nerc.com/page.php?cid=1|8|169
Conclusions

• There are various options regarding registration
  - Single registration
  - JRO – ROP 507
  - CFR – ROP 508

• Fully understand your compliance risks and accountability for each!
  - NERC Guidance under Bulletin 2010-004
    - Guidance for written contracts per section 2
  - Work with the Regional Entity registration contact
Contacts

• Jack Wiseman
  - Jack.Wiseman@nerc.net

• Ryan Stewart
  - Ryan.Stewart@nerc.net

• Regional Entity Websites
Compliance: Regional Programs

Compliance enforcement activities are carried out on behalf of NERC by the eight regional entities based on the NERC Compliance Monitoring and Enforcement Program and their respective delegation agreements. NERC oversees these programs to ensure consistency and fairness.

Click on any link below to visit a NERC region’s compliance program Web site:

- Florida Reliability Coordinating Council - FRCC
- Midwest Reliability Organization - MRO
- Northeast Power Coordinating Council - NPCC
- ReliabilityFirst Corporation - RFC
- SERC Reliability Corporation - SERC
- Southwest Power Pool Regional Entity - SPP RE
- Texas Reliability Entity - TRE
- Western Electricity Coordinating Council - WECC

CDG Private Files | RECM Private Files
Industry Question and Answer
Commonly Asked Questions

- VRF Spreadsheet is updated periodically
- A Registered Entity can delegate ‘responsibility’ for completion of a task (i.e. relay testing), but the Registered Entity is still responsible for compliance
- Joint owners of a specific Generating Facility for a single facility?
- CFR applicability list when Standards change
Commonly Asked Questions

• Is there a need for a Registered Entity to be registered in multiple Regions for the same functional registration?
  ▪ PSE in Region A has the other end of Interchange Transactions in another Region

• If an entity performs schedule coordinating services for an LSE/DP but is only registered as a GO/GOP/PSE, can the LSE/DP and the GO/GOP/PSE delegate the responsibilities?
Completing a Master Matrix (List)
The guidance and examples in this document are provided for informational purposes only, and are being used in this presentation to provide examples of items that could be included in an entity’s compliance program. An entity’s adherence to the examples contained within this presentation does not constitute compliance with the NERC Compliance Monitoring and Enforcement Program (“CMEP”) requirements or any other NERC rules, and NERC reserves the right to request additional information and/or to require actions not discussed in this presentation. All entities must independently evaluate for accuracy their own “list” to determine what should be included in their program.

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Master Matrix *What is it?*

- An Excel spreadsheet taken from the NERC Web site
- Shows which standards and requirements are applicable to each function
- Suggested tool for many uses
- Can be used for registration and certification activities
VRF Matrix on Web Site

About Standards
- Reliability Standards
  - Functional Model
  - Glossary of Terms
  - Mandatory Effective Dates
  - Inactive Standards
  - VRF Matrix
  - VSL Matrix

Standards: Reliability Standards

This page provides a copy of the latest version of the standard approved by the NERC Board of Trustees and any prior versions that were BOT approved and are still in effect in at least one regulatory jurisdiction. Note that not all the standards on this page have been approved by governmental authorities as enforceable standards. The Mandatory Effective Dates Web pages identify, by regulatory jurisdiction, the status of the standards and the applicable dates. Prior versions of standards may be found on the Inactive Standards Web page.

All standards on this page have been adopted by the NERC Board of Trustees. The date field indicates the date on which the NERC Board of Trustees adopted the standard.

All comments should be forwarded to sarcomm@nerc.net. Questions? E-mail Herb Schrayshuen or call 609-452-8060.

Complete Set of Reliability Standards

Resource and Demand Balancing (BAL)

Communications (COM)
Master Matrix Uses

- For a CFR, spreadsheet denoting responsibilities
- Can be used during certifications
- We will use the example presented earlier for a BA CFR
• Download and save the VRF Matrix-Reopen
• Under the FERC Approved Standards tab in the spreadsheet, filter for the appropriate function (For Example, RC, BA, or TOP)
  ▪ To do this, select the first row, and then press the filter feature
• Copy the “Standard Number” – “Requirement Number” – and “Violation Risk Factor” for the function selected
• Create a new column
  ▪ Titled: “Entity Response” or “How Requirement Met”
  ▪ The response shows how the Registered Entity(ies) meets each requirement

• The file can be easily updated to denote changes to a CFR, conduct a certification, etc.
### Blank Master Matrix

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<td>BAL-001-0</td>
<td>R1.</td>
<td>Entity A is solely responsible for this requirement. Entity A calculates ACE for the CFR footprint.</td>
<td>Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the Balancing Authority's Area Control Error (ACE) divided by 108 times the corresponding clock-minute averages of the Interconnection's Frequency Error is less than a specific limit.</td>
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<td>Single</td>
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<td>BAL-005-0.1b</td>
<td>R13.</td>
<td>Entity A calculates ACE. For the Interchange meter error (IME) term of the ACE, Entity A uses an aggregate of the other entities IME for the tielines external to Entity A's BA Area. Entities B, C, D shall provide to Entity A an interchange meter error value for its external tie lines. Entity A sums the interchange meter error values from the other entities to obtain the aggregate interchange meter error term for Entity A's BA ACE. Entities B, C, D shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. Entities B, C, D shall also take corrective action to adjust any components that are in error.</td>
<td>Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. The Balancing Authority shall adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error term of the ACE equation to compensate for any equipment error until repairs can be made.</td>
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<td>Split</td>
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<td>BAL-001-0</td>
<td>R1.</td>
<td>Entity A is solely responsible for this requirement. Entity A calculates ACE for the CFR footprint.</td>
<td>Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the Balancing Authority’s Area Control Error (ACE) divided by 10B times the corresponding clock-minute averages of the Interconnection’s Frequency Error is less than a specific limit.</td>
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<td>BAL-005-0.1b</td>
<td>R13.</td>
<td>Entity A calculates ACE. For the interchange meter error (IME) term of the ACE, Entity A uses an aggregate of the other entities IME for the tie lines external to Entity A’s BA Area. Entities B, C, D shall provide to Entity A an interchange meter error value for its external tie lines. Entity A sums the interchange meter error values from the other entities to obtain the aggregate interchange meter error term for Entity A’s BA ACE. Entities B, C, D shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. Entities B, C, D shall also take corrective action to adjust any components that are in error.</td>
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<td>x</td>
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<td>CIP-001-1</td>
<td>R1.</td>
<td>Entities, A, B, C, D each have their own processes and procedures for making their operating personnel aware of sabotage events. As an example, Entity A’s procedure is called XYZ_Sabotage_Reporting_v1.</td>
<td>Each Reliability Coordinator, Balancing Authority, Transmission Operator, Generator Operator, and Load Serving Entity shall have procedures for the recognition of and for making their operating personnel aware of sabotage events on its facilities and multisite sabotage affecting larger portions of the interconnection.</td>
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<td>Shared</td>
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• Work closely with your Regional Entity contact
• Regional Entities may use other methods for outlining responsibility of a JRO/CFR
• Master matrix is a suggestion
• Very easy to update when changes in membership or requirements occur
Recent NERC Compliance Operations Document Postings
• Transfer of Assets Bulletin
• Certification Compliance Analysis Report (CAR)
• Registration Compliance Analysis Report (CAR)
• TOP-002 Compliance Analysis Report (CAR)
Transfer of Assets Bulletin

- Buyer Beware
- Key highlights from the Bulletin:
  - Entity will not be deactivated from the NCR until all open enforcement actions have been closed.
  - ‘Name changes only’ do not affect compliance, only an administrative change to the NCR
  - Work closely with your Regional Entities

• 35 certifications conducted through December 31, 2010

• By function:
  ▪ Reliability Coordinator: 3
  ▪ Balancing Authority: 15
  ▪ Transmission Operation: 18

• 167 entities received provisional certification

• Based on market changes, we estimate 10 certifications per year

• 94 registration appeals since June 2007
  ▪ Settled at the Region: 65 (69%)
  ▪ Processed through BOTCC: 29 (31%)
    ○ Of those processed at the BOTCC, then appealed to FERC: 13
• 36 JROs
• 46 CFRs
• Expect to see 2-4 registration appeals per year
• Regional Entities work closely with Registered Entity on accuracy of NCR

http://www.nerc.com/files/NERC_Compliance_Registry_and_Registration_Appeals.pdf
• Compliance Analysis Reports are developed to give the industry violation statistics on those standards that:
  ▪ High impact to reliability
  ▪ High violation totals

• The reports provide information on suggested methods for compliance with certain Requirements

• Deemed critical to reliability of the BPS
• 139 violations
• Self-Reports and Self-Certifications account for 74% of the violations.

**TOP-002 Violations by Method of Discovery**

- **Self-Report**: 61, 44%
- **Self-Certification**: 42, 30%
- **Compliance Audit**: 25, 18%
- **Spot-Check**: 2, 1%
- **Complaint**: 1, 1%
- **Investigation**: 8, 6%
Summary

• Organization Certification
• Registration Options
• Industry Question and Answer
• Master Matrix
• Recent NERC Compliance Operations Postings
Questions?